

ABOUT MORTALITY DATA FOR GREECE

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GENERAL

The Hellenic Statistical Authority (ELSTAT), formerly the National Statistical Service of Greece (NSSG), is the official source of statistical information (including population statistics) in Greece. ELSTAT is an independent authority established by a law (#3832/2010) titled “Hellenic Statistical System Establishment of the Hellenic Statistical Authority as an independent Authority”. It is directly subjected to the control of the Hellenic Parliament, with operational independence as well as administrative and financial autonomy. ELSTAT consists of two General Directorates: i) Administration and Organization (5 sub-directorates and 22 sections) and ii) Statistical Surveys (7 sub-directorates and 30 sections), and 51 regional statistical offices¹.

Because of serious concerns about data quality for years before 1981 (discussed below), the HMD data series starts in this later year only. However, vital statistics and census data are available for a much longer historical period and the next paragraphs describe the early context of demographic data collection.

The Greek population statistics starts in ancient times. In 16th century B.C., Cecrops, the legendary first king of Athens, took a census of his subjects that had all the properties of a population census (Missiakoulis, 2010). Modern Greece population statistics has a long tradition with the earliest national population enumeration taking place in 1828, just before the official establishment of the new Greek State. However, the first census which included population characteristics and was partially based on systematic statistical collection procedures and methodology was conducted in 1861. Subsequent censuses were conducted in 1870, 1879, 1889, 1896, 1907, 1920, 1928, and 1940. Until 1879, enumeration books were used, while questionnaires at the household and at the individual level were used, respectively, for the first time in 1879 and 1889. Unfortunately, the 1896 census records were destroyed in a fire before population counts could be tabulated by sex and age. Likewise, data for the 1940 census (based on a 10% sample) were lost during Nazi occupation (1941-1944) (Kotzamanis, 2011; Valaoras, 1960).

The first population census after WW II covering the present territory of Greece (for more details, see the section “TERRITORIAL COVERAGE”) was conducted in 1951 (April, 7th). It was in fact the last census in which information on *religion* and on *languages spoken* was included in the questionnaire. The 1951 census also included some questions regarding mobility, disability and damage resulting from the war. The census of 1961 (March, 19th) introduced innovative features such as a pilot census and the first post-censal completeness enumeration survey. Thereafter, censuses were conducted every ten years: in 1971 (March, 14th), 1981 (April, 5th), 1991 (March, 17th), 2001 (March, 18th) and 2011 (May 10th-24th)². The results of these censuses were published (for more details, see section “POPULATION COUNT DATA”).

¹ See www.statistics.gr for more details

² The 2011 census was completed in 15 days, by contrast with previous censuses which were carried out over a single day each.

Registration of deaths, births and marriages was first regulated in Greece in 1836 but the vital statistics system reached full national coverage in 1860 only (Valaoras, *op.cit.*). In 1864, parish registries were collecting vital statistics data (though not required by law) and delivered records to local civil registries within 15 days. In 1886, with the exception of a few areas, the Greek vital statistics system collapsed, and it was not re-established until 1921. Since 1928, civil registries have been managed by each municipality, in charge of collecting all vital records and sending them with supplementary data to the central statistical service.

WWII and the Greek civil war of 1946-1949 resulted in the disruption of the vital statistics system over nearly fifteen years. In 1955, the system was re-established once again. Since then it has been functioning without interruption (Kotzamanis and Androulaki 2009; Svoronos, 1960).

Detailed data on vital events and population counts are available in official publications accessible online from ELSTAT's Digital Library website³. The "*Monthly Statistical Bulletin*" series, which is available for the years 1929–1944 and since 1956 onwards, include annual data on population size by sex and age (census counts and mid-year population estimates) as well as the number of vital events, including the number of live births by age of mother and duration of marriage and the number of deaths by cause.

Additionally, ELSTAT publishes "*The Statistical Yearbook of Greece*" in both a detailed version and a summary version. These publications are also available for the years 1929-1944 and since 1956 onwards. All these publications also include additional information such as abridged life-tables and population projections.

A series titled "Στατιστική της Φυσικής Κινήσεως του Πληθυσμού" [Natural Movement of Population], which include vital statistics data, is available for the years 1884, 1921-1938, 1956-1997 and 2004. Note that it was initially published in Greek and French but that more recent volumes are available in Greek and English.

Source of data

Appendix 1 provides a summary description of the input data used in the HMD whereas Appendix 2 contains the description of all collected data. The raw data were collected from the following sources: i) official ELSTAT's publications (NSSG, 1964a), ii) European Demographic Observatory (ODE)⁴ data collection and iii) Laboratory of Demographic & Social Analyses⁵ (LDSA) data collection. Death tabulations and population counts for the period from 1956 to 1960 have been copied from ELSTAT collection. Death counts for the period from 1960 to 1979 and population counts for the years 1960-1990 are taken from the ODE collection. Finally, the LDSA collection provided live birth counts (since 1956), death counts (since 1980), and population counts (since 1991).

The LDSA collection includes published unadjusted data originating directly from ELSTAT. The ODE collection contains both published and unpublished data which were obtained directly from ELSTAT. The content of both data collections is

³ For a complete review see: <http://dlib.statistics.gr/portal/page/portal/ESYE>

⁴ For a review of European Demographic Observatory (ODE) data collection, see: http://www.fertilitydata.org/cgi-bin/..%5Cdocs%5CODE_database.pdf

⁵ Laboratory of Demographic & Social Analyses/Department of Planning and Regional Development University of Thessaly, School of Engineering (www.ldsa.gr)

identical for the period from 1975 to 2006 but updates have been published in the LDSA collection with revised post-censal population estimates and deaths counts for years after 2006.

Because of concerns with data quality (see the corresponding section below), only data for the years since 1981 are used in the HMD (see Appendix 1).

SPECIFIC EPISODES IN POSTWAR DEMOGRAPHIC HISTORY OF GREECE

Three major events, that had a direct impact upon the vital registration system as well as on demographic trends, can be identified in post-war Greece: i) the civil war (1947-1949), ii) the military dictatorship (1967-1974) and iii) the financial crisis of 2010.

The demographic history of Greece includes several significant migration waves. During the first wave of mass emigration (1888–1919), Greece lost about 15 to 20 percent of its population (Valaoras, 1960). After WW II, Greece was one of the many contributors to migration to the most industrialized countries. During the second main wave of migration (from 1945 to the 1970s), the main receiving countries were the United States, Australia and Canada. Migration flows towards Western Europe (predominantly West Germany) intensified after 1959. However, the second out-migration wave slowed down at the beginning of the 1970's, and continued at a slower pace until the mid 1980s. The 1980s were characterized by return migration flows (Kotzamanis and Androulaki, 2009). After the fall of the iron curtain in Eastern Europe, net migration became positive as Greece started receiving an increasing flow of immigrants, many of them illegal, thus not accounted for in the official statistics. According to the 1981 census, the foreign population represented about 2% of the total population. Within the following two decades (up to the 2001 census), its share increased to 7%. Appendix 3 presents the distribution of foreigners by age. The financial crisis of 2010 led to another wave of emigration which remains to be quantified, affecting both Greek and foreign residents.

TERRITORIAL COVERAGE

There was no change in the territory of Greece during the period covered by the HMD. Prior to 1947, when the last expansion of the Greek territory included the Dodecanese Islands, ceded by Italy, numerous changes in boundaries took place (see Appendix 4). Since the last administrative reform (the *Kallikratis Plan*) that came into effect in 2010, the country has been divided into four major regions (NUTS 1), seven decentralized administrations, 13 regions (NUTS 2), 52 regional units (NUTS 3) and 326 municipalities.

DEATH COUNT DATA

Coverage and completeness

All mortality data published since 1956 refer to the *usual*⁶ *resident population*. Death registration covers all residents of Greece regardless of nationality. Deaths

⁶ According to ELSTAT official definition, the *usual* residents of Greece are all the persons who have lived in their declared place of residence for at least 12 months or all those who, though they have been in the country

of Greek citizens living abroad are also included. However, these events have little impact on national mortality statistics, since they constitute a very small fraction of the total death count (0.2 to 0.3 percent).

Since the middle of the 1950s, the data collection system of Greece has covered the entire national territory. However, some questions have been raised about the quality of death registration in rural areas in the 1950s and 1960s, as well as, though to lesser extent, in the 1970s. These include i) a significant under-reporting of stillbirths, of neonatal deaths and of deaths at advanced ages, ii) age misreporting at older ages (overstatement and heaping) and iii) sex misreporting of neonatal deaths (with a preference for males) (NSSG, 1964b, 1966, 1980; Trichopoulos et al., 1974; Valaoras 1960, 1967). These concerns contribute to our decision to start the HMD mortality series since 1981.

Specific details

ELSTAT defines death as “*the permanent disappearance of all evidence of life at any time after a live birth has taken place.*” Foetal deaths (miscarriages and stillbirths) are thus excluded as they should be following the World Health Organization standard definition (NSSG, 2009a).

POPULATION COUNT DATA

Population Censuses

Coverage and completeness

All population censuses conducted in Greece between 1951 and 1981 refer to *de facto* population. The censuses of 1991 and 2001 provide data on both the *de facto* and the *usual resident* populations. The last census conducted in 2011 covers only the *usual resident* population.

Specific details

Two main data sources are available for the 1951 census. The first one is the Internal Demographic Yearbook Database (DYBNET) which includes unadjusted data. Population counts in DYBNET are available by single year of age. Population tabulations in the census volumes published by NSSG in 1958 (“*Résultats du recensement de la population et des habitations*”) represent the second main source. Would the quality of vital statistics have been acceptable during this time period and though the tabulations published by NSSG only present population distributions by five year age group, it might have been preferable to use this source rather than DYBNET to construct the HMD mortality series because of the more plausible pattern presented by the data. Improved plausibility is due to the adjustments implemented on the original census counts by the national statistics office (Figure 1, Panel B). Furthermore, the loss of information resulting from using the five-year age group rather than the single-year-of-age population distribution is compensated by the fact that severe age heaping appears to reduce the value of the latter compared to the former (Figure 1, Panel A). Note, however, that the lack

for less than 12 months, intend to remain there for at least one year
(http://ec.europa.eu/eurostat/cache/metadata/EN/demo_gind_esms_el.htm)

of explanations on the nature of the adjustments carried out by NSSG on the census counts would have led us to view the information suspiciously.

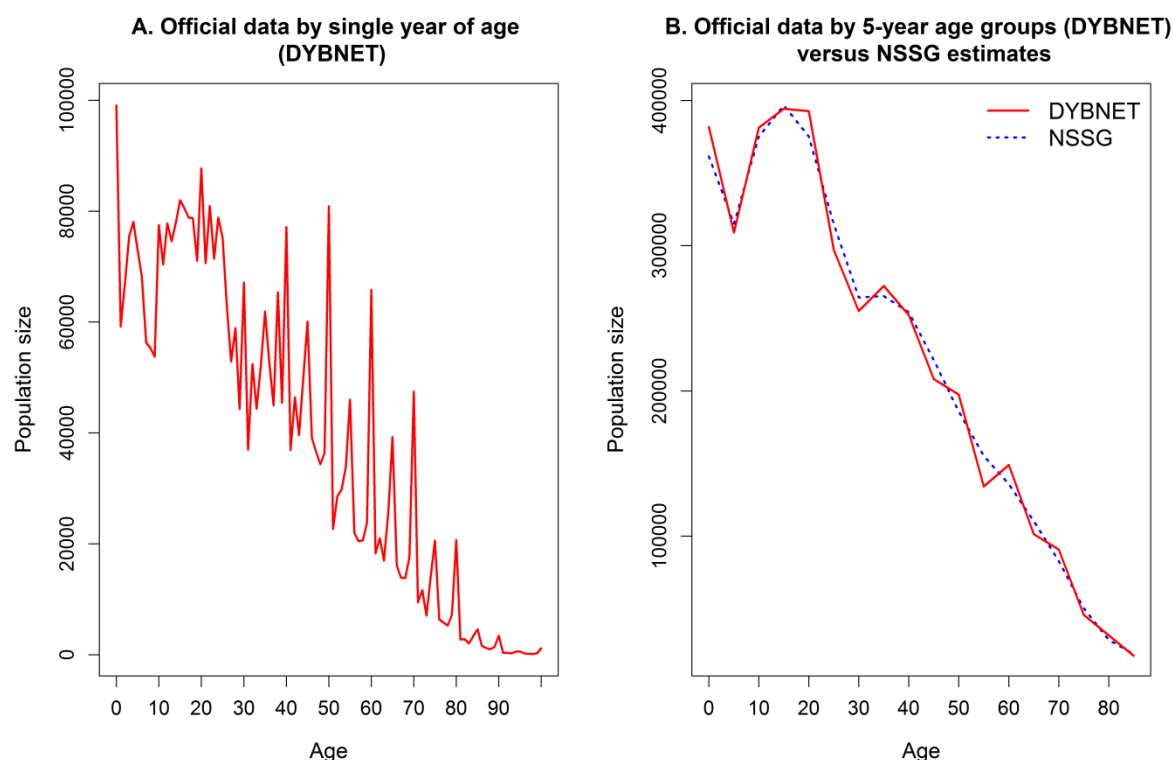


Figure 1. Age distribution of the female population at the 1951 Census from the Internal Demographic Yearbook Database and from the National Statistical Service of Greece

There are important differences between recent population censuses and those conducted in the past. The results from the last three censuses (1991, 2001 and 2011) as well as the first post-war census (1951) were derived by processing all household questionnaires. By contrast, the official population tabulations published for the 1961, 1971 and 1981 censuses were based on a small sample of questionnaires (representing respectively 2, 25, and 10 percent of the total). Furthermore, post enumeration surveys suggested that the total population had been overestimated by 0.05 and 0.5 percent in the 1961 and 1981 censuses, respectively, and underestimated by 0.5, 0.6, and 2.8 percent in the 1971, 1991, and 2011 censuses. No post enumeration survey was conducted after the 2001 census.

Population estimates

Coverage and completeness

No documentation is available about the detailed methodology implemented by ELSTAT to produce the official populations estimates. We know, however, that inter-censal population estimates are derived from decennial censuses and vital statistics at the district level, with an aggregation of all resulting estimates over all districts to produce national estimates. No independent estimates appear to have been produced by ELSTAT at the national level. The method takes into account information available about immigration flows (tabulations of immigrants by

citizenship status, sex and age group collected every year by the municipalities). Unfortunately, as in most countries, information on emigrants is unavailable from administrative sources. Post-censal population estimates are also produced based on the most recent census and the vital statistics data becoming available year after year until the result of a new census are published, at which point ELSTAT computes inter-censal estimates as described above only for the five years before that last census. As a result, the post-censal estimates produced during the first five years following a census are considered final by ELSTAT while those for the following five years are considered provisional (NSSG, 2009a).

Because of the unconventional way of computing final inter-censal population estimates for the early years and of the data quality problems discussed in the “Data quality” section of this report (see below), the HMD only uses population estimates produced by ELSTAT for years 2002 onwards.

For the previous years (1981–2001), inter-censal population estimates were computed on the basis of 1981 Census, 1991 and 2002 official population estimates using the standard HMD methodology (see the HMD Methods Protocol for details).

Specific details

Official population estimates from 1956-1967, 1968-1976, 1977-1985, 1986-1990 are based on data from the censuses of 1961, 1971, 1981, 1991, respectively (NSSG, 2009b). However, in 2015 the *ELSTAT revised all of its annual population estimates back to the year 1991*. Official methodology is unknown to us; however a short methodological note is available regarding estimated migration flows⁷ for the period of 1991-2014. Later on, the annual population estimates since 2002 were revised again. Likewise, the details concerning the reasons for this revision are unknown to us.

Population estimates from 1991 onwards refer to the *usual resident population*, whereas population estimates for the years before 1991 refer to the *de facto* population. At the national level, the transition from the *de facto* to the *usual resident* population coverage has an insignificant effect on overall and age-specific mortality rates. For example, if we consider the year when this transition took place (1991), the difference between the population estimates according to the two definitions as made available by ELSTAT is less than 11,000 individuals (or 0,1% of the total *usual resident* population) with no particular concentration in specific age groups or at older ages.

BIRTH COUNT DATA

Coverage and completeness

Only births to women who are usual residents of the country are included in the tabulations published since 1956. ELSTAT has been using the WHO definition of a live birth for the entire period covered in the HMD. According to this definition a live birth is “*the completed expulsion or extraction from its mother of a product of*

⁷ See

http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A1605/Other/A1605_SPO18_MT_AH_00_1991_00_2011_01_F_EN.pdf

conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached". A stillbirth is defined as "the birth of an infant with no signs of life at or after 28 weeks of gestation." (NSSG, 2009a).

The birth registration system has covered the entire territory of Greece since 1953.

Specific details

Birth registration covers the resident population of Greece, regardless of nationality. Births to Greek citizens living abroad are also included but these represent a very marginal proportion of the total.

Stillbirths are not included in birth statistics and involve a special kind of vital records with a simultaneous report of the birth and the death of the infant. Stillbirth certificates are thus different from regular birth certificates as recommended by the World Health Organization. In the case of multiple births, registration is done separately for each infant but the demographic information (sex) is recorded for all infants on a single birth certificate.

DATA QUALITY ISSUES

The mortality data collected for Greece cover the years from 1956 onwards. However, for the purposes of the HMD, only data for the period since 1981 are used. The decision to shorten the mortality series was determined by the data quality issues discussed below.

Under-registration and misreporting of age or sex

In a report presenting life tables the Greek statistical service acknowledges problems of under-registration and misstatements in death records for the years 1955 to 1962 (NSSG, 1964b); thus several adjustments were implemented. These take into account the following issues: the under-registration of infants who died during the first 28 days, both in terms of the birth and the death certificates; age overstatements biasing mortality estimates at older ages; and evidence of implausible sex differentials in mortality. The report resulted in higher estimates of infant, child and old age mortality as compared to the officially published data. However, officially published mortality data were not adjusted in accordance to the findings of the aforementioned report.

Similar kind of problems including heaping in the single-year-of-age distributions of deaths (especially for females and at ages 60, 70 and 80 years) also appears to have persisted until the mid-1970s though diminished gradually thereafter (NSSG, 1980; Trichopoulos et al., 1974). Our own analyses of the official data confirm these problems.

Figure 2 shows life expectancies at birth and at ages 65 and 85 years during the period from 1956 to 1980 computed in the HMD for Greece with those, also in the HMD, for Italy, Portugal and Sweden. The figure strongly suggests that male life expectancies at birth and, particularly, at ages 65 and 85 years are overestimated for the whole period as are female life expectancies at least until the early 1970s.

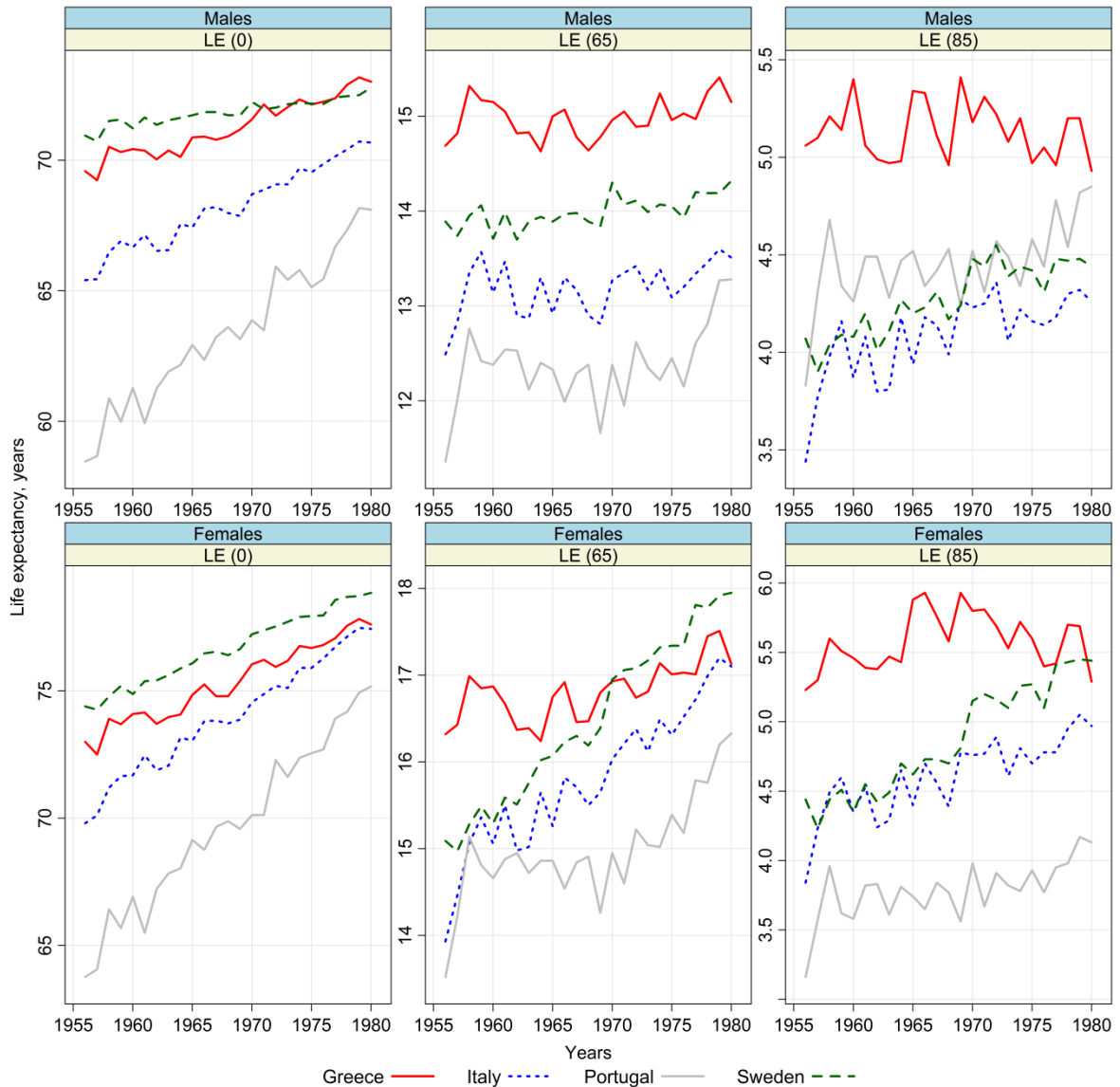


Figure 2. Life expectancies at birth and at age 65 and 85 years by sex in Greece and in Italy, Portugal, and Sweden over the period 1956–1980 (HMD)

Problems regarding population censuses

Figures 4 and 5 compare population counts in the successive censuses for each sex, showing how age heaping (which has been particularly severe for females in the past) has become less marked over time. Age heaping is nevertheless still prevalent in the 1991 and 2001 censuses, especially at advanced ages, and only seems to have disappeared with the most recent census (2011).

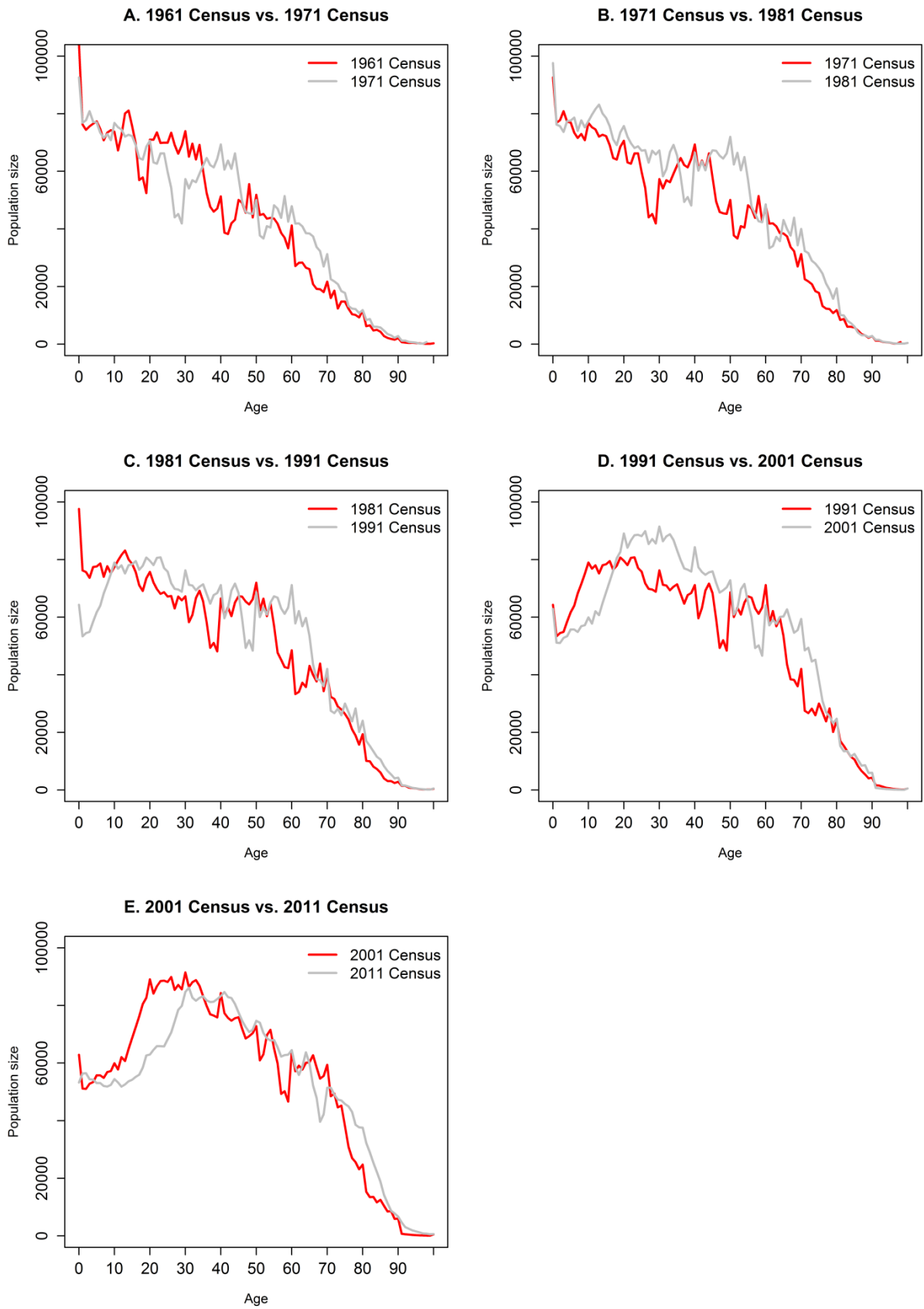


Figure 3. Official male population counts in the 1961, 1971, 1981, 1991 and 2001 censuses and comparisons between successive censuses (ELSTAT)

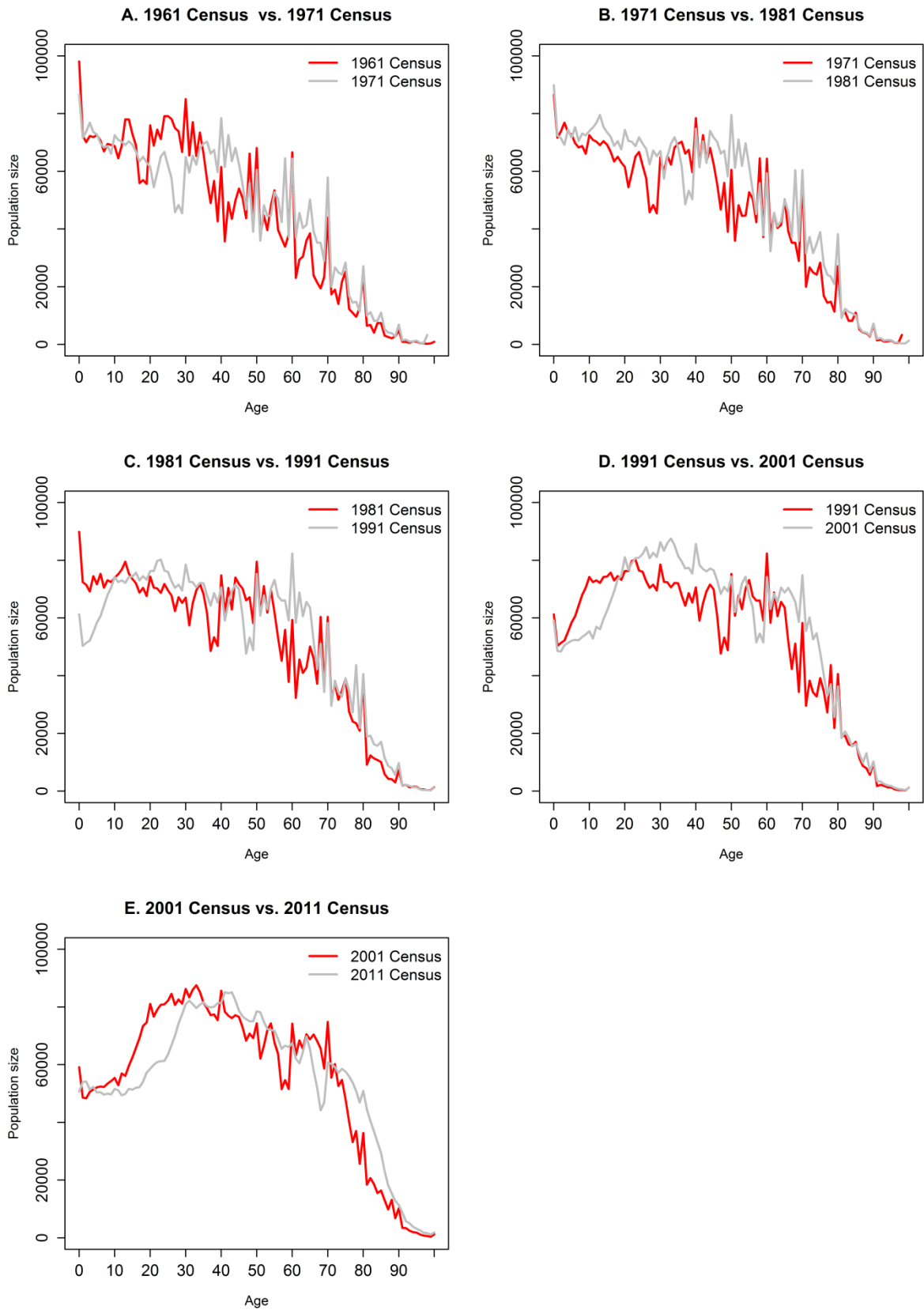


Figure 4. Official female population counts in the 1961, 1971, 1981, 1991 and 2001 censuses and comparisons between successive censuses (ELSTAT)

Problems with population estimates

Figure 5 compares the distribution of the female population estimates by single year of age as published by ELSTAT for 1985 and 1986, showing a very different pattern from one year to the next. The difference can only have resulted from the smoothing procedure implemented by ELSTAT for the 1986 estimates though there is no documentation available about the method, an additional reason not to use these data for the HMD calculations.

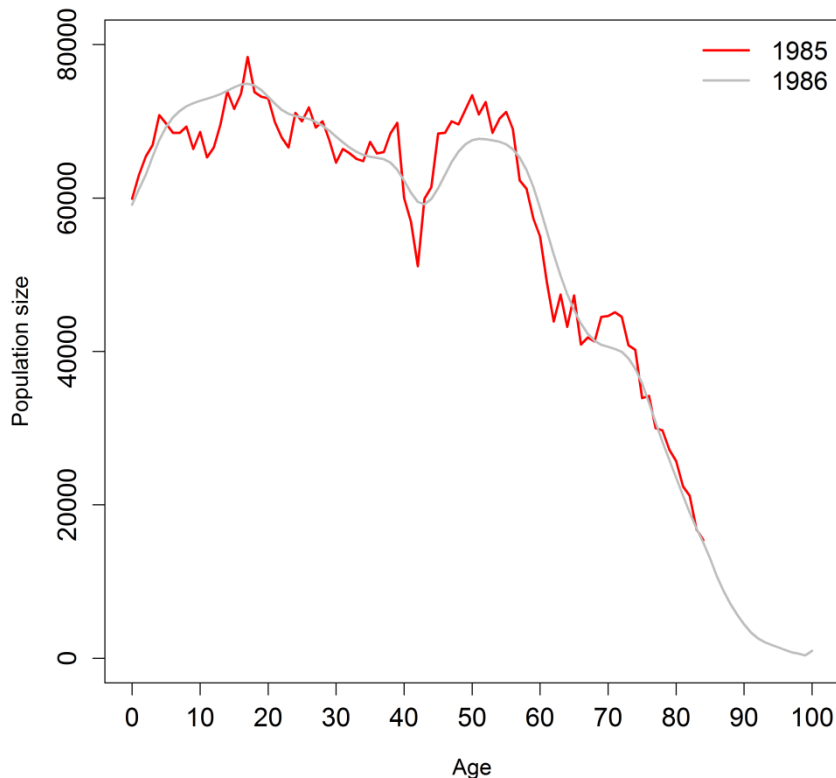


Figure 5. Official female population estimates for 1985 and 1986

The population estimates for the period 1991–2001 do not reveal such discontinuities within the inter-censal period. Nonetheless, they are not used in the HMD calculations either. The reason for this is apparent incoherence of the population estimates observed between 2001 and 2002 (Figure 6). The same kind of inconsistency can be noted while comparing population counts of 2001 Census with those of 2001 population estimates. Given all these, it was decided to produce the HMD inter-censal for 1991–2001 estimates treating 2002 population estimates as a pseudo-census point.

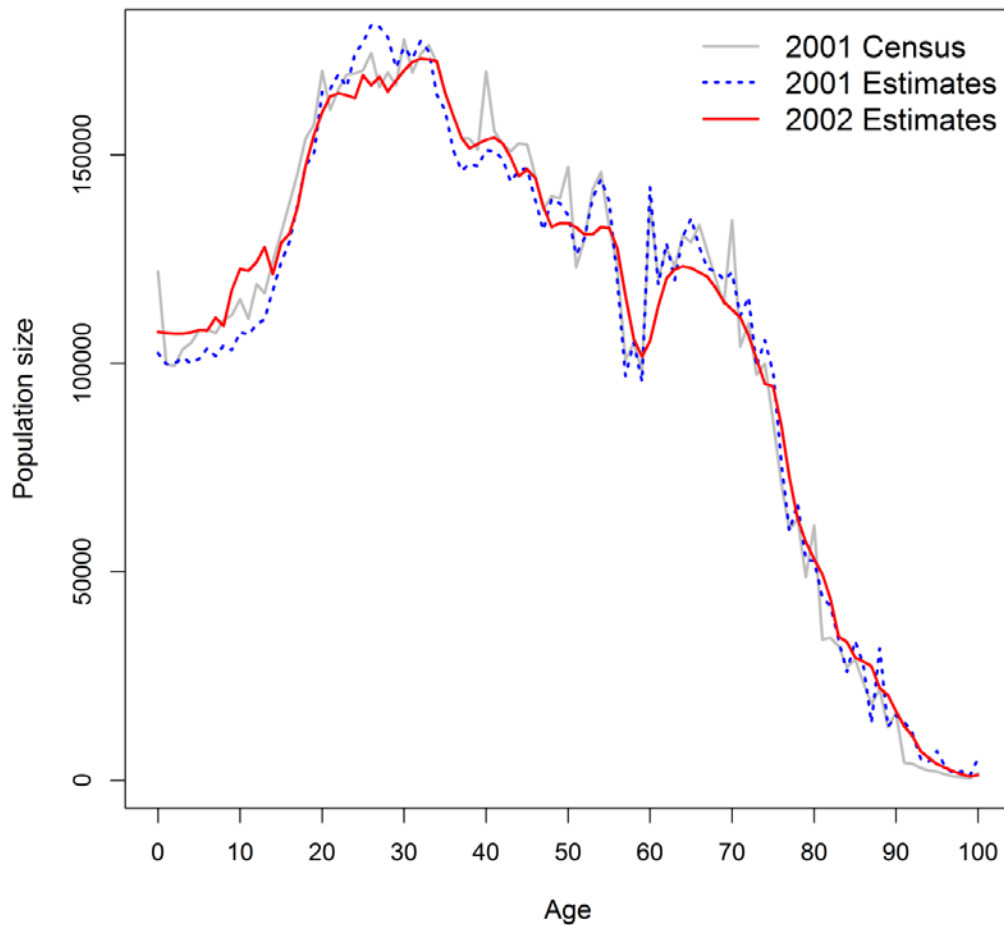


Figure 6. Total population by age in the 2001 Census and official population estimates for 2001 and 2002

Possible inconsistencies in HMD estimates

Figure 7 compares values of life expectancies at birth and at ages 65 and 85 years for the period 1981–2016 computed in the HMD for Greece with those, also in the HMD, for Italy, Portugal and Sweden. As can be seen, male life expectancies at age 65 and 85 years seem to be overestimated, at least until the mid-1980s at 65 years and for a longer period at 85. HMD mortality estimates at older ages should thus be treated with caution.

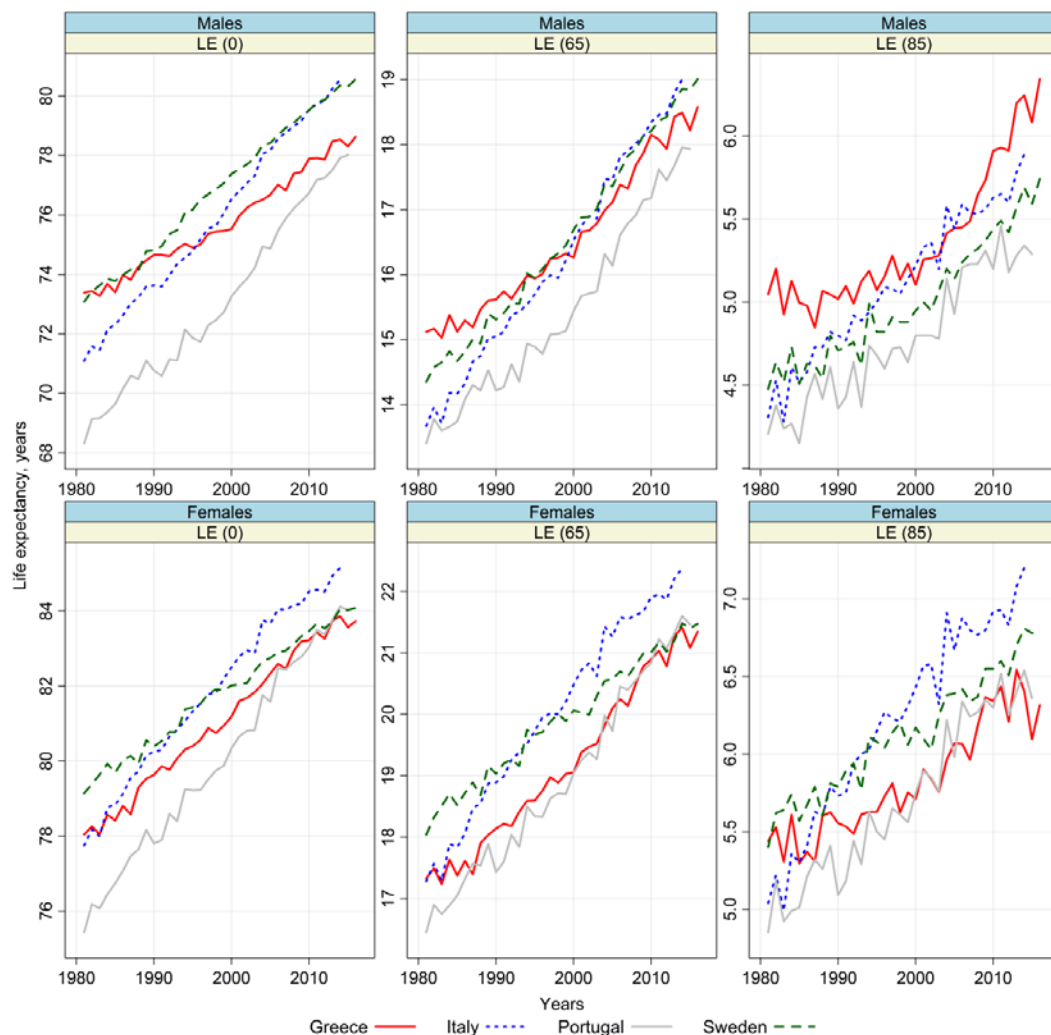


Figure 7. Life expectancies at birth and at age 65 and 85 years by sex in Greece, Italy, Portugal, and Sweden over the period 1981–2016 (HMD)

REVISION HISTORY

Changes with the December 2017 revision:

Life tables: All life tables have been recalculated using a modified methods protocol. The revised protocol (Version 6) includes two changes: 1) a more precise way to calculate a_0 , the mean age at death for children dying during the first year of life and 2) the use of birth-by-month data (where and when available) to more accurately estimate population exposures. These changes have been implemented simultaneously for ALL HMD series/countries. For more details about these changes, see the revised Methods Protocol (at <http://v6.mortality.org/Public/Docs/MethodsProtocol.pdf>), particularly section 7.1 on Period life tables and section 6 and Appendix E, on death rates. The life tables calculated under the prior methods (Version 5) remain available at v5.mortality.org but will not be further updated.

Changes with January 2020 Revision

Population: The annual population estimates since 2002 have been replaced with the revised estimates produced by the ELSAT. This affected the HMD inter-censal estimates for 1991–2001 because year 2002 was used as a pseudo-census point (see Section “Problems with population estimates” for more details).

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APPENDIX 1: DESCRIPTION OF ORIGINAL DATA USED FOR HMD CALCULATIONS

DEATHS

Period	Type of Data	Age grouping	Comments	RefCode(s)
1981–2019	Number of deaths to usual resident population by sex, single year of age (1x1 rectangle)	0,1,...99, 100+, Unknown		3,9,13, 19

POPULATION

Period	Type of Data	Age grouping	Comments	RefCode(s)
1981	Census counts of population by sex and single year of age as of April 5. De facto population.	0, 1, ..., 99, 100+, Unknown	-	8
1991, 2002–2020	Annual population estimates, 1 st of January, by sex and single year of age. Usual resident population.	0, 1, ..., 99, 100+	-	7,10,14,20

BIRTHS

Period	Type of Data	Comments	RefCode(s)
1981–2019	Annual counts of births by sex	-	4,11,15,17

BIRTHS BY MONTH

Type of data: Annual live birth counts by month

Period covered: 1958–2019

RefCodes: 12,16,18

APPENDIX 2: DESCRIPTION OF THE COLLECTED DATA

DEATHS

Period	Type of Data	Age grouping	Comments	RefCode(s)
1956–1959	Number of deaths to usual resident population by sex and 5-year age groups	0, 1-4, ..., 80-84, 85+	No adjustment for underestimation of infant deaths or age heaping has been made. For years 1956-1959, ELSTAT (Former NSSG) redistributed deaths of unknown age among age groups	1
1960–1964	Number of deaths to usual resident population by sex, single year of age	0,1,2,3,4, ..., 84,85+, Unknown		2
1965–1979	Number of deaths to usual resident population by sex, single year of age	0,1, ...,99, 100+, Unknown		2
1980–1990	Number of deaths to usual resident population by sex, single year of age	0,1, ...,99, 100+, Unknown		3
1990–2019	Number of deaths to usual resident population by sex, single year of age	0,1, ...,99, 100+, Unknown		3,9,19

POPULATION

Period	Type of Data	Age grouping	Comments	RefCode(s)
1961	Census counts of population by sex and single year of age as of March 19. De facto population	0, 1, ..., 99, 100+, Unknown	-	8
1971	Census counts of population by sex and single year of age as of March 14. De facto population	0, 1, ..., 97, 98+, Unknown	-	8
1981	Census counts of population by sex and single year of age as of April 5. De facto population	0, 1, ..., 99, 100+, Unknown	-	8

POPULATION (CONTINUED)

1991	Census counts of population by sex and single year of age as of March 17. Usual resident population	0, 1, ..., 99, 100+	-	8
2001	Census counts of population by sex and single year of age as of March 17. Usual resident population	0, 1, ..., 99, 100+	-	8
2011	Census counts of population by sex and single year of age as of 10-24 May (reference date May 9). Usual resident population	0, 1, ..., 99, 100+	-	8
1956–1959	Annual population estimates, 30 th of June, by sex and 5-year age groups. De facto population	0, 1-4, ..., 80-84, 85+	-	5
1960–1985	Annual population estimates, 1 st of January, by sex and single year of age. De facto population	0, 1, 2, ..., 84, 85+	-	6
1986–1990	Annual population estimates, 1 st of January, by sex and single year of age. De facto population	0, 1, ..., 99, 100+	-	6
1991–2020	Annual population estimates, 1 st of January, by sex and single year of age. Usual resident population	0, 1, ..., 99, 100+	-	7,10,14,20

BIRTHS

Period	Type of Data	Comments	RefCode(s)
1956–2019	Annual counts of births by sex		4,11,15,18

**APPENDIX 3: Percent share of the foreign population in the 2001 Census
(compared to the *usual resident* population)**

Age group	% Male	% Female
0-4	7.32	7.11
5-9	7.95	7.74
10-14	7.95	7.66
15-19	8.97	7.38
20-24	12.86	9.36
25-29	14.49	10.76
30-34	12.52	9.87
35-39	10.67	9.16
40-44	8.59	7.92
45-49	6.26	6.47
50-54	4.43	4.60
55-59	3.17	3.07
60-64	2.28	2.12
65-69	1.70	1.51
70-74	1.42	1.40
75-79	1.37	1.43
80-84	1.37	1.31
85+	1.44	1.30
Total	7.67	6.28

Source: Kostaki, Kotzamanis, and Agorastakis, 2009

APPENDIX 4. Population of Greece, 1821-2011

Census Year	Population			Natural increase & Net migration	Area (km ²)	Population Density (per km ²)
	Total	Change	Territorial changes & refugees			
1821 ⁽¹⁾	938,765	-	-	-	47,516	19.76
1828...	753,400	-185,365	-	-185,365	47,516	15.86
1840...	850,246	96,846	-	96,846	47,516	17.89
1853...	1,035,527	185,281	-	185,281	47,516	21.79
1861...	1,096,810	61,283	-	61,283	47,516	23.08
1870 ⁽²⁾	1,457,894	361,084	+229.516 (Ionian islands)	131,568	50,211	29.04
1879...	1,679,470	221,576	-	221,576	50,211	33.45
1889 ⁽³⁾	2,187,208	507,738	+344.067 (Thessaly, Arta)	163,671	63,606	34.39
1896...	2,433,806	246,598	-	246,598	63,606	38.26
1907...	2,631,952	198,146	-	198,146	63,211	41.64
1920 ⁽⁴⁾	5,531,474	2,899,522	+2.666.011 (Macedonia, Epirus, Aegean islands, Thrace, Crete)	233,511	149,150	37.09
1928 ⁽⁵⁾	6,204,684	673,210	+291.046 (-514.585 from lost territories, -415.945 from Turkish and Bulgarian populations, +1.221.849 refugees)	382,164	129,281	47.99
1940...	7,344,860	1,140,176	-	1,140,176	128,197	57.29
1951 ⁽⁶⁾	7,632,801	287,941	+121.480 (Dodecanese islands)	166,461	131,957	57.84
1961...	8,388,553	755,752	-	755,752	131,957	63.57
1971...	8,768,641	380,088	-	379,819	131,957	66.45
1981...	9,741,042	972,401	-	971,217	131,957	73.82
1991**	10,223,392	482,350	-	520,311	131,957	77.48
2001**	10,934,097	710,705	-	704,120	131,957	82.86
2011**	10,816,286	-117,811	-	-117,811	131,957	81.97

(1) With retrospective calculation from 1828 census.

(2) Ionian islands ceded to Greece in 1864.

(3) Thessaly and Arta ceded to Greece in 1881.

(4) Macedonia, Epirus, Crete and Aegean islands ceded in 1913-1914; Thrace, islands of Imbros and Tenedos ceded in 1919-1920.

(5) According to the Treaty of Lausanne (1923).

(6) Dodecanese islands ceded in 1947.

Source: Adopted by Kotzamanis (2011), updated by various ELSTATs (former NSSG) publications.

** Usual resident population-Remaining years in defacto population.