

Statistical bulletin

Childbearing for women born in different years, England and Wales: 2016

The changing composition of families over time, comparing the fertility of women of the same age and the number of children they have had.



Contact:
Emily Knipe
pop.info@ons.gsi.gov.uk
+44 (0)1329 44 4661

Release date:
24 November 2017

Next release:
November 2018

Table of contents

1. [Main points](#)
2. [Statistician's comment](#)
3. [Things you need to know about this release](#)
4. [Women have fewer children than previous generations and more of them remain childless](#)
5. [Childbearing at older ages increases while teenage childbearing falls](#)
6. [Links to related statistics](#)
7. [Quality and methodology](#)

1 . Main points

- The average completed family size for women born in 1971, and reaching age 45 years in 2016, was 1.90 children per woman, the lowest level recorded.
- The level of childlessness among women born in 1971 (18%) was higher than for women born in 1944 (11%).
- The most common number of children for women born in 1971 was two children.
- For women born in 1971, around one in ten had four or more children this compared with around one in eight for women born in 1944.
- Only 6% of women born in 1996 had at least one child before their 20th birthday, matching levels seen for cohorts in the 1920s.

2 . Statistician's comment

"Women born in 1971 who completed their childbearing in 2016 had an average 1.90 children per woman, fewer than their mothers' generation (born 1944) who had 2.21 children, and the lowest level on record. Childlessness was higher for the 1971 cohort (18%) than for the 1944 cohort (11%), which is one of the main drivers of falling completed family sizes by the end of childbearing."

Emily Knipe, Population Statistics Division, Office for National Statistics.

Follow Population Statistics Division on Twitter [@RichPereira_ONS](https://twitter.com/RichPereira_ONS)

3 . Things you need to know about this release

This release presents statistics on childbearing among women in England and Wales by the year of birth of the mother, rather than year of birth of the child. A group of women with the same year of birth are referred to as a "cohort" throughout.

"Cohort fertility" analyses compare the fertility levels of current generations of women of childbearing age with previous generations. This covers changes in average family size, levels of childlessness, and the proportions of women having one, two or more children.

Completed family size is the average number of live-born children for women who are assumed to have completed their childbearing. This is a cumulative measure derived from summing the fertility rates of female birth cohorts at each age from 15 to 45 and over.

A woman's childbearing is assumed to start at age 15 years and end at the age of 45 (the day before her 46th birthday). The estimates have been updated with 2016 births, which means that completed family size for women born in 1971 (women reaching age 45 years in 2016) is presented for the first time. Women born in 1986, who reached age 30 years in 2016, are also used as a comparison group, as age 30 years may be considered the mid-point of a woman's childbearing years.

The ages of women are presented in “exact years”. Therefore figures should be interpreted as the average number of children a woman has had up to that birthday. So childbearing up to exact age 30 years includes cumulative fertility through her lifetime up to the day before her 30th birthday. Any childbearing in the 12 months from her 29th birthday onwards will be included in fertility up to exact age 30 years.

4 . Women have fewer children than previous generations and more of them remain childless

Table 1 shows the average family size and estimated family size distribution for women who have completed their childbearing years in 2016, and of the cohort assumed to be their mothers. The mothers of the 1971 cohort will be from a number of previous cohorts; for comparison purposes the 1944 cohort is assumed to be their mothers' generation because the average age of mothers giving birth in 1971 was 27 years, and so women of that age were assumed to be born in 1944.

The completed family size of the 1971 cohort is much smaller than for the 1944 cohort and the proportion of women remaining childless is much higher for the 1971 cohort.

Table 1: Average family size and estimated family size distribution for women who have completed their childbearing, by year of birth of woman, selected cohorts

England and Wales, 2016							
Year of birth of woman ²	Average completed family size	Number of live-born children (percentages) ¹					Total ³
		0	1	2	3	4+	
1944	2.21	11	13	42	21	13	100
1971	1.90	18	18	37	17	10	100

Source: Office for National Statistics

Notes:

1. Percentage of women with 0, 1, 2, 3 or 4+ children who have completed their families.
2. The 1971 cohort is the latest group assumed to have completed their childbearing. The 1944 cohort is assumed to be their mothers' generation because the average age of mothers giving birth in 1971 was 27 years, and women of that age were born in 1944.
3. Figures may not add exactly due to rounding.

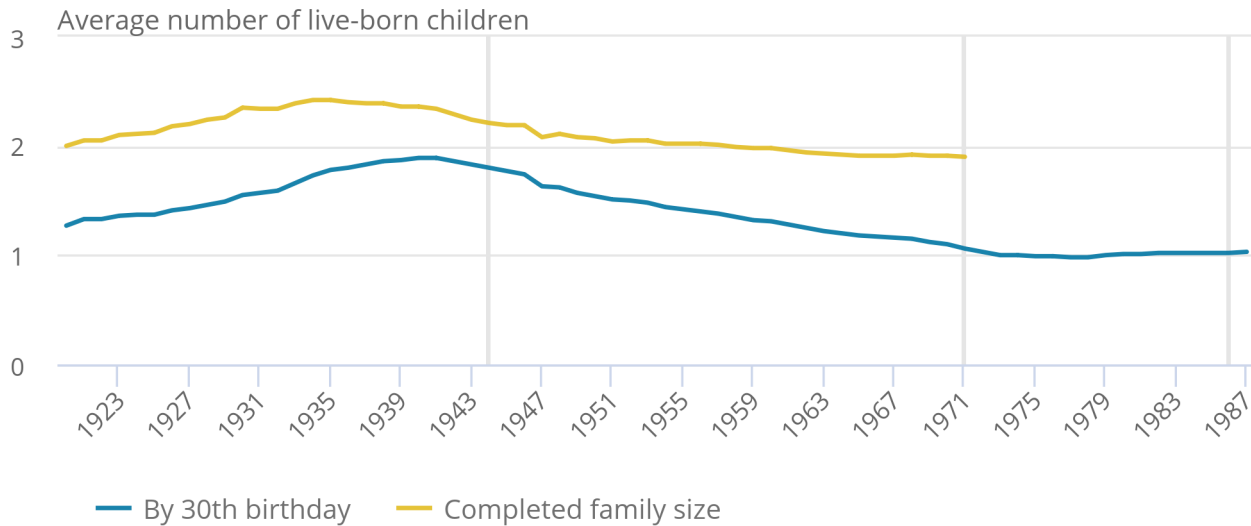
The 1971 cohort had on average 1.90 children, continuing a decline over the last few years from 1.92 in the 1968 cohort (Figure 1). This is the lowest level since the series began. Average completed family size peaked at 2.42 children for women born in 1935 and has been falling since. Women belonging to the 1958 cohort were the first estimated to have an average completed family size of fewer than two children over their childbearing lifetime.

Figure 1: Average number of live-born children by age 30 and completed family size, by year of birth of woman, 1920 to 1987

England and Wales

Figure 1: Average number of live-born children by age 30 and completed family size, by year of birth of woman, 1920 to 1987

England and Wales



Source: Office for National Statistics

Notes:

1. The 1944 cohort is assumed to be their mothers' generation because the average age of mothers giving birth in 1971 was 27 years, and so women of that age were assumed to be born in 1944.

The average number of live-born children that women have by their 30th birthday gives an indication of more recent trends in family size. Although, as women delay childbearing to older ages, the number of live-born children a woman may have by her 30th birthday will become less indicative of trends in family size.

Overall, women born in the 1960s onwards had fewer children by age 30 years than previous generations (Figure 1). The 1971 cohort had 1.06 children on average by their 30th birthday, compared with 1.80 by the same age for their mothers' generation, the 1944 cohort. This reflects their postponement of childbearing to older ages, for reasons including:

- increased participation in [higher education](#)
- [delayed marriage and partnership formation](#)
- the desire to establish a career, get on the housing ladder and ensure financial stability before starting a family

Figure 1 also shows how the relationship between the average number of children by age 30 years and completed family size has changed.

For the 1920s and early 1930s cohorts, the average number of children by age 30 years increased steadily. This was mirrored by similar increases in completed family sizes by the end of childbearing. Completed family sizes started to decline for the 1935 cohort onwards, whereas the average number of children by age 30 years only started to decline for the 1940 cohort onwards, suggesting that these cohorts were having fewer children in total but still having children at younger ages. Since the peak in each measure, the average number of children by age 30 years has fallen faster than completed family size. For the 1950s and 1960s cohorts, decreases in the average number of children by age 30 years indicated the delay of childbearing to older ages, with declines in completed family sizes being associated with increasing levels of childlessness (Figure 2).

Since the 1979 cohort, the average family size by a woman's 30th birthday has increased from 1.00 to 1.02 for women born in 1982 and has thereafter remained unchanged for the women born from 1983 to 1986 who have reached age 30 years.

This is mainly because women from all cohorts between 1979 and 1986 have had higher fertility rates in their late 20s than those born in 1978 (Figure 4). Possible reasons for this increase include the changes in support for families introduced by previous governments (such as tax credits and maternity and paternity leave)¹ and the increasing proportion of women aged 25 to 29 years who were born outside the UK (with fertility above the UK born average)².

Decreases in completed family size between the 1944 and 1971 cohorts are mainly due to rising levels of childlessness. By the end of their childbearing years, 18% of women born in 1971 remained childless whereas 11% of women born in 1944 remained childless.

The level of childlessness is relatively high for the women born in 1971 compared with their mother's generation (1944), although comparable levels have been seen before for the cohorts born in the 1920s. Increasing childlessness in recent cohorts may be due to a decline in the proportion of women married, changes in the perceived costs and benefits of child-rearing versus work and leisure activities, greater social acceptability of a childfree lifestyle, and the postponement of decisions about whether to have children until it may be biologically too late³.

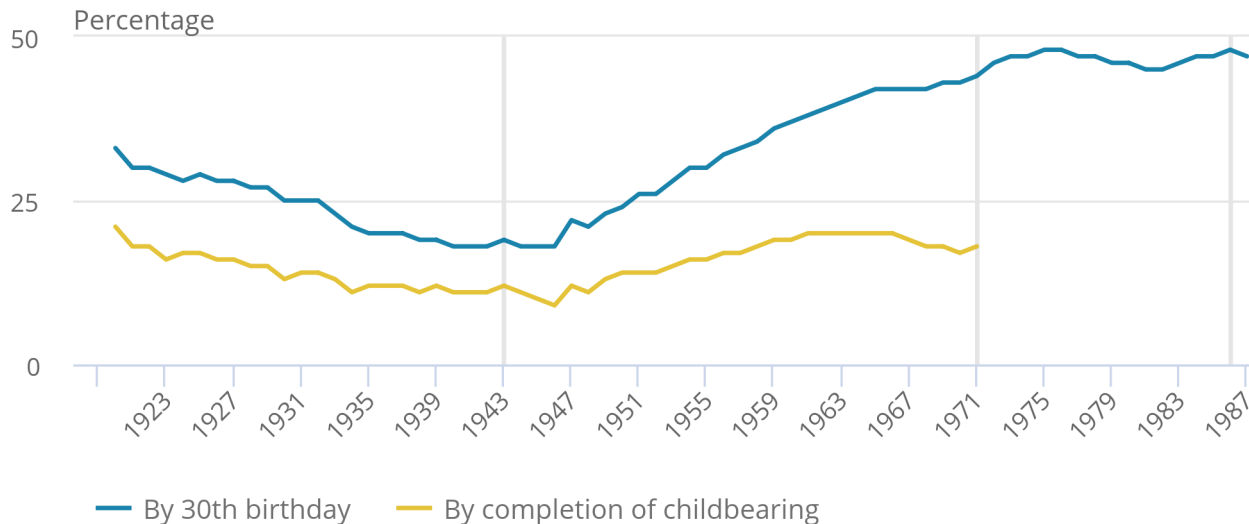
Figure 2: Percentage of women remaining childless by their 30th birthday and completion of childbearing, by year of birth of woman, 1920 to 1987

England and Wales

198

Figure 2: Percentage of women remaining childless by their 30th birthday and completion of childbearing, by year of birth of woman, 1920 to 1987

England and Wales



Source: Office for National Statistics

Notes:

1. The 1944 cohort is assumed to be their mothers' generation because the average age of mothers giving birth in 1971 was 27 years, and so women of that age were assumed to be born in 1944.

By their 30th birthday, 48% of the 1986 cohort were childless, a higher proportion than for the 1971 cohort at the same age (44%). This further highlights the trend that women have been increasingly delaying having children to older ages.

The level of childlessness at age 30 years had been falling for successive cohorts born from 1975 to 1982. For those reaching age 30 years, from the 1982 cohort onwards, the level of childlessness has been increasing again.

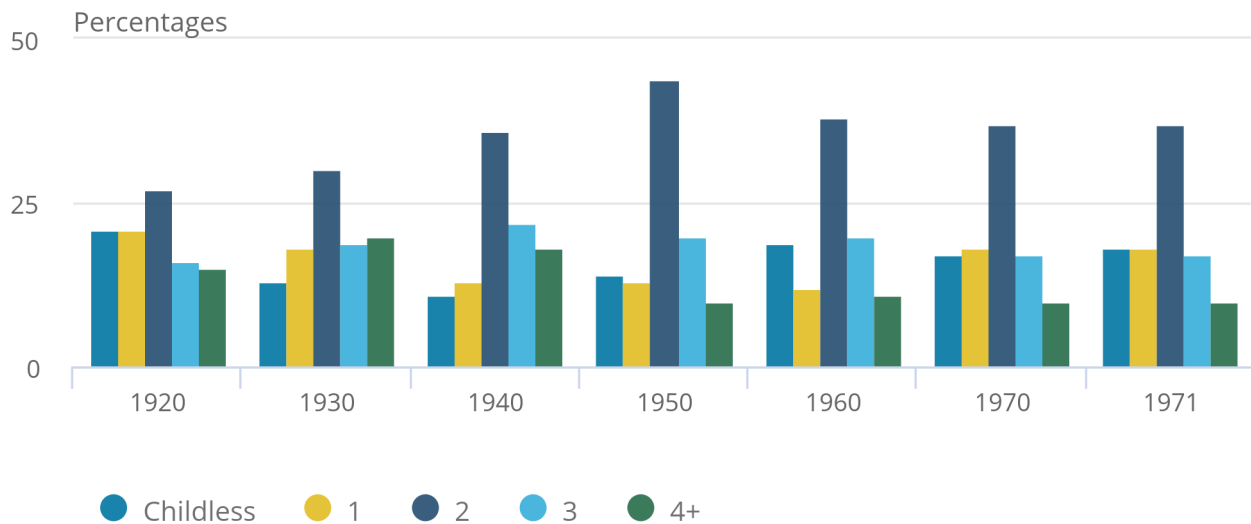
Although the levels of overall childlessness seen for the 1971 cohort are similar to the levels seen for cohorts born in the 1920s, the distribution of the number of children women have can vary (Figure 3).

Figure 3: Estimated family size distribution for women born between 1920 and 1971 who are assumed to have completed their childbearing

England and Wales

Figure 3: Estimated family size distribution for women born between 1920 and 1971 who are assumed to have completed their childbearing

England and Wales



Source: Office for National Statistics

While the two child family remains the most common family type in England and Wales, with 37% of women born in 1971 having two children, the prevalence is below the peak of 44% for the 1950 cohort.

Families with no children or families with one child were the next most common for women born in 1971 at 18% each. Only 1 in 10 women born in 1971 had four or more children, compared with nearly one in five in the 1940 cohort.

Notes for Women have fewer children than previous generations and more of them remain childless:

1. For more information on fertility assumptions, please see [Fertility assumptions for the 2006-based national population projections](#) and [2014-based Fertility assumptions for the national population projections](#).
2. For more information on childbearing, see [Childbearing among UK born and non-UK born women living in the UK: 2011](#) and [Childbearing of UK and non-UK born women living in the UK, 2011 Census data](#).
3. For reasons for increasing childlessness, see a number of articles: [Fertility and partnership status in the last two decades](#); [Postponement and childlessness: Evidence from two British cohorts](#) (PDF 279.15KB); [Voluntary childlessness and being Childfree: The Future of Human Reproduction: Working Paper #5](#) (PDF 853.55KB); [Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour](#) (PDF 174.65KB) and [Delayed childbearing and childlessness in Britain](#).

5 . Childbearing at older ages increases while teenage childbearing falls

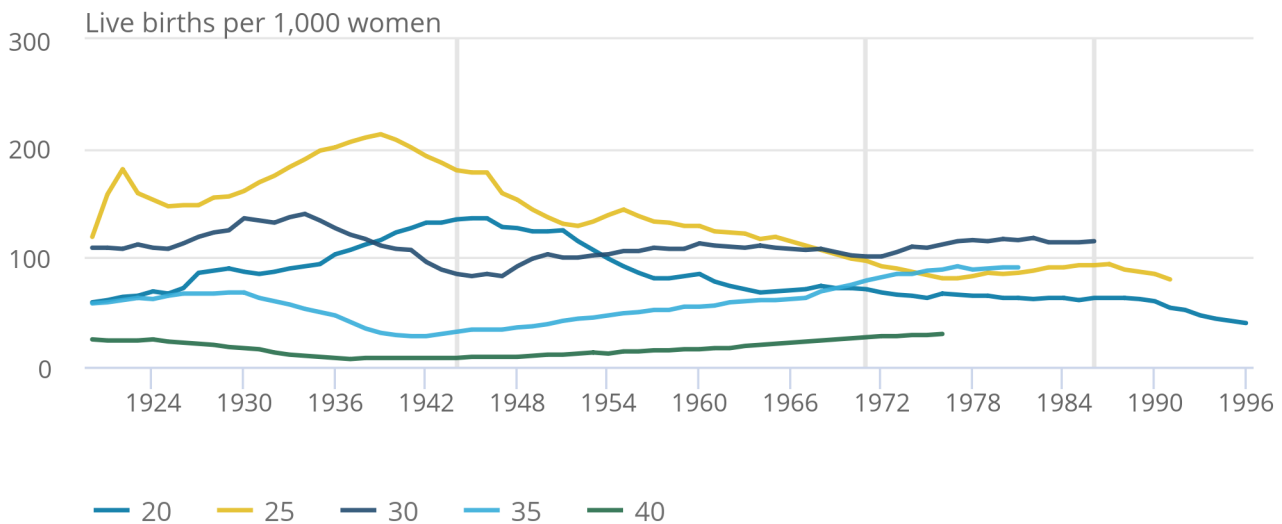
The fertility rates of selected cohorts at particular age milestones highlight how the age distribution of women giving birth has changed over time.

Figure 4: Age-specific fertility rates at selected ages, by year of birth of woman, 1920 to 1996

England and Wales

Figure 4: Age-specific fertility rates at selected ages, by year of birth of woman, 1920 to 1996

England and Wales



Source: Office for National Statistics

Notes:

1. These data are presented by age in completed years, which differs from other figures within this bulletin.
2. The 1944 cohort is assumed to be their mothers' generation because the average age of mothers giving birth in 1971 was 27 years, and so women of that age were assumed to be born in 1944.

The 1971 cohort experienced their highest fertility rate at the age of 30 years, closely followed by age 25 years. The 1971 cohort are the second cohort, after the 1970 cohort, for which fertility is higher at age 30 years than at age 25 years. This pattern has continued for later cohorts. Lower fertility rates were recorded at ages 20 and 35 years, while the number of live births per 1,000 women at the age of 40 years was lower still.

In comparison with the 1944 cohort, the 1971 cohort had much lower fertility at ages 20 and 25 years. At older ages, the 1971 generation had higher fertility rates, as shown at ages 35 and 40 years. However, this recuperation at older ages was not sufficient to catch up with the larger completed family size of the 1944 cohort, who had 2.21 children per woman on average compared with 1.90 children per women on average for the 1971 cohort.

Age-specific fertility rates for the 1986 cohort are currently only available up to the age of 30 years. For this cohort, fertility rates at age 30 years were higher than for the 1971 cohort, but were to an extent similar to those for other early 1980s cohorts. In contrast, fertility rates at age 20 and 25 years for the 1986 cohort were lower than those seen for the 1971 cohort.

Fertility at age 25 years hit a low for women born in 1976 before rising slightly among cohorts born between 1978 and 1987, reflecting increases in average family size by age 30 years for these cohorts (Figure 1). Fertility at age 25 years has continued to fall for the most recent cohorts.

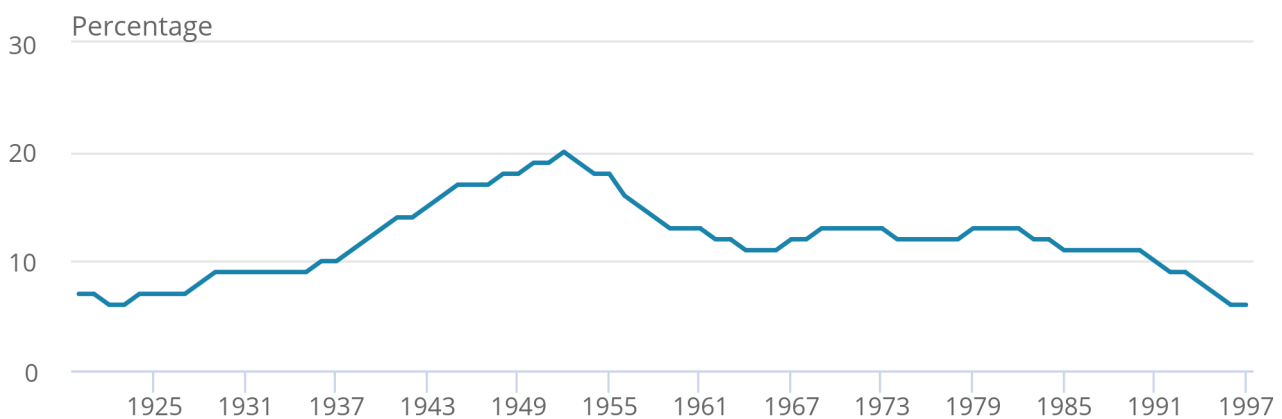
If recent trends in childbearing at older ages continue, the 1986 cohort would be expected to have an older average age at childbearing than the 1971 cohort.

Figure 5: Percentage of women who have had a child by their 20th birthday, by year of birth of woman, 1920 to 1997

England and Wales

Figure 5: Percentage of women who have had a child by their 20th birthday, by year of birth of woman, 1920 to 1997

England and Wales



Source: Office for National Statistics

The proportion of women who have had a child by age 20 years has been gradually decreasing for recent cohorts. From a peak of around one in five for women born in 1952, it has declined to 1 in 17 women for those born in 1996, the most recent cohort to reach age 20 years. This shows that the proportion of women becoming teenage mothers is falling, though the level of teenage motherhood remains the same as that of the cohorts born in the early 1920s, when around 6% of women had a child by age 20 years. This fall in the proportion of teenagers becoming mothers has accompanied recent falls in the annual number of teenage conceptions.

Conception statistics include all pregnancies of women usually resident in England and Wales that lead to either a live birth, still birth or an abortion under the 1967 Act. The most recent figures on [under 18 conception rates for England and Wales](#) show that in 2015, the rate was 21.0 conceptions per 1,000 women aged 15 to 17 years, which is the lowest level since records began in 1969 (a decrease of more than 50% since then). Teenage conception and birth rates are used widely as outcome indicators in the sexual health context.

6 . Links to related statistics

More details on teenage conceptions can be found in the annual [ONS conceptions release](#).

International comparisons of live birth rates are available in the [Vital statistics: population and health reference tables](#).

Annual summary birth statistics for the UK and its constituent countries can also be found in the [Vital statistics: population and health reference tables](#).

For information on data quality, legislation and procedures relating to birth statistics, please see the [User guide for birth statistics](#).

7 . Quality and methodology

This release was previously called “Cohort Fertility” and was renamed as “Childbearing for women born in different years” in 2013.

The Births [Quality and Methodology Information](#) report contains important information on:

- strengths and limitations of the data and how it compares with related data
- uses and users of the data
- how the output was created
- the quality of the output: including the accuracy of the data

During May 2012, changes were made to the Population Statistics Act 1938, which means that information on the number of previous children and whether previously married is now collected from all mothers at birth registration and not just from married women. This change highlighted an issue with the number of previous children being reported at birth registration, which Office for National Statistics [noted at the time](#).

In January 2016, an improvement was made to the registration system to rectify this issue; although this change will have no effect on the figures reported in this bulletin (latest data are for 2016). We are currently monitoring the effect that the further improvement to the question has had on the number of previous children being reported. We will update the analysis in the paper as soon as we are able to do so.

The methods used to create cohort fertility require use of data collected at birth registration from women on the number of previous children they have had. At present, the birth registration system does not collect information on the number of previous children a man has had. Without this information it is not possible to produce estimates of the proportion of men who have not fathered a child.

It is also important to note that a man's reproductive span is not as well defined as a woman's, in terms of the upper age at which a man can father a child, and so this means we would need a longer time series to calculate cohort measures. Male period fertility rates can be found in [Births by parent's characteristics](#).

The [revisions policy](#) for population statistics is available on our website.

Further information on the data sources and methods for producing this output can be found in the metadata tab of the [data tables](#).

[National Records of Scotland](#) provides more detailed birth statistics for Scotland, including [cumulative fertility by cohort](#).

The Northern Ireland Statistics and Research Agency provides more detailed [birth statistics](#) for Northern Ireland, including cumulative fertility by cohort.

Special extracts and tabulations of births data for England and Wales are available to order for a charge (subject to legal frameworks, disclosure control, resources and agreements of costs, where appropriate). Such enquiries should be made to Vital Statistics Outputs Branch via email at vsob@ons.gov.uk or telephone on +44 (0)1329 444 110.

Enquiries on Childbearing for women born in different years, England and Wales, should be made to the Demographic Analysis Unit via email at pop.info@ons.gov.uk or telephone on +44 (0)1329 444 661.