Statistics Finland

Births 2019

Annual review

Birth rate higher in rural areas, more births in urban areas

According to Statistics Finland's data on population changes, over the past ten years, the birth rate has been falling steadily both in rural and urban areas. The birth rate is clearly higher in rural areas, but its significance to the birth rate of the whole country has diminished as a result of urbanisation. Altogether 78 per cent of all persons born in 2019 were born in urban areas.





<u>The urban-rural classification</u> makes it possible to examine the birth rate regionally regardless of administrative boundaries. In the examination seven area categories are combined with rural areas (local centres in rural areas, rural areas close to urban areas, rural heartland areas, sparsely populated rural areas) and urban areas (inner urban area, outer urban area, peri-urban area).

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

In the 2010s, the birth rate has fallen more or less as strongly in rural and urban areas. The birth rate in rural areas has been clearly higher than in urban areas measured by the total fertility rate of both women

and men. The significance of the higher fertility rate in rural areas to the birth rate of the whole country has, however, diminished, because the share of the population of family age living in rural areas of the whole country's population of family age has been falling steadily over the past decades. The share of the population aged 15 to 49 in rural areas of the population of the same age in the whole country was 30 per cent in 2000, while that share had fallen to 22 per cent in 2019.

The difference between sexes in total fertility rate is bigger in rural areas than in urban areas. In 2010, the total fertility rate of women living in rural areas was 2.29, while that of men was 1.95. In 2019, women's total fertility rate had fallen to 1.73 and men's to 1.42. Of the family-age population (15 to 49) in rural areas, 53 per cent were men. In absolute numbers, there were 28,800 more men aged 15 to 49 in rural areas than women of the same age.

In urban areas, the total fertility rate of both women and men is relatively low. Women's total fertility rate has fallen by 2019 to 1.29 and men's to as low as 1.25. Slightly more of the population aged 15 to 49 living in urban areas were men, 50.7 per cent.

The low birth rate in urban areas is more strongly visible in the birth rate of the whole of Finland due to the concentration of the population to urban areas. In 2019, altogether 78 per cent of Finland's population aged 15 to 49 lived in urban areas. In addition, according to the more detailed regional division, 44 per cent of the population aged 15 to 49 lived in inner urban areas in 2019, where women's total fertility rate was lowest of all areas of the urban-rural classification, 1.1 children per woman. It should be noted concerning the development of the birth rate that Finland's level of urbanisation has grown steadily over the past decades (Population structure).

Birth rate varies by the mother's and father's common educational level

In the following, the birth rate is viewed according to the mutual educational level of the father and the mother. The births where no register data are available on their father (1,246 persons) have been excluded from the examination. The birth rate is measured here by the general fertility rate. The figure proportions births to the number of women of childbearing age (15 to 49) but does not take into account the age structure of women. It should be noted that for computational reasons the number of births here is only proportioned to married or cohabiting women (or couples) aged 15 to 49. The definition raises the fertility rates of groups somewhat, but the figures are still useful when comparing the birth rate of educational groups.

General fertility rate among married and cohabiting couples of different sexes by spouses' level of education in 2019 (couples with a woman aged 15 to 49)

Woman's level of education	Man's level of education						
	Basic education or unknown	Upper secondary education ¹	Tertiary education				
Basic education or unknown	152	128	96				
Upper secondary education ¹⁾	109	107	88				
Tertiary education	84	81	85				

1) Includes post-secondary non-tertiary education.

When the educational level of women and men is viewed together, the birth rate is higher for those with lower education in 2019. In couples where the educational level of both the woman and the man was basic or unknown, the fertility rate was high, 152 children per one thousand married/cohabiting couples with corresponding education. Also in couples where the woman's level of education was basic or unknown and the man had upper secondary level education, the general fertility rate was fairly high, 128 children per one thousand couples with corresponding education. Among women with upper secondary level education, the fertility rate was 107 children if the man had upper secondary level education and 109 children if the man's level of education was basic or unknown.

Birth rate higher when the spouses have the same level of education — also the man having higher education than his spouse is a benefit

Examined by educational group, having children was more common in 2019 for those married or cohabiting couples in which the spouses' levels of education are the same or close to each other. The number of such couples with a similar level of education was also higher than that of couples with a heterogeneous level of education.

When the general fertility rate is examined for couples where the educational level of the spouses differs from one another, the birth rate is found to be higher if the man's educational level is higher than that of the woman. When the man has tertiary level education and the woman has upper secondary level education, the general fertility rate is 88 children per one thousand corresponding couples. By contrast, the general fertility rate is 81 children if the woman has tertiary level education and the man has upper secondary level education. The same also occurs in other educational groups, such as for couples where one spouse has a tertiary level qualification and the other has basic or unknown level of education. Then the general fertility rate is 96 children per one thousand couples when the man has higher education than his spouse, but only 84 children when the woman has higher education.

With regard to the development of the birth rate, it should be noted that women's average level of education is higher in Finland than men's. Thirty-six per cent of all women aged 15 or over had attained tertiary level qualifications in 2019 (28 per cent of men). Twenty-five per cent of women and 28 per cent of men had basic level qualifications. In younger age groups (e.g. those aged 30 to 34) the differences were even bigger. (Educational structure of the population.) The gender gap in levels of education has been growing at least during 2017 to 2019 (StatFin, Educational structure of the population).

Fall in the birth rate slowed down slightly in all educational groups in 2019

When examining annual changes in the birth rate by level of education, it can be seen that in 2019 the drop in the birth rate was slightly smaller in all educational groups than in the previous year. For those with tertiary level education the annual change was 0.6 percentage points lower than in the year before, for those with upper secondary level education 2.8 percentage points and for those with basic level education 0.5 percentage points lower.



Total fertility rate of women born in Finland by level of education in 2006 to 2019

1. Includes post-secondary non-tertiary education.

The data concern here only mothers born in Finland. Some 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 decrease in the total fertility rate in the whole country that started after 2010 also continued in all women's educational groups in 2019. The fertility rate of women with basic level education has gone down by 33 per cent and that of women with tertiary level education by 30 per cent from 2010. The fertility rate has diminished slightly less among those with upper secondary level education, by 29 per cent.

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. It has been particularly big for men with basic level education, 40 per cent in nine years. Only in this educational group the change in 2019 was bigger than in 2018, though just a little (appendix figure 1).

Fall in the birth rate of first children slowing down is a sign of change

The total fertility rate can be broken down by the order number of the child born. The figure below shows that the birth rate for the first child fell only a little compared with the previous year. For example, in 2019, the fertility rate for the first child decreased by 0.8 per cent from the previous year, while in 2016 to 2018 the annual fall rate was five to six per cent.

For the second child, the birth rate continued to decrease at the same rate as in the previous year. For the third child, the birth rate decreased slightly less than in the year before, while for the fourth or more children the fall was nearly 10 per cent, which is clearly the biggest annual change in the fall in the birth rate that started after 2010. The share of children born in the fourth or higher order number is, however, smallest, 10 per cent of the birth rate.

The share of the first child in total fertility is highest, for example, since 1990 it has varied between 41 and 43 per cent. If the birth rate for the first child had fallen by five per cent in accordance with the previous year, total fertility would have fallen to 1.32 instead of 1.35 in 2019.



Total fertility rate broken down by birth order of child 1990-2019

The birth rate has declined considerably from 2010 by 2019. Measured by the total fertility rate, it has decreased in nine years by almost 28 per cent, from 1.87 to 1.35 children per woman. In terms of the number of births, this means a drop from 61,000 births in 2010 to 45,600 births in 2019. However, the decrease in the birth rate in recent years at the fairly steady annual rate of five per cent seems to have diminished, as the fall amounted to 4.2 per cent in 2019.

Finland's birth rate lowest in Nordic countries

Since 2014, Finland has had the lowest birth rate in the Nordic countries. In Finland, the birth rate has fallen in relative terms more steeply than in all the other Nordic countries since 2010. The birth rate continued to fall in all Nordic countries in 2019, except for Iceland, where the fall in the birth rate ended in 2018. In 2019, the birth rate rose slightly in Iceland from the previous year and was 1.75 children per woman.

Share of persons with Finnish background in the birth rate ever smaller

The share of women with Finnish background in the birth rate decreased by one percentage point to 85 per cent in 2019 when measured with the total fertility rate. In 2019, the total fertility rate for the whole country was 1.35 children per woman, of which the share of those with Finnish background was 1.15 children per woman. In 2010, the total fertility rate for the whole country was 1.87 children per woman, of which 1.72 were of Finnish background. It corresponded to 92 per cent of the birth rate in the whole country.



Total fertility rate broken down by mother's origin in 1990 to 2019

The share of persons with foreign background in the birth rate of the whole country has increased slowly from the 1990s and is currently 15 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 more slowly, however, and was slightly under 11 per cent at the end of 2019. However, the growth in the number of women with foreign background has been big, from close on 10,000 in 1990 to around twelve-fold, or 121,000 in 2019.

Further information about the birth rate according to origin is available on Statistics Finland's Immigrants and integration thematic pages in the section <u>birth rate</u>.

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Appendix table 1. Confinements by number of foetuses in 2000 to 2019

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	-				
2018	47 083	46 459	618	6	-				
2019	45 153	44 574	572	7	-				

Appendix table 2. Stillbirths by age of mother, marital status and birth order of child calculated from mother's all children 2019

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	61	33	17	4	7	65	21	18	19	7
- 19	1	-	-	1	-	-	-	-	-	-
20 - 24	11	8	3	-	-	4	2	-	2	-
25 - 29	15	9	4	-	2	13	3	7	3	-
30 - 34	18	7	7	-	4	22	10	5	4	3
35 - 39	13	8	3	1	1	20	3	6	9	2
40 - 44	2	-	-	2	-	6	3	-	1	2
45 -	1	1	-	-	-	-	-	-	-	-

Appendix figures

Appendix figure 1. Total fertility rate of men born in Finland by level of education in 2006 to 2019 ¹



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 2019 concerning fathers. For around one per cent of children, information on fathers is completely missing.2. Includes post-secondary non-tertiary education.

Quality description, births 2019

1. Relevance of statistical information

The main source used when producing Finnish population statistics is the Population Information System, which is maintained by the Digital and Population Data Services Agency and the state department of Åland. From 1975 Statistics Finland has obtained population data from the Digital and Population Data Services Agency (former 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 Digital and Population Data Services Agency (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.

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.

Births

'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. (Statute, 128/2010).

Births must be reported to the Population Information System at the latest on the day following the birth or at the latest on the day after the child's birth has been reported to the health care unit or health care professionals.

The Digital and Population Data Services Agency 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 Digital and Population Data Services Agency. A Population Information System is uppdated with information it gets from persons experiencing vital events and parishes of the Evangelical-Lutheran and Greek Orthodox churches. Hospitals send information of births to the maintenance of the 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 on a weekly basis from the Population Register Centre.

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 February (statistical year) and January (statistical year+1) are included in the statistical year data.

Starting from the statistical reference year 2018, additions or corrections are expected to the background data in the population change data until the end of February following the statistical reference year. The total number of vital events established at the end of January does not change, however, but the aim of the additions and corrections is to improve the quality of the data.

3. Correctness and accuracy of data

In general, the Population Information System of the Digital and Population Data Services Agency 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 difficult 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 Digital and Population Data Services Agency has charged Statistics Finland with the task of conducting 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 most recent survey in 2012, the address was correct for 98.9 per cent of the respondents.

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 local register office 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.

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

General information and long time series on the population of the whole country can be found from the home page of Demographic Statistics at: <u>http://tilastokeskus.fi/til/synt/tau_en.html</u>

Population statistics from 1750 have been digitised into PDF format in the National Library's Doria service:

Publications on Population structure and Vital statistics in Doria (in Finnish). Publications on Population censuses in Doria (in Finnish).

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 time series are available free in the StatFin online database service. 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 1776 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 from 1878.

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 parturients, deliveries and newborns. 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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