Last Updated: August 14, 2026

ABOUT MORTALITY DATA FOR FRANCE, CIVILIAN POPULATION

by Dana Glei, John Wilmoth, Magali Barbieri, Jacques Vallin, and France Meslé
Last revised by Magali Barbieri

GENERAL

The Human Mortality Database (HMD) includes two data series for France: one for the Total Population (including military) and one for the Civilian Population. This document includes only the information that is specific to the civilian data series. For more general information regarding the demographic data for France, please see the *Background and Documentation* for the Total Population.

With the exception of 1914-1920 and 1940-45, the period data in this series are identical to those given for the total population. Although we include cohort life tables in this civilian series, we caution the user that they are of questionable value for cohorts that experienced significant war losses.

Specific Episodes in French Demographic History

France entered World War I (WWI) on August 3, 1914; the armistice ending WWI was signed on November 11, 1918. France entered World War II on September 3, 1939; although the war in Europe did not end until “V.E. day” (May 8, 1945), French war operations ended in June 1940.

Source of Data

Civilian death counts come from annual vital statistics publications by the *Institut national de la statistique et des études économiques* (INSEE) with corrections for false stillbirths prior to 1975 (Vallin 1973, Vallin and Meslé 2001); for more information regarding “false stillbirths”, see the *Background and Documentation* for the Total Population. With the exception of war years, population estimates originally came from INSEE and were republished by Vallin and Meslé (2001). Civilian population estimates for males in 1914-20 and 1941-45, and for females in 1942-45 come from Vallin (1973, pp. 268-271, 282-287).

DEATH COUNT DATA

Coverage and Completeness

The data cover the civilian national population. Only deaths recorded by INSEE are included; deaths reported by the military authority are not included. Civilian death counts (reported by INSEE) differ from total death counts (estimated by Vallin 1973; Vallin and Meslé 2001) only for: 1914-19 & 1940-45 among males; and 1942-45 among females. Vallin (1973, p. 313) notes that for females during 1914-19, there was no difference between "total" and "civilian" mortality. He further notes (p. 345) that differences between total and civilian mortality were minimal for females in 1939-1942 and for males in 1939.

POPULATION COUNT DATA

Coverage and Completeness

During wartime, population estimates (as of January 1st) exclude active military personnel. In fact, during World War II (WWII), the population estimates exclude only military POWs. Because of the short duration of French war operations during WWII (September 1939–June 1940), Vallin (1973) argues that subtracting the effective military forces from the January 1st population would risk overestimating civilian mortality because the majority of military personnel were not exposed to risk of military mortality. Consequently, Vallin estimates the population *présente* (for 1939-45) rather than the true civilian population; nonetheless, we use the term "civilian population" to refer to these estimates.

Specific Details

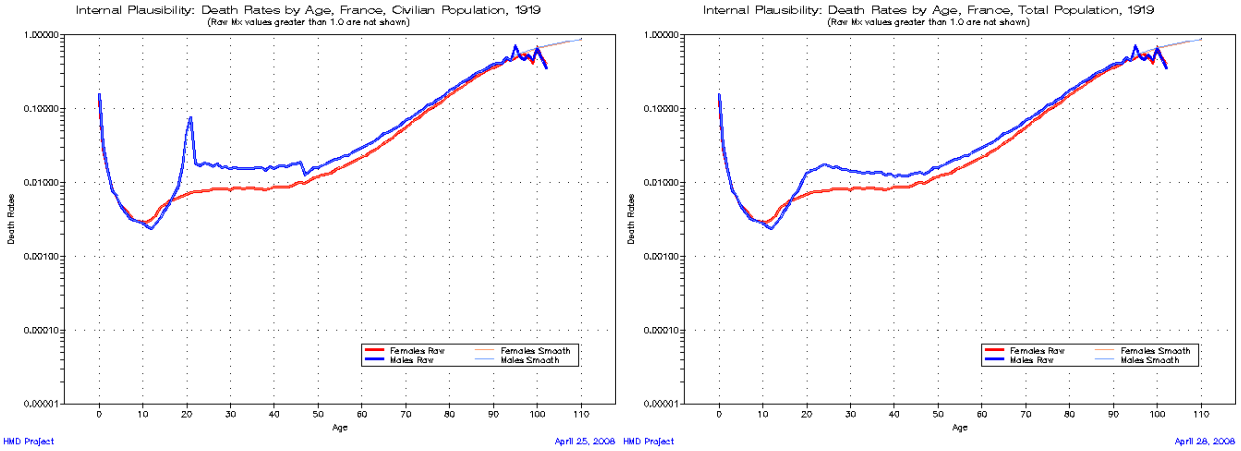
The civilian population (estimated by Vallin, 1973) differs from the total population estimates only for: 1914-20 & 1941-45 among males; and 1942-45 among females. For 1920, the differences between the January 1st population for civilian versus total males were quite small (14,480,300 vs. 14,925,000, respectively; Vallin, 1973, p. 268-273).

For details regarding how civilian population estimates were derived, see Chapter V in Vallin (1973) and Section 3 in Glei et al. (2005).

DATA QUALITY ISSUES

- There is a notable increase in death rates among males aged 18-50 during 1914-19 and 1941-45, but in most cases these civilian rates are substantially lower than the death rates for the total population of males during wartime.
- Nonetheless, among males aged 20-21 in 1919, civilian death rates are higher than the total population (e.g., M_{21}=0.076 for civilian males vs. M_{21}=0.015 for all males—see Figure 1). The main source of this difference appears to be especially low civilian population estimates. For example, among males in 1919, the number of total deaths was 3,254 versus 2,585 for civilian males, but the estimate of the total population on 1/1/1919 was 230,200 versus 30,100 for civilian males. Thus, the death rate is higher because the denominator (exposure) is smaller.
- A similar problem occurs in 1941 among males aged 22-47: civilian death rates are higher even than total death rates (e.g., M_{23}=0.0087 for civilian males and M_{23}=0.0063 for all males). Again, it appears that civilian population estimates for these groups are especially low, resulting in higher death rates.

Figure 1. Death rates by sex and age, Civilian versus Total Population, France, 1919



REFERENCES

Glei, Dana A., Silvia Bruzzone, and Graziella Caselli. (2005). "Effects of War Losses on Mortality Estimates for Italy: A First Attempt." *Demographic Research,* Vol. 13, No. 15, pp. 363-388.

Vallin, Jacques. (1973). *La mortalité par génération en France, depuis 1899*. Paris: INED & Presses Universitaires de France, 484 p. (Travaux et Documents, Cahier no. 63). [In French]

Vallin, J. and F. Meslé. (2001). *Tables de mortalité françaises pour les XIXe et XXe siècles et projections pour le XXIe siècle.* Paris: INED, 102 p. + CD-ROM. [In French]

APPENDIX:

DESCRIPTION OF DATA USED FOR LEXIS DATABASE

DEATHS

Period	Type of Data	Age Grouping	Comments	RefCode(s)†
1816-1859	Annual number of deaths, by sex and age groups with open interval at 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+,unk		52
1860	Annual number of deaths, by sex and age groups with open interval for ages 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+,unk	See *NoteCode*=46	60
1861-1869	Annual number of deaths, by sex and age groups with open interval for ages 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+,unk	unk (1861-62 only)	53, 55-57
1870	Annual number of deaths, by sex and age groups with open interval for ages 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+	Adjusted counts [See *NoteCode*=45]	54
1871-1884	Annual number of deaths, by sex and age groups with open interval for ages 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+		49, 50, 53, 58, 59
1885-1886	Annual number of deaths, by sex and age groups with open interval for ages 100+.	1x1: 0, 1…4 5x1: 5-9,…95-99, 100+		42, 43
1887	Annual number of deaths, by sex and age groups with open interval for ages 100+.	5x1: 0, 1-4, 5-9,… 95-99,100+		42
1888-1891	Annual number of deaths, by sex and age groups with open interval for ages 100+.	0, 1…4, 5-9, 10-14, 15-17, 18-19, 20-24… 95-99,100+		40-41
1892-1896	Annual number of deaths, by sex and age groups with open interval for ages 100+.	0, 1, 2, 3-4, 5-9, 10-14, 15-17, 18-19, 20-24… 95-99,100+		35-39
1897-1902	Annual number of deaths, by sex and single year of age with open interval for ages 85+.	1x1: 0, 1, 2…84, 85+, unk		20, 34, 44
1903-1906	Annual number of deaths, by sex and single year of age	1x1: 0, 1, 2…max, unk	unk (1903 only)	20
1907-1933	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max, unk	unk (1907 and 1914-33 only)	20, 28
1934	Annual number of deaths, by sex, single year of age, and birth cohort to open age interval 100+	Lexis triangles: 0, 1, 2…99, 100+, unk		20
1935	Annual number of deaths, by sex, single year of age, and birth cohort to age 99 LT and open interval starting at age 99 UT	Lexis triangles: 0, 1, 2…98, LT age 99, UT age 99+, unk		20
1936-1946	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max, unk		20, 21, 22, 29
1947	Annual number of deaths, by sex, single year of age, and birth cohort to age 100 LT and open interval starting at age 100 UT	Lexis triangles: 0, 1, 2…99, LT age 100, UT age 100+,		21, 23

Period	Type of Data	Age Grouping	Comments	RefCode(s)†
		unk		
1948	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max, unk		21, 23
1949	Annual number of deaths, by sex, single year of age, and birth cohort (Lexis triangles) to age 100 LT and period-cohort data starting at age 100 UT (1-year intervals)	Lexis triangles: 0, 1, 2…99, LT age 100, Period-cohort data: 100, 101, 102, …max, unk		21, 23
1950-1953	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max, unk		21, 23, 27
1954	*Same as data for 1949*	*Same as data for 1949*		27, 23
1955	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max, unk		27, 23
1956-1967	*Same as data for 1949*	*Same as data for 1949*		27, 26, 23
1968-1997	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max		27, 23, 24, 26
1998-2004	Annual number of deaths, by sex, single year of age, and birth cohort	Lexis triangles: 0, 1, 2…max		31
2005-2012	Annual number of deaths, by sex, single year of age, and birth cohort to age 105+	Lexis triangles: 0, 1,…105(TL), 105(TU)+		51, 65, 70, 73, 74, 78, 83, 86
2013-2024	Annual number of deaths, by sex, single year of age, and birth cohort to age 105+	Lexis triangles: 0, 1,…104 (TL), 104 (TU), 105+ (TU)		91, 93, 96, 106, 113, 117, 120, 130, 134, 142, 146, 150

† The reference code is used in the raw data files (Input Database) to link data with sources.
UT=upper triangle; LT=lower triangle; RR=rectangle; max=maximum age attained; unk=deaths of unknown age

POPULATION

Period	Type of Data	Age Grouping	Comments	RefCode(s)
1816,1821,1826,1831, 1836,1841,1846,1851, 1856,1861,1866,1871, 1876,1881,1886,1891, 1896	Population estimates as of January 1st, by sex and 5-year age group to 90+	0-4,5-9,… 89,90+		64
1899-1913	Annual population estimates as of January 1st, by sex and age	0, 1, 2…89, 90+		10
1914-1920	Annual population estimates for females as of January 1st, by age	0, 1, 2…98, 90+		10
1914-1920	Annual population estimates for males as of January 1st, by age	0, 1, 2…98, 99+	Excludes active military personnel.	12

Period	Type of Data	Age Grouping	Comments	RefCode(s)
1921-1940	Annual population estimates as of January 1st, by sex and age	0, 1, 2…89, 90+		10
1941	Annual population estimates for females as of January 1st, by age	0, 1, 2…89, 90+		10
1942-1945	Annual population estimates for females as of January 1st, by age	0, 1, 2…98, 99+	Excludes military POWs.	13
1941-1945	Annual population estimates for males as of January 1st, by age	0, 1, 2…98, 99+	Excludes military POWs	13
1946-1953	Annual population estimates as of January 1st, by sex and age	0, 1, 2…89, 90+		10
1954-1974	Annual population estimates as of January 1st, by sex and age	0, 1, 2…94, 95+		10
1975-1998	Annual population estimates as of January 1st, by sex and age	0, 1, 2…99, 100+		10, 11
1999-2025	Annual population estimates as of January 1st, by sex and age	0,1,2…99, 105+		11, 71, 75, 77, 84, 99, 107, 108, 114, 121, 137, 143, 147, 151

BIRTHS BY SEX

Type of data: Annual live birth counts by sex for the *de facto* population

Period covered: 1806 to 2024

RefCode(s): 1, 32, 45, 46, 47, 48, 69, 72, 76, 82, 85, 88, 94, 97, 104, 111, 115, 118, 131, 135, 140, 144, 148.

BIRTHS BY MONTH

Type of data: Annual live birth counts by month for the *de facto* population

Period covered: 1861 to 2024

RefCode(s): 80, 81, 95, 98, 105, 112, 116, 119, 132, 136, 141, 145, 149.