EUROPEAN DEMOGRAPHIC DATASHEET 2020   www.populationeurope.org

DEFINITIONS, SOURCES, NOTES and CREDITS

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For a detailed list of data sources, references and notes, see the file:
     `EDS2020_MAIN_TABLE_SOURCES_NOTES.xlsx`

DEFINITIONS

Population – Total population of a given country or region as of 1st January 2019, resp. 1st January 2000. For most countries this count represents the legal resident population in the country, including foreign citizens with a residence permit. Source: EUROSTAT[1] (if not stated otherwise).

Total population change – The total population growth or decline between 2000 and 2019, related to the population size in 2000. See box on Population trends for further details.

Natural population change – The difference between the number of live births and deaths, in 2000 to 2019, related to population size in 2000. See box on Population trends for further details.

Net migration – The difference between the number of immigrants and emigrants, in 2000 to 2019, related to population size in 2000. The indicator is estimated as the residue between total population increase and natural increase. See box on Population trends for further details.

Projected population SSP2 – Projected population in 2060 based on Wittgenstein Centre (2018) projection[2] using assumptions of a middle of the road scenario that can also be seen as the most likely path for each country from today's perspective. It combines for all countries medium fertility with medium mortality, medium migration, and the Global Education Trend (GET) scenario. Source: Wittgenstein Centre Data Explorer[3]

Projected population SSP2 – Zero migration – Projected population in 2060 based on Wittgenstein Centre (2018) projection using assumptions of a middle of the road scenario (medium fertility, medium mortality, Global Education Trend (GET) education scenario) combined with zero migration flows. Source: Wittgenstein Centre Data Explorer

Proportion of foreign-born population – Share of population born abroad and resident in the country in 2018 among all population, in percent. Source: EUROSTAT; United Nations International migrant stock data[4].

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[1] EUROSTAT Database, European Commission 2020. Available at: https://ec.europa.eu/eurostat/data/database

[2] Lutz W., Goujon A., KC S., Stonawski M., Stilianakis N. 2018. Demographic and Human Capital Scenarios for the 21st Century: 2018 assessment for 201 countries. Publications Office of the European Union. Available at: https://ec.europa.eu/jrc/en/publication/demographic-and-human-capital-scenarios-21st-century-2018-assessment-201-countries

[3] Wittgenstein Centre for Demography and Global Human Capital, (2018). Wittgenstein Centre Data Explorer Version 2.0 (Beta). Available at: www.wittgensteincentre.org/dataexplorer

[4] United Nations International migrant stock 2019. Available at: https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates19.asp

Old-age dependency ratio – The old-age dependency ratio relates the number of elderly people (defined as those aged 65 and above) to the number of people of working age (defined as population aged 20–64). Source: EUROSTAT (if not stated otherwise).

Total fertility rate (TFR) – The average number of children that would be born alive to a woman during her lifetime, if age-specific fertility rates of a given year remained constant during her childbearing years. It is computed as the sum of fertility rates by age across all childbearing ages in 2018. Source: EUROSTAT (if not stated otherwise).

Tempo and parity adjusted TFR – Alternative indicators to the period TFR have been developed to provide a more accurate measure of the mean number of children per woman in a calendar year, which is not affected by changes in the timing of births. This datasheet features Tempo and Parity-adjusted Total Fertility (TFRp*; Bongaarts and Sobotka 2012)[5], which is based on age- and parity-specific fertility rates as well as changes in mean ages at birth. When available, TFRp* is shown for 2016. For countries lacking the required data, the datasheet displays Tempo-adjusted TFR (TFR-BF) proposed by Bongaarts and Feeney in (1998)[6], averaged over the 3-year period of 2015–2017. For more details and references see the box on Tempo effect. For details on computation method and sources for individual countries see the file
EDS2020_MAIN_TABLE_SOURCES_NOTES.xlsx

Mean age at first birth – The mean age of women at the birth of their first child (in years), computed from age-specific fertility rates of first birth order in 2018. Source: EUROSTAT (if not stated otherwise).

Completed cohort fertility – The average number of children born alive to women born in the same year (i.e., a birth cohort) during their reproductive lives. Unlike the TFR, which is a hypothetical period indicator, completed fertility represents a measure of actual family size and is known only for women who have completed their childbearing. In this datasheet we show completed fertility of women born in 1978, who reached age 40 in 2018 (i.e., the most recent year for which fertility data were available for most countries at the time the datasheet was prepared). As only a small proportion of births take place among women past age 40 (2.9% in the EU-27 in 2018), it is possible to estimate with a great accuracy the completed fertility rate for these women, using the most recent available data for 2018 as an estimate of their childbearing at ages 41 and older. Source: HFD[7], HFC[8], CFE[9] and other.

Cohort childlessness – Proportion of women remaining permanently childless, in percent. The values show the estimated share of childless women among women born in 1978. Source: HFD, HFC, CFE and other.

[5] Bongaarts, J. and T. Sobotka 2012. A demographic explanation for the recent rise in European fertility. *Population and Development Review* 38(1): 83–120.

[6] Bongaarts, J. and G. Feeney 1998. On the quantum and tempo of fertility. *Population and Development Review* 24(2): 271–291.

[7] Human Fertility Database. Max Planck Institute for Demographic Research and Vienna Institute of Demography. Available at www.humanfertility.org

[8] Human Fertility Collection. Max Planck Institute for Demographic Research and Vienna Institute of Demography. Available at www.fertilitydata.org

[9] Zeman, K., Z. Brzozowska, T. Sobotka, E. Beaujouan and A. Matysiak 2017. *Cohort Fertility and Education Database. Methods Protocol.* Available at www.cfe-database.org

Life expectancy at birth – Life expectancy at birth is the average number of years a newborn, born in 2018, would live if current age- and sex-specific mortality rates were to continue. Source: EUROSTAT (if not stated otherwise).

Change in life expectancy – Change in life expectancy (men and women combined) in years between 2014 and 2018. See box on Stagnating period life expectancy for further details. Source: EUROSTAT, HMD[10] and other.

Years of good life at age 50 – YoGL is a newly developed indicator that takes a demographic approach to directly measure multi-dimensional human well-being and its change over time. "Years of good life" are counted as "good" if they are spent above a threshold with respect to objectively observable conditions (being out of poverty, being without cognitive limitations, and having no serious physical disabilities), as well as subjective life satisfaction. See box on Years of Good Life for further details. Source: Lutz et al. (2018)[11] and Reiter and Lutz (2020)[12]

Human life indicator (years) – expresses well-being in terms of years of life, similar to life expectancy at birth. However, unlike any other current measure, it takes not only the mean value but also the inequality in longevity into account. It is calculated as geometric average over peoples' lifespans, for details see Ghislandi, Sanderson and Scherbov (2019)[13] Source: calculated by Sergei Scherbov, based on data from UN WPP 2019[14]

Aggregate crude internal migration intensity – The ACMI captures the intensity of internal migration, measuring all changes of residential address in a given interval, usually calendar year. In this datasheet, the ACMI refer to one-year period, with data and surveys from different years (1995 to 2018) used for its calculation for individual countries. See box on Internal migration for further details. Source: IMAGE Repository[15]

Mean years of schooling – Mean number of years spent in school by the population aged 20–64 years in 2015. See Reiter et al. (2020)[16] and box on Skills-adjusted mean years of schooling for further details. Source: Wittgenstein Centre Data Explorer

Skills-adjusted mean years of schooling – Mean number of years spent in school adjusted by the average level of skills as measured in adult literacy tests for the population aged 20–64 years in 2015. See Reiter et al. (2020) and box on Schooling for further details. Source: Wittgenstein Centre Data Explorer

Inequality-adjusted healthy lifetime income (IHLI, million $ per capita) – IHLI consists of three components: i) GDP per capita adjusted for purchasing power (o capture material

[10] Human Mortality Database. University of California, Berkeley and Max Planck Institute for Demographic Research. Available at www.mortality.org

[11] Lutz, W., A. Lijadi, E. Strießnig, A. Dimitrova and M. Caldeira Brant de Souza Lima 2018. Years of Good Life (YoGL): A new indicator for assessing sustainable progress. IIASA Working Paper WP-18-007. Available at: http://pure.iiasa.ac.at/id/eprint/15402

[12] Reiter C., W. Lutz 2020. Survival and Years of Good Life in Finland in the very long run. Finnish Yearbook of Population Research 54: 1–27. Available at: https://doi.org/10.23979/fypr.87148

[13] Ghislandi, S., W.C. Sanderson and S. Scherbov 2019. A simple measure of human development: The Human Life Indicator. Population and Development Review 45(1): 219–233.

[14] United Nations World Population Prospects 2019: https://population.un.org/wpp/

[15] IMAGE Repository. Available at: https://imageproject.com.au/

[16] Reiter, C., C. Özdemir, D. Yildiz, A. Goujon, R. Guimaraes and W. Lutz 2020. The demography of skills-adjusted human capital. IIASA Working Paper WP-20-006. Laxenburg, Austria. Available at: http://pure.iiasa.ac.at/id/eprint/16477/

well-being, ii) healthy life expectancy at birth (HALE) to capture the benefits of living long and healthy lives (and thereby some of the effects of environmental quality), and iii) an inverse measure of the Gini coefficient (1 − Gini) to take inequality into account. This formulation implies the straightforward interpretation of IHLI as the income that a newborn can expect to earn over the years in which he/she is in good health, for the given economic and health conditions in the country, and adjusted for the level of inequality. See box on Inequality-adjusted healthy lifetime income for further details. Source: Bloom et al. (2020)[17], based on data from Solt (2019)[18], World Bank (2019)[19], and WHO (2019)[20].

Equivalised household income, age 20–39 – Equivalised household income (EHI) is frequently used for the evaluation of economic well-being. EHI measures the income of households relative to the number of effective consumers, accounting for economies of scale in consumption and lower consumption of children compared to adults. The first adult household member is counted as full effective consumer, further adult members represent 0.7 effective consumers and children below the age of 14 are counted as 0.3 effective consumers. The change in age-specific real EHI between 2008 and 2017 is an indicator of how the financial crisis and the sovereign debt crisis impacted economic well-being of different age groups. See box on Analyzing economic well-being from a generational perspective for further details. Source: based on data from Eurostat, EU Statistics on Income and Living Conditions [cross-section data 2009 and 2018]

Relative equivalised household income, age 20–39 – Indicator relating economic well-being of the population aged 20–39 to total median income among the whole population. Change in the relative economic position of young adults (2008–2017) is calculated as change in median equivalised income at age 20–39 relative to total median over that period. See box on Analyzing economic well-being from a generational perspective for further details. Source: based on data from Eurostat, EU Statistics on Income and Living Conditions [cross-section data 2009 and 2018]

[17] Bloom D.E., V.Y. Fan, V. Kufenko, O. Ogbuoji, K. Prettner and G. Yamey 2020. Going Beyond GDP with a Parsimonious Indicator: Inequality-Adjusted Healthy Lifetime Income. Hohenheim Discussion Papers in Business, Economics and Social Sciences, WP 01-2020, Stuttgart, Germany. Available at: https://ideas.repec.org/p/zbw/hohdps/012020.html

[18] Solt F. (2019). Measuring income inequality across countries and over time: the standardized world income inequality database. SWIID Version 8.2, November 2019. Available at https://fsolt.org/swiid

[19] World Bank 2019. World development indicators. GDP per capita, PPP (constant 2011 international $). Available at: http://datatopics.worldbank.org/world-development-indicators

[20] World Health Organization 2019. Global health observatory (GHO) data. Available at: https://www.who.int/gho/mortality_burden_disease/life_tables/hale/en

NOTES

The Datasheet does not feature European countries with population below 100 thousand (Andorra, Liechtenstein, Monaco, and San Marino).

Indicators for regions are computed as weighted averages.

Data for Azerbaijan, Cyprus, Georgia, Moldova, and Ukraine exclude territories that are not under government control.

Definition of regions in the regional overview takes into account geographical, historical and geopolitical divisions, as well as similarity in demographic trends in countries they cover. Countries are grouped into regions as follows:

- Nordic countries (Denmark, Finland, Iceland, Norway, Sweden)
- Western Europe (Belgium, France, Ireland, Luxembourg, Netherlands, United Kingdom)
- Germany, Austria and Switzerland
- Southern Europe (Cyprus, Greece, Italy, Malta, Portugal, Spain)
- Central-Eastern Europe (Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia)
- South-Eastern Europe (Albania, Bosnia and Herzegovina, Bulgaria, Kosovo, North Macedonia, Montenegro, Romania, Serbia)
- Eastern Europe (Belarus, Moldova, Russia, Ukraine)
- Caucasus (Armenia, Azerbaijan, Georgia)

Turkey is not included in any region.

European Union refers to the current territory of 27 member states, without the United Kingdom.

CREDITS

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