

# HUMAN FERTILITY DATABASE DOCUMENTATION: SLOVENIA

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## 1 General information

This report documents the data for Slovenia collected for the Human Fertility Database (HFD) project, including the following:

- data on total births by calendar month and year;
- data on live births by calendar year, age of mother and/or mother's year of birth and birth order; and
- the distribution of women by age (or year of birth), and by number of biological children ever born (census data).

The time series on live births by age of mother and birth order cover the period between 1954 and 2014. From 1970 onwards, the data are available by single age of mother, while from 1988 onwards, the data are also available by mother's year of birth. Monthly data are available starting in 1970. Data for female population by parity are available in different age structures from the population censuses of 1948, 1953, 1961, 1971, 1981, 1991, 2002, 2011 and 2015.

Population data since 1983 have been processed and documented in the Human Mortality Database (HMD, [www.mortality.org](http://www.mortality.org)). **Because population data in sufficient quality are not available for the previous periods, only data since 1983<sup>1</sup> are used for the calculation of the HFD output.** All the input data used for generating the HFD output data and indicators are specified in Appendix 1. All data available for Slovenia are summarized in Appendix 2.

The HFD for Slovenia is based on the official data on births published in vital statistics publications and electronic media by the Statistical Office of the Republic of Slovenia and the Federal Statistical Office of Yugoslavia, or on data extracted from the annual databases of individual birth records for recent years.

From the 14th century until 1918, the present territory of Slovenia (inhabited by the Slovene population, and known as the Carinthia, Carniola and Styria regions) was part of the Austro-Hungarian Empire. After World War I and the collapse of the Empire, Slovenia became part of the Kingdom of Slovenes, Croats and Serbs, which was renamed the Kingdom of Yugoslavia in 1929. After the World War II, Slovenia became part of the Socialist Federal Republic (SFR) of Yugoslavia. The Republic of Slovenia gained its independence as a result of the dissolution of Yugoslavia in 1991. In June/July 1991, there was an armed conflict,

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<sup>1</sup> With the exception of the series of monthly birth counts that starts since 1970.

known as the Ten-Day War, in which the Slovenian Defence Army defended the territory from the invading Yugoslav People's Army. The country has been a member of the European Union since 1 May 2004 (Jasilionis, 2015).

### **1.1 Data collection and availability**

Until the end of World War I in 1918, the collection of statistical information within most of the present territory was under the responsibility of the statistical office of the Austro-Hungarian Empire, located in Vienna (Statistical Office, 2004). After the collapse of the Austro-Hungarian Empire in 1918, the main authority responsible for statistics was the General National Statistics office in Belgrade (the capital city of the Kingdom of Slovenes, Croats and Serbs/Kingdom of Yugoslavia). However, a special statistical department for Slovenia existed between 1919 and 1924. The statistical office of Slovenia was established by the Slovenian National Liberation Council in 1944, shortly before the liberation of the country from its Nazi occupiers in 1945. This office became part of the federal statistical office from 1945 to 1990. An independent statistical office of the Republic of Slovenia was re-established in 1991 (Statistical Office, 2004).

The first population enumeration in the present territory of Slovenia was conducted in 1754. Under the Austro-Hungarian Empire, six population censuses were conducted on the following dates: 31 October 1857, 31 December 1869, 31 December 1880, 31 December 1890, 31 December 1900 and 31 December 1910. While Slovenia was part of the Federal Republic of Yugoslavia, eight population censuses were conducted on the following dates: 31 January 1921, 31 March 1931, 15 March 1948, 31 March 1953, 31 March 1961, 31 March 1971, 31 March 1981, 31 March 1991 and 31 March 2002 (Jasilionis, 2015). In 2011 Slovenia implemented a register-based census with reference date of 1 January 2011 (Statistical Office, 2011). The latest register-based census was carried out in 2015, with reference date of 1 January 2015. All the censuses conducted in the period 1948-2015 included a question on the number of children born alive to each woman aged 15 and over.

A specific feature of the system of demographic statistics in Slovenia is the extensive use of population registers. The municipal registers were introduced in 1946, but the Central Population Register was first established in 1983, following the introduction of personal identification numbers in 1980 (Krizman, 1999). The registers have been used extensively to produce population statistics and to correct/update population estimates, which are calculated according to the population census data and annual changes of births, deaths and migration (Statistical Office, 2009). The 2011 and 2015 population censuses were already fully register-based.

### **1.2 Territorial coverage**

There were no territorial changes in Slovenia since 1954. Prior to 1954, however, there were numerous changes in the borders of the country. Thus, no detailed data before this year are available for the present territory of Slovenia.

## **2 Birth count data**

The age-specific birth count data cover the period 1954-2014 (recall that only data since 1983 are displayed in the HFD output; the data for 1954-1982 are available in the input file for births). Only data on live births are included. Biological birth order is taken into account.

Counts on total live births by calendar months cover the period from 1970 onwards.

Data for 1954-1969 originate from the official vital statistics publications, published by the Federal Statistical Office of Yugoslavia.

Data for 1970-1987 originate from unpublished figures.

Since 1988, files on individual birth records have been used to tabulate live births by Lexis triangles, distinguishing birth order up to 9+.

The main statistical publication, the Statistical Yearbook, contains summary data on births only, and these data are recalculated and estimated for the present territory of Slovenia since 1921. However, no detailed data, such as data specified by age of mother or birth order, are available.

The registration of births is considered to be complete, and it covers the whole territory of Slovenia. The data on births include all births to residents of Slovenia, including births that are registered abroad if a mother or a father is included in the resident population of Slovenia. Births to non-residents are not included in national birth statistics. For the details on the definition of resident population and changes see Jasilionis (2015).

### **3 Population count data**

#### **3.1 Population count data by age**

The annual age structure of women since 1983 is taken from the Human Mortality Database.

#### **3.2 Population count data by age/cohort and parity**

The distribution of women by the number of live-born children is available from the census data of 15 March 1948; of 31 March for the following years: 1953, 1961, 1971, 1981, 1991, 2002, and of 1 January 2011 and 2015. The data published from the censuses in different books are available as scanned tables on the official website of the Statistical Office of the Republic of Slovenia ([http://www.stat.si/eng/pub\\_popisne\\_prva.asp](http://www.stat.si/eng/pub_popisne_prva.asp) and [http://pxweb.stat.si/pxweb/Database/Demographics/05\\_population/30\\_Fertility/20\\_05K10\\_Women-children/20\\_05K10\\_Women-children.asp](http://pxweb.stat.si/pxweb/Database/Demographics/05_population/30_Fertility/20_05K10_Women-children/20_05K10_Women-children.asp)). Women aged 15 and over were required to report the number of live-born children they have ever had.

The previous censuses are not considered because the birth count data are not available.

At the time of the censuses of 1948 and 1953, the south-western part of Slovenia (the A Zone of the Free Territory of Trieste) was outside the current borders of Slovenia.

In the 2002 census, the number of women by parity was published only for the whole age group 15-19. The numbers for single year age groups were re-estimated by the HFD team from the totals of women by single-year ages, totals of women by parity in the age group 15-19, and the distribution of women by parity and age in the 1991 census using the Iterative Proportional Fitting method (see the HFD Methods Protocol, section 4.4, for details).

In the censuses of 1948-1991, the population with permanent residence in Slovenia (*de jure*) was taken into account. This included people who had declared permanent residence in the place of enumeration, irrespective of whether they were temporarily absent at the time of the census. Temporarily absent people included those who were absent for a short time, and those who were working abroad (i.e. migrant workers), and their family members who were also living abroad, irrespective of the duration of their work or stay abroad. For the 2002 census, international guidelines for population censuses were adopted. Under these new

rules, only those people who had actually lived in the territory of Slovenia were counted among the country's population. In the 2002 census, people who had permanent or temporary residence in Slovenia, but who had been living abroad for over a year, were no longer considered to be part of the population of Slovenia. In addition, in the 2002 census, the duration of stay in Slovenia was taken into account for the first time, so that the population of Slovenia also included immigrants who had been living in Slovenia for at least a year.

## **4 Specific details**

### ***4.1 Definitions of live birth and stillbirth***

The WHO definition of a live birth was valid throughout the whole covered period.

### ***4.2 Age***

The age of the mother was recorded in completed years (Lexis squares). Since 1988, the birth counts are available by both mother's age in completed years and birth cohort (Lexis triangles).

1954-1958: Live births for the ages above 34 are available only by five-year age groups.

1959, 1963-1969: Live births by age and by biological birth order are available only by five-year age groups. Live births for all birth orders combined are also provided by single-year ages of mother (for the ages 15-34). These data can be used to estimate the number of birth order-specific live births by single-year age groups.

### ***4.3 Birth order***

The birth order in the birth count data for Slovenia always refers to biological (true) birth order of a child to the mother.

### ***4.4 Unknown cases***

In the period covered by the HFD output, the number of unknown cases was negligible (single cases in 1983, 1992, and 1994).

### ***4.5 Revision history***

The current release includes new data for 2010–2014. There are no other changes as compared to the previous HFD data release as of 1 November 2011.

## References

- Jasilionis, D. (2015). About mortality data for Slovenia.  
(<http://www.mortality.org/hmd/SVN/InputDB/SVNcom.pdf>)
- Krizman, I (1999). The use of registers in population, households and housing censuses in Slovenia. The paper prepared for the Joint ECE/Eurostat work Session on Registers and Administrative Records for Social and demographic Statistics Geneva, 1-3 March 1999. Ljubljana: Statistical Office of the Republic of Slovenia.
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**APPENDIX 1  
DESCRIPTION OF DATA USED FOR LEXIS DATABASE<sup>2</sup>**

**BIRTHS**

Period	Type of data	Age range	Birth order	RefCode(s)
1983–1987	Annual number of live births by age of mother (Lexis squares)	-14, 15,...,49,50+	1, ..., 9+, unknown	2
1988–2014	Annual number of live births by age of mother, mother's year of birth and birth order (Lexis triangles)	12,...,55	1, ..., 9+	3, 7
1970–2014	Annual number of live births by month	--	--	2, 3, 7

**FEMALE POPULATION: Distribution by age and parity**

Period	Type of data	Age range	Parity	RefCode	Note
31.03.1991	Women by age and parity	15,...,49, 50-54,...,90-94, 95+, UNK	0,...,11+, UNK	4	Golden census
31.03.2002	Women by age and parity	15,...,94, 95+	0,...,4+	4	See notes 1, 4
1.1.2011	Women by age and parity	15,...,89, 90+	0,...,8+	5	
1.1.2015	Women by age and parity	15,...,89, 90+	0,...,8+	6	

**FEMALE POPULATION: Exposure by age and year of birth**

Female exposure population by calendar year, age, and year of birth (Lexis triangles) is estimated using data on population size and deaths from the Human Mortality Database, which is available at <http://www.mortality.org> or <http://www.humanmortality.de>.

<sup>2</sup> The columns "RefCode" in the tables of Appendix 1 and 2 present references to data sources. The full list of references is provided in the document SVNref.pdf (see section "Input Data" on the country page).

## APPENDIX 2 DATA AVAILABILITY FOR SLOVENIA

### BIRTHS

Period	Type of data	Age range	Birth order	RefCode(s)
1954-1955	Annual number of live births by age of mother (Lexis squares)	-14, 15, ..., 34, 35-39, ..., 45-49, 50+	1, ..., 9+, unknown	1
1956-1958, 1960-1962	Annual number of live births by age of mother (Lexis squares)	-14, 15, ..., 34, 35-39, ..., 50-54, 55+	1, ..., 9+, unknown	1
1959	Annual number of live births by age of mother (Lexis squares)	-14, 15-19, ..., 50-54, 55+	1, ..., 9+, unknown	1
1959	Annual number of live births by age of mother (Lexis squares)	-14, 15, ..., 34, 35-39, ..., 50-54, 55+	TOTAL	1
1963-1969	Annual number of live births by age of mother (Lexis squares)	-14, 15-19, ..., 45-49, 50+	1, ..., 9+, unknown	1
1963-1969	Annual number of live births by age of mother (Lexis squares)	-14, 15, ..., 34, 35-39, ..., 45-49, 50+	TOTAL	1
1970-1987	Annual number of live births by age of mother (Lexis squares)	-14, 15, ..., 49, 50+	1, ..., 9+, unknown	2
1988-2014	Annual number of live births by age of mother, mother's year of birth and birth order (Lexis triangles)	12, ..., 52	1, ..., 9+	3, 7
1970-2014	Annual number of live births by month	—	—	2, 3, 7

### FEMALE POPULATION: Distribution by age and parity

Period	Type of data	Age range	Parity	RefCode
15.03.1948	Women by age and parity	15, ..., 49, 50-54, ..., 80-84, 85+, UNK	0, ..., 11+, UNK	4
31.03.1953	Women by age and parity	15, ..., 34, 35-39, ..., 55-59, 60-69, 70-79, 80+, UNK	0, ..., 11+, UNK	4
31.03.1961	Women by age and parity	15-19, ..., 60-64, 65+, UNK	0, ..., 11+, UNK	4
31.03.1961	Women by age	15, ..., 49	—	4
31.03.1971	Women by age and parity	15, ..., 49, 50-54, ..., 70-74, 75+, UNK	0, ..., 11+, UNK	4
31.03.1981	Women by age and parity	15, ..., 49, 50-54, ..., 70-74, 75+, UNK	0, ..., 11+, UNK	4
31.03.1991	Women by age and parity	15, ..., 49, 50-54, ..., 90-94, 95+, UNK	0, ..., 11+, UNK	4
31.03.2002	Women by age and parity	15-19, 20, ..., 94, 95+	0, ..., 4+	4
1.1.2011	Women by age and parity	15, ..., 89, 90+	0, ..., 8+	5
1.1.2015	Women by age and parity	15, ..., 89, 90+	0, ..., 8+	6