

## Population Division World Population Prospects 2019

### Download Files

#### File type

|   |
|---|
| Standard Projections<br>(Estimates and Projection variants)   |
| Probabilistic Projections<br>(including prediction intervals) |
| Special Aggregates  |
| Metadata  |
| Archive (previous revisions)                                  |

#### Major topic / Special groupings

|                            |                |                |                |
|----------------------------|----------------|----------------|----------------|
| Population data            | Fertility data | Mortality data | Migration data |
| Annual and single age data |                | CSV format     |                |

The **CSV (comma-separated values) files** below are meant for bulk processing in statistical softwares (like R and Stata) and databases.

Specific information about the indicators is provided in the table below.

These CSV files are encoded in UTF-8 and all of them have the following columns:

- **LocID** (numeric): numeric code for the location; for countries and areas, it follows the ISO 3166-1 numeric standard
- **Location** (string): name of the region, subregion, country or area
- **VarID** (numeric): numeric code for the variant
- **Variant** (string): projection variant name (Medium is the most used); for more information see Definition of projection variants (</wpp/DefinitionOfProjectionVariants/>)
- **Time** (string): label identifying the single year (e.g. 1950) or the period of the data (e.g. 1950-1955)
- **MidPeriod** (numeric): numeric value identifying the mid period of the data, with the decimal representing the month (e.g. 1950.5 for July 1950)

Use the *LocID*, *VarID* and *Time* columns to link the data across the different files, if necessary. Note that *Time* differs between single year (e.g. 1950) and period (e.g. 1950-1955) data.

Unless noted, the files include all locations from Standard (</wpp/Download/Standard/>) and Special Aggregates (</wpp/Download/SpecialAggregates/>), and all variants (medium, high, low, etc.) including probabilistic projections (median PI, upper and lower 80 and 95). For locations from the Special Aggregates set, only medium variant is available.

For the files with data separated by age, the following columns are available:

- AgeGrp (string): label identifying the single age (e.g. 15) or age group (e.g. 15-19)
- AgeGrpStart (numeric): initial age of the age group
- AgeGrpSpan (numeric): length of the age group, in years

Refer to each file listed below for a description of its specific data columns.

Please note these files don't include footnotes, please refer to the Excel files for notes that apply to the regions, subregions, countries or areas listed in the CSV files.

On 28 August 2019 a minor technical correction was made to the population projected after 2050 for selected countries and regions, and to the population interpolated by single year and single age for both sexes, see release note ([/wpp/Publications//Files/WPP2019\\_Release-Note-rev1.pdf](/wpp/Publications//Files/WPP2019_Release-Note-rev1.pdf)) for further details. Interactive Data, Excel and CSV files have been updated accordingly.

| Sub Group        | Files (click to download)   | Description   |
|------------------|---|---|
| Total Population | <b>All variants (CSV, 21.35 MB) (<a href="/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_TotalPopulationBySex.csv">/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_TotalPopulationBySex.csv</a>)</b> | <p>Total population by sex, annually from 1950 to 2100.</p> <ul style="list-style-type: none"> <li>• PopMale: Total male population (thousands)</li> <li>• PopFemale: Total female population (thousands)</li> <li>• PopTotal: Total population, both sexes (thousands)</li> <li>• PopDensity: Population per square kilometre (thousands)</li> </ul> |

| Sub Group                 | Files (click to download)   | Description  |
|---------------------------|---|--|
| Population by Age and Sex | <p><b>Medium variant, annual, from 1950 to 2100 (CSV, 113.05 MB)</b><br/> <a href="#">(/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_PopulationByAgeSex_Medium.csv)</a></p> <hr/> <p><b>Other variants, every 5 years from 2020 to 2100 (CSV, 88.1 MB)</b><br/> <a href="#">(/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_PopulationByAgeSex_OtherVariants.csv)</a></p>                            | <p>Population by 5-year age groups.</p> <ul style="list-style-type: none"> <li>• <b>PopMale:</b><br/>Male population in the age group (thousands)</li> <li>• <b>PopFemale:</b><br/>Female population in the age group (thousands)</li> <li>• <b>PopTotal:</b><br/>Total population in the age group (thousands)</li> </ul>   |
| Population by Age and Sex | <p><b>Medium variant, annual estimates from 1950 to 2019 (CSV, 235.95 MB)</b><br/> <a href="#">(/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_PopulationBySingleAgeSex_1950-2019.csv)</a></p> <hr/> <p><b>Medium variant, annual projections from 2020 to 2100 (CSV, 277.91 MB)</b><br/> <a href="#">(/wpp/Download/Files/1_Indicators(Standard)/CSV_FILES/WPP2019_PopulationBySingleAgeSex_2020-2100.csv)</a></p> | <p>Population interpolated by single age and single year.</p> <ul style="list-style-type: none"> <li>• <b>PopMale:</b><br/>Male population for the individual age (thousands)</li> <li>• <b>PopFemale:</b><br/>Female population for the individual age (thousands)</li> <li>• <b>PopTotal:</b><br/>Total population for the individual age (thousands)</li> </ul> |

| Sub Group            | Files (click to download)   | Description   |
|----------------------|---|---|
| Fertility Indicators | <b>All variants (CSV, 34.42 MB) (/wpp/Download/Files/1_Indicators (Standard)/CSV_FILES/WPP2019_Fertility_by_Age.csv)</b>  | <p>Fertility indicators, by age, annually and 5-year periods, from 1950-1955 to 2095-2100.</p> <ul style="list-style-type: none"> <li>• ASFR: Age-specific fertility rate (births per 1,000 women)</li> <li>• PASFR: Percentage age-specific fertility rate</li> <li>• Births: Number of births, both sexes combined (thousands)</li> </ul>                       |
| Period Indicators    | <p><b>Medium variant (most used) (CSV, 2.41 MB) (/wpp/Download/Files/1_Indicators (Standard)/CSV_FILES/WPP2019_Period_Indicators_Medium.csv)</b></p> <hr/> <p><b>Other variants (CSV, 8.4 MB) (/wpp/Download/Files/1_Indicators (Standard)/CSV_FILES/WPP2019_Period_Indicators_OtherVariants.csv)</b></p> | <p>Several indicators in 5-year periods, from 1950-1955 to 2095-2100.</p> <ul style="list-style-type: none"> <li>• TFR: Total fertility (live births per woman)</li> <li>• NRR *: Net reproduction rate (surviving daughters per woman)</li> <li>• CBR: Crude birth rate (births per 1,000 population)</li> <li>• Births: Number of births, both sexes</li> </ul> |

| Sub Group | Files (click to download) | Description  |
|-----------|---------------------------|--|
|           |                           | <p>combined (thousands)</p> <ul style="list-style-type: none"> <li>• LEx: Life expectancy at birth for both sexes combined (years)</li> <li>• LExMale: Male life expectancy at birth (years)</li> <li>• LExFemale: Female life expectancy at birth (years)</li> <li>• IMR: Infant mortality rate, <math>q(1)</math>, for both sexes combined (infant deaths per 1,000 live births)</li> <li>• Q5: Under-five mortality, <math>5q0</math>, for both sexes combined (deaths under age five per 1,000 live births)</li> <li>• CDR: Crude death rate (deaths per 1,000 population)</li> <li>• Deaths: Number of deaths, both sexes combined (thousands)</li> </ul> |

| Sub Group  | Files (click to download)  | Description   |
|------------|--|---|
|            |  | <ul style="list-style-type: none"> <li>• DeathsMale *: Number of male deaths (thousands)</li> <li>• DeathsFemale *: Number of female deaths (thousands)</li> <li>• CNMR *: Net migration rate (per 1,000 population)</li> <li>• NetMigrations *: Net number of migrants, both sexes combined (thousands)</li> <li>• GrowthRate: Average annual rate of population change (percentage)</li> <li>• NatIncr: Rate of natural increase (per 1,000 population)</li> <li>• SRB *: Sex ratio at birth (male births per female births)</li> <li>• MAC: Female mean age of childbearing (years)</li> </ul> <p>* not published for probabilistic projections.</p> |
| Life Table | <b>Medium variant (CSV, 140.18 MB) (/wpp/Download/Files/1_Indicators (Standard)/CSV_FILES/WPP2019_Life_Table_Medium.csv)</b> | Abridged life tables up to age 100 by sex   |

| Sub Group | Files (click to download)   | Description  |
|-----------|---|--|
|           | <b>Other variants (CSV, 207.02 MB) (/wpp/Download/Files/1_Indicators (Standard)/CSV_FILES/WPP2019_Life_Table_OtherVariants.csv)</b> | <p>and both sexes combined providing a set of values showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to the specific mortality rates of a given period, from 1950-1955 to 2095-2100.</p> <ul style="list-style-type: none"> <li>• mx: Central death rate, <math>nm_x</math>, for the age interval <math>(x, x+n)</math></li> <li>• qx: Probability of dying (<math>nq_x</math>), for an individual between age <math>x</math> and <math>x+n</math></li> <li>• px: Probability of surviving, (<math>np_x</math>), for an individual of age <math>x</math> to age <math>x+n</math></li> <li>• lx: Number of survivors, (<math>l_x</math>), at age <math>(x)</math> for 100000 births</li> <li>• dx: Number of deaths, (<math>nd_x</math>), between ages <math>x</math> and <math>x+n</math></li> <li>• Lx: Number of person-years lived, (<math>nL_x</math>),</li> </ul> |

| Sub Group | Files (click to download) | Description   |
|-----------|---------------------------|---|
|           |                           | <p>between ages <math>x</math> and <math>x+n</math></p> <ul style="list-style-type: none"> <li>• <math>S_x</math>: Survival ratio (<math>nS_x</math>) corresponding to proportion of the life table population in age group (<math>x, x+n</math>) who are alive <math>n</math> year later</li> <li>• <math>T_x</math>: Person-years lived, (<math>T_x</math>), above age <math>x</math></li> <li>• <math>e_x</math>: Expectation of life (<math>e_x</math>) at age <math>x</math>, i.e., average number of years lived subsequent to age <math>x</math> by those reaching age <math>x</math></li> <li>• <math>a_x</math>: Average number of years lived (<math>nax</math>) between ages <math>x</math> and <math>x+n</math> by those dying in the interval</li> </ul> |

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