



# Educational differences in childbearing widen in Britain

How does women's education influence whether they have children or not, how old they are when they have their first child and how many children they go on to have? How has this changed over time for mothers born between 1940 and 1969? This research finds that educational differences in childbearing have increased over time.

## Key Points

- Completed family size has fallen from 2.23 children for women born in the 1940s, to 1.99 for women born in the 1960s;
- Educational differences in family size have widened over time with higher educated women having fewer children;
- Twice as many degree-educated women remain childless as those with less than secondary-level qualifications;
- The educational difference in the likelihood of going on to have a third child has increased.
- Women who postpone their childbearing to later ages achieve fewer births than those who become mothers at younger ages and this relationship has not changed significantly for recent cohorts.

## Introduction

British women are starting their families at increasingly later ages. Childlessness is also relatively common. Nonetheless, Britain has one of the highest fertility levels in Europe. In this research we show that these overall trends reflect different childbearing patterns according to mothers' education. More educated women especially tend to delay childbearing to later ages. Evidence suggests that these women still want relatively large families. It is thus important to

examine the extent to which women today are able to 'catch up' their childbearing if they postpone motherhood. If this is happening, we would expect to see women who have their first child later in life eventually having more children than women of previous generations who postponed childbearing. Evidence suggests that this is indeed happening in other European countries, but our research uses new data to investigate these processes in the UK for the first time.

Table 1: Educational gradient in number of achieved live births. Britain, 1940-49, 1950-59 and 1960-69 birth cohorts.

Birth cohort	Number of births	% of women by highest educational qualification				Total
		Less than 'O' level	'O' level	'A' level	Degree	
1940-49	0	8.4	10.9	13.4	18.5	10.4
	1	12.7	12.6	12.8	12.3	12.7
	2	39.7	48.0	42.3	42.7	41.5
	3	22.7	20.5	21.5	19.2	21.9
	4+	16.5	8.1	10.0	7.3	13.6
1950-59	0	10.0	13.7	16.0	20.6	14.0
	1	14.4	15.3	15.1	13.4	14.6
	2	39.5	42.5	42.1	42.1	41.2
	3	21.3	19.3	18.0	18.2	19.6
	4+	14.8	9.2	8.7	5.7	10.7
1960-69	0	10.2	12.4	15.7	22.0	15.1
	1	14.4	15.9	16.6	16.9	16.0
	2	35.9	39.6	40.5	39.4	39.1
	3	22.1	22.0	18.4	16.8	19.8
	4+	17.4	10.1	8.9	4.9	10.0

## The study

This research uses data collected in the British General Household Survey (1979-2009) and the UK Household Longitudinal Study (2009-2010). A total of 44,351 women born between 1940 and 1969 provided details of their education and their fertility. In the analyses level of education is measured as highest qualification on first leaving full-time education.

## Main findings

### 1. Childlessness

The proportion of women who never had any children was higher among those born in the 1960s than those born in the 1940s, regardless of their level of education. Table 1 shows that 10% of women born in the 1940s remained childless compared to 15% of those born in the 1960s. However, this increase in childlessness for women born in the 1960s was most pronounced for women with higher qualifications; graduate women born in the 1960s were more than twice as likely to be childless as those with the lowest level of education (22% versus 10%). We show that average completed family size is smaller for

more educated women in Britain partly because a higher proportion of degree educated women remain childless.

### 2. Age of entry into motherhood

Overall, women are having their first birth at later ages than in the past (Figure 1). For all mothers, the average (median) age at first birth increased from 23.3 to 25.8. The age at which women start having children has become increasingly linked to their level of education.

Our analyses show that 20% of mothers with a degree in the 1940s had their first child at age 30-34, while 30% of degree-educated mothers born in the 1960s did so. The average (median) age at which a woman becomes a mother has also increased most for women with degrees: from about 27 for women born in the 1940s to 30 for those born in the 1960s.

The average age of becoming a mother for women with the lowest levels of education has not changed, staying at around 23 years. Overall, the proportion of first births to teenage mothers has remained relatively stable. However for mothers with the lowest level of education there has been

Table 2: Women’s overall completed family size by educational attainment. Britain, 1940-49, 1950-59 and 1960-69 birth cohorts.

Birth cohort	Completed family size by highest educational qualification				Total
	Less than 'O' level	'O' level	'A' level	Degree	
1940-49	2.36	2.06	2.06	1.86	2.23
1950-59	2.26	1.99	1.91	1.77	2.04
1960-69	2.35	2.07	1.92	1.68	1.99

an increase in the proportion that enter parenthood before age 20, rising from 1 in 5 of mothers born in the 1940s to 1 in 4 of mothers born in the 1950s and 60s.

This social gradient in the timing of family formation is much stronger in Britain than in other European countries. The persistence of early motherhood among the least educated women might be explained on the basis that they are increasingly small and distinctive group for whom the barriers of early childbearing in terms of, for example, loss of career prospects are lower. However, the significant shift to higher ages at entry into motherhood among those with degree-level qualifications, despite the broadening of this group to include a higher proportion of the female population, is striking.

**3. Overall family size**

Overall average completed family size has reduced from 2.23 children per women for those born in the

1940s to 1.99 among women born in the 1960s (Table 2).

Within each birth cohort, completed family size is larger for those with lower levels of education. Completed family size has stayed about the same over time for those with the lowest levels of education but has got smaller for those with higher levels of education. This educational gradient is due to both the higher levels of childlessness among highly educated women, but also the fact that highly educated mothers are less likely to have third or fourth births.

**4. The relationship between age of entry into motherhood and family size**

The smaller average family size among degree educated mothers is associated with their later age at starting a family. Family size declines sharply with older ages at entry into motherhood: mean completed family size for those who became teenage mothers (around 3 births) was twice as high as that for women who entered motherhood in their late thirties (around 1.5 births). The data suggest that this pattern has remained similar across the cohorts 1940 to 1969 (Figure 2), with just a very small increase in achieved family size for women who started their childbearing in their thirties.

We find no significant evidence that women who postponed having children are nowadays ‘catching up’ at later ages – this is different to the Nordic countries, for example.

Figure 1: Median age at entry into motherhood according to mother’s education. Britain, 1940-49, 1950-59, 1960-69 birth cohorts.

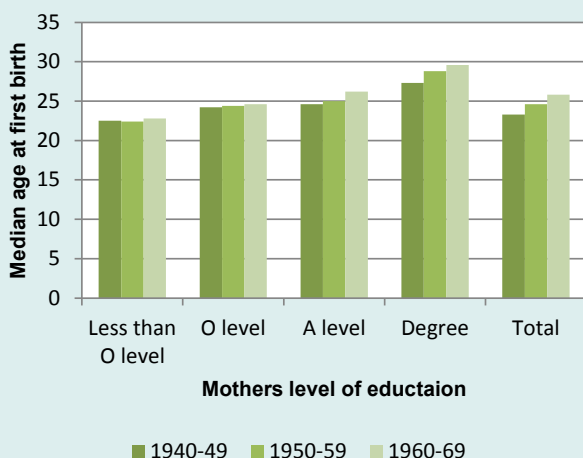
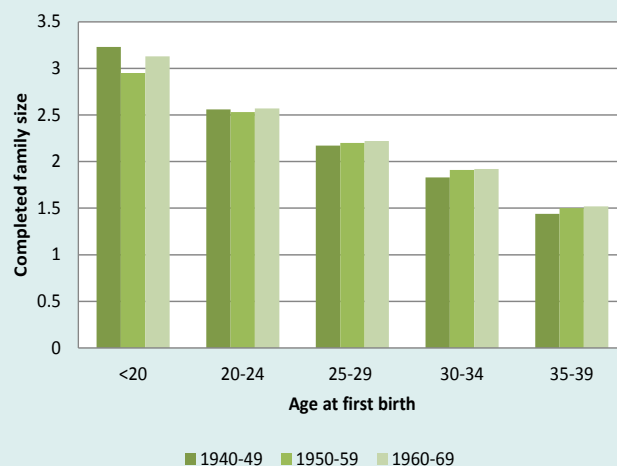


Figure 2: Mean number of children among mothers. Britain, 1940-49, 1950-59 and 1960-69 birth cohorts.



### Possible explanations for the lack of ‘catching up’

Further research is needed to understand why the association between higher age at first birth and lower achieved family size has not weakened (at least for cohorts of women born until the late 1960s). One possible explanation relates to how the types of women in particular educational groups have changed over time. Degree-educated women born in the 1960s represented a larger and more socio-economically varied proportion of the population. Their overall behaviours might, therefore, be more similar to the rest of the population than in previous generations, with somewhat lower fertility at higher ages. This may partially offset an increased tendency for ‘recuperation’ of childbearing among women born in more recent years.

The absence of significant ‘catching up’ of childbearing might also reflect the difficulties in combining a career and family faced by these cohorts of women. Many of the family friendly policy reforms in the UK such as the introduction of working family tax credits, provision of free early-years childcare, and entitlement to (limited) paid paternity leave for new fathers took place at the end of the 1990s and 2000s. Hence, even for women born in the late 1960s such reforms will have come too late to influence decisions made during much of their reproductive years.

### Policy implications

Previous research suggests that women who enter motherhood later in life would still like to have relatively large families. Given that we show a persistent link between delayed childbearing and smaller completed family size, policies are needed that address barriers to childbearing for such women. At the same time, couples need to be made fully aware of the extent to which the chances of conception decline with age.

Finally, policy could facilitate childbearing for those women who wish to enter motherhood earlier in life by allowing women to have children in their twenties and early thirties without significant detrimental effects on other aspects of life such as career and financial stability.

### Further Reading

Berrington, A. (2015) Childlessness in the UK. Centre for Population Change Working Paper 69. September 2015.

Berrington, A. Stone, J. & Beaujouan, E. (2015) Educational differences in timing and quantum of childbearing in Britain: A study of cohorts born 1940-1969. *Demographic Research*, 33 (26), 733-764.

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