



Cohort fertility

2009

Date: 9 December 2010

Coverage: England and Wales **Theme:** Population

This bulletin presents statistics on childbearing patterns of women in England and Wales. These figures are presented by the year of birth of mother rather than by the year of birth of child and include the latest data available for 2009.

Key Findings:

- The average completed family size for women born in 1964 and completing their childbearing in 2009 was 1.9 children per woman. This compares with their mothers' generation, represented by women born in 1937, who had on average 2.4 children
- Levels of childlessness among women born in 1964 are higher than for women born in 1937. One in five women born in 1964 remained childless, compared with one in eight born in 1937
- Two children was the most common family size for women born in both 1937 and 1964. One in ten women born in 1964 had four or more children, compared with twice as many women born in 1937

Table A Average family size and estimated distribution of number of live-born children at age 45: selected cohorts

England and Wales

Year of birth of woman [#]	Average Family Size	Number of live-born children (percentages)*				
		Childless	1	2	3	4+
1937	2.39	12	14	33	22	19
1964	1.92	20	12	38	19	10

* Percentage of women with 0, 1, 2, 3, 4+ children by their 46th birthday.

[#] 1964 cohort is the latest group assumed to have completed their childbearing. The average age of mothers giving birth in 1964 was 27 years, and women of that age were born in 1937.

Source: Tables 1 and 3, Cohort fertility, ONS

What is cohort fertility?

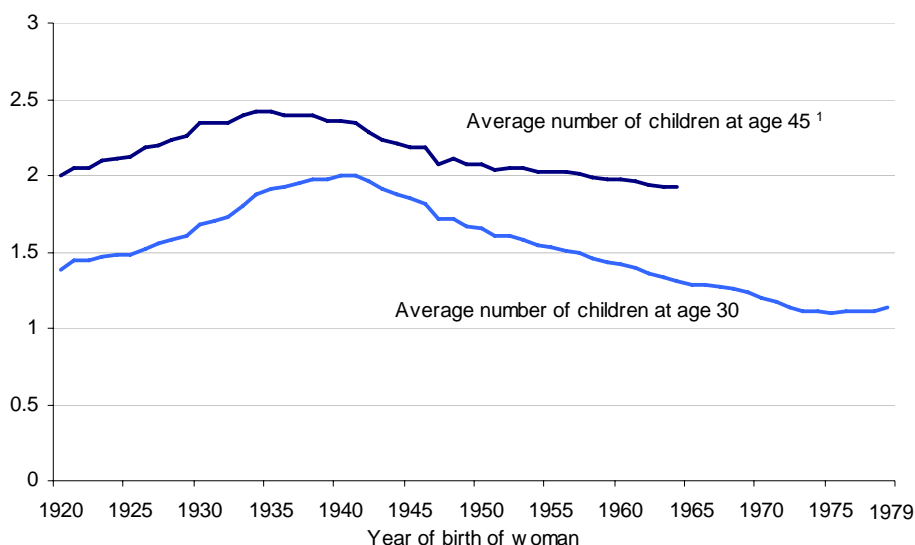
A cohort is a group of women born in the same year. Cohort fertility analysis explores whether current generations of women of childbearing age are reaching, exceeding or falling short of the fertility levels of previous generations.¹ This bulletin contains statistics on levels of childlessness for different cohorts of women, changes in average family size and the proportions of women having one, two, three or more children.

The key cohort used for comparison here is women born in 1964, who were aged 45 in 2009. This is the most recent cohort that is assumed to have completed their childbearing.² The analysis compares the completed family size of women born in 1964 with that of their mothers' generation. The average age of mothers giving birth in 1964 was 27 years, and women of that age were born in 1937. The fertility of the most recent cohort to reach age 30 (those born in 1979) is also compared with previous cohorts at that age.

Average family size

The average number of live-born children a woman has by the end of her childbearing years has been falling for recent cohorts (Figure 1). Women born in 1964 had on average 1.92 live-born children. This compares with women born in the 1930s and 1940s, who had on average between 2.1 and 2.4 children. Cohorts of women born from 1958 onwards have had on average fewer than 2 children per woman. This decrease is mainly due to rising levels of childlessness.

Figure 1 Average number of live-born children at age 30 and at age 45
England and Wales



¹ Completed family size.

Source: Table 1, Cohort fertility, ONS

The commonly-known figure of ‘2.4 children’ is representative of women born in the mid-1930s to early 1940s who are now aged in their early-to-mid seventies, and does not apply to later cohorts of women born in the 1950s and 1960s.

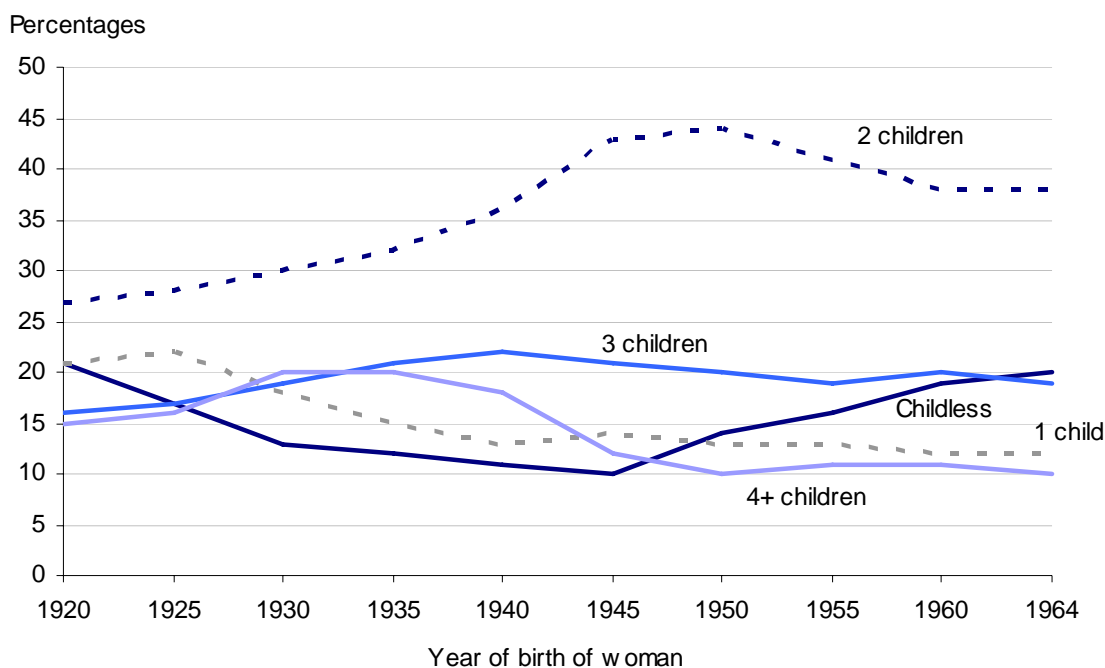
To get an indication of more recent trends in family size, the average number of children women have had at age 30 can be used.³ Overall, women born in the 1960s and 1970s have had fewer children at age 30 than previous generations. However, Figure 1 shows a slight upturn for the 1979 cohort. This is due to a higher proportion of women born in 1979 starting their families in their twenties compared with those born in the early-to-mid 1970s. However it is too early to say whether this upturn will be sustained.

Childlessness

Women may reach the end of their childbearing years with no children (childless) for a variety of reasons. Childlessness is estimated as the proportion of women who have not had a live birth.⁴

Figure 2 shows that the level of childlessness for women born in 1964 is at a 44-year high and comparable with that of women born in 1920. One in five women born in 1964 (and 1920) remained childless by the end of their childbearing years compared with one in eight women born in 1937.

Figure 2 Family size distribution at age 45, women born 1920 to 1964
England and Wales



Source: Table 3, Cohort fertility, ONS

Number of children

Despite some fluctuation the traditional two-child family remains the most common family type, with 38 per cent of women born in 1964 having two children (Table B). After two children, the most common family sizes for women born in 1964 were no children or three children (20 and 19 per cent respectively). Only one in ten women born in 1964 had four or more children, compared with nearly one in five in 1937 (Table A).

Table B Average family size and estimated distribution of number of live-born children at age 45: by woman's year of birth

England and Wales

Year of birth of woman	Average Family Size	Number of live-born children (percentages)*				
		Childless	1	2	3	4+
1920	2.00	21	21	27	16	15
1925	2.12	17	22	28	17	16
1930	2.35	13	18	30	19	20
1935	2.42	12	15	32	21	20
1940	2.36	11	13	36	22	18
1945	2.19	10	14	43	21	12
1950	2.07	14	13	44	20	10
1955	2.02	16	13	41	19	11
1960	1.98	19	12	38	20	11
1964	1.92	20	12	38	19	10

* Percentage of women with 0, 1, 2, 3, 4+ children by their 46th birthday.

Source: Table 3, *Cohort fertility*, ONS

Only 12 per cent of women completing their childbearing in 2009 had one child. Only children were most common for women born in the 1920s, where around one-fifth had a one-child family. For women born in the years from 1937 to 1964, between 12 and 14 per cent had only one child by the age of 45.

Summary

- Women born in 1964 had on average smaller families than previous generations (1.92 children per woman). This was mainly due to higher levels of childlessness (20 per cent) and a smaller proportion having large families of four or more children (10 per cent)
- Conversely, their mothers' generation, born in 1937, had on average larger families (2.39 children per woman). They had lower levels of childlessness (12 per cent) compared with their daughters' generation, and nearly twice as many large families of four or more children (19 per cent)

Further releases on live births in England and Wales published 9 December 2010:

- Live births by socio-economic status of father – presents data on birth registrations in England and Wales by National Statistics Socio-economic Classification (NS-SEC) of father as defined by occupation
- Further parental characteristics – package contains age-specific fertility rates for men; the mean age of father; and paternities within/outside marriage. See ‘Characteristics of mother 1’ for birth statistics by age of mother, type of registration (within marriage, joint, sole), and number of previous live-born children
- Characteristics of mother 2 – package contains live birth statistics by marital status; first live births within marriage by marriage duration; live births within marriage by age of mother and number of previous live-born children

Key Findings from these releases:

- The standardised mean age of father at birth of child increased by over two and a half years from 29.8 years in 1979 to 32.4 in 2009.^{5,6} The standardised mean age of mother increased by the same amount, from 26.8 in 1979 to 29.4 in 2009
- For men, the 30–34 age group had the highest fertility rate in 2009, the same age group that had the highest fertility rate for women. Previously, men in their mid-to-late twenties had the highest fertility rate but were overtaken in the early 1990s by men in their early thirties. The same trend occurred among women a decade later, with the fertility of women in their early thirties overtaking that of women in their mid-to-late twenties in 2004.
- Women under 30 have a higher percentage of births outside marriage than older women, with the highest proportions at the youngest ages: In 2009, 95 per cent of births to women aged under 20 occurred outside marriage, compared with 56 per cent of births to women in their twenties, 29 per cent of births to women in their thirties and 36 per cent of births to women aged 40 and over
- Over the last decade, the largest increase in the proportion of births outside marriage occurred among 20 to 24-year-olds, rising from 61 per cent in 1999 to 74 per cent in 2009. The proportion of births to women aged 25 to 29 that occurred outside marriage also increased markedly, from 34 per cent in 1999 to 44 per cent in 2009

Further information

More detailed tables, commentary and interpretation for ‘Cohort fertility’, and all other published birth statistics for 2009 can be found at:

www.statistics.gov.uk/statbase/Product.asp?vlnk=14408

This includes:

- detailed data tables on live births in England and Wales in 2009,
- further statistical bulletins:
 - Births and deaths in England and Wales, 2009
 - Births in England and Wales by parents' country of birth, 2009
 - Births in England and Wales by characteristics of mother, 2009
 - Births in England and Wales by characteristics of birth, 2009
- information on data quality, legislation and procedures relating to birth statistics

Births metadata 2009 can be found at:

www.statistics.gov.uk/statbase/Product.asp?vlnk=14408

For frequently asked questions on births and fertility, please see:

www.statistics.gov.uk/downloads/theme_population/FAQbirthsfertility.pdf

The latest birth statistics for Northern Ireland can be found at:

www.nisra.gov.uk/demography/default.asp8.htm

The latest birth statistics for Scotland can be found at:

www.gro-scotland.gov.uk/statistics/births/index.html

Background Notes

Footnotes to text

1. Cohort fertility analysis allows the fertility experience of a group of women sharing the same birth year (a cohort) to be traced through time and compared with the experience of other cohorts. Statistics relating to the family building of women born in given years shed light on the trends underlying year-to-year movements in fertility and are particularly valuable in helping to formulate models of future fertility.
Period measures of fertility, such as the total fertility rate (TFR), provide a timely snapshot of the intensity of childbearing in a particular year. However the TFR should not be interpreted as a measure of family size because it is affected by the timing of childbearing. The TFR is likely to under or overestimate average family size during periods where women are delaying having children or later catching up. Cohort fertility analysis may not be as timely, but provides an accurate measure of trends in family size.
The TFR in England and Wales of 1.96 children per woman in 2009 represents the current level of childbearing. The average family size of 1.92 children is for women who have completed their childbearing in 2009. The two measures should not be directly compared for the reasons noted above.
2. A woman is assumed to have completed her childbearing at age 45 (by 46th birthday).
3. Age of women is measured in completed years, so number of children 'at age 30' means children born up to (by) their 31st birthday.
4. At birth registration, the number of previous births is only collected from married women. This partial information on birth order from registration data is supplemented with data from the General Lifestyle Survey (formerly known as the General Household Survey) to give estimates of true birth order for all women. More information is available from the metadata in the 'Cohort fertility' package: www.statistics.gov.uk/statbase/Product.asp?vlnk=14408
5. Measures of male fertility are estimated. The age of the father is not collected for births that are registered solely by the mother (6.2 per cent in 2009), therefore these ages are estimated. More information is available from the metadata in the 'Further parental characteristics' package: www.statistics.gov.uk/statbase/Product.asp?vlnk=14408
6. The standardised mean age is a measure which allows fertility trends to be separated out from the effects of changes in the population's age structure. It is therefore useful for comparing mean ages across population subgroups and over time.

General notes

7. ONS is currently consulting on its work programme for the next four years; the consultation is available at: www.ons.gov.uk/work-programme-consultation
8. Details of the policy governing the release of new data are available from the media office.

9. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

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