

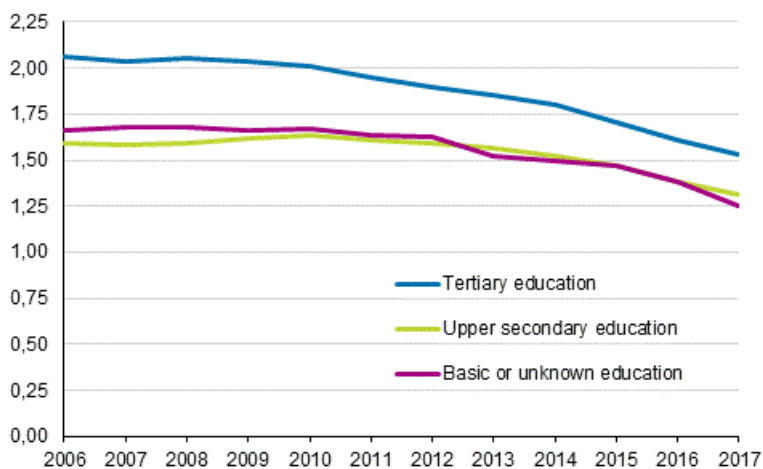
# Births 2017

## Annual review

### Birth rate has decreased in all educational groups

According to Statistics Finland, the total fertility rate has decreased in all women's educational groups after 2010, when the present decrease in the birth rate started. The fertility rate of women with basic level education has gone down by 25 per cent and that of those with tertiary level education by 24 per cent from 2010. The fertility rate has diminished slightly less among those with upper secondary level education, by 20 per cent.

#### Total fertility rate of women born in Finland by level of education in 2006 to 2017

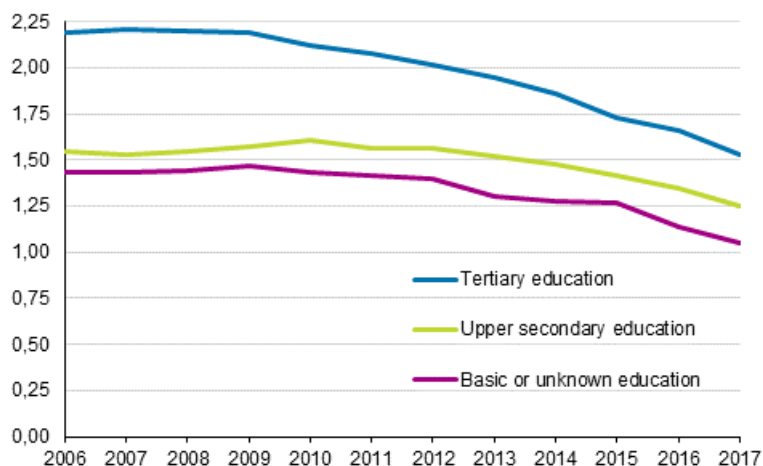


The total fertility rate is commonly used in measuring fertility. It indicates how many children a woman would give birth to calculatorily during her life time if fertility rates remained the same as in the year on which the calculation is based.

The data concern here only mothers and fathers born in Finland. A share of qualifications taken abroad are missing from Statistics Finland's Register of Completed Education and Degrees, for which reason the qualification data of many persons born abroad are deficient.

The fall in the total fertility rate has been similar for men to that for women. However, the change from 2010 has been steeper in all men's educational groups.

### Total fertility rate of men born in Finland by level of education in 2006 to 2017 <sup>1)</sup>



1) Information on fathers of children born outside marriage is obtained only when paternity is confirmed, and that is why it is received at a delay. For this reason, there may be slight deficiencies in the data for 2017 concerning fathers. For around one per cent of children, information on fathers is completely missing.

For men with tertiary level education, the total fertility rate has decreased by 28 per cent and for those with basic level education by 27 per cent since 2010. The fertility rate has diminished slightly less among those with upper secondary level education, by 22 per cent.

For men the mutual differences of educational groups in the levels of fertility are bigger than for women: for men the fertility rate of those with basic level education is clearly lower than in other groups. The total fertility rate of men with tertiary level education has been slightly higher than among women of the same educational group, but now they are at the same level.

### Share of childless persons has grown among women aged 35 to 39 with basic level education

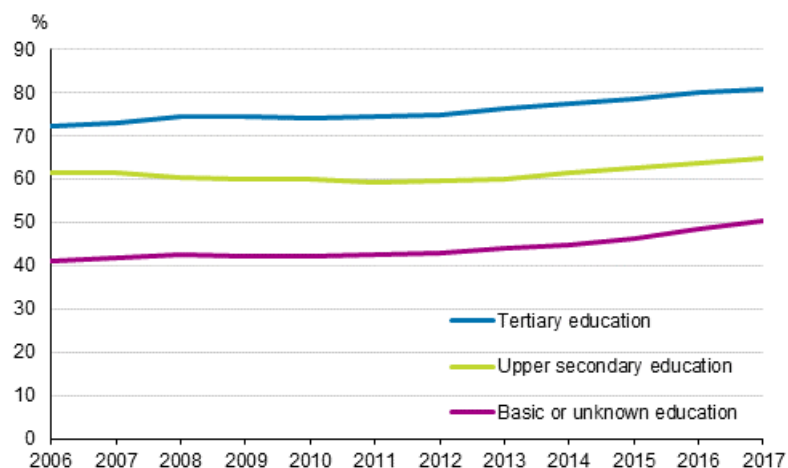
Next we examine the share of childless women aged 25 to 29 and 35 to 39 born in Finland by level of education. Not all persons aged 25 to 29 have necessarily completed their highest qualification yet and their number of children is not final either, but changes in the birth rate at that age reflect part of the general fall in the birth rate.

For those aged 35 to 39, the number of children is not necessarily final, but the growth in the share of childless women in this age group is connected to the fall in the birth rate.

The share of childless persons aged 25 to 29 is highest for those with tertiary level education and lowest for those with basic level education, when examining women born in Finland. The share of childless persons has risen in all educational groups of those aged 25 to 29 between 2010 and 2017.

The share of childless persons has risen most among those with basic level education, by 8.2 percentage points between 2010 and 2017. The share of childless people has risen by 6.8 percentage points among those with tertiary level qualifications and by five percentage points among those with upper secondary level education.

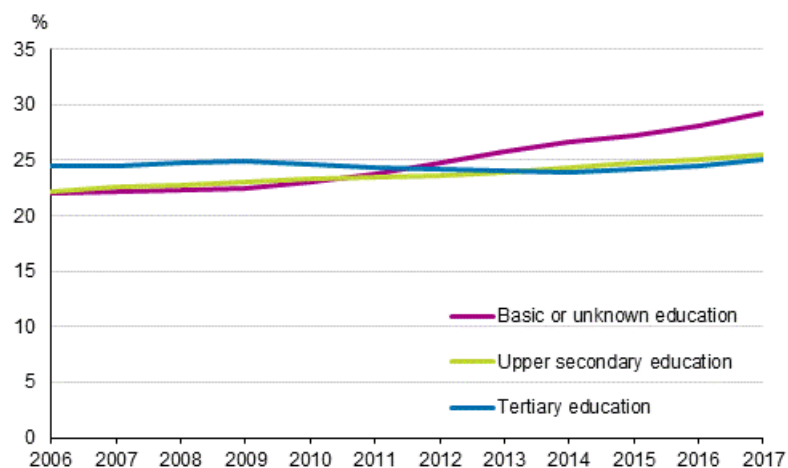
**Share of childless women aged 25 to 29 by level of education in 2006 to 2017, born in Finland, per cent**



In the ten years older age group, those aged 35 to 39, the shares of childless persons according to educational groups has turned the other way in recent years – those with tertiary level education no longer have the biggest share of childless persons. Starting from 2012, the share of childless persons has been highest for women with basic level education, and the share has grown ever since.

The share of childless women among those with tertiary level education has not changed much in the period 2006 to 2017. It has risen slightly among those with upper secondary education.

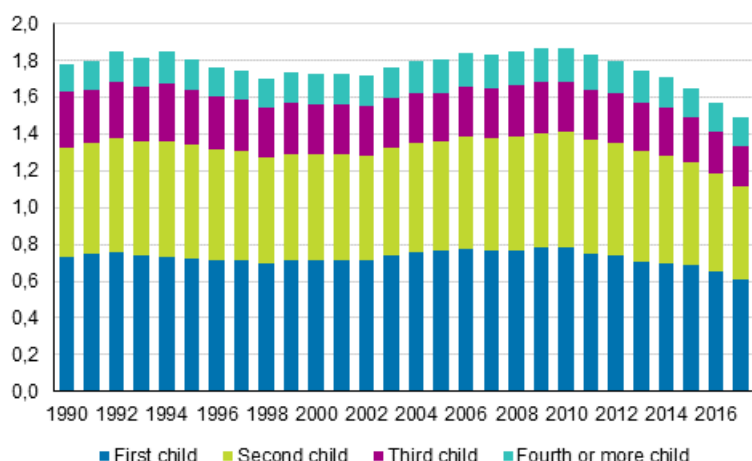
**Share of childless women aged 35 to 39 by level of education in 2006 to 2017, born in Finland, per cent**



**Birth rate has diminished by one fifth**

The birth rate in general has declined considerably from 2010 to 2017. Measured by the total fertility rate, it diminished in seven years by 20 per cent, from 1.87 children per woman to 1.49 children per woman. The total fertility rate can be broken down by the order number of the child born.

### Total fertility rate broken down by birth order of child 1990–2017

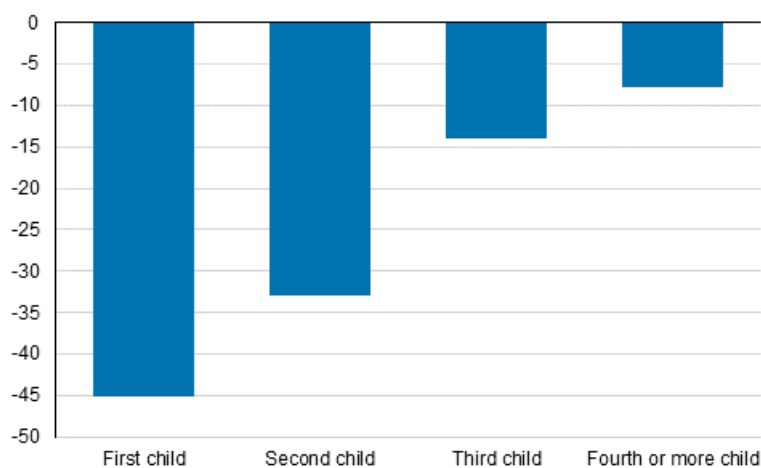


The decrease in total fertility was broken down by the number of children so that the change grew the lower the order number of the child was. For the first child, the change from 0.78 to 0.61 children per women from 2010 to 2017 means a reduction of 22 per cent. Correspondingly, the change percentage for fertility for the fourth and higher order number children was 16.

### Few first-born were born

From the breakdown of the total fertility rate by the birth order of child it is clearly visible that the change has taken place for the first child when comparing 2010 and 2017. The total fertility rate diminished from 1.87 to 1.49 between 2010 and 2017, that is, the change was 0.38 children. Of this change, the share of first-born children was 45 per cent. The share of the second child was also big in the change, 33 per cent.

### Change in total fertility rate broken down by birth order of child in 2010 to 2017, per cent



### Large differences between regions in the birth rate and its decrease

In 2010, the total fertility rate was lowest in Uusimaa, 1.70 children per woman and highest in North Ostrobothnia, 2.40 children per woman. The difference between the highest and lowest figures was 0.70.

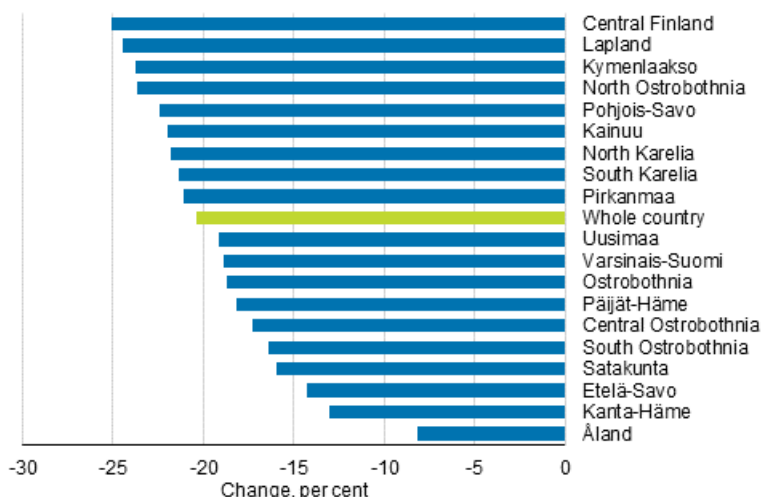
In 2017, the total fertility rate was still lowest in Uusimaa, 1.38 children per woman, but highest in Central Ostrobothnia, 1.96 children per woman. In 2017, the differences between regions in the birth rate had

narrowed down slightly compared with 2010, as the difference between the highest and lowest figures was a little smaller, 0.57 children per woman.

## Size of the change in the birth rate varies considerably by region

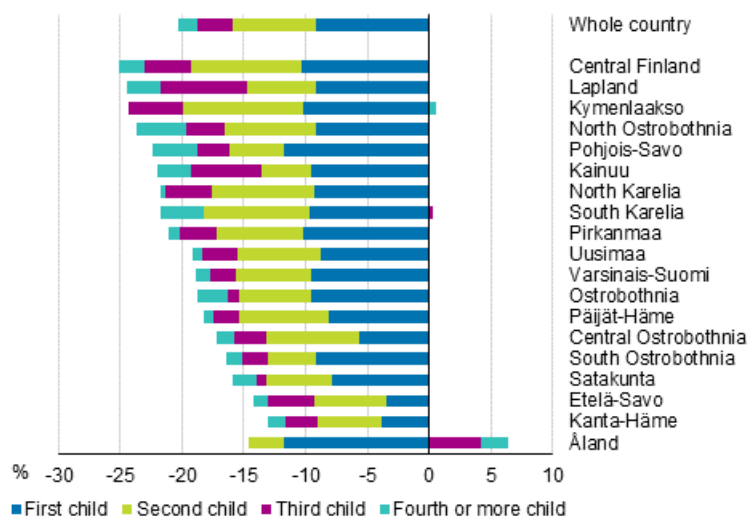
The change in the birth rate has been relatively biggest in Central Finland, where the total fertility rate was 25 per cent lower in 2017 than in 2010. Correspondingly, the change in Mainland Finland regions was smallest in Kanta-Häme, where the total fertility rate diminished by 13 per cent. However, the relative change was smallest in Åland, where the birth rate declined by just eight per cent in seven years.

**Change of total fertility rate by region from 2010 to 2017, per cent**



When the change in the total fertility rate of a region is broken down by the order number of the child, it can be seen that in almost all regions, the biggest change has happened for the first child compared 2010 to 2017. However, only in five regions the share of first-born children in the decreasing birth rate is over 50 per cent. This means that in all other regions, the share of the second, third child, etc. in the decreasing birth rate is over one half.

**Change in total fertility rate in 2010 to 2017 broken down by birth order by region, per cent**

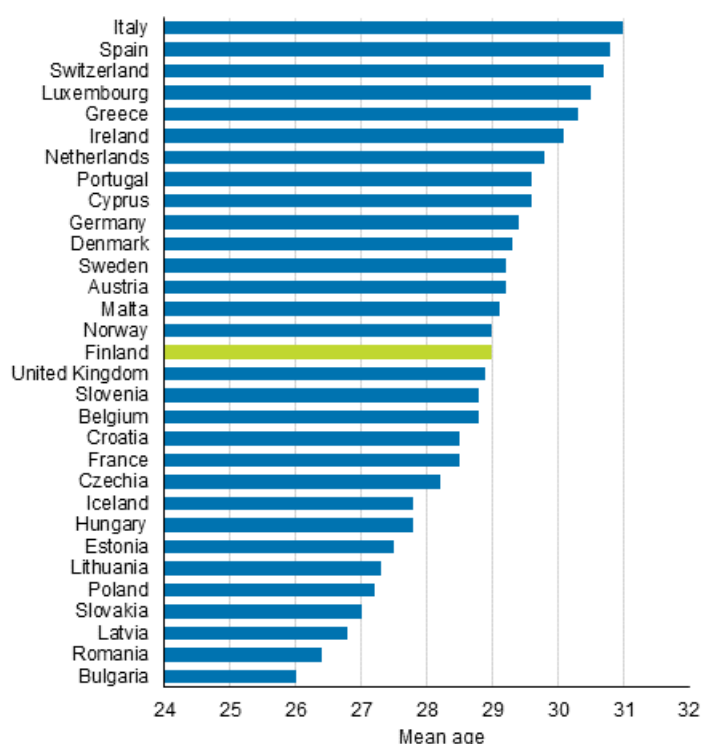


## Big changes in the age of becoming a mother in Europe

Becoming a mother for the first time has also been postponed in Finland. However, women in Finland become mothers nowhere near as old as in many other European countries. Finland is placed in the middle in the comparison of the average age of first-time mothers in the EU. In the Nordic comparison, only in Iceland first-time mothers women are younger than in Finland.

The average age of first-time mothers is oldest in Italy, 31 years. The youngest women give birth to their first child in Bulgaria, at the age of 26, on average. The birth rate was lowest in Italy together with Spain in 2016. The high and low average age of first-time mothers does not, however, go hand in hand with the birth rate, because of the European Union countries, Sweden had the second highest birth rate in the reference year.

### Woman's age at first live birth in some European countries in 2016



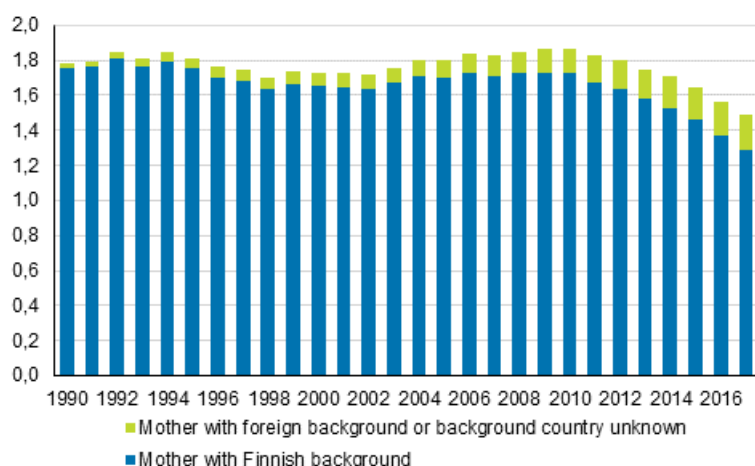
Source: Eurostat

## Share of mothers with Finnish background in the birth rate decreases further

Fertility can also be examined from the point of the mother's origin. The share of people with Finnish background in the total fertility rate has gradually fallen, and that of persons with foreign background has correspondingly grown.

The share of persons with foreign background in the birth rate of the whole country has increased slowly from the 1990s and is currently around 13 per cent of the whole country's birth rate. In the corresponding time, the share of women with foreign background in all women aged 15 to 49 has grown slightly slower, however, to 9.8 per cent.

### Total fertility rate broken down by mother's origin in 1990 to 2017



According to the whole country's birth rate in 2017, women's average number of children would be 1.49 children per woman. When this is broken down by origin, the share of women with Finnish background of this is 1.29 children per woman and that of women with foreign background 0.20 children per woman.

When examining the fall in the birth rate that started from 2010, it can be seen that only the share of women with Finnish background in the birth rate has fallen. The share of persons with Finnish background in the birth rate has gone down by 25 per cent in the past seven years. In contrast, the share of persons with foreign background in the birth rate has grown by 36 per cent over this period.

Further information about the birth rate according to origin is available on Statistics Finland's Immigrants and integration thematic pages in the section [Birth rate](#).

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# Appendix tables

**Appendix table 1. Confinements by number of foetuses in 2000 to 2017**

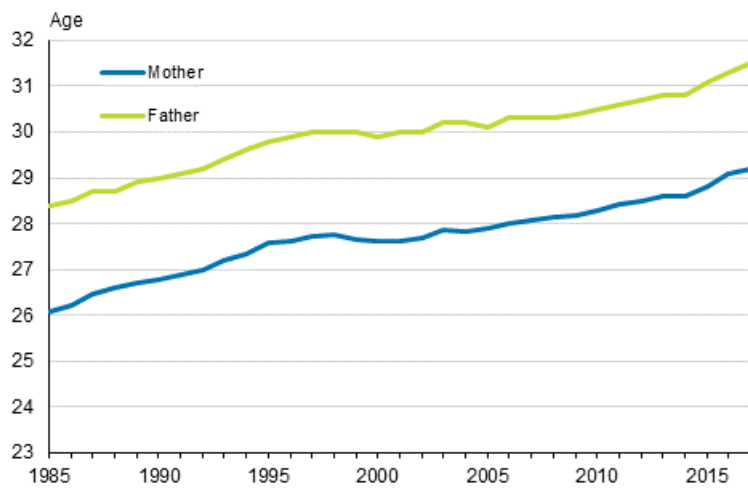
Year	Number of foetuses				
	Total	One	Two	Three	Four
2000	56 056	55 148	899	9	–
2001	55 511	54 658	843	10	–
2002	54 882	54 043	829	10	–
2003	55 962	55 122	834	6	–
2004	57 067	56 206	844	17	–
2005	57 066	56 212	847	7	–
2006	58 136	57 252	871	13	–
2007	58 024	57 125	889	10	–
2008	58 845	57 981	854	10	–
2009	59 759	58 896	850	13	–
2010	60 216	59 284	919	13	–
2011	59 253	58 398	841	14	–
2012	58 836	58 030	794	12	–
2013	57 484	56 692	785	7	–
2014	56 605	55 825	771	8	1
2015	54 890	54 144	738	8	–
2016	52 230	51 494	730	5	1
2017	49 762	49 066	690	6	–

**Appendix table 2. Stillbirths by age of mother, marital status and birth order of child calculated from mother's all children 2017**

Age	Marital status									
	Mother married					Mother not married				
	Birth order					Birth order				
	Birth order of child total	1	2	3	4+	Birth order of child total	1	2	3	4+
Age of mother total	78	24	20	20	14	65	34	16	8	7
- 19	1	1	–	–	–	4	4	–	–	–
20 - 24	10	4	2	4	–	3	2	1	–	–
25 - 29	16	7	6	1	2	20	10	6	2	2
30 - 34	26	9	7	8	2	22	12	4	4	2
35 - 39	14	2	5	3	4	12	4	4	1	3
40 - 44	7	1	–	3	3	4	2	1	1	–
45 -	4	–	–	1	3	–	–	–	–	–

# Appendix figures

**Appendix figure 1. Average age of first-time mothers and fathers in 1985 to 2017**



# Quality description, births 2017

## 1. Relevance of statistical information

The main source used when producing Finnish population statistics is the Population Information System, which is maintained by the Population Register Centre and local register offices. Changes in the data on the vital events of the resident population are updated into the Population Information System continuously by local population register authorities. From 1975 Statistics Finland has obtained population data from the Population Register Centre.

The last population registration was carried out in Finland on 1 January 1989. After that the Population Information System has been updated by notifications of changes. The data stored in the Population Information System are specified in the act on Population Information System and the certificate services of the Population Register Centre (21 August 2009/661). Notifications on population changes for the past year are expected by the last day of January of the following year.

Statistics Finland's function is to compile statistics on conditions in society (Statistics Finland Act of 24 January 1992/48). These also include demographic statistics. Statistics Finland's Rules of Procedure defines the Population and Social Statistics unit as the producer of demographic statistics (Statistics Finland's Rules of Procedure, TK-00-954-18).

In accordance with the Act on the Municipality of Domicile, the municipality of domicile and the place of residence of individuals are recorded in the Population Information System. The municipality in which a person lives or the one construed by the inhabitant as the municipality of domicile on the grounds of residence, family ties, livelihood or other equivalent circumstances, or to which the inhabitant has close links due to the aforementioned circumstances is deemed the municipality of domicile. (Act on the Municipality of Domicile, 201/1994.) The population registered in the Population Information System is divided into those present and those absent. Those present are permanent residents of Finland, either Finnish nationals or aliens. Those absent are Finnish nationals who when emigrating from the country have reported that they intend to be absent from Finland for more than one year, with the exception of Finnish nationals who are diplomats and those working in development co-operation (Act on the Municipality of Domicile, 201/1994.) Only changes in the population resident in Finland are taken into account when compiling statistics on vital events. Persons moving to Finland from abroad are classified in the population statistics if the place of residence they have declared as their municipality of domicile is later confirmed as their place of residence.

### Concepts

'Liveborn' is the term for a newborn who breaths or shows other signs of life after birth. Only liveborn children of women permanently resident in Finland are taken into account in the population statistics.

According to the World Health Organisation (WHO) definition, 'stillborn' is the term for a newborn with a birth weight of at least 500 g or, if the birth weight is not available, a newborn born dead after a pregnancy lasting 22 weeks or more. The WHO definition has been in use since 1987. From the 2003 vital statistics onwards, the same national definition is used as in the cause-of-death statistics: 'stillborn' is the term for a newborn with a birth weight of at least 500 g, or a newborn born dead after a pregnancy lasting 22 weeks or more.

Children are classified according to family status as legitimate or illegitimate. A child born in wedlock is legitimate. A widow can give birth to a legitimate child if the pregnancy began while still married. A child born out of wedlock is illegitimate. Cases where the mother has married the child's father after the child's birth are also considered illegitimate in these statistics. According to law, such children only become legitimate as of the date when their parents enter into a marriage contract with each other. In this vital statistics publication the child's family status is primarily given by the mother's marital status, that is, whether the mother was married or not. Unmarried, widowed and divorced women, and women widowed after a registered partnership, separated from a dissolved registered partnership or living in a registered partnership are classified as not being married at the time of the child's birth.

The birth order is determined in two ways: either all live births to the mother are taken into account, or only the live births during the present marriage are included.

The health care unit has to report liveborn children to the Population Information System or to the register office of the mother's place of domicile to enter the information in the Population Information System. In exceptional cases the report is made to the register office of the child's place of birth. (Statute, 128/2010).

The population registrar ensures that a child is entered in the Population Information System within two months of birth. Registration in an Evangelical-Lutheran or Greek Orthodox parish presupposes baptism. Where parents belong to different parishes, the child is usually registered in the mother's parish. According to the Freedom of Religion Act (767/1969), where parents belong to different religious affiliations and have not agreed otherwise, the child is entered in the mother's register. The Population Register Centre issues the child an identity number on the basis of the child's notice of registration.

The Population Register Centre does not collect data on stillbirths. These data are obtained from stillbirth certificates written out by physicians. The health care unit or the physician in question forwards the certificate to the National Institute for Health and Welfare, which sends it to Statistics Finland (Statute 948/1973 and Act 459/1973).

In the vital statistics the number of stillbirths may differ somewhat from the number of stillbirths in the cause of death statistics. The deadline for data on stillbirths is shorter for the vital statistics than for the cause of death statistics.

The excess of births over deaths, that is, natural population increase means the difference between births and deaths. The crude birth rate refers to the number of births per 1,000 persons of the mean population. The proportion of stillbirths refers to the number of stillborn children per 1,000 liveborn and stillborn children. The general fertility rate indicates the number of liveborn children per 1,000 women of the mean population aged 15 to 49. The age-specific fertility rate indicates the number of live births per 1,000 women of the mean population in the age group in question. This same principle is applied for calculating age-specific legitimate or non-marital fertility rates. The legitimate fertility rate is calculated per married women and the non-marital fertility rate per non-married women. The total fertility rate is obtained by adding up the fertility rates calculated for one year. The rate refers to the estimated number of children born to a woman, given that the fertility rate of that statistical year prevails during the whole reproductive period of this woman on condition that the woman does not die before the end of the said period. The reproduction of the population refers to a change of a generation into a new one. Reproduction is measured by gross reproduction rates or net reproduction rates that generally indicate the ratio between the sizes of the daughter's and mother's generations. The fertility and mortality of the mother's generation before the end of the childbearing age is taken into account in the calculation of the net reproduction rate. In the gross reproduction rate this mortality is not taken into consideration. If the net reproduction rate calculated per one woman is less than one, the daughter's generation is smaller than the mother's generation and the mother's generation has not reproduced itself.

## 2. Methodological description of survey

The main source used when producing Finnish population statistics is the Population Information System of the Population Information Centre. Local register office updates a Population Information System with information it gets from persons experiencing vital events and parishes of the Evangelical-Lutheran and Greek Orthodox churches. Hospitals send information of births in machine-language format to maintenance of Population Information System. Local courts take information of decisions of adoptions and divorces dealt in the court into the Population Information System. Statistics Finland receives the updated data on vital events in machine-language format on a weekly basis.

The deadline for delivering data to Statistics Finland on vital events in the statistical year is the end of January of the following year. The exception to this is the data on stillbirths, which were expected by the end of September. Data on population changes in statistical year delivered to Statistics Finland after this date are included in the data of the following year. Data on events relating to years (statistical year-4) through to (statistical year-1) and reported between Februari (statistical year) and January (statistical year+1) are included in the statistical year data.

## Vital events of prior years included in the data for 2017

Total	2016	2015	2014	2013
27	22	3	1	1

### 3. Correctness and accuracy of data

In general, the Population Information System of the Population Register Centre can be considered very exhaustive as regards persons. In order that a person obtains a personal identity code, he or she has to be registered in the Population Information System. It is practically impossible to live in Finland without a personal identity code. A personal identity code is needed so that one can work legally, open a bank account, have dealings with authorities and so on. It can be safely assumed that Finland cannot have any substantial numbers of 'moonlighters' who receive their pay in cash for periods of over one year, for example. Staying in Finland for at least one year is the prerequisite for registering into the population of Finland.

After abolishment of yearly checking of domicile registers (January 1) in 1989 the Population Information System has been maintained only by notifications of changes to population information. Their correctness is determined by a reliability survey made on the addresses in the Population Information System.

The Population Register Centre charges Statistics Finland with the task of conducting yearly a sample survey on correctness of address information. Around 11,000 people are asked whether their address in the Population Information System is correct. In the 2012 survey, the address was correct for 98.9 per cent of the respondents. The nonresponse rate of the survey was 16.9 per cent.

Incorrect addresses influence population statistics by municipality only if the incorrect address is in a different municipality than the correct one. Only some of the incorrect addresses are also in an incorrect municipality. In connection with municipal elections, returned notifications of voting sent to foreigners usually reveal around 1,000 persons who have moved from the country without giving notice and are thus still included in the Finnish population. The Population Register Centre removes them from the resident population in the Population Information System before the following turn of the year.

### 4. Timeliness and promptness of published data

Final vital statistics are published yearly in April to May, except for those on stillbirths, which are available in October. Since 1999 the regional division used has been that of the first day of the following year. Thus the municipalities that unite on the first day of the new year are already combined in the statistics on the last day of the previous year. Information on the vital statistics of the united municipalities before the unification is available from 2003 onwards.

Preliminary population data by municipality are available by month.

[http://tilastokeskus.fi/til/vamuu/index\\_en.html](http://tilastokeskus.fi/til/vamuu/index_en.html)

### 5. Accessibility and transparency/clarity of data

Basic population data are available in electronic form by municipality or with larger regional divisions than municipality in Statistics Finland's free 'Population' online service (Statistical databases) at:

[http://tilastokeskus.fi/tup/tilastotietokannat/index\\_en.html](http://tilastokeskus.fi/tup/tilastotietokannat/index_en.html)

General information and long time series on the population of the whole country can be found from the home page of Demographic Statistics at: [http://tilastokeskus.fi/til/synt/tau\\_en.html](http://tilastokeskus.fi/til/synt/tau_en.html)

The chargeable information service contains more specified information about the population by sub-area of municipality, for example.

## 6. Comparability of statistics

Comparable regional vital statistics series are available free from 1987. The tables always indicate which regional division is used.

Vital statistics data on the numbers of births, deaths and marriages contracted are available from 1749 onwards. From 1773 there are data about mothers having given birth by five-year age group and from 1936 about all children born by age of mother. After the statistical revision of 1877 collection of data on deaths was started by one-year age group, which made it possible to begin calculation of accurate mortality and lifetime tables from the 1880s onwards. On account of this statistical revision, annual collection of data on migration and divorces was also started.

The population time series in the free “Population” online service begin from the year 1980 or 1987. Vital statistics time series for the whole country is available from 1749.

## 7. Coherence and consistency/uniformity

Statistics Finland’s other statistics use the data of demographic statistics as basic information on population. Consequently, Statistics Finland’s other statistics correspond to demographic statistics.

THL, the National Institute for Health and Welfare, maintains a register of births and publishes information about childbirths, births and newborn. The figures of THL differ somewhat from those of Statistics Finland. Statistics Finland's figures include among women giving birth those who are permanently resident in Finland at the time of the birth of the child, while the THL register of births contains all women having given birth in Finland and their children.

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Source: Births 2017. Statistics Finland