



Inequality

The IFS Deaton Review

Families and inequalities

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Executive summary

- **Inequalities in children's lives begin at home.** Parental socio-economic resources, parental mental well-being, parental relationships and quality of parenting create disparities between families, which have repercussions for children's development and their subsequent life chances.
- **There are marked educational disparities to the changes in partnership and parenthood behaviour that have occurred over recent decades.** Graduates compared with their less-qualified peers are more likely to postpone childbearing and to have their children within marriage, are less likely to separate, and marry similarly highly qualified partners, thus making them better placed to provide the resources and stability that enhance children's development.
- **A notable hallmark of British families is their greater fragility and complexity as compared with families in other western European countries.** More children are born into lone mother families and there are higher rates of parental separation. Forty-four per cent of children born at the beginning of this century had not lived with both their biological parents throughout their childhoods.
- **Parental separation lowers the well-being of families and diminishes the resources available to children, with legacies that reverberate into adulthood.** Even children from more advantaged backgrounds are more likely to have lower educational attainment and incomes in later life than similar children whose parents remain together.
- **A rarely highlighted feature of family formation in the UK is the extent to which children are born to parents who are not living together at the time of the birth.** Around 20% of first-born children and 16% of all children are to parents in this family setting. These children have the most unequal starts in life and unstable family lives. They are remarkably geographically concentrated in areas of high deprivation, and are a particular feature of the former industrial regions of the country.
- **Family economic circumstances and parental mental well-being separately and collectively diminish the cognitive and emotional development of children in the early years.** Poverty is more strongly related to children's cognitive development, and parental mental health to children's emotional and behavioural development, and both impact on the quality of parenting. Poverty and mental health are also interrelated, as becoming poor increases the risk of parents developing mental health problems. Longer exposures to either amplify the negative consequences for children.

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- **The quality of parenting substantially improves the odds of children living in disadvantaged circumstances performing better at school.** Amongst the poorest of families, where children had high levels of positive parenting, 58% had a good level of achievement in their first year at school compared with 19% of those with low-quality parenting. The quality of parenting also mattered amongst the non-poor families, where the analogous proportions were 73% and 42%. Good parenting may help redress the effects of poverty, but poverty and parenting both matter for how children are doing.
- **A multitude of studies have shown that the most influential factor relating to family formation and dissolution and children's development is the educational attainment of their parents.** Undoubtedly, improving education is fundamental, as it is a key backstory of parental legacies. But improving the lives of families also requires more current and direct policy interventions such as a reduction in child poverty, improvement to mental health services, and provision of parenting and relationship education and support.

1. Introduction

Families play a fundamental role in nurturing, socialising and supporting children until at least they become independent, and they in turn become the citizens, workers and parents of tomorrow. Yet not every family is able to provide the same level and type of resources and opportunities for their children. Furthermore, in recent decades, families have become more diverse, fragile and complex, which may have amplified inequalities in children's life experiences and outcomes.

In Britain, there have been marked changes in partnership and parenthood behaviours. People have been marrying later and divorcing more, and cohabiting to a greater extent either as a prelude to marriage, instead of marrying or between marriages. Lone-parent families have become more prevalent arising from divorce, the break-up of cohabiting unions and a tendency for women, particularly young women, to have children on their own. Partnerships between men and women have become more varied in type and more fragile, whilst parenthood is being postponed, being avoided by a growing minority and occurring more often outside of marriage.

In this chapter, our focus is on families with children. We examine whether there are discernible socio-economic gradients in the recent changes in partnership and parenthood behaviours. We also assess the extent to which these family developments and the attributes of the families in which children are born and reared contribute to disparities in their lives and their future life chances, with a particular focus on income, mental well-being, parenting and parental relationships. We draw on an extensive literature from a range of disciplines and provide new analyses where appropriate.

2. Becoming a parent

Deciding to become a parent is one of the most complex lifetime judgements that individuals or couples are called upon to make. Parenthood, with its accompanying responsibility for a totally dependent being, involves a profound change in an individual's life course and becoming a responsible parent involves a sustained commitment to the economic, social and psychological support of the child for at least 18 and often more than 20 years. The process of becoming a parent thus involves the individual or couple assessing current and likely future circumstances over a number of domains, including partnership, employment and income, housing, and time

commitments. Individuals in modern societies have effective means of contraception so are in a better position to choose when to start a family and their size of family. Nevertheless, parenthood may not always be actively chosen, but sometimes results from acceptance of an accidental pregnancy or the choices of others.

In recent decades, there have been two major developments in family formation behaviour: becoming a parent is occurring at increasingly older ages and happening more frequently outside of marriage. These developments, alongside the tendency for partnerships to form between those of similar socio-economic standing, have the potential to create or widen inequalities between families.

Postponement of parenthood

The average age at becoming a mother has increased by a year per decade since 1970. In 1970 the average age at first birth was 23.7 years, by 2000 it was 26.5 years and in 2019 it stood at 28.9 years (Office for National Statistics, 2020). Later starts to parenthood can provide increased opportunities to obtain educational qualifications, undertake occupational training and make career advancements. Women in particular may have had more difficulty accumulating their own human capital when they had children at younger ages. Spending longer as a couple with two incomes prior to becoming parents is likely to improve the couple's economic security in terms of housing and consumer goods and also facilitate the consolidation of the relationship. As a consequence, these couples are more likely to have greater resources to invest in their children when they become parents.

Over recent decades, there have been major changes in educational participation and attainment. More young people are enrolled in education to later ages and more are obtaining qualifications and higher-level qualifications (see Farquharson, McNally and Tahir (2022) for more details). Both of these elements have been shown to be important drivers behind the trend to later childbearing (Ni Bhrolchain and Beaujouan, 2012).

The timing of childbearing in Britain has traditionally had a strong educational gradient, with more-educated people having children later (Kiernan and Diamond, 1983; Rendall et al., 2005). The question posed here is whether the pace of postponement of parenthood is occurring to the same extent across all educational groups. Table 1 shows the mean age of mothers at first birth by highest level of education divided into three groupings: degree-level qualifications; A-level and equivalent qualifications; and GCSE and below, including no qualifications. These data from the Office for National Statistics (ONS) are only available for the years from 1996 to 2016. In 1996 the average age at first birth was 26.1 years and in 2016 it was 28.8 years. In 1996 and 2016 there is a marked difference between graduate women and women with medium and low levels of qualifications, with around a four- to five-year age difference in becoming a mother, but only about a one-year difference between the two less-educated groups. This bifurcation between the graduate group and the less-qualified groups chimes with findings from family research in the US (Cherlin, 2014; Putnam, 2020). Improvements in employment opportunities for women are seen as being an important driver behind these educational differences. Particularly for highly educated women, the increased financial returns to their employment – which have been preserved throughout the expansion of higher education (Blundell, Green and Jin, 2016) – raised the opportunity costs of earlier childbearing to a greater extent than for those with less education (Diprete and Buchmann, 2006; Sigle, 2016; also see the IFS Deaton Review chapter on gender, Andrew et al. (2021)).

Table 1. Mean age of mother at birth of first child, by highest achieved educational qualification, 1996 and 2016, England and Wales

Year	Degree level	A-level equivalent	GCSE and below	Average age at birth
1996	30.0	26.3	25.6	26.1
2016	32.9	28.5	27.0	28.8
Change	2.9	2.2	1.4	2.7

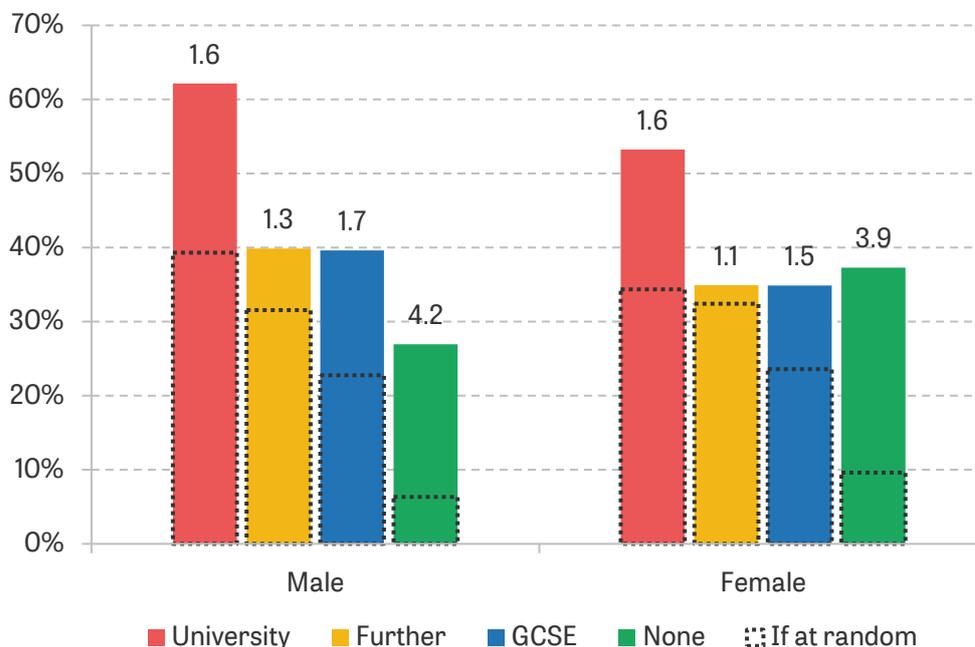
Source: Office for National Statistics (2018) using data from ONS Longitudinal Study.

Educational homogamy

Numerous empirical studies going back many decades have described the tendency for people to marry / partner with those of a similar social status based on characteristics such as social class, income and education (Glass, 1954; Kalmijn, 1998). Such socio-economic homogamy can reinforce inequities between families; for example, children whose parents both left school with few qualifications may face a double disadvantage relative to those whose parents are both highly educated.

Here we take a brief look at educational homogamy amongst parents in the UK, using data from Understanding Society (the UK Household Longitudinal Study, UKHLS) to examine educational similarities between parents born after 1973. This cut-off point captures those who benefited from the 1992 education reforms which expanded access to university education, and provides a fairly contemporary picture of educational homogamy.

Figure 1. Educational homogamy, by gender and education level



Note: Rates of educational homogamy by gender and education level, using Understanding Society data Waves 1-10. Solid bars represent the percentage of partners who have the same educational attainment level. Dotted distribution shows the expected percentage if all partnerships were formed at random, taking into account the population levels of educational attainment by gender. Likelihood above what is expected at random is shown above each bar. University education includes three-year degrees and PGCE teaching training. Further education includes HE diplomas, non-PGCE teaching qualifications, nursing qualifications, A levels and other equivalent qualifications.

The solid bars in Figure 1 show the percentage of men and women partnering within their educational qualification level. The dotted lines show what these levels would be if partnerships were formed at random – for example, a highly educated woman being as likely to partner with a man with no education as with one with a degree. The number above each solid bar is the ratio of the actual level of partnership formation to the expected level. Across all educational categories, and for both men and women, there is a large degree of educational homogamy in partnership formation. It is particularly noticeable amongst the highest and the lowest educational groups. Among men with no qualifications, 27% partner with someone who also has no qualifications, compared with an expected 6% if partnerships were made at random. We find similar results for women, with those with no qualifications being 3.9 times more likely than expected to partner with a man with no qualifications. Highly educated men and women are also much more likely to have partners with similar levels of education. Around 62% of men and 53% of women with degrees have partners who also have a university-level education, in both cases around 1.6 times more than a random partnership would predict.

Given the high returns to education (see Giupponi and Machin (2022) and Farquharson, McNally and Tahir (2022) for details), the tendency for people with similar socio-economic backgrounds to partner is likely to exacerbate family income inequality. It has been shown that the Gini coefficient for income inequality would have been substantially lower in the absence of assortative mating effects in the UK (Eika, Mogstad and Zafar, 2019).

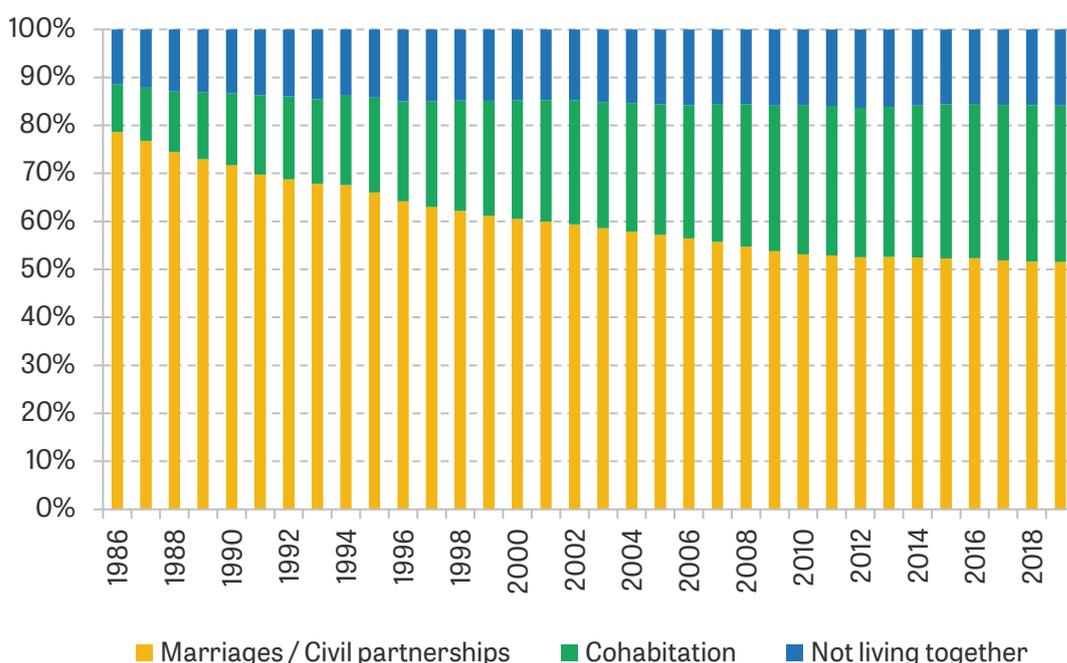
It is clear that educational homogamy has the potential to generate and reinforce inequalities between families but it is difficult to assess whether this has changed over time given the changes that have occurred to the educational system. There are a few recent studies that have looked at this issue for the UK (Eika, Mogstad and Zafar, 2019; Chiappori et al., 2020) and shown that the least-educated, who tend to have amongst the lowest incomes, have been increasingly more likely to partner with each other as compared with other educational groups.

3. The rise in unmarried parenthood

Until the closing decades of the twentieth century, marriage was the normative setting for having children in the UK as well as in most European nations. Through the twentieth century, marriage had never taken place so frequently or occurred at such young ages as during the 1960s: the culmination of a longer-term trend towards near-universal and youthful marriage (Kiernan and Eldridge, 1987). Since the 1970s, there have been substantial declines in marriage rates, exemplified in less and older marriage and the emergence of widespread cohabitation. Cohabiting unions are not new. Prior to the 1970s, they were statistically invisible and probably socially invisible outside of the local community or milieu and were most common amongst those whose marriages had broken down and were unable to remarry owing to the restrictive nature of divorce laws operating at the time (Gillis, 1988). However, a new type of cohabitation is implicated in the marriage bust that has occurred since the 1970s, whereby young people, predominantly in their 20s and early 30s, live together either as a prelude to or as an alternative to marriage. This form of cohabitation came to the fore in the 1970s and escalated during the 1980s and 1990s, such that nowadays it is the rule rather than the exception to live together before marrying. Initially, cohabiting unions tended to be short-lived and childless, but from the 1980s (as we will see below) children were increasingly born within these unions. It is generally acknowledged that a key instrumental driver behind the rise in cohabitation was the advent of effective contraception, particularly the contraceptive pill, and the legalisation of abortion (Kiernan, 2004).

In 1971 in England and Wales, 8% of births were recorded as being outside of marriage. By 1991 this had more than tripled to 30%, and it stood at 48% in 2019, the latest year for which there are available data. Since 1986, data from birth registrations have allowed us to distinguish between married couples, cohabiting couples (living at the same address) and parents who are not living together. Figure 2 shows the share of births occurring in these different contexts for the years from 1986 to 2019. Over the period to 2010, we see a marked decline in births to married couples, with a concomitant increase in births to cohabiting couples; since then, the percentages of births within the two types of partnerships have stabilised. In contrast, the proportion of children born to parents not living together has been relatively stable, at least since 1991. For example, in 1991 70% of registered births were to married couples, 16% to cohabiting couples and 14% to parents not living together at the time of the birth, whereas in 2019 52% were to married couples, 32% to cohabiting couples and 16% to parents living apart.²

Figure 2. Percentage of live births, by registration type, 1986–2019



Note: 'Cohabitation' is 'Joint registrations at the same address'. 'Not living together' is the sum of 'Joint registrations at different address' and 'Sole registrations by the mother'.

Source: Authors' calculations using Office for National Statistics (2020).

There is a strong educational gradient with respect to the context in which children are born, as can be clearly seen in Table 2. These data come from analyses of the British Household Panel Survey (BHPS) and Understanding Society by Peri Rotem and Scott (2018). They show that first-time mothers with low levels of education (GCSE or equivalent and no qualifications) are the most likely to have a child on their own and the least likely to have a marital birth. Conversely, the most highly educated (those with degree-level qualifications) are the least likely to have a child on their own and the most likely to have a child within marriage. This gradient has persisted over time.

² The data for Scotland follow a similar trend to those for England and Wales but with a slightly smaller share of births within marriage and larger share in cohabiting unions. For example, in 2019, 49% of births were within marriage, 36% were to cohabiting couples and 15% were to lone mothers. Northern Ireland only distinguishes between births within and outside marriage, with 55% within and 45% outside in 2019. (Sources: www.nrscotland.gov.uk, Vital Events Reference Tables, table 3.02; www.nisra.gov.uk, Registrar General Annual Report, table 3.1.)

Echoing what we observed from birth registration data, we see that the percentage of births to non-partnered mothers has not noticeably changed over time but there are strikingly marked increases in the share of births within cohabiting unions and concomitant declines in the proportion born within marriage, and this was the case across all educational groups. Nevertheless, a marital birth remains the majority practice amongst women graduates whereas having a birth within a cohabiting union is the majority option amongst the least-educated women.

Table 2. Partnership context of first birth, by educational attainment of mother and time period

	1991–95	2006–12
Low education		
Non-partnered	28%	29%
Cohabiting	28%	54%
Married	44%	17%
Medium education		
Non-partnered	12%	16%
Cohabiting	21%	43%
Married	67%	41%
High education		
Non-partnered	7%	6%
Cohabiting	7%	26%
Married	86%	68%

Source: Derived from figure 3 of Peri Rotem and Scott (2018). Data source: BHPS 1991–2009 and UKHLS 2010–14.

An international perspective on unmarried parenthood

The rise in childbearing outside of marriage, particularly having a child within a cohabiting union, is not confined to Britain, as there have been similar developments across other European nations, the US and the Antipodes. Comparative studies (e.g. Musick and Michelmore, 2018; Mikolai, Berrington and Perelli-Harris, 2018) have shown that premarital cohabitation is now a majority and normative practice amongst younger generations and has been embraced to a similar extent across the social spectrum. However, the more highly educated are much more likely to marry their partner before having a child, whereas for less-educated women cohabitation tends to be a longer-term stage in the childbearing process, unless they marry after the birth. This suggests that couples with more resources are in a better position to marry before becoming a parent (and also, as we will see in Section 8 from analyses of the Millennium Cohort Study (MCS) for the UK, after becoming a parent) than those with fewer resources. Additionally, focus group research in the UK and across Europe has shown that cohabitation is frequently viewed as a testing ground for marriage, with marriage representing and demonstrating a long-term commitment and seen as providing a greater degree of security for the couple (Perelli-Harris et al., 2014; Berrington, Perelli-Harris and Trevena, 2015).

A great deal has been written about trends in non-marital childbearing, but surprisingly little research has been done outside the US, and more recently the UK, on the actual experiences of families formed by unmarried parents. This absence is in part due to the fact that the increase in

non-marital childbearing has not been viewed, until very recently, as a cause for concern in most European countries. In these countries, the increase in births outside marriage was predominantly amongst cohabiting couples who were believed to be similar to married couples and, as such, the development was regarded positively, signalling women's growing economic independence and greater gender equality (Lesthaeghe and Surkyn, 1988; Sobotka, 2008; Perelli-Harris et al., 2010). The picture in the US, and to a lesser extent in the UK, was somewhat different, with the early rise in unmarried parenthood occurring primarily among poor and less-educated women (Kiernan and Estagha, 1993; Kiernan, 2002; McLanahan, 2020).

Recently there has been more of a convergence in views about unmarried families among European countries, the US and the UK and what they imply for parents, children and society. In Europe, the growing evidence that cohabiting unions are much less stable than marital unions has driven this convergence (Perelli-Harris et al., 2010; McLanahan and Jacobsen, 2015). For example, research for the 2017 World Family Map Report (DeRose et al., 2017) examined individual-level data from the US and 16 European countries including the UK, and found that in almost every country children born into cohabiting families were more likely to see their parents split up by the time they were 12 years old than children born into married families. However, the gap in stability between cohabiting and married couples did not vary much by mother's educational level. The data for the UK showed that for children born to married parents the shares seeing parental split by age 12 were 27%, 31% and 39% for those with high-, moderate- and low-educated parents respectively, while for those born to cohabiting parents the analogous shares were 53%, 60% and 66%; thus the instability gaps between the married and cohabiting groups were broadly similar by education, at 26, 29 and 27 percentage points.

Non-partnered motherhood: a British idiosyncrasy

There is one noteworthy aspect of unmarried parenthood in which Britain stands out from other European countries. With a few exceptions, the proportion of births to parents who are not in a co-residential partnership is around 5% or less in most western and northern European nations, compared with the figure of 16% we have seen for England and Wales. (Scotland has a similar percentage at 15% but there are no analogous data available for Northern Ireland.) The US is the other nation that stands out in this domain, with estimates of around 15–20% (Andersson, Thomson and Duntava, 2017; Kiernan et al., 2020).

Geographical variation in non-partnered motherhood

Within Britain itself, there are striking areal variations in the proportion of births to non-partnered mothers. We have examined this issue in some detail using local-authority-level data for England Wales, specially requested from ONS for the Deaton Review, covering the years 1986 to 2018. For example, in 2018, the proportions of non-partnered births ranged from over 30% in Knowsley and Hartlepool to lows of 7% or less in Wokingham, Winchester, Mid Sussex and Cambridgeshire.

Table 3 shows the local authorities with the highest proportions of births to parents who were not living together at the time of birth registration in 2018. This set of 34 represents those in the top decile of all the non-partnered births. It is apparent that these authorities are not randomly distributed across the country but are largely confined to five broad regions. Eight are to be found in the North East, eight in the North West, six in London, five in South Wales and three in the Black Country (a total of 30 out of the 34). A comparison with 1986 data showed that 21 of these 34 were also in the top decile in 1986 and a further 7 were in the second decile, highlighting the geographical stability in non-partnered births. The rates shown in Table 3 refer to all birth orders, but the rates for first births are likely to be even higher. Data from the Millennium Cohort Study,

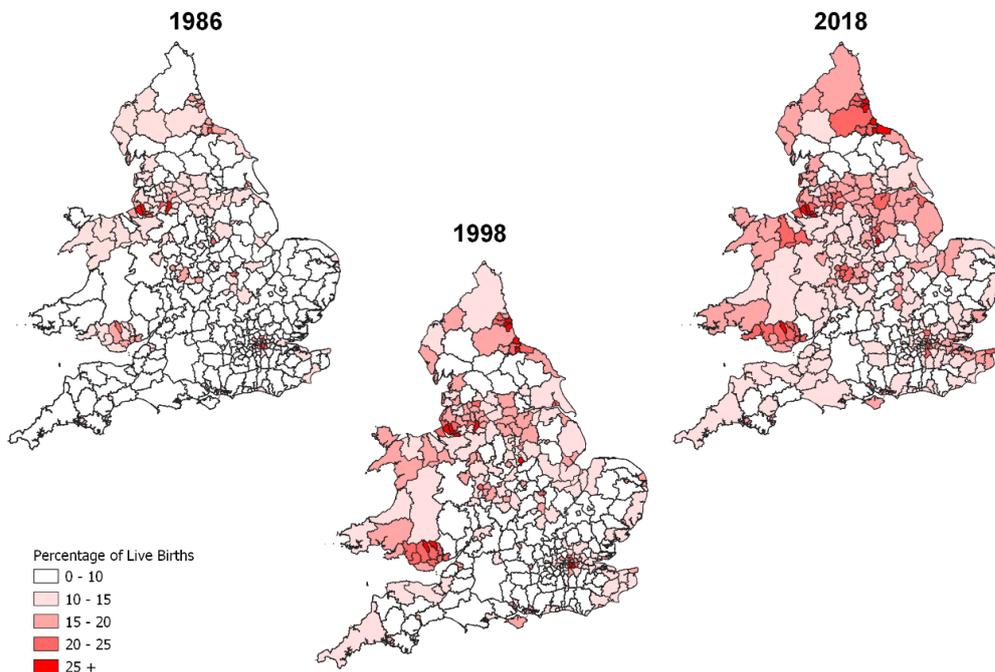
Table 3. Local authorities in the top decile of non-partnered births, 2018

Local authority	Region	Non-partnered births, 2018
Knowsley	North West	34.94%
Hartlepool	North East	30.04%
Halton	North West	29.64%
Liverpool	North West	29.23%
Merthyr Tydfil	South Wales	28.32%
Middlesbrough	North East	28.16%
Redcar and Cleveland	North East	27.01%
Blackpool	North West	26.59%
Nottingham	East Midlands	26.15%
Sunderland	North East	26.00%
South Tyneside	North East	25.59%
Rhondda Cynon Taf	South Wales	24.66%
Southwark	London	24.64%
Blaenau Gwent	South Wales	24.51%
Kingston upon Hull, City of	Yorkshire and Humber	24.21%
Lambeth	London	23.92%
Stockton-on-Tees	North East	23.91%
Darlington	North East	23.74%
Enfield	London	23.39%
Lewisham	London	23.29%
St Helens	North West	23.14%
County Durham	North East	23.13%
Croydon	London	22.80%
Walsall	Black Country	22.75%
Ashfield	East Midlands	22.52%
Caerphilly	South Wales	22.46%
Rochdale	North West	22.46%
Wirral	North West	22.36%
North East Lincolnshire	Yorkshire and Humber	22.35%
Salford	North West	22.29%
Wolverhampton	Black Country	22.25%
Sandwell	Black Country	22.12%
Swansea	South Wales	22.06%
Islington	London	21.45%

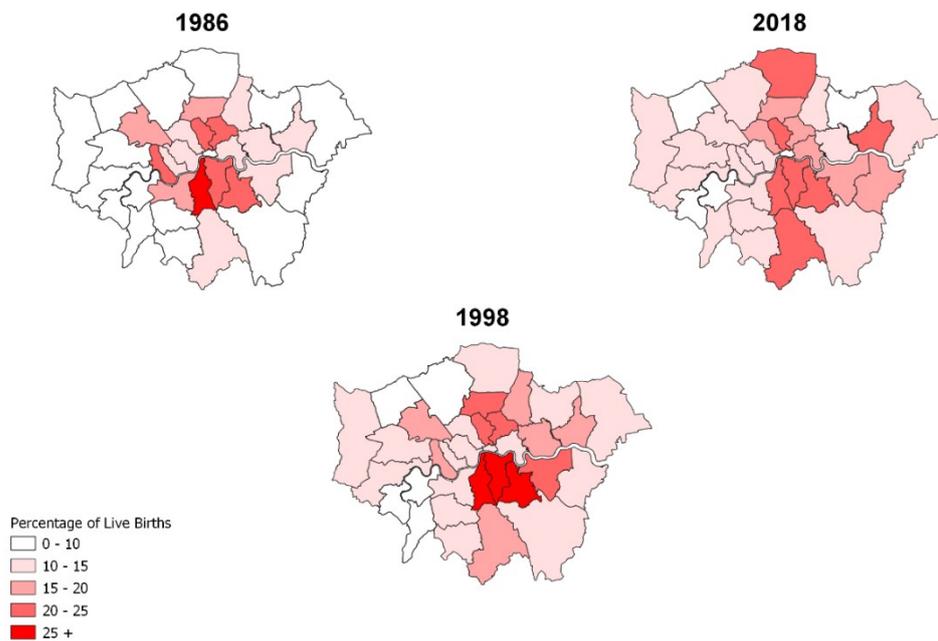
Source: Authors' calculations using ONS birth registration data by postcode sector.

Figure 3. Share of births to non-partnered mothers, 1986–2018

(a) All local authorities, England and Wales



(b) London



Note: At a national level, the rate of births to lone mothers increased from 11.4% in 1986 to 14.8% in 1998 and 15.9% in 2018, but the fraction of local authorities with over 1 in 10 of births to lone mothers increased from 39.9% to 64.8% to 79.3% in the same period. The difference between these two – and the increasing red portions of the map – are a function of non-partnered births becoming somewhat more diffuse across the country and differential demographic changes that occurred across local authorities.

Source: Authors' calculations using ONS birth registration data by postcode sector.

which we discuss later in the chapter, showed that overall 16% of all births were non-partnered but 20% of first births were to non-partnered parents (Kiernan and Smith, 2003). If this held across the board then the rates for first births are likely to be 25% higher than the rates for all births presented in Table 3.

Figure 3 maps the share of births to non-partnered mothers for the years 1986 (the year when these data first became available), 1998 and 2018 for England and Wales and separately for the London boroughs. It shows how marked are the concentrations in particular regions and how persistent they have been over time.

It is noteworthy that most of the areas with high rates of non-partnered births, with the exception of London, are former industrial regions of the country often referred to as the 'left behind' areas, which have been marginalised for decades with the advent of deindustrialisation which began in the 1970s. These are areas with high rates of deprivation, low-wage economies, less secure labour markets, a preponderance of precarious occupations and low levels of social mobility (Geary and Stark, 2016).

Geographical trends in declines in marital births and the rise in cohabiting births

Over time, in contrast to the relative stability in the proportions of non-partnered births nationally and subnationally, there have been more marked changes with regard to births within cohabiting unions and within marriage. Figures 4 and 5 show the percentages of births in these two contexts for a selection of years over the period 1986–2018.

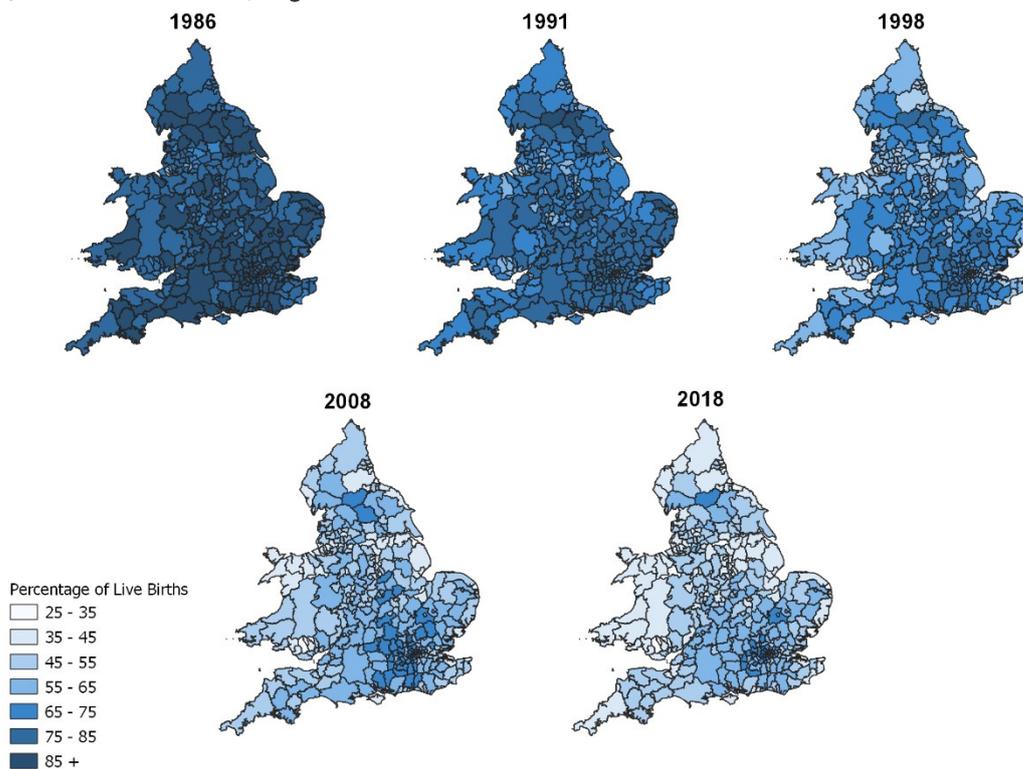
Over the period from 1986, there has been a dramatic shift away from having a birth within marriage. In 1986, one-third of local authorities had 85% or more of births within marriage; by 1998, none did. The declines were more marked in particular parts of the country. In South Wales, for example, in Blaenau Gwent, Caerphilly and Merthyr Tydfil there were 30-percentage-point drops in the rate of births within marriage between 1986 and 1998. Declines in marital births continued in the two decades from 1998 to 2018 but at a slower pace, with most places repeating the decline of the previous decade over the next 20 years. The decline between 1998 and 2018 was correlated with the decline between 1986 and 1998 ($p = 0.41$). Declines were particularly pronounced in coastal areas. Amongst the top 50 areas with the biggest declines, 25 were coastal.

In London, rates of birth within marriage are on average higher than in England and Wales as a whole. This is particularly noticeable for the wealthier south-western and northern boroughs, where births within marriage in 2018 are similar to the levels in 1986. Being born to married parents is noticeably more prevalent in the South East region and London.

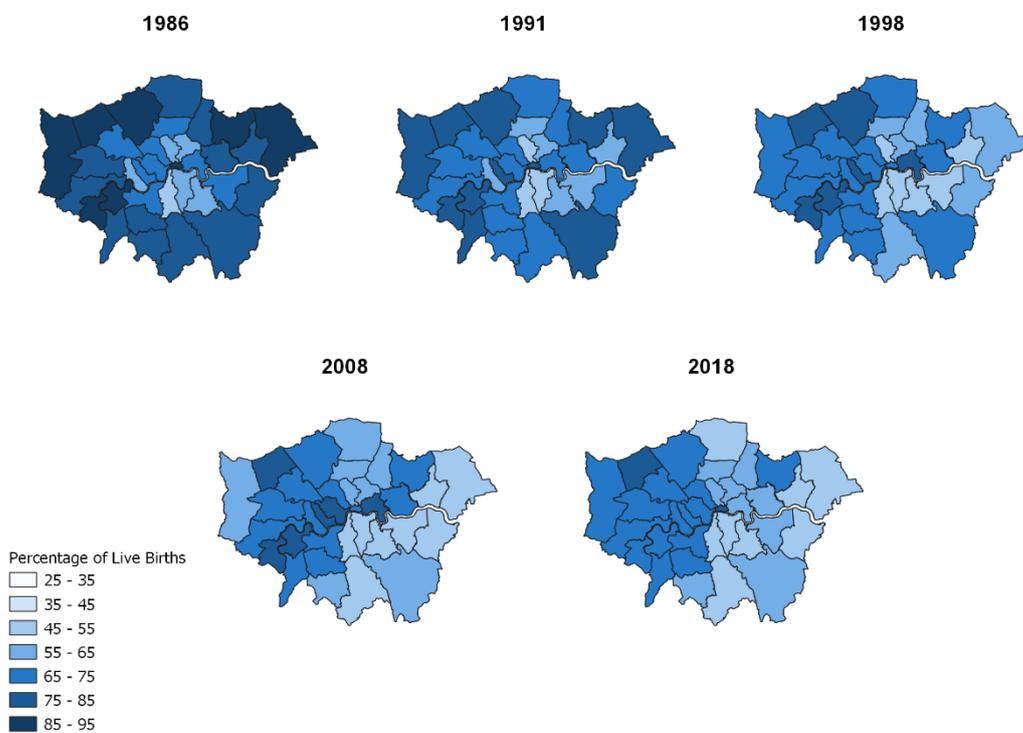
Births to cohabiting couples largely replaced births within marriage. From Figure 5 we see that births within cohabiting unions grew dramatically from 1986 to 2018, and grew fastest in those areas where marriage declined the most. The average local authority saw a 6.7% increase in births within cohabitation from 1986 to 1991 and a 7.4% increase from 1991 to 1998. Initially, cohabiting unions were more prominent in the large urban areas and London, before dispersing more widely, so that in the present we see – mirroring the decline in marital births – concentrations of cohabiting births in the coastal areas and more deprived areas of England and Wales.

Figure 4. Share of births to married mothers, 1986–2018

(a) All local authorities, England and Wales



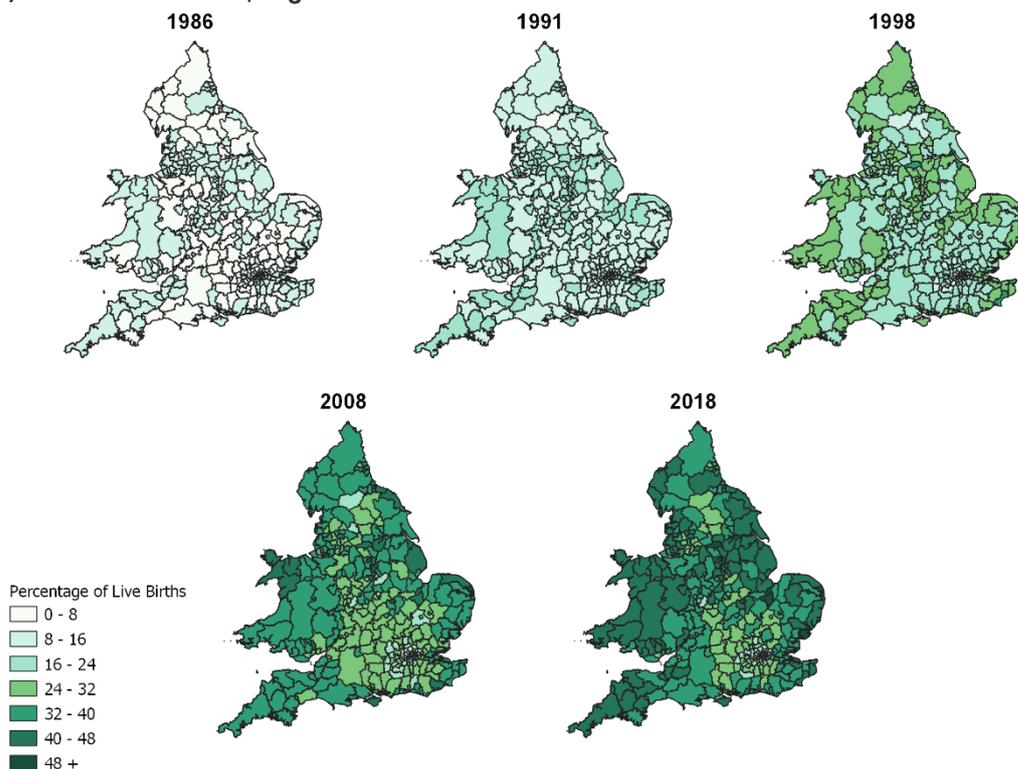
(b) London



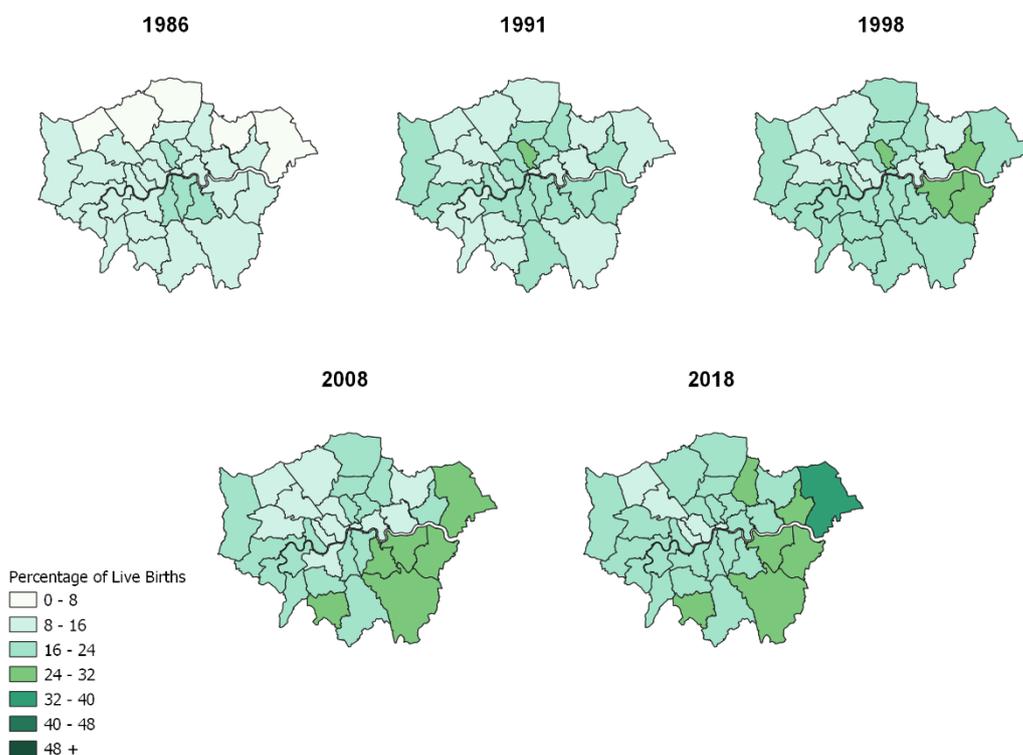
Source: Authors' calculations using ONS birth registration data by postcode sector.

Figure 5. Share of births to cohabiting mothers, 1986–2018

(a) All local authorities, England and Wales



(b) London



Source: Authors' calculations using ONS birth registration data by postcode sector.

Characteristics of local authorities and birth contexts in 1991 and 2018

We have seen indications that non-partnered births and births to cohabiting couples are more prevalent in more deprived areas, and the South has much higher rates of marital births. Here we look at a number of characteristics of local authorities relating to ethnicity, employment, education and age in order to assess factors that might be implicated in the variation in birth contexts across local authorities and whether these factors differed between 1991 and 2018.

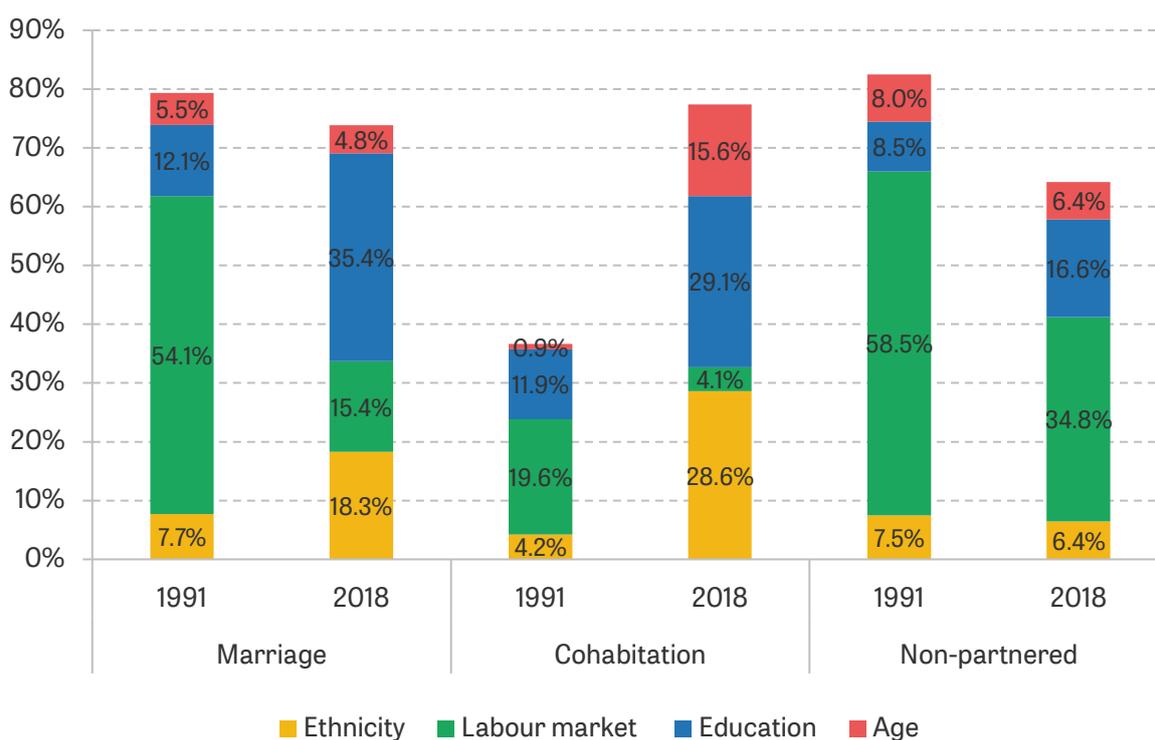
In Table 4 we regress the share of births in each of the three birth contexts against: the share of the population who identified as part of any black or Asian ethnic group; the unemployment rate and economic inactivity rate; the share of the population achieving a tertiary level of education; and the median age of the population. Additionally in Table 4 and in Figure 6 we decompose the R-squared of the regressions into the components explained by ethnicity, labour force, education and age-related variables.

Table 4. Correlates with the share of birth partnership types, 1991 and 2018

	Marriage		Cohabitation		Non-partnered	
	1991	2018	1991	2018	1991	2018
Black %	-0.119 (0.170)	0.0148 (0.109)	0.171* (0.0985)	-0.235*** (0.0693)	-0.0528 (0.110)	0.220*** (0.0589)
Asian %	0.361*** (0.104)	0.595*** (0.0608)	-0.0920* (0.0468)	-0.387*** (0.0438)	-0.269*** (0.0723)	-0.208*** (0.0312)
% unemployed	-1.556*** (0.234)	-3.373*** (0.470)	0.472** (0.190)	1.200*** (0.318)	1.085*** (0.132)	2.174*** (0.324)
% economically inactive	-0.335** (0.156)	-0.196* (0.104)	-0.0693 (0.130)	0.0440 (0.0683)	0.405*** (0.0882)	0.152** (0.0637)
% with tertiary education	0.233*** (0.0632)	0.484*** (0.0400)	-0.225*** (0.0451)	-0.319*** (0.0273)	-0.00864 (0.0380)	-0.165*** (0.0215)
Estimated median age	0.00612** (0.00237)	-0.00203** (0.000939)	0.00146 (0.00189)	0.00400*** (0.000632)	-0.00757*** (0.00132)	-0.00197*** (0.000599)
Constant	0.719*** (0.0531)	0.544*** (0.0573)	0.120*** (0.0384)	0.274*** (0.0385)	0.161*** (0.0316)	0.182*** (0.0337)
Observations	337	337	337	337	337	337
Adjusted R ²	0.790	0.734	0.355	0.769	0.821	0.635
<i>Ethnicity</i>	0.077	0.183	0.042	0.286	0.075	0.064
<i>Labour market</i>	0.541	0.154	0.196	0.041	0.585	0.348
<i>Education</i>	0.121	0.354	0.119	0.291	0.085	0.166
<i>Age</i>	0.055	0.048	0.009	0.156	0.080	0.064

Note: Standard errors are given in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure 6. Shapley decompositions of the R-squared in Table 4



Note: Local authority data on ethnicity retrieved from the 2011 and 1991 censuses. Data on educational attainment and labour market statistics are from the Labour Force Survey for 2018 and are constructed from the 1991 census for 1991. Median age for 1991 estimated from the number of individuals in four-year bands from 0 to 90+, assuming a uniform distribution of ages within each band; data accessed from 1991 census. Median age for mid 2018 from ONS user-requested data, 'Population estimates: median ages for administrative, electoral and census geographies'. Shorrocks-Shapley decomposition of the R-squared results (Shorrocks, 1982), generated using the shapley2 command in Stata 16 (Juarez, 2015).

Ethnicity had an increasing role to play in differentiating between areas with high and low rates of birth within marriage and cohabitation. The ethnicity variables together accounted for around 8% of the total variance in marital births and 4% of the total variance in cohabiting births in 1991, and 18% and 29% respectively in 2018. For instance, in both years, local authorities with higher fractions of their populations identifying as Asian had significantly higher rates of birth within marriage, and lower rates of cohabiting or non-partnered birth.

Collectively, education and labour market indicators explain the greatest proportion of the variance in birth partnership contexts in both of the years. In 2018, a 1% increase in the fraction of the population in a local authority with at least a tertiary level of education is associated with a 0.48% increase in the rate of births within marriage, a 0.32% decrease in the rate of births within cohabitation and a 0.17% decrease in the rate of births to non-partnered parents. The magnitudes of these associations have increased over time, as has the proportion of variance in birth partnership types explained by tertiary education rates.

Local unemployment rates have significant negative associations with the rate of births within marriage, and positive associations with the rate of births in cohabiting unions and outside of a partnership, in both years. Similar to the tertiary education measure, these associations have increased in magnitude over time. Economic inactivity is also negatively correlated with rates of birth within marriage, and positively correlated with rates of non-partnered births. The labour

market variables have, however, become less important as correlates of birth partnership contexts over time.

Summary

The evidence emerging from our analyses of the local authority data in broad terms shows that in 2018 children in more deprived areas are more likely to start life with a lone mother or with cohabiting parents, whereas children in more advantaged areas are more likely to be born to married parents. Being born to married parents is more prominent in the South East and London, regions that have benefited most from the recent decades of economic growth and the fallout of globalisation. Local socio-economic disparities are clearly correlated with the context within which children are born and, by implication, the availability of resources that parents have to invest in their children's lives.

The geographic location in which families are formed may also have significant consequences for future life prospects and social mobility. Some striking and contextually relevant data come from a 2020 Social Mobility Commission survey (Social Mobility Commission, 2020), which found stark regional differences in people's perceptions of their life prospects. People in northern England and in Wales were significantly less optimistic than their southern counterparts. For example, just under a third (31%) in the North East, 48% of those in the North West and 37% of those in Wales said they thought there were good opportunities for people to progress in their region, which compared with 74% of those in the South East and 78% of Londoners. Similarly, another Social Mobility Commission report, entitled 'The long shadow of deprivation: differences in opportunities across England', showed that 12 out of the top 20 worst places for social mobility were in the North West and North East of England (Carneiro et al., 2020).

4. Characteristics of married, cohabiting and lone-parent families: a story of differential resources

As we have seen above, the partnership types in which children are born have changed dramatically over the past 40 years in the UK. In this section we take another perspective and examine the socio-economic characteristics from a cross-sectional snapshot of the population of married cohabiting families and lone parents using data from the Family Resources Survey (FRS) over the period 1995–2020. These families viewed in cross-section will have a variety of histories. Some of the married will have previously been cohabiting families and vice versa, particularly where dissolution and repartnering has occurred. Lone-parent families may emanate from the dissolution of cohabiting and marital unions but also include those that were formed at the birth of a child, and continue. These parents will have become parents at different ages, and age at parenthood is an important marker of the partnership context within which children are born and reared and for the resources that partners bring to and contribute to the family's well-being. Ideally, we would like to have considered the timing of parenthood in our account but this information is not available in the FRS.

Married and cohabiting families with children have many of the same characteristics – shared home, economic support, sexual intimacy etc. – and, on a day-to-day basis, there may be little to distinguish between the two types of unions. However, as we will see, there are marked differences in resources between the two types of unions that are relevant to inequalities in family life. We use data from the 2019–20 Family Resources Survey (Department for Work and Pensions et al., 2021) to examine differences between married and cohabiting couple families across a number of socio-economic domains (education, employment and receipt of welfare

Table 5. Characteristics of married, cohabiting and lone mothers, 2019–20

	Married	Cohabiting	Lone
<i>Mother's age</i>			
16–24	1.1	9.3	8.3
25–34	25.7	42.3	26.9
35–44	44.3	32.7	34.4
45–54	26.2	14.7	26.0
55 or older	2.8	1.0	4.4
<i>Age mother left full-time education</i>			
16 or younger	21.4	34.3	45.6
17–20	35.7	44.9	39.3
21 or older	42.9	20.8	15.2
<i>Mother's employment status</i>			
Full-time employed/self-employed	33.7	31.4	23.4
Part-time employed/self-employed	37.0	33.5	39.6
Unemployed	1.6	3.1	4.0
Not working for other reason	27.8	31.9	33.0
<i>Mother's socio-economic classification</i>			
Higher managerial, administrative and professional	15.9	7.6	4.3
Lower managerial, administrative and professional	33.2	24.9	18.9
Intermediate occupations	18.1	18.6	15.3
Small employers and own-account workers	0.8	0.3	0.2
Lower supervisory and technical occupations	2.9	5.9	4.2
Semi-routine occupations	12.9	23.1	31.1
Routine occupations	6.5	12.7	14.8
Never worked / Long-term unemployed	8.8	5.7	9.0
Student	1.0	1.2	2.2
<i>State support</i>			
Recipient of housing benefit	4.1	6.7	32.3
Recipient of any means-tested benefit	6.4	12.6	51.0
<i>Housing tenure</i>			
Owner-occupier	72.7	46.8	26.1
Private renter	17.9	31.2	29.8
Public renter	9.4	22.0	44.1
<i>Household income</i>			
Equivalised gross weekly income	£615	£469	£330

Source: Authors' calculations from the Family Resources Survey 2019–20. Income equivalised using the OECD scale.

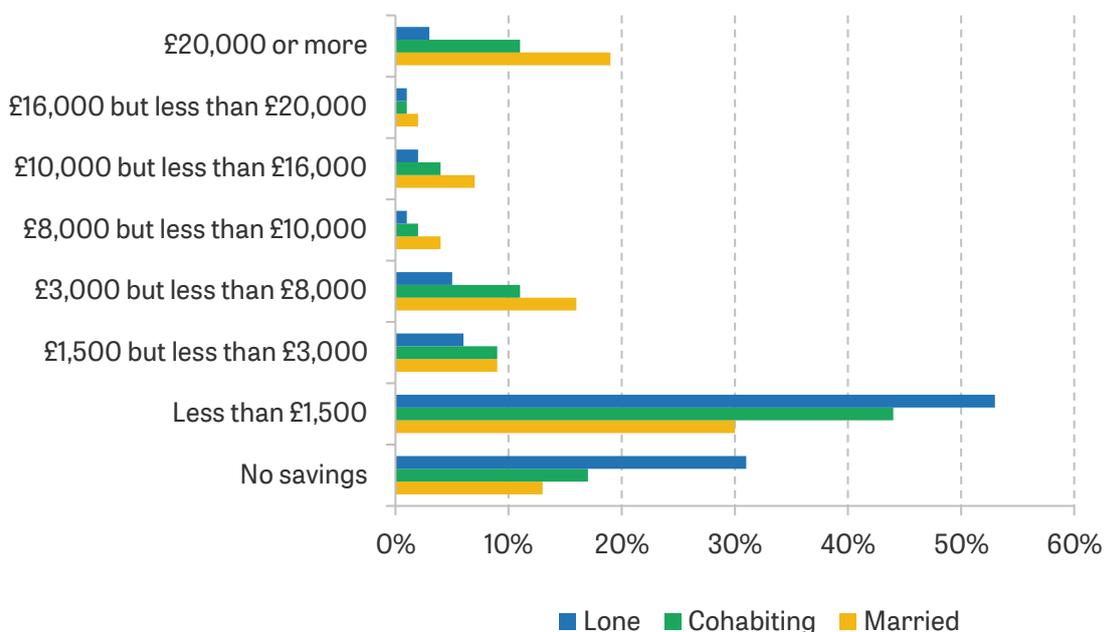
benefits) and we also look at cross-sectional trends over the period 1994–2020 to see whether there have been any changes with the rise in cohabiting families. We also compare these couple families with the set of contemporaneous lone-mother families.

Table 5 shows that married mothers are on average older than cohabiting and lone mothers: 27% of married mothers are under age 35 years as compared with 52% of cohabiting and 35% of lone mothers. Turning to the age mothers left full-time education, and assuming individuals leaving full-time education post age 21 have attained tertiary education, married mothers are more than twice as likely as cohabiting mothers and lone mothers to be graduates: 43% as compared with 21% and 15% respectively. This is an approximation, as data on educational qualifications are not collected in the FRS.

In terms of employment patterns, there is little to distinguish cohabiting and married mothers, with 34% of the married and 31% of the cohabitants working full time, either as employees or in self-employment, and 37% and 34% respectively working part time. Lone mothers are the least likely to be in full-time employment and more likely to report being unemployed and to have never worked. Married mothers are much more likely to be in higher or lower managerial occupations than cohabitants, who are more likely to be employed in semi-routine and routine occupations.

Cohabiting families are twice as likely as married ones to be in receipt of any means-tested benefit – 13% compared with 6%, proportions dwarfed by the 51% observed for the lone parents. In terms of homeownership, around 73% of married parents own their home (either outright or with a mortgage), compared with 47% of cohabiting parents and only 26% of lone parents. The weekly incomes of cohabiting and lone-parent families are substantially lower than that of married couple families.

Figure 7. Value of savings and investment by family type, 2019–20



Note: Dependent children are defined as children living with their parent(s) who are either (1) aged under 16 years or (2) aged between 16 and 19, unmarried and in full-time non-advanced education.

Source: Selected series from Department for Work and Pensions (2021b), Savings and Investment Data Tables, table 7.10.

We also examined the extent to which the different types of families had savings and investments to draw on, which is particularly important in times of crisis. Figure 7 shows that lone parents are by far the most likely to report having less than £1,500 or no savings (84%), but large proportions of cohabiting and married parents also report having no savings and investments – 61% and 43% respectively – and very few families have high levels of savings.

These comparisons show that whilst there are noticeable differences in the socio-economic characteristics of married and cohabiting parents, these tend to be smaller (with some exceptions) than the differences between lone- and two-parent households.

Age and education adjustments

Partnership types may reflect couples at different stages in their family life course as well as age and educational differences. To gauge this, Table 6 shows the results of a series of regressions estimating the relative likelihood of a family owning their own home (with or without a mortgage) by partnership type, sequentially adjusting for age and education of the mother.

Table 6. Relative likelihood of owning a home, by partnership type, 2019–20

	(1)	(2)	(3)
Married	0.462*** (0.017)	0.436*** (0.016)	0.398*** (0.017)
Cohabiting	0.239*** (0.024)	0.289*** (0.022)	0.272*** (0.020)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,296	5,296	5,296

Note: For details, see note to Appendix Table A1.

Source: Authors' calculations using the Family Resources Survey 2019–20.

Unconditionally, married couples are 46 percentage points more likely than lone parents to own their home. After adjusting for age and education, this difference drops to 40 percentage points, which still represents a large difference between the two groups. Cohabiting couples are around 24 percentage points more likely than lone parents to be homeowners, and this difference is robust to the inclusion of age and education controls.

We carried out age and education adjustments for all the characteristics shown in Table 5. Similar to our finding for homeownership, after adjusting, the difference between married and lone parents declines but remains significant whereas the differences between cohabiting and lone parents remains broadly constant. For details of this analysis, see Appendix Table A1.

Trends over time: 1995–2019

Over recent decades, as we saw earlier, there has been a significant growth in the proportions of families in the UK that are cohabiting and a concomitant decline in the extent of married couple families. The question then arises as to whether the socio-economic status of cohabiting families differs from that of married families, as the former became a more common family context. Here

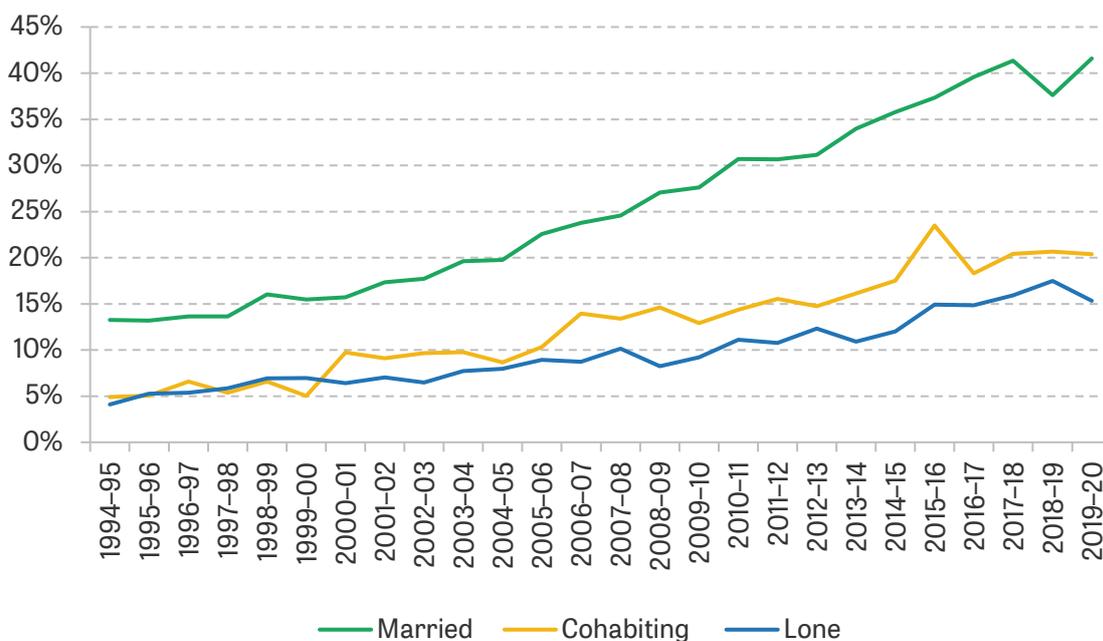
we examine three characteristics: educational attainment, whether the families were in receipt of means-tested benefits and housing tenure using the Family Resources Survey.

Figure 8 shows the estimated percentage of mothers in each family type to leave education at age 21 or older. Over the past 25 years, there has been a noticeable increase in the proportions with university-level education, with the rate more than tripling amongst the three groups of mothers. In 1994–95, 13% of married mothers were graduates as compared with 5% and 4% of the cohabiting and lone mothers respectively. In 2019–20, the analogous proportions were 42% for married mothers, 20% for cohabiting mothers and 15% for the lone mothers.

Whilst the absolute gap between married and cohabiting mothers grew from 8 percentage points to 21 percentage points over this period, the relative gap fell. As shown in Appendix Figure A1, the relative growth has been largest for lone and cohabiting parents, meaning relative gaps have fallen over time. For example, married mothers were only twice as likely as cohabiting mothers to have degree-level education in 2019–20, compared with two-and-a-half times more likely in 1994–95.

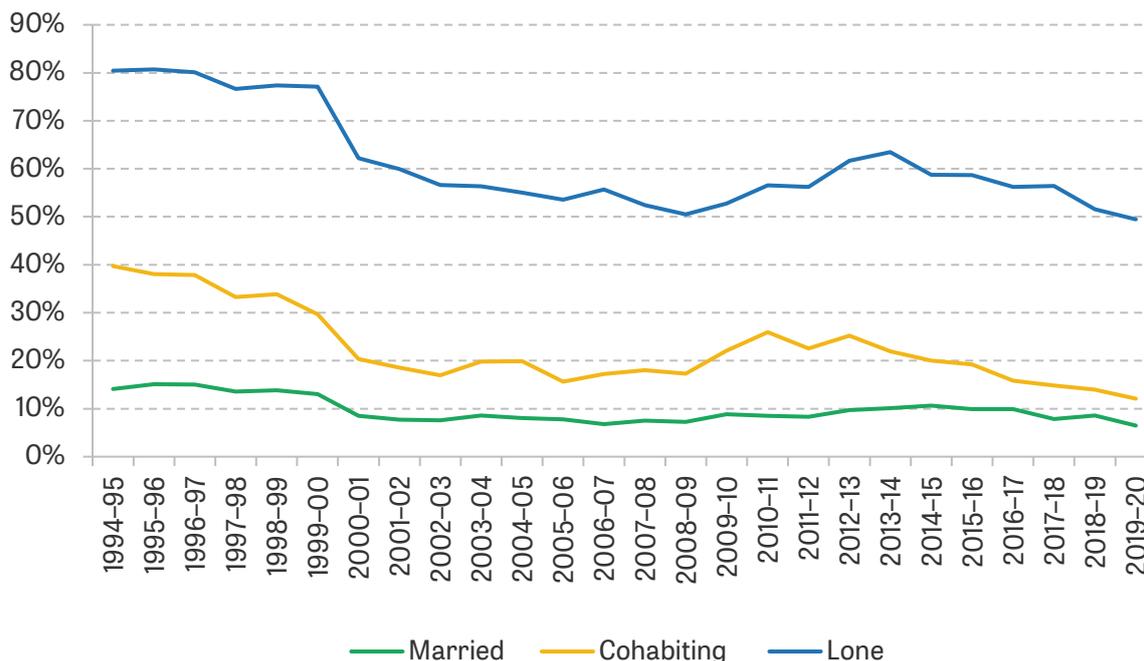
Figure 9 shows trends in the percentages of the three family types receiving any means-tested benefit income (for a graph of the relative differences, see Appendix Figure A2). In 1994–95, around 80% of lone-parent families received some means-tested state support compared with around 40% of cohabiting parents and 14% of married parents, while the proportions in 2019–20 were 49%, 12% and 6% respectively. Over time the absolute gap between cohabiting and married parents has gradually decreased, from 26 percentage points in 1994–95 to only 6 percentage points in 2019–20, and the relative gap has also decreased, with cohabiting parents being over two-and-a-half times as likely to receive means-tested state support as married parents in 1994–95 compared with being less than twice as likely to do so in 2019–20.

Figure 8. Percentage of mothers leaving education at age 21 or older, by family type, 1994–95 to 2019–20



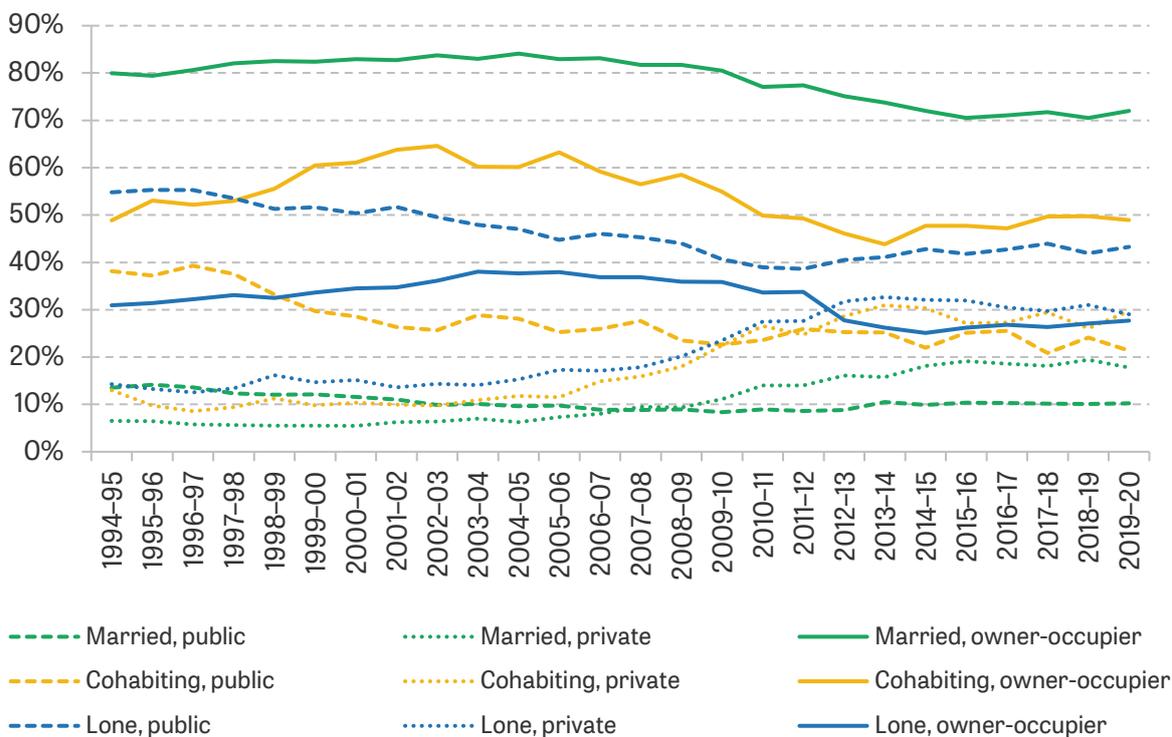
Source: Authors' calculations from the Family Resources Survey 1994–95 to 2019–20.

Figure 9. Percentage of families receiving means-tested benefits, by family type, 1994–95 to 2019–20



Source: Authors' calculations from the Family Resources Survey 1994–95 to 2019–20.

Figure 10. Housing tenure, by family type, 1994–95 to 2019–20



Source: Authors' calculations from the Family Resources Survey 1994–95 to 2019–20.

Much of the trends over time seen for all family types are associated with changes in the nature of state transfers, including the expansion of tax credits for families with children, and increasing conditionality for lone parents with young children to be available for work, which currently starts at age 3 down from age 16 at the beginning of the period.

Figure 10 shows the estimated percentages of married, cohabiting and lone-parent families owning their own home (with or without a mortgage), renting from the public sector (i.e. in local authority or housing association housing) or renting from the private sector. Throughout the past 25 years, married couples have been 20–30 percentage points more likely to own their home than cohabiting couples, who in turn have been around 15–30 percentage points more likely to be owner-occupiers than lone parents. Homeownership peaks for all three groups in the mid 2000s, before declining until around 2015, since when it has remained broadly stable. Living in public housing has fallen steadily for all three groups over the past 25 years, but remains most common amongst lone parents. In 1994, just over half (55%) of lone parents were living in public housing compared with 43% in 2019. The declines in homeownership and public housing have led to a notable rise in private renting. In 2005, 17% of lone parents, 11% of cohabiting parents and 7% of married parents rented privately, compared with 32%, 27% and 19% respectively a decade later in 2015.

Undoubtedly, on average, lone-parent families are the most socio-economically disadvantaged of families and that is a long-standing situation. Cohabiting families are more socio-economically disadvantaged than married families and, although there have been improvements in some socio-economic indicators over time, a substantial marriage advantage persists.

5. Divorce and separation

The other major development in the demography of family life that has contributed to inequalities between families has been the growth in parental separation. Amongst British children born since the 1950s, rising divorce rates have led to increases in the proportions of children who have experienced the dissolution of their parents' marriages, and more recently with the rise of cohabitation the break-up of these unions. Moreover, children in the UK are more likely to experience unstable family lives compared with their counterparts in western and northern European countries (Andersson, Thomson and Duntava, 2017; DeRose et al., 2017).

There are official data on divorce rates but we have to rely on survey data for examining separation of cohabiting unions. Analyses using ONS General Household Survey and Understanding Society data by Thomson, Winkler-Dworak and Beaujouan (2019) on trends in parental separation over the period from the 1960s to the early 2000s showed that when cohabiting births were uncommon, increases in parents' separation were driven primarily by increases in divorce among married parents. When cohabiting parenthood became more prominent, the ending of cohabitation became a larger component of growing separation rates, although further increases in parents' divorce did continue to contribute.

An illustration of the growth in parental separation per se comes from a comparison of data from three of the British birth cohort studies. Amongst children born in 1958 included in the National Child Development Study (NCDS), 9% had experienced parental separation by age 16; amongst children born 12 years later in 1970 included in the Birth Cohort 70 Study (BCS70), 21% of children had experienced their parents' separation by this age; and amongst children born in 2001–02 included in the Millennium Cohort Study (MCS), 43% were not living in a household with both their

natural parents at age 17. There was a notable educational gradient in the extent to which the MCS children were living with both their parents. Amongst those whose mothers had degree-level qualifications, 72% were living with both parents as compared with 43% of those whose mother had less than GCSE qualifications.³

In this section, we provide some up-to-date evidence on how the characteristics of separating parents differ from those who do not separate, and what characteristics are associated with separation, using data from Understanding Society (University of Essex, Institute for Social and Economic Research, 2020). We also examine the living standards and mental health of the partners before and after a separation in order to assess the impact of separation on these domains. In Section 6, we draw on a wide range of literature, to examine the legacies of parental separation for children across their lives.

Characteristics of separating and non-separating couples with children

Table 7 shows that, on average, separating couples are from lower-income households and are less-highly educated, and significantly fewer of them own their home (either outright or through a mortgage). Separating couples are also more likely to exhibit difficulties with their mental health,⁴ and couples where at least one partner did not live with both their biological parents at age 16, a proxy for instability of their own parents' relationships, are also more prevalent in the separating group.

We also examined the extent to which these characteristics predict separation. Table 8 shows estimates from a linear probability model of the likelihood that an individual's partnership dissolves by the next wave (in no more than 18 months' time). While this exercise should not be interpreted causally, it provides an indication of the characteristics, conditional on the other covariates, that are strongly associated with separation.

Note to Table 7

Note: The numbers in parentheses are standard errors in columns 1 and 2 and t-statistics in column 3, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Full-time employment is defined as working more than 30 hours per week (overtime inclusive). University education includes three-year degrees and PGCE teaching training. A-level equivalent includes HE diplomas, non-PGCE teaching qualifications, nursing qualifications and A levels. Household claim variables are dummies equal to 1 if any member of the household received income from that benefit in the prior month. For details of GHQ score measure, see footnote 4.

³ The calculations for the educational analysis were based on the MCS sample of children who had both natural parents resident at wave 1. Families where one or more natural parents had been reported as having died (1.96% of the total observations) were excluded. The education data came from the first wave of the MCS when children were aged 9 months.

⁴ Mental health here is measured using the 12-point General Health Questionnaire (GHQ), where respondents are asked to score their performance on a set of psychometric markers, which capture factors such as concentration, sleep, self-worth and enjoyment of everyday activities on a Likert scale. We score individual items in a binary fashion, such that responses indicating difficulties with one of these items are given a score of 1, and we then construct a total score as the sum of scores on the individual items. Presence of a mental disorder is defined as when an individual's score is greater than 2, which is a cut-off that has been previously used in the medical literature (Goldberg et al., 1997).

Table 7. Mean characteristics of separating/non-separating couples with children

	(1) No separation	(2) Separation	(3) Diff. (2)–(1)
Cohabiting	0.145 (0.352)	0.367 (0.482)	0.222*** (18.151)
Age of youngest child	13.490 (8.024)	9.805 (6.881)	-3.686*** (-13.774)
Male–female age difference	2.920 (5.069)	3.367 (6.226)	0.447* (2.462)
Partnership duration (years)	16.578 (8.610)	10.552 (7.293)	-6.026*** (-20.117)
<i>Education, either partner</i>			
<=GCSE	0.216 (0.412)	0.305 (0.461)	0.089*** (6.328)
A-level equivalent	0.352 (0.478)	0.415 (0.493)	0.064*** (3.938)
University	0.432 (0.495)	0.279 (0.449)	-0.153*** (-9.229)
Both partners same	0.517 (0.500)	0.470 (0.499)	-0.047* (-2.480)
<i>In full-time paid employment</i>			
Woman employed	0.399 (0.490)	0.330 (0.471)	-0.068*** (-3.772)
Man employed	0.802 (0.398)	0.744 (0.437)	-0.058** (-3.182)
<i>Housing tenure</i>			
Own outright	0.136 (0.343)	0.072 (0.259)	-0.064*** (-5.729)
Mortgage	0.592 (0.491)	0.449 (0.498)	-0.143*** (-8.705)
Rent, social	0.144 (0.351)	0.264 (0.441)	0.120*** (9.875)
Rent, other	0.127 (0.333)	0.215 (0.411)	0.088*** (7.673)
<i>Other</i>			
Net household income (monthly, 2019 prices)	4167.560 (2227.102)	3616.032 (1949.150)	-551.528*** (-7.505)
Household claim, income support	0.043 (0.203)	0.081 (0.273)	0.038*** (5.372)
Household claim, housing benefit	0.086 (0.280)	0.152 (0.360)	0.067*** (6.912)
Did not live with both biological parents at age 16	0.292 (0.455)	0.368 (0.482)	0.076*** (4.754)
GHQ score >2	0.301 (0.459)	0.415 (0.493)	0.113*** (7.025)
Observations	8,401	1,011	9,412

Table 8. Likelihood of separating in next survey wave

	(1) Female	(2) Male
Cohabiting	0.013*** (0.004)	0.012*** (0.004)
Age of youngest child	0.000 (0.000)	0.000 (0.000)
<i>Age (excluded = 30–39)</i>		
20–29	0.014** (0.006)	–0.000 (0.007)
40–49	–0.002 (0.003)	–0.005 (0.003)
50–59	–0.005 (0.004)	–0.009** (0.004)
Partner age –/+ five years	–0.002 (0.002)	–0.003 (0.002)
Partnership duration (years)	–0.001*** (0.000)	–0.000** (0.000)
<i>Education (excluded = less than university)</i>		
Woman university educated, partner not	0.000 (0.003)	0.002 (0.003)
Man university educated, partner not	0.001 (0.003)	–0.004 (0.003)
Both partners university educated	–0.007*** (0.002)	–0.005** (0.002)
<i>Paid employment (excluded = not in employment)</i>		
Full-time	0.002 (0.003)	0.001 (0.005)
Part-time	–0.002 (0.003)	0.005 (0.007)
<i>Housing status (tenure: excluded = owner-occupier)</i>		
Tenure: renting, social	0.011*** (0.004)	0.010** (0.005)
Tenure: renting, other	0.007 (0.004)	0.004 (0.004)
Behind on rent/mortgage payments	0.005 (0.005)	0.008 (0.005)
<i>Household net income percentiles (excluded = 0–25th)</i>		
25 th –50 th percentile	–0.000 (0.004)	0.002 (0.004)
50 th –75 th percentile	0.001 (0.004)	0.003 (0.004)
75 th or higher	0.005 (0.004)	0.003 (0.004)

Table 8 continued

	(1) Female	(2) Male
<i>Other</i>		
Household claim, income support	0.017 (0.011)	0.013 (0.012)
Household claim, housing benefit	0.002 (0.007)	0.005 (0.007)
Did not live with both biological parents at 16	0.008*** (0.003)	-0.003 (0.003)
GHQ score >2	0.006** (0.003)	0.009*** (0.003)
Constant	0.015*** (0.005)	0.013** (0.006)
Observations	34,368	31,712

Note: Estimates are from a linear probability model of the likelihood that an individual's partnership dissolves by the next wave (in no more than 18 months' time). Standard errors are given in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. For details of some variables, see note to Table 7.

Conditional on other characteristics, cohabiting parents are on average 1.2–1.3 percentage points more likely to separate within an 18-month period than married parents. There is also a slight age gradient, with younger women in general being more likely to separate, older men in general being less likely to separate, and both men and women in longer-duration partnerships being less likely to separate. Educational attainment is also an important factor, with men and women in relationships where both partners have a university education being on average 0.5–0.7 percentage points less likely to separate in the next 18 months, compared with those in partnerships where they both have less than a university education. Housing tenure status is also strongly associated with the propensity to separate: as compared with owning their home (either outright or through a mortgage), couples in rented social housing are much more likely to separate – by about 1 percentage point. Men and women with mental health problems are also more likely to separate than those without – by 0.6 and 0.9 percentage points respectively.

Repeating this exercise but with the addition of interactions between the characteristics and cohabitation status showed no significant differences in the correlations by relationship type (see Appendix Table A4). Cohabiting unions are less stable than marital unions but the factors associated with separation are similar across the two unions, at least with respect to the set included in our models. For example, we cannot say whether the greater dissolution rates seen for cohabiting unions are a direct result of couples selecting into marriage versus cohabitation based on their level of commitment, sense of security or the strength of their relationship, with cohabitation representing a weaker form of union on these dimensions.

Consequences of partnership dissolution

Parental separation is more frequent in lower socio-economic households; thus the extent to which separation adversely affects parents and children has the potential to further entrench existing inequalities.

In this subsection, we examine the mental health and living standards of individuals before and after they experience a separation using an event study framework. The event study approach

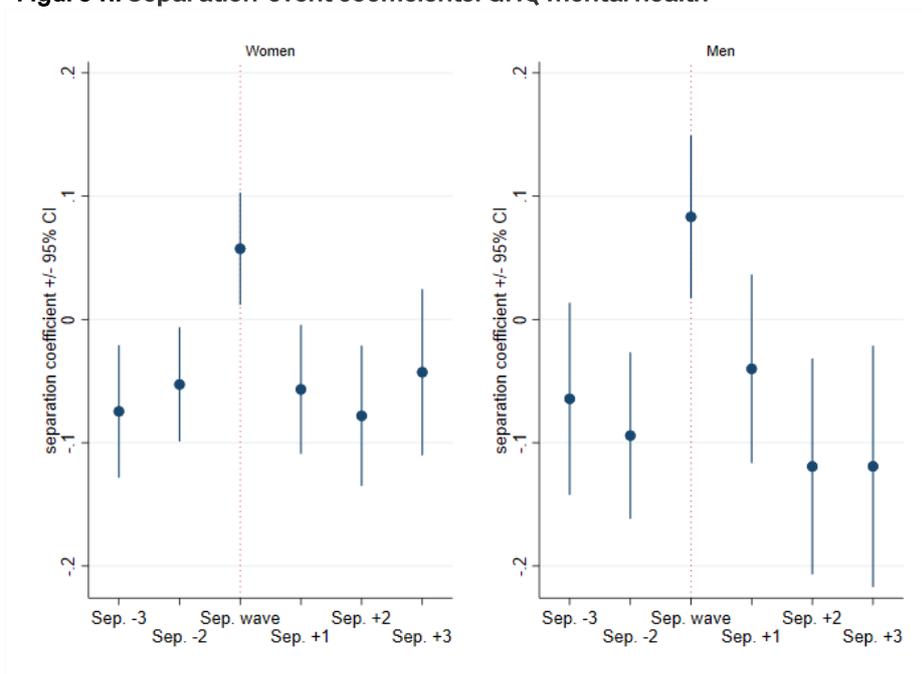
allows us to control for the fixed or time-constant characteristics of the parents.⁵ We additionally control for two time-varying characteristics – employment status and whether the people repartner – as these have the potential to alter post-separation trajectories. In addition to the separation wave, the analysis covers three waves prior to and three waves post separation.

Mental health

The mental health measure is a binary one based on responses to the General Health Questionnaire (GHQ) (see footnote 4), with a code equal to 1 if the individual scored greater than 2 on the GHQ and 0 otherwise.

The results of the analysis are shown separately for men and women in Figure 11, with full details in Appendix Table A5.⁶ We see a positive and statistically significant increase in the incidence of poor mental health of around 6–8 percentage points for both women and men, in the wave of the separation, relative to the wave prior. The difference between men and women is not statistically significant. In the reference wave (the wave prior to the separation), 38% of women and 35% of men report a GHQ score greater than 2.

Figure 11. Separation-event coefficients: GHQ mental health



Source: Authors' calculations using Understanding Society, waves 1–10.

⁵ This consists of estimating a regression of the form

$$y_{it} = \beta_{\tau it} + \alpha_i + \theta_t + \gamma X_{it} + \epsilon_{it}$$

where $\beta_{\tau it}$ are the event study coefficients – the effect on the outcome of the separation at τ periods from the event, relative to a base period (in our case we choose one wave prior to the separation). Wave dummies are denoted by θ_t , additional time-varying characteristics are contained within X_{it} , ϵ_{it} is the idiosyncratic error, and α_i is an individual-specific fixed effect.

⁶ By way of interpretation, the points on this figure can be read as the mean difference in the outcome between the wave indicated on the horizontal axis and the wave prior to separation.

However, the effect appears to be short-term, as there is a slight improvement in mental health in later waves. Although we can detect no impact of repartnering on mental health, we estimate a negative coefficient for the effect of employment, implying that being in work can serve to improve mental health among this group. Our results accord with earlier analyses of data from the British Household Panel Survey, the predecessor of Understanding Society, by Tavares and Aassve (2013) and Fisher and Low (2016), who also found that separation had a significant negative short-term impact on mental well-being.

Household income

Another major effect of parental separation is its impact on household income. The splitting of one household into two can be a complicated and costly exercise, which may adversely affect the economic well-being of both partners. We display these results descriptively in the main text, but see Appendix Tables A6 and A7 for the equivalent event study analysis.

Figure 12 shows total household income for women and men in the waves of **Understanding Society** before and after separation, decomposed into its different sources and adjusted for inflation. The categories we break this total income down into are own labour income, labour income earned by other household members, transfers from the state, private transfers (which includes child maintenance from the separated partner as well as transfers from other family members), income from investments, pensions, and miscellaneous sources.⁷

Immediately following separation, both partners, on average, experience a sizeable drop in income of about 20–30%. Women tend to lose labour income from other household members, and partially make up for this through increases in benefit income and private transfers such as child maintenance. Men lose some of previously shared income from state transfers and income earned in the labour market by their ex-partner.

A focus on total household income does not take into account the fact that separation typically leads to changes in household size. Figure 13, which adjusts for household composition, shows that women experience a small but persistent reduction in their equivalised net household income while men experience, if anything, a slight increase in their equivalised household income.

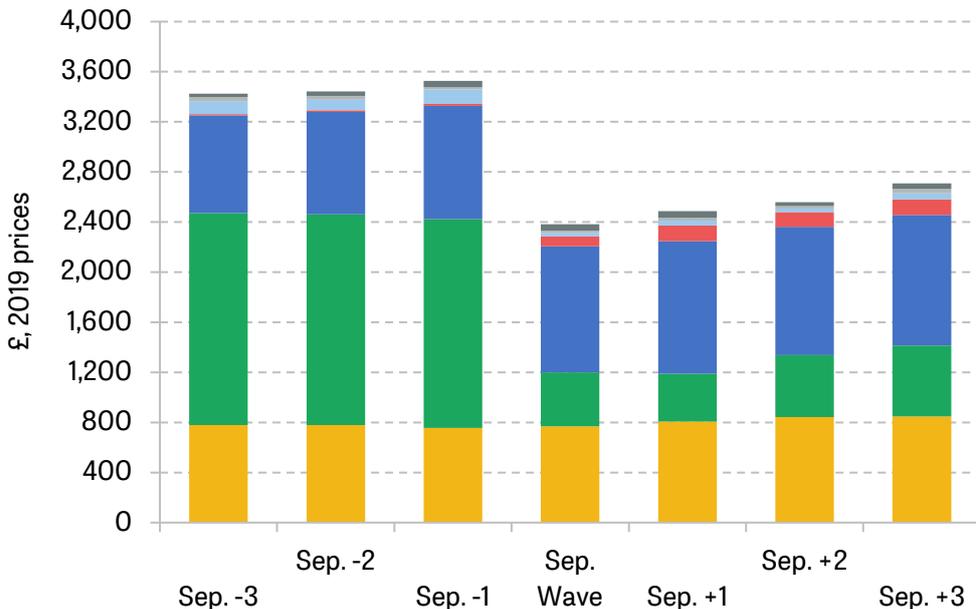
The difference in the findings from the two household income measures is largely driven by separated women being more likely to report having co-resident dependent children. As we see from Figure 14, the proportions of men and women who report having any of their own children living in their household following separation are strikingly different. After a separation, mothers still largely take primary responsibility for raising their children.

The income trajectories of the parents also vary by their level of education. In Figure 15, we focus on mothers, who are typically the primary carer, and show how the equivalised income decomposition differs by their level of education.

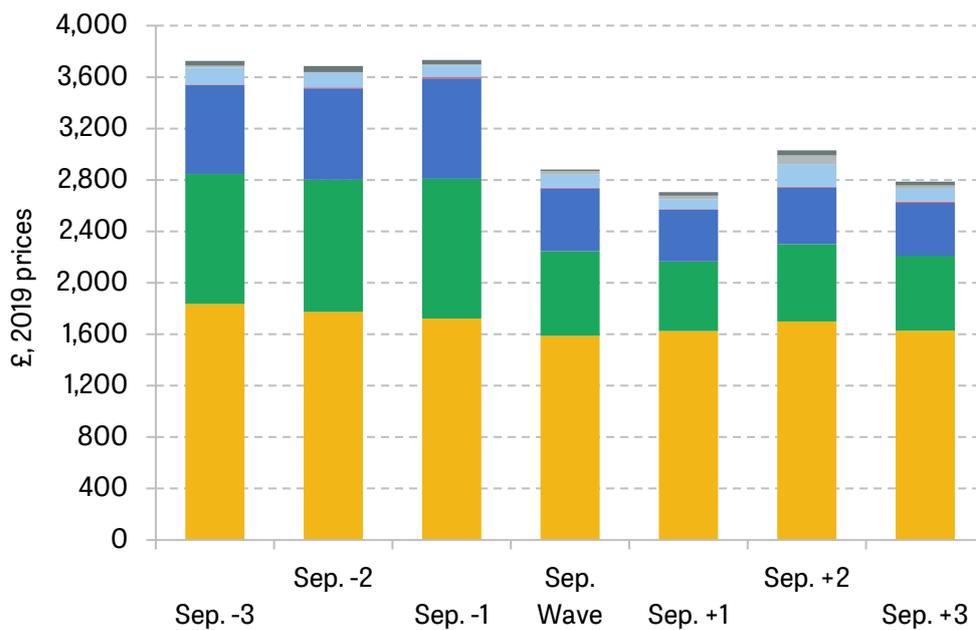
⁷ Note that the sample of men who can be followed both before and after separation is smaller than that for women, suggesting that it may be more selected.

Figure 12. Decomposition of total monthly net household income amongst separating parents

Women



Men

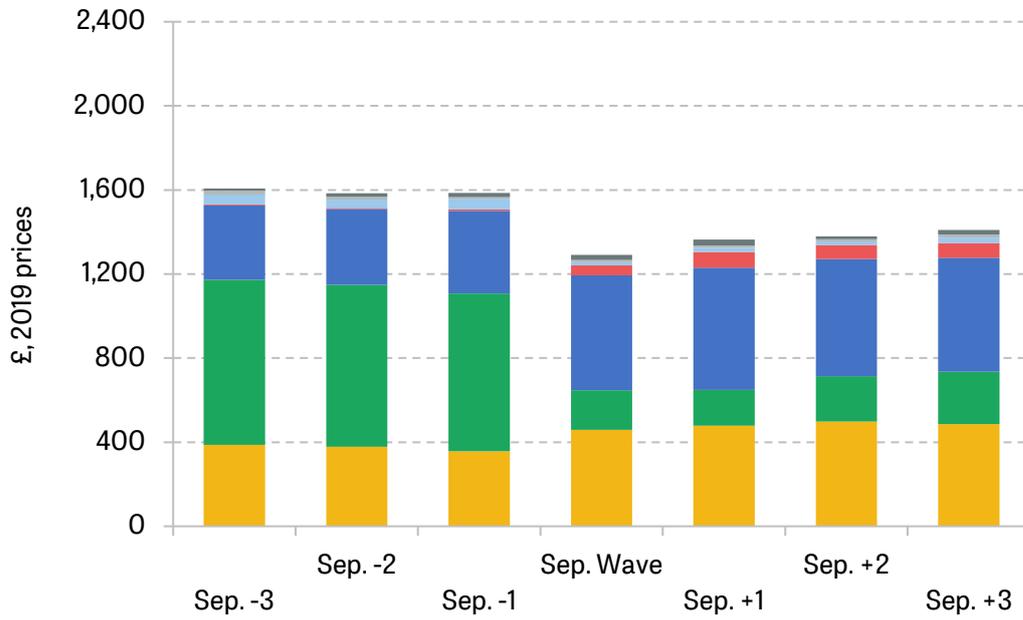


- Own labour
- Other HH labour
- State transfers
- Private transfers
- Investments
- Pensions
- Miscellaneous

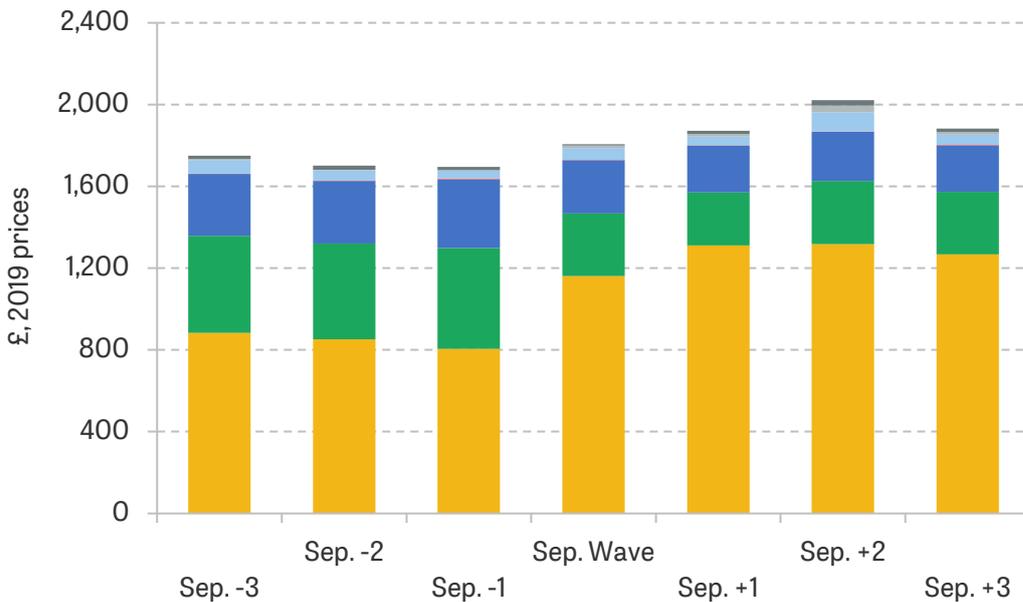
Source: Authors' calculations using Understanding Society, waves 1-10.

Figure 13. Decomposition of equivalised total monthly net household income amongst separating parents

Women



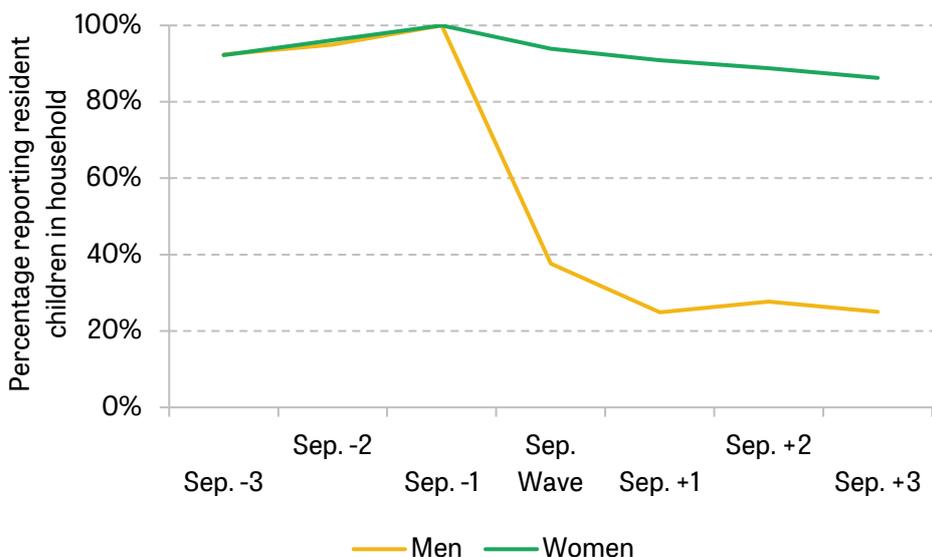
Men



- Own Labour
- Other HH Labour
- State Transfer
- Private Transfer
- Investment
- Pension
- Misc

Source: Authors' calculations using Understanding Society, waves 1-10.

Figure 14. Share of separating parents reporting own children in household



Source: Authors' calculations using Understanding Society, waves 1-10.

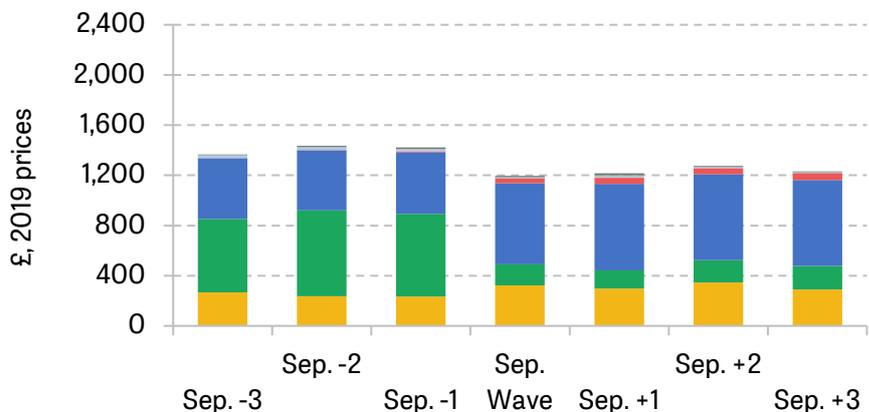
University-educated women tend to exhibit, in proportional terms, the greatest reduction in equivalised income immediately following a separation. Their total equivalised income fell by roughly 25% in the first wave that they report being separated, compared with 16-18% for the other groups. However, in absolute terms they still have higher household incomes, and by implication more resources and higher living standards than less-educated women. The higher incomes of the university-educated mostly come from their own labour market earnings, which constitute roughly 50% of household incomes in the post-separation waves, compared with 25% for women with a GCSE-level qualification or below, and 35% for women with intermediate-level qualifications. In contrast, women in the lowest education category mostly rely on state transfers, which account for over half of their total household income following a separation.

Noteworthy for all the educational groups are the apparently small amounts that separated women receive in private transfers (which includes child maintenance) following separation. These amount to no more than 7% of total incomes on average, and over half of the women in the sample report no child maintenance whatsoever. This finding seems particularly stark given the equivalised-terms increase in income that men in our sample appear to experience following a separation, but it is broadly consistent with official statistics (Foster and Foley, 2021), which show that 44% of separated families have no child maintenance arrangement and 38% have a non-statutory arrangement (including shared care).

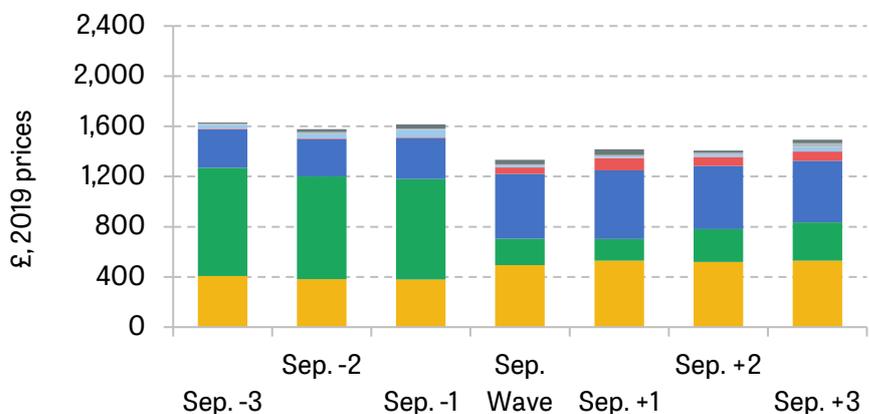
Our findings in relation to household income accord with earlier studies by Jarvis and Jenkins (1999), Brewer and Nandi (2014) and Fisher and Low (2016) that showed large reductions to the income of women following separation. They also noted that some of the largest falls were seen for those men and women previously in high-income households, and that these families also took longer to recover to pre-separation levels than those in low-income households. There is also evidence for a range of European countries including the UK (Jansen, Mortelmans and Snoeckx, 2009) that repartnering amongst mothers outweighs the benefits from entering the labour force or increasing their hours of work to compensate for this shock.

Figure 15. Decomposition of total equivalised monthly net household income amongst separating mothers, by highest qualification

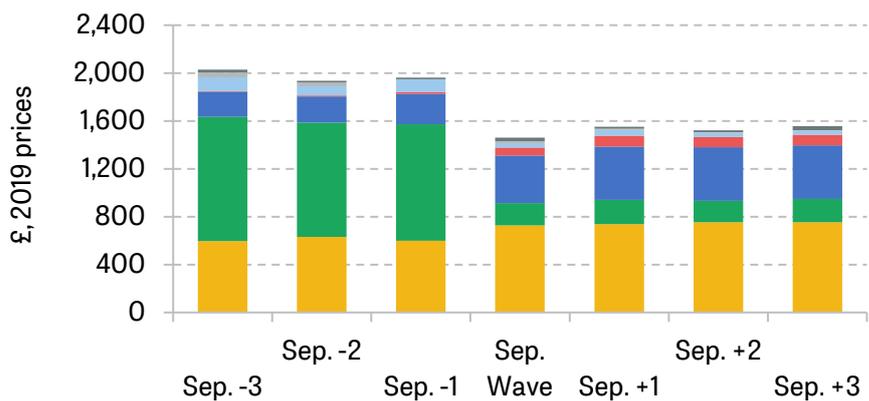
GCSE qualifications or less



Intermediate qualifications



University-level qualifications



- Own Labour
- Other HH Labour
- State Transfer
- Private Transfer
- Investment
- Pension
- Misc

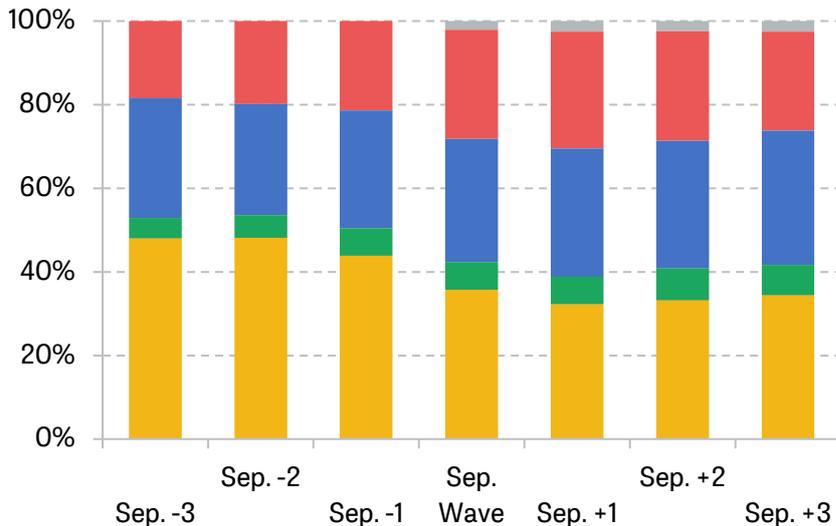
Note: 'Intermediate' education here denotes any post-GSCE qualification that is not a three-year university degree, such as the International Baccalaureate, non-PGCE teaching qualifications, and Diplomas in Higher Education. University includes bachelor's degrees and postgraduate qualifications.

Source: Authors' calculations using Understanding Society, waves 1-10.

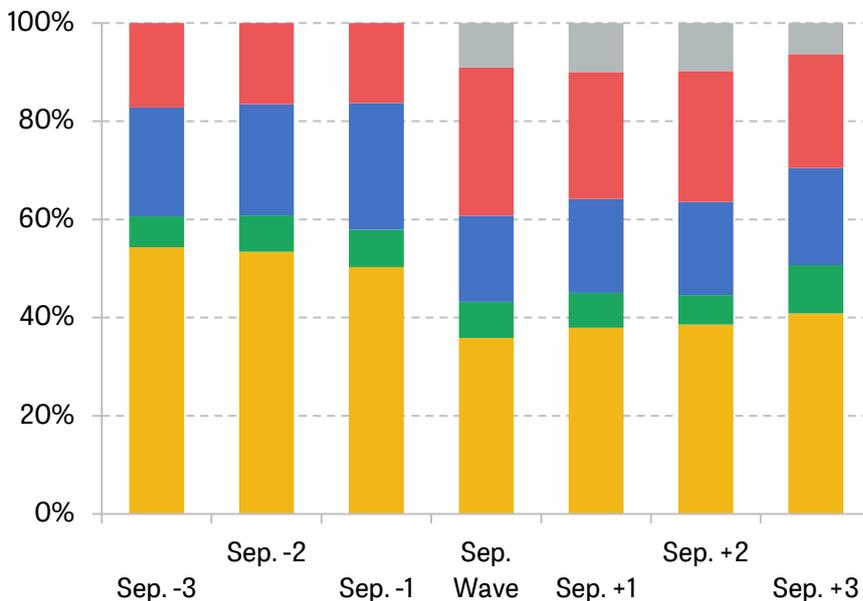
We have not been able to examine the extent to which assets and wealth are divided on divorce, although they also have important ramifications for a family's economic situation. Understanding Society only collects information on this topic intermittently so it is difficult to align it with pre- and post-separation situations. Moreover, such analyses would mainly apply to married couples, as they are obliged by law to agree on how they split pensions, savings, investments and other assets. Cohabiting couples have no obligation to do this.

Figure 16. Housing tenure amongst separating parents

Women



Men



■ Mortgage ■ Own outright ■ Rented, social ■ Rented, private ■ Parents

Note: Understanding Society captures housing tenure at household level, so if an individual moves in with their parents it is their parents' tenure that will be recorded. We attempt to capture this group by separately categorising individuals who live with one or more parents post-separation, having not lived with them pre-separation, under the 'Parents' label.

Source: Authors' calculations using Understanding Society, waves 1-10.

Housing tenure

Another key dimension of changing living standards for parents around separation is housing change. Figure 16 shows the percentages of men and women by housing tenure before and after separation. For both men and women, rates of living in owner-occupied housing tend to decline following separation. The proportion of men in social housing immediately drops following separation, while the corresponding proportion for women remains fairly constant. Privately rented accommodation seems to absorb most of any initial shock to housing tenure, increasing by 5 percentage points for women and 14 percentage points for men in the wave immediately following separation – before dropping slightly as individuals gradually move back into homeownership and social housing. An event study analysis, as used for the mental health outcome, with type of housing tenure as the outcome confirmed the directions of the effect of separation on housing tenure seen in Figure 16 (see Appendix Tables A8 and A9).

Mikolai and Kulu (2019), who have looked at post-separation housing trajectories in detail, show that those who live with their children following separation are more likely to remain homeowners, or move into social housing (particularly less-educated mothers), than those who do not live with their children, which tallies with our finding that the post-separation fall in owner-occupation or living in social housing is much smaller for women than for men. Social housing in the UK has traditionally provided long-term residential stability for disadvantaged families, including separating families. However, the stock of social housing has been shrinking and has become more marginalised in recent decades, with more families having to resort to privately rented housing, which tends to be of a lower quality and let on a more short-term and insecure basis (Ministry of Housing, Communities and Local Government, 2018). Both of these developments are likely to have negative repercussions for parents' and children's well-being.

Summary

Undoubtedly, parental separation can significantly reduce the economic and mental well-being of families, and it is the less advantaged in terms of education and housing tenure who are more likely to separate. Women fare worse than separating men in terms of the impact on household resources, but they experience slightly less disruption in their housing situation. Both men and women suffer from worse mental health as a result of relationship dissolution, although this appears to be a short-term shock. But the impact of separation on the mental well-being of children potentially has longer-lasting effects, as we explore in the next section.

6. Legacies of parental separation for children

From the child's perspective, a substantial body of research for a range of nations has demonstrated that children whose parents separate are more likely to be disadvantaged on a range of childhood, adolescent and adult outcomes, including their psychological well-being and health, their education and later labour market attainment, and in their own family lives in adulthood. Detailed reviews on this topic include Rodgers and Pryor (1998), Amato (2000, 2001, 2005), Sigle-Rushton and McLanahan (2004), Mooney, Oliver and Smith (2009) and Härkönen (2014).

Short- and long-term consequences

Parental separation has been shown to impact on the lives of children both in the short and in the longer term (Morrison and Cherlin, 1995; Amato, 2001). Following their parents' separation, children frequently go through a crisis period, when behaviour problems at home and at school are more often reported, worries become more prevalent and anxiety levels increase. After

parents separate, families may have to move house through necessity rather than choice, which in turn can lead to changes in schools, their neighbourhood and social networks. Poverty or at least reduced economic circumstances are also a prominent feature of these children's lives.

Later in life, a number of studies have shown that as a group, children who experience parental separation have lower educational attainment and lower incomes, and are more likely to be unemployed and to be in less prestigious occupations in adult life, than their contemporaries brought up by both parents (Greenberg and Douglas, 1982; Kiernan, 1997; Ermisch, Francesconi and Pevalin, 2004; Bernardi and Boertien, 2016, 2017).

Lower psychological well-being in adulthood is also more prevalent amongst these children, with a small minority of young adults developing serious mental health problems associated with parental separation which become stronger as they move through adulthood (Cherlin, Chase-Lansdale and McRae, 1998) and with middle-aged women who experienced parental divorce tending to report higher rates of psychiatric symptoms and those who experienced divorce themselves having noticeably high depression scores (Rodgers, 1994).

The hallmarks of the partnership and parenthood behaviour of women who experienced parental separation compared with those who did not are that they are more likely to commence sexual relations at an early age, to cohabit or marry and become parents at younger ages, to have children within cohabiting unions or on their own, and in turn to experience the break-up of their own partnerships (Chase-Lansdale, Cherlin and Kiernan, 1995; Kiernan and Hobcraft, 1997; Dronkers and Härkönen, 2008).

Pre- and post-separation influences

One of the challenges in assessing the legacies of a separation is being able to sort out the conditions that lead couples to separate and the potential effects on children from the consequences of the dissolution itself, particularly as parental separation is more likely to occur among couples with personal, social and economic problems. The selective nature of the population of children who experience parental separation may lead to an overstated impression of the effects of separation by conflating pre-existing differences between children from disrupted families and those from non-disrupted ones, with the fallout from marital dissolution.

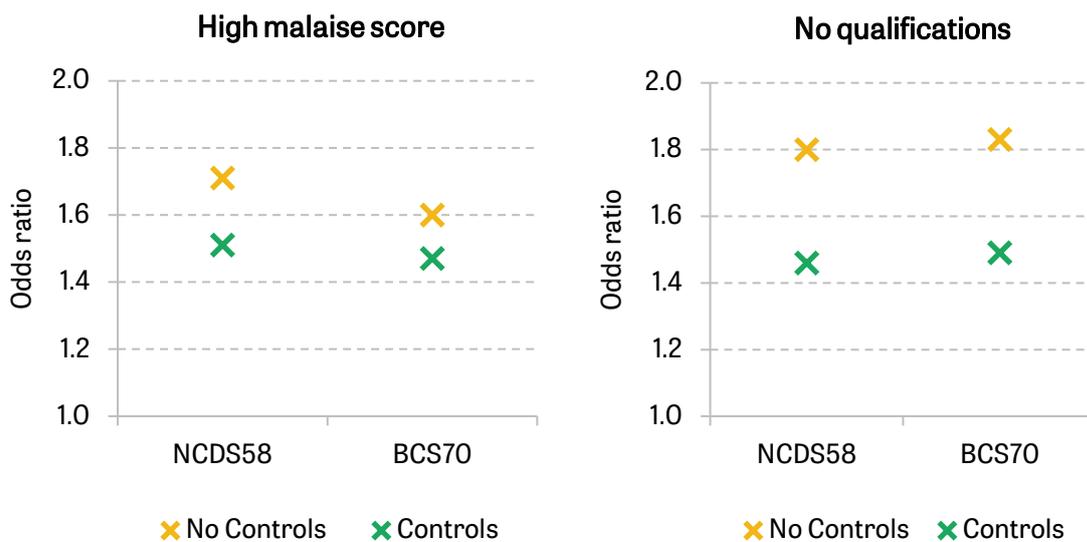
Research using data from the British cohort studies has played a major role in addressing this selection issue and to contributing to our understanding of the legacies of parental separation. Additionally, being able to make cross-cohort comparisons can throw light on whether the effects have become weaker as parental separation has become more commonplace. We illustrate this with one example that used two of these studies: the National Child Development Study (NCDS), which has followed up children born in 1958, and the 1970 Birth Cohort Study (BCS70) (Sigle-Rushton, Hobcraft and Kiernan, 2005). Comparisons across these two cohorts also allowed the stability of the associations across time to be examined.

Here we focus on two important outcomes – educational attainment and psychological well-being in adulthood, measured at age 33 in the case of the NCDS sample and age 30 for the BCS sample – and we compare children who had and had not experienced their parents' separation prior to age 17. Twenty-one per cent of the children in BCS70 had experienced a parental separation by age 17 compared with 9% in the NCDS. The longitudinal nature of the data allowed a range of childhood factors that preceded separation to be taken into account, including the children's behavioural scores and academic test scores, parenting (measured by whether parent read with the child), the social class of the father and housing tenure. The inclusion of these pre-disruption

characteristics plus the child's gender showed there were important differences between more and less advantaged children but these differences did not account for the effects of parental separation.

Parental separation remained significantly correlated with both educational attainment and psychological well-being in adulthood even after early-childhood antecedents were included in the models. As we see in Figure 17, the odds ratios for having no qualifications for those who experienced parental separation versus those who did not were of a similar size for both cohort samples, at 1.80:1 in the NCDS sample and 1.83:1 in the BCS70 sample. After the introduction of pre-disruption controls measured at age 7 years in the NCDS and age 5 in the BCS, the odds ratios were reduced to 1.46 and 1.49 respectively and remained statistically significant. Similarly, the odds ratios for having a high malaise score (a measure of depression) were 1.71:1 in the NCDS sample and 1.60:1 in the BCS70 sample, which reduced to 1.51:1 and 1.47:1 respectively after the introduction of the pre-disruption characteristics and remained statistically significant at the $p < 0.001$ level. Despite rapid changes in the frequency and acceptability of parental separation between these two cohorts, it is striking that the parameters linking family disruption to child and adult outcomes were similar in magnitude across the two cohorts but for both cohorts the overall effect sizes tended to be modest. This probably reflects the considerable heterogeneity within both separated and non-separated families.

Figure 17. Odds ratios for impact of parental separation on outcomes at age 33 (NCDS) / 30 (BCS)



Source: Estimates from table 5 in Sigle-Rushton, Hobcraft and Kiernan (2005).

This cross-cohort study only reported on children with and without qualifications. In a more recent analysis of the BCS70 as well as Understanding Society, Bernardi and Boertien (2016) examined disparities across a broader educational range and showed that parental separation seems to have a greater negative impact on the educational and occupational attainment of children from more advantaged socio-economic backgrounds than on the attainment of their contemporaries from less-advantaged backgrounds. For example, by age 30, 28% of the 1970 cohort had university-level qualifications. However, children whose parents separated had, on average, an 8 percentage point lower probability of having university-level qualifications than those whose parents remained together at least until they were age 16. The parental separation penalty was found to be larger for children of highly educated parents, at 13 percentage points compared with 6–7 percentage points for children of less-educated parents. The important

mechanism found to explain this difference was the reduction in family income post-separation and, as we saw in the previous section, declines in income are not insubstantial.

In light of the critical importance of educational qualifications for future earnings and type of employment, the robustness of the 'on average' negative relationship found between parental separation and children's academic attainment is of concern not only for their own future life chances but for any future family they may have.

Parental conflict

A frequent question on which we have only limited information is whether the effects of separation on children are less detrimental than the effects of remaining living with parents who have a discordant relationship. For example, marriages where there is chronic and overt conflict may be intact structurally but it may not be a good environment for raising children. The few studies that have looked at this (Morrison and Coiro, 1999; Amato, 2005, 2010) show that children in highly discordant families suffer similar behavioural and emotional problems to those who experience parental separation. Follow-up studies (Booth and Amato, 2001) have shown that effects of marital divorce vary with the degree of parental conflict prior to divorce. Where conflict had been high, young adults whose parents separated had more favourable outcomes than those whose parents continued to live together. However, those living in low-conflict families where parents did not frequently fight or express hostility showed more negative consequences of separation. In other words, children are particularly at risk when low-conflict marriages end, yet most marriages that terminate are of this type. Presumably, children in these circumstances often view their parents' separation as unexpected, perplexing and upsetting.

Nevertheless, reducing the risk of negative impacts on children's outcomes requires a better understanding of the mechanisms involved in the process of family breakdown and how they impact on child outcomes. The evidence (for a review, see Mooney, Oliver and Smith (2009)) shows that high levels of parental conflict, the quality of parenting and of parent-child relationships, poor maternal mental health and financial hardship interact in complex ways before, during and after parental separation, and affect children's outcomes. Equally, these same factors are also influential for how children develop even in the absence of separation, as we will see later in the chapter.

7. Unequal starts and birth context

As we saw earlier, non-partnered parenthood is more prevalent in the socio-economically deprived areas of the country. Here we take a closer look at these families using data from the UK's Millennium Cohort Study (MCS), a longitudinal study of children born in 2001-02, which was the first and as yet only nationwide data source for examining these families in detail. As we will see, children born into these families compared with those born into couple families have the most unequal start in life, experience more family instability and are the most disadvantaged across a spectrum of indicators through early childhood.

The first MCS interview was carried out when the cohort child was around 9 months old and a parent reported on the family setting in which the child was born: 60% of the children were born to married parents, 25% were born to cohabiting parents and 16% were born to a mother living on her own (Kiernan and Smith, 2003). These proportions were in accord with the birth registration data for that period. A range of demographic and socio-economic data, and health behaviours were collected in the first survey, which allowed comparisons to be made across the

three sets of birth contexts. An understanding of the nature of parental relationships around the time of the child's birth is important insofar as partnership commitment and quality are good predictors of whether or not a child is likely to be raised in a stable home environment and whether or not the child's father is likely to be involved in their lives. Similarly, knowledge of parents' capabilities at birth is important for assessing children's access to parental resources as well as documenting differences in the characteristics and behaviours of parents who form different types of family arrangements.

Table 9. Mothers' characteristics according to partnership context at birth

	Married	Cohabiting	Non-partnered	All
Baby planned	74.7	47.1	16.0	56.7
Average age at birth of cohort member	30.3	26.6	24.7	28.3
Lived with both parents to age 16	84.0	67.9	59.8	76.2
<i>Qualifications</i>				
Degree level	37.5	17.9	7.7	27.9
A level or equivalent	20.8	21.6	14.9	20.1
GCSE or equivalent	33.0	47.3	47.9	39.0
No qualifications	8.7	13.2	29.5	13.1
In bottom quintile of income distribution	20.7	37.9	80.9	34.6
In work / On maternity leave	57.2	50.4	23.5	50.2
<i>Housing tenure</i>				
Owner-occupier	81.1	53.9	12.2	58.4
Social housing	10.0	30.3	58.4	26.7
Other – mainly private rented	8.9	15.8	29.4	14.8

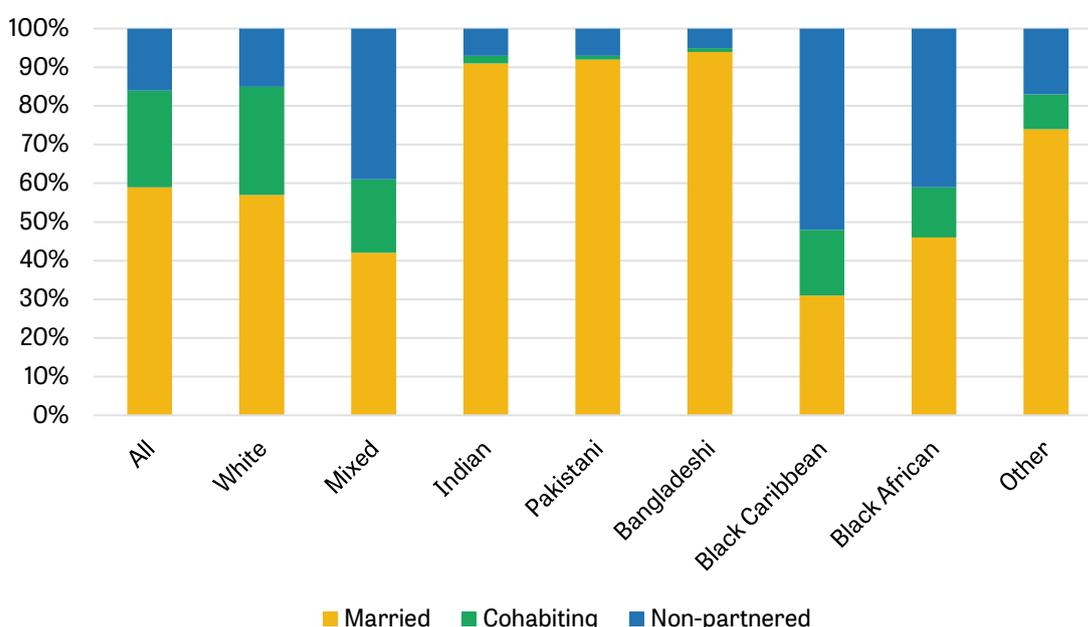
Source: Authors' calculations from the MCS Wave 1 and Kiernan and Smith (2003).

Table 9 provides information on a range of characteristics for the three birth contexts. Information was collected on whether the baby had been planned. Amongst married couples, the majority were planned births (75%), whereas only one in two of the births to cohabiting couples and a small minority of the births to non-partnered mothers (16%) were planned. There is a clear age gradient across the three groups: married mothers were on average much older than cohabiting and non-partnered mothers. A similar gradient is seen for whether the mothers had experienced parental separation during childhood, which is a well-known marker for instability in their own partnerships. Considering the socio-economic characteristics, we see that married mothers were more educated than cohabiting mothers, who were in turn more educated than the non-partnered mothers. There is a similar hierarchy with respect to socio-economic circumstances in that married couples were the most well off financially and the most likely to own or be buying their own home, and the non-partnered were the worst off. Cohabiting couples were substantially better off than the non-partnered but not as advantaged as the married

couples. The non-partnered were the least likely to be in work when their child was 9 months old (23.5%), whereas around 50% of the cohabiting and married mothers were in work.

The UK is a culturally and ethnically diverse society and, as we will see later, there are some noteworthy differences across ethnic groups in the types of family trajectories children followed. The great majority of the mothers in the MCS were white (89%), 5.7% were South Asian, 2.6% were black and 2.6% were mixed race and other. From Figure 18, we see that the Asian parents were more likely to be married at the time of the birth (and the great majority, 90%, were married) than the white or black parents. Having a child within a cohabiting union was rare amongst Asian mothers and was less common amongst black mothers than white mothers. Black and mixed-race mothers were the most likely to have had a child outside of a co-residential partnership, but numerically the great majority of this non-partnered group were white mothers.

Figure 18. Birth context, by ethnicity of mother



Source: Authors' calculations using MCS Wave 1 data.

As well as demographic and socio-economic variation according to birth context, there are also marked differences with respect to health-related behaviours. Aspects of maternal health and behaviours known to have important implications for children's development are: maternal smoking during pregnancy; breastfeeding; and maternal depression. Exposure to cigarette smoking during pregnancy is associated with medical complications of pregnancy and birth and with longer-term effects on the child's cognition (Ernst, Moolchan and Robinson, 2001) and temperament in early childhood (Brook, Brook and Whiteman, 2000). Breastfeeding is beneficial for the physical health of the infant and the child's later cognitive and academic outcomes (Horwood and Fergusson, 1998; Borra, Iacovou and Sevilla, 2012; Fitzsimons and Vera-Hernández, 2021). There is evidence (as we will discuss in Section 9) that poor maternal mental health increases the risk of emotional and behavioural problems in her children and to a lesser extent adversely affects a child's cognitive development.

In Table 10, we again see noteworthy gradients with respect to partnership contexts at birth. Non-partnered mothers are the most likely to have continued smoking during pregnancy despite

its known negative consequences for the baby's and the mother's health: 43% did so, whereas only 8% of the married mothers continued to smoke. The non-partnered mothers were the least likely to initiate breastfeeding and the most likely to have experienced postnatal depression, with married mothers being the most likely to breastfeed and the least likely to suffer depression, and cohabiting mothers holding an intermediate position. Multivariate analyses that adjusted for socio-economic and demographic factors and tested for trends showed there to be a statistically significant increased risk of adverse mental health and health behaviours by decreasing degree of partnership connectedness between the parents (Kiernan and Pickett, 2006).

Table 10. Maternal health and health-related behaviours

	Married	Cohabiting	Non-partnered	All
Smoked through pregnancy	8.1	32.3	43.4	21.5
Ever breastfed cohort member	77.7	62.6	49.7	69.5
Experienced postnatal depression	11.3	15.3	19.7	13.6

Source: Kiernan and Pickett, 2006.

In sum, these findings underscore the extent to which parents' partnership status at birth is an important marker of differences in children's access to parental resources and positive parental behaviours. But families are not static and children can experience a variety of family settings as they move through childhood that may reduce or enhance their access to parental inputs.

8. Family stability and instability in childhood

As judged by the experiences of the MCS families, even in the first five years of their lives children can experience a great deal of change, which varies according to the family context into which they were born.

Family trajectories, birth to 5 years

For those children who were followed up, a cross-sectional snapshot of their family situation at age 5 showed that similar proportions were currently living with married parents (60% compared with 59% in this sample at birth); fewer were living with cohabiting parents (15% compared with 25%); and more were living in a lone-parent family (20% compared with 16%). The remaining 5% were living in step families formed through remarriage or cohabitation. However, these simple comparisons only provide a partial picture of the extent of family dynamics over the first five years of the child's life.

This is highlighted in Table 11, which shows a number of trajectories, derived from information collected at the 9-month-old and the age 3 and 5 surveys, according to the context in which the children were born. It is clear that parents who were married were more likely still to be together than those who were cohabiting at the time of the child's birth. Cohabiting parents were more likely to have separated and repartnered than were married parents. Of the married parents 88% were still married and living together when their child was aged 5, whereas amongst parents who were cohabiting at the child's birth 67% were still living with each other five years later, with 43% continuing to cohabit and 23% having married. This last group was more likely to be highly educated and have higher incomes. From a child's perspective, children born to cohabiting parents were almost three times as likely as those born to married parents to be no

longer living with both their parents when they were 5 years old (28% compared with 10% respectively).

Amongst the mothers who were neither married nor cohabiting at the child's birth, 39% were in a partnership five years later: 26% had partnered the child's father (two-thirds were in a cohabiting union and a third were married) and 13% had a new partner. Again those who married were more likely to be amongst the more educated and had higher incomes. Additionally, 19% had been in a partnership in the intervening years but were no longer in one, and 42% of the children were in a stable lone-mother family from when they were born to age 5.

Table 11. Relationship between natural parents at the time of birth and subsequent family trajectories to age 5, for UK children in MCS surveys 1 and 3

Family trajectory	Married	Cohabiting	Non-partnered	Total
<i>Married at birth</i>				
Stable	88.1%			52.3%
Periods of separation	2.1%			1.3%
To lone parenthood	7.6%			4.5%
To repartnered	2.1%			1.2%
Total	100%			59.3%
<i>Cohabiting at birth</i>				
Stable		43.4%		10.9%
To married		23.2%		5.8%
Periods of separation		5.7%		1.4%
To lone parenthood		20.5%		5.1%
To repartnered		7.3%		1.8%
Total		100%		25.0%
<i>Non-partnered at birth</i>				
Stable			41.7%	6.6%
To married			8.6%	1.3%
To cohabiting			17.7%	2.7%
To new partner			13.1%	2.1%
Periods of partnership			18.8%	2.9%
Total			100%	15.7%
Total sample	59.3% ^a	25.0% ^a	15.7% ^a	100%
Unweighted sample size	8,706	3,407	2,481	14,594

^a Sample percentages weighted to correct for sampling design, non-response and sample attrition up to survey 3.

Source: Kiernan and Mensah, 2010.

Interestingly, DeRose et al. (2017) in their comparative analysis of European nations and the US showed that few children were raised by stably lone mothers from birth to their cut-off point of age 12 – less than 10%. A notable exception was the UK, where one-quarter of children had this experience. It would appear that British parents are not only more likely than their European counterparts to have a child outside of a union but that these lone-mother families are more long-term arrangements than is the case in other European countries.

There were also differences in the partnership trajectories of mothers from different ethnic groups (Kiernan and Mensah, 2010). Overall, the most unstable family lives were seen amongst black mother families, particularly those of Caribbean origins, regardless of whether they were married or not when they had their baby. Marriage is central to South Asian family life but these families were no more stable than white married families, at least over the first five years of their children's lives. Stable cohabiting unions were most frequently found amongst white and mixed origin families, were rare amongst South Asian families and were most prone to breakdown among black mothers.

These family trajectories clearly highlight how cross-sectional snapshots of children's living arrangements can disguise the dynamics of family living arrangements and some of the complexities of the family situations experienced by these children even over this short span of their lives. Another aspect of the increasing complexity of family life is the extent to which parents have children with different partners. In this cohort of children, 10% of those born to single mothers, 2.4% of those born to cohabiting mothers and 0.5% of those born to married mothers had half siblings by the time they reached age 5. More of the cohort will acquire half and step siblings over their childhoods given that 44% of these children were no longer living with both of their biological parents by age 17.

Family circumstances and economic well-being

Changing family circumstances have important implications for the economic well-being of families and the psychological well-being of parents and children. From Table 12, we see that by the time the children were 5 years old, 30% were living in income poverty, with poverty defined as living below 60% of equivalised median income before housing costs. Families with two natural parents were the least likely to be living in poverty: where the two parents were continuously married to each other, 15% were living in poverty; and where the parents initially cohabited and then married, 16% were living in poverty. The next most advantaged group was families with continuously cohabiting parents, of which 23% were in poverty.

Living in a lone-mother family raised the chances of living in poverty, but there was a significant gradient, with previously married lone mothers being less likely to be in poverty than their cohabiting contemporaries (52% compared with 67%), who in turn were less likely to be in poverty than families where the mother had been a lone mother since the birth of the child (79%). Interestingly, the group of lone mothers who subsequently married or cohabited with the natural father, although their financial circumstances improved relative to those who did not form partnerships, were not living in as advantaged economic circumstances as other married or cohabiting families; but still marriage was more beneficial than cohabitation for this set of mothers. More detailed studies that examined income trajectories for these set of mothers at ages 9 months, 3 years and 5 years and took into account mothers' education level, their ethnicity and age at first birth confirmed the pattern we see using the simple poverty measure presented here – namely, that for economic well-being, marriage is better than cohabitation, which is better than lone parenthood, and stability is better than instability (Holmes and Kiernan, 2010; Kiernan et al., 2020). In sum, the chances of a young child living in poor economic circumstances are

associated with both the partnership context into which they are born and the subsequent partnership histories of their parents.

Table 12. Family trajectories up to age 5 and poverty and mother's psychological well-being at the age 5 survey

Family trajectory	Family experiencing income poverty ^a	Mother experiencing psychological distress ^b
<i>Married at birth</i>		
Stable	15.4%	9.5%
Periods of separation	31.1%	15.4%
To lone parenthood	52.1%	24.1%
To repartnered	36.1%	15.6%
<i>Cohabiting at birth</i>		
Stable	23.2%	14.5%
To married	16.4%	11.6%
Periods of separation	42.2%	11.9%
To lone parenthood	66.5%	20.1%
To repartnered	38.5%	22.1%
<i>Non-partnered at birth</i>		
Stable	79.3%	25.4%
To married	35.0%	12.1%
To cohabiting	43.2%	21.6%
To new partner	50.0%	21.1%
Periods of partnership	82.0%	33.0%
Total sample	29.7% ^c	14.0% ^c
Unweighted sample size	14,579	13,115

^a Income poverty: less than 60% of the median equivalised household income.

^b Psychological distress: mother reporting 7–24 points on the Kessler scale.

^c Sample percentages weighted to correct for sampling design, non-response and sample attrition up to survey 3.

Source: Kiernan and Mensah, 2010.

Family circumstances and parents' mental health

The story was somewhat different for whether the mothers were exhibiting mental health symptoms when their child was 5 years old. We see from Table 12 that all the married mothers, regardless of whether they were married, cohabiting or non-partnered at the time of the birth, had similar and the lowest rates of psychological distress. Cohabitation, on the other hand, did not appear to bestow the same level of benefit. Women who became lone mothers after the break-up of a marriage or cohabitation or had been so since the birth of their baby had relatively high and similar rates of distress when their child was 5 years old. The highest levels of reported

distress were amongst those who were lone mothers at the outset, subsequently had periods of living with a partner but had reverted to being a lone mother by the time of the age 5 survey. A third of these mothers, who had amongst the most unstable family lives, reported they had mental health problems, and they were also amongst the very poorest of mothers. It is well established that poverty and mental health are interrelated, and we will be elaborating on this interconnection in the next section.

Undoubtedly, the partnership context in which children are born is associated with a range of disadvantages, but the post-birth partnership behaviour of parents can also temper or enhance the disadvantage experienced by these families and their children. That is not to say that a parent's partnership situation either at the time of the birth or subsequently affects children directly, but rather it reflects parental situations and inputs, which in turn affect outcomes for these families.

9. Family life and children's development in the early years: what matters?

The resources and contexts of family life in the early years of childhood have been shown to be important in explaining the striking degree of inequalities in children's early development (for a comprehensive review, see Shonkoff and Phillips (2000)). Here we focus on three aspects of families: their economic circumstances, the parents' mental well-being, and parenting behaviour and practices and we examine how they promote or hinder children's cognitive and emotional development in the early years. We draw on the extant literature and illustrate with examples from analyses based on the Millennium Cohort Study.

Family income

Several decades of social science research have shown that children growing up in economically deprived families do not fare well and that where one starts from in life is a key, but not exclusive, determinant of life chances (Atkinson et al., 1983; Duncan and Brooks-Gunn, 1997; Heckman, 2006; National Academies of Sciences, Engineering and Medicine, 2019a). A huge literature has shown that low income is highly correlated with worse outcomes for children and more recently there is growing evidence for its causal influence. Two recent reviews, by the National Academies of Sciences, Engineering and Medicine (2019a) and Cooper and Stewart (2021), suggest that the weight of the evidence, mainly derived from natural experiments, indicates that income poverty per se causes adverse child outcomes, especially when family poverty occurs in early childhood or persists throughout a large part of childhood. However, as yet, we do not have clear picture as to the processes involved.

Two main perspectives or frameworks have been proposed to help explain how poverty might influence children's development, referred to as the family investment model or perspective and the family stress model or perspective (Conger and Elder, 1994; Conger, Rueter and Conger, 2000; National Academies of Sciences, Engineering and Medicine, 2019a). The family investment perspective emphasises the extent to which low income hinders the parents' ability to obtain the goods, services and experiences that enhance children's cognitive development. For example, higher incomes may enable parents to invest in cognitively stimulating items such as books and computers, allow them to buy higher-quality childcare, provide more parental time and engagement by, for example, flexible working, and engage children in learning activities and experiences outside the home. The family stress perspective focuses on the fact that economic hardship can increase psychological distress and lower the emotional well-being of parents, which can affect their parenting practices, engagement and behaviours as well as their

relationship quality. Research on understanding children's well-being is complicated by the fact that economic resources and the mental health of parents may be interdependent but they can also be independent of each other, and studies by economists and psychologists have generally tended to emphasise and research one to the exclusion of the other.

Parents' mental health

A range of research reported in the psychological literature shows that poor mental health is associated with adverse outcomes in infancy and early childhood such as language and cognitive deficits and behavioural problems. The National Research Council and Institute of Medicine (2009) report on *Depression in Parents, Parenting, and Children* provides a comprehensive review. Poorer mental health has been found to be associated with inconsistent, harsher and detached parenting and this lower-quality parenting can be harmful to children's cognitive and socio-emotional development (Elder and Caspi, 1988; McLoyd, 1990; Conger et al., 2002; National Academies of Sciences, Engineering and Medicine, 2019b). For example, depressed mothers compared with non-depressed mothers experience more difficulties in parenting, tending to be less responsive and less positive towards their children, which has been linked with behaviour problems in children including externalising behaviours of aggression and acting out (Fergusson and Lynskey, 1993; Kim-Cohen et al., 2005) and internalising disorders of withdrawal and anxiety (LaFrenière and Dumas, 1992). Most studies have focused on the effect of the mother's mental health during the early years of a child's life, but those that have examined fathers' mental health also find adverse emotional and behavioural outcomes in young children with depressed fathers (Ramchandani et al., 2005). The effects of maternal mental health problems tend to be larger than the effects found for paternal mental health (Mensah and Kiernan, 2010; Fitzsimons et al., 2017).

Parenting

The impact of parents may never be greater than during the earliest years of life, when children's brains are developing rapidly and when nearly all of their experiences are created and shaped by their parents and the positive or challenging circumstances within their family environment. Parenting is undoubtedly a key factor in children's development. An extensive research literature, including reviews by Shonkoff and Phillips (2000), Gutman, Brown and Akerman (2009) and the National Academies of Sciences, Engineering and Medicine (2016), shows that cognitive stimulation and promotion of play and learning, security and warmth in relationships, sensitivity in interaction and responses to children's needs, ample physical nurturance, establishment of appropriate boundaries and standards of conduct, and the maintenance of positive discipline are among the aspects of parenting that can enhance children's well-being and development.

The time parents spend with their children is beneficial and important. Evidence from international time-use studies show that the amount of time parents spend with their children has increased over recent decades in the UK, other European countries and the US (Dotti Sani and Treas, 2016). More-educated parents tend to spend more time with their children, but as yet it is less clear as to whether more-educated parents have increased their time inputs more than the less-educated. But there is some recent evidence from the US showing that the educational disparities have narrowed, mainly driven by increases in time spent among mothers with less education who do not work full-time and a stabilisation amongst graduate mothers (Prickett and Augustine, 2021). The relationship between intensification of parenting and inequalities has been a particular research focus in the US following Lareau's (2011) in-depth sociological work on unequal childhoods, which showed that parenting styles divided sharply by social class into what she referred to as 'concerted cultivation' by the middle classes and 'natural growth' amongst the working classes. Characteristics of concerted cultivation include, for example, organising

multiple extracurricular enrichment activities, and advocating for their children's needs and abilities with educational and other institutions. Such intensification is viewed as better ensuring children's success, particularly in school, and that they are not left behind in an increasingly competitive economy and unequal society (Putnam, 2015; Doepke and Zilibotti, 2019). On the other hand, 'natural growth' leaves a child's development more to themselves, with less timetabling of activities and less engagement with schools. Low-income families may also invest less in their children because they have lower expectations about their children's skill development, which has been shown to be the case even amongst pregnant mothers (Cunha, Elo and Culhane, 2020). Whether such parenting differences across socio-economic groups reflect cultural differences or economic impediments or both remains an open question.

Children's outcomes

To illustrate the extent of disparities in the effect of the three domains of income poverty, mental health and parenting on children's cognitive and behavioural development at age 5 years, we provide some simple descriptive data from the experiences of families in the Millennium Cohort Study.

Poverty, mental health and child outcome measures

The family income of the household was reported in all of the three early years waves, which took place around ages 9 months, 3 years and 5 years. As well as ever experiencing poverty (defined as living in families where household equivalised income was less than 60% the UK median income), we are also interested in the extent to which episodic poverty (at one or two interview waves) or more persistent poverty (all three waves) might matter for the children's cognitive and behavioural outcomes. Similarly, we distinguish between the mothers who had experienced episodic or persistent mental health problems, based on responses to the Malaise Inventory at the age 9 months survey (Rutter, Tizard and Whitemore, 1970) and the Kessler Psychological Distress Scale at the age 3 and 5 years surveys (Kessler et al., 2002).

We show two outcome measures for the children when they were aged 5. The cognitive outcome is children's attainment score on the British Ability Scales naming vocabulary test (Hansen, 2008). The behaviour measure is derived from the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). The SDQ is a 25-item behavioural screening questionnaire covering five different dimensions of children's behaviour: conduct problems, inattention-hyperactivity, emotional symptoms, peer problems and pro-social behaviour. The first four scales can be combined to provide a total behaviour problem score. For both measures, we compare children in the most disadvantaged decile of the distributions with the rest of the children with more advantaged scores.

Table 13. Poverty experience and children's cognitive and behavioural outcomes at age 5

Poverty	Naming vocabulary test: lowest decile at age 5	Total behaviour problem score: top decile at age 5
None reported	4.8%	5.1%
Episodic – at one or two waves	12.5%	12.0%
Persistent – at all three waves	21.2%	19.4%

Source: Authors' calculations from the MCS Waves 1–3.

Table 14. Maternal mental health and children's cognitive and behavioural outcomes at age 5

Poor maternal mental health	Naming vocabulary test: lowest decile at age 5	Total behaviour problem score: top decile at age 5
None	5.9%	4.4%
Episodic – at one or two waves	9.9%	16.2%
Persistent – at all three waves	15.3%	37.1%

Source: Authors' calculations from the MCS Waves 1-3.

Table 13 shows that children who experienced persistent poverty are over four times more likely and those with episodic experiences are two-and-a-half times more likely to be in the bottom decile of vocabulary scores than children who had not experienced poverty. There is a broadly similar gradient for the behaviour outcome, with children living in persistent poverty being the most likely to be exhibiting behaviour problems.

Table 14 shows that poor maternal mental health is associated with both outcomes but is more strongly related to the behaviour outcome. Over one-third of children with persistently depressed mothers had high levels of behaviour problems compared with 4% of children whose mothers had not reported depressive symptoms during their childhood.

Parenting behaviours and child outcomes

Information on a range of parenting factors was collected in the MCS, particularly at the age 3 survey, relating to home learning activities, mother-child relations, disciplinary practices and family organisation – for example, regular bedtimes and mealtimes. A major analysis and evaluation of the predictive factors from the MCS data relating to children's development, behaviour and health over their first five years, prepared for the Department of Health (Hobcraft and Kiernan, 2010), showed that of the parenting factors (most of which were of importance): reading to the child was the most influential predictor for how a child was doing cognitively at age 5; and mother-child relations, particularly the extent to which she reported she had a warm or conflictual relationship with her child, were the salient predictors for children's behaviour problems. The simple descriptive associations are presented in Tables 15 and 16 and show that the less the child is read to by their parent in early childhood the more likely they are to have poorer cognitive skills at age 5 and that the greater the extent to which the mother had conflictual or less warm relations with her child the more likely the child was to have behaviour problems at age 5.

Table 15. Reading frequency and child cognitive scores

Parenting: reading frequency per week at age 3	Naming vocabulary test: lowest decile at age 5
Every day	6.8%
3-6 times	12.0%
1-2 times	18.2%
Occasionally or less	21.2%

Source: Hobcraft and Kiernan (2010), based on data from MCS Waves 2 and 3.

Table 16. Parental conflict and warmth and child behaviour outcomes

Parenting: level of conflict at age 3	Total behaviour problem score: highest decile at age 5	Parenting: level of warmth at age 3	Total behaviour problem score: highest decile at age 5
Low, 7–15	3.6%	Low, 7–29	26.4%
Medium low, 16–20	8.1%	Medium low, 30–32	12.7%
Medium high, 21–26	17.3%	Medium high, 33–34	8.7%
High, 27–35	41.2%	High, 35	5.2%

Source: Hobcraft and Kiernan (2010), based on data from MCS Waves 2 and 3.

Mediators of poverty on child outcomes

Although the adverse effects of poverty and maternal depression per se on child outcomes have been well documented, much less is known about the mechanisms through which poverty and poor mental health and their interrelations affect child outcomes.

A recent systematic review by Saitadze and Lalayants (2020) found only a limited number of publications that investigated the mediating mechanisms that might mitigate the effects of child poverty on children's cognitive and emotional development. Of the 22 publications included in the review, all of which were longitudinal studies, 14 were US studies, 1 was Australian and 7 were for the UK. Fifteen of the studies considered both cognitive and emotional outcomes and seven only examined cognitive outcomes. All the UK studies used data from the MCS and we will mainly draw on these studies.

The upshot from the US and UK studies was that positive home learning activities and warm and supportive parenting played an important role in mediating the effects of poverty and reduced family resources on children's cognitive and behavioural development.

Analyses based on the experiences of the children in the MCS (and several of the US studies – for example, Yeung, Linver and Brooks-Gunn (2002)) identified reading to a child to be the most important activity from amongst a range of learning activities that enhanced children's cognitive development, which included helping children with numbers, writing and out-of-home activities such as visiting museums and libraries (Kiernan and Huerta, 2008; Violato et al., 2011; Kiernan and Mensah, 2011; Holmes and Kiernan, 2013; Dickerson and Popli, 2016). Positive parental child relations were also important factors for children's cognitive outcomes (Violato et al., 2011; Kiernan and Mensah, 2011; Dickerson and Popli, 2016; Hernández-Alava and Popli, 2017). But the effect of parent-child relations was much more pronounced and paramount for how well the children were doing emotionally (Kiernan and Huerta, 2008; Holmes and Kiernan, 2013).

The review also included studies on the role of centre-based childcare programmes in child outcomes amongst disadvantaged families. No British study met the selection criterion for inclusion at the time. However, there is some research evidence from the Study of Early Education and Development (SEED) (Melhuish and Gardiner, 2018) which has shown that hours spent in formal and informal early childhood education and care (ECEC) between the ages of 2 and 4 benefited children's cognitive and socio-emotional development at age 4 and that children from disadvantaged families had more to gain from time spent in such settings. The study also found that cognitive and socio-emotional outcomes at age 4 were significantly associated with variations in the home environment, particularly the quality of the parent-child relationship, home

learning activities and maternal educational qualifications, and that the child outcomes were generally more strongly associated with these family attributes than time spent in ECEC settings.

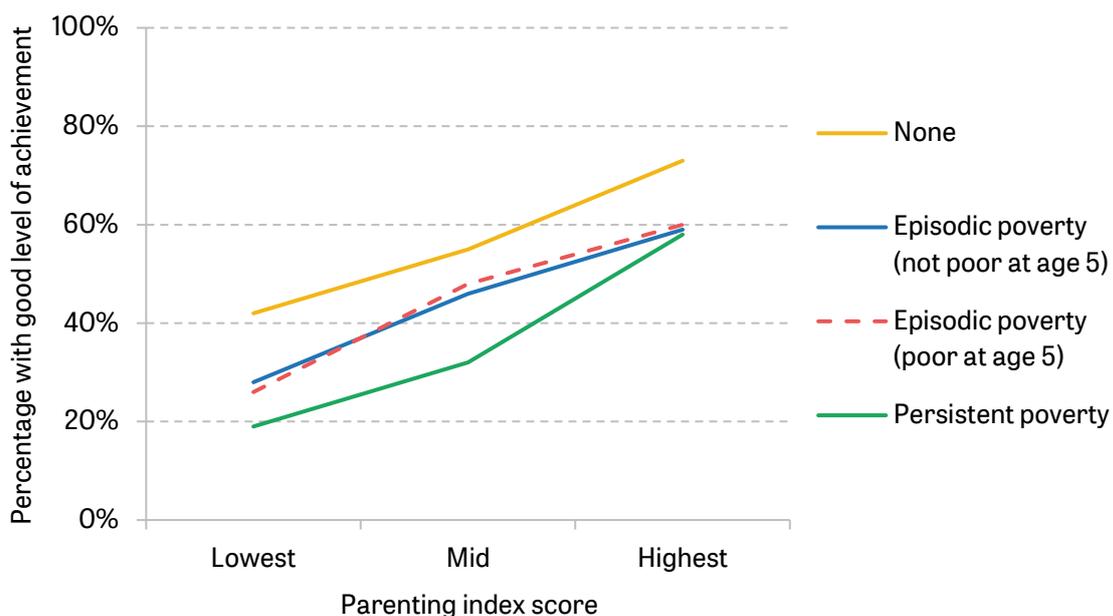
Parenting and poverty in the early years

One of the UK studies (Kiernan and Mensah, 2011) expressly set out to assess the role of positive parenting in mediating the effects of poverty and limited family resources on how children were doing at the start of their schooling as assessed by their performance on the Foundation Stage Profile (FSP). The FSP is a teacher-based assessment of children's achievement over the first year of primary school that assesses each child aged 4–5 years against the Early Learning Goals. These assessments are collected on behalf of the Department for Education and the records have been linked to the MCS data.

Overall, 50% of children were assessed as having a good level of achievement. Amongst children who had not lived in poverty at any of the early childhood surveys, 60% had good achievement levels, compared with 40% of the children who had experienced episodic poverty and 26% of those who had experienced persistent poverty. A composite parenting index was created which took into account many of the aspects of the care and investment that parents make in their child's development, including learning activities, their relations and interactions with the child, family routines and disciplinary practices, all of which were found to be associated with the educational outcome.

Figure 19 shows the proportions of children attaining a good level of achievement according to the family poverty status and the parenting index grouped into high, medium and low levels of positive parenting. The poorest achievement is seen amongst children who had lived in persistent poverty and experienced the lowest level of positive parenting: 19% of these children had a good level of achievement. For children in persistent poverty but who had high levels of parenting inputs, this figure was substantially higher, at 58%. Among children who had not experienced poverty, 73% of those who had experienced high levels of parenting had a good level of achievement, but if they experienced poor parenting only 42% achieved a good level.

Figure 19. Good level of achievement by poverty experience and parenting



Source: Kiernan and Mensah, 2011.

Multivariate analyses taking into account a range of background factors showed that poverty and parenting were interrelated but that they also had independent effects on the odds of children achieving well in their first year at school. A decomposition exercise suggested that about 50% of the effects of episodic or persistent poverty might be accounted for by the quality of parenting received in early childhood. This is a substantial amount but a significant part of the gap still remains to be explained. It would seem that despite the best efforts of their parents, children living in poverty still remain behind their wealthier, well-parented peers.

Income only reflects one aspect of family resources that might affect children's achievement. The study also looked more broadly at family resources using a composite index that took into account a number of often co-occurring circumstances that may disadvantage children. Measures included those that captured the socio-economic resources and demographic situation of the families, including income poverty, mother's educational attainment, family employment, housing tenure, quality of local area for bringing up children, mother's age at first birth, family structure and number of children in the household, child's birth order, child's ethnic origin and the language spoken at home. On an individual basis, all these factors were associated with children's level of achievement.

A decomposition exercise as per the poverty analysis showed that around 40% of the effect of the level of family resources might be explained by the quality of parenting. Moreover, the size of the effects were broadly similar, at around 40%, across all the family resource groups, as it was for the poverty groups at around 50%.

The study also found some evidence for the effects of poverty/level of family resources and parenting being independent, in that good parenting can redress the effects of poverty and wider disadvantages but poverty/disadvantage and parenting both matter for how well children are doing. Thus, directing policy efforts at only poverty/disadvantage or parenting, to the exclusion of the other, is unlikely to result in equitable outcomes.

These findings undoubtedly point to parenting as a key mediator of poverty and disadvantage in relation to children's achievement in their first year at school, but we have not been able to throw light on the mechanisms and processes by which, for example, poverty hinders positive parenting, which would aid our understanding of why some children fare less well. So, for example, is it lack of income or capabilities which reduces the chances of some parents engaging in cognitively enhancing activities, or does poverty lead to family stresses that inhibit positive parenting, or are both working together? Bringing up children when resources are limited is known to be difficult and strategies that improve parenting behaviours may provide the leverage for children to develop and achieve well in circumstances where this may not usually be expected. The findings based on the experiences of the MCS children lend support to such an approach.

Parental mental health and child outcomes

The studies that have evaluated the effect of poverty on maternal mental health in the early years report deleterious effects of poverty on mental health which reduce the quality of parenting and result in greater behaviour problems observed amongst their children, but the effects for children's cognitive development are generally weaker (Kiernan and Huerta, 2008; Violato et al., 2011). Poverty and maternal depression are also factors that have been linked to faster telomere shortening on DNA in childhood (Ridout et al., 2018).

A study by Wickham et al. (2017) used MCS data to examine the effect on mental health of transitioning into income poverty amongst the mothers and children who at the time of the age 3

survey did not have pre-existing mental health problems and were not previously living in poverty. Transitioning into poverty was associated with a significant increase in the risk of children and mothers developing mental health problems. The effect of poverty on children's mental health was partly explained by increases in maternal distress. This study lends support to there being a causal link between poverty and poor maternal mental health.

Another study of the MCS families, by Hope et al. (2019), investigated whether children's exposure to mothers with mental health problems in their early and later childhood (ages 3, 5, 7 and 11 years) was associated with child emotional and behaviour problems over the same period. Taking into account the potentiality of children's mental health problems influencing subsequent maternal mental health and time-varying socio-demographic characteristics that might confound the effects of maternal mental health on child mental health, the authors found that concurrent, prior and particularly prolonged exposure to poor maternal mental health was associated with an increased risk of poorer child mental health. It is of concern that the study found that exposure at age 3 to maternal distress had an impact children's emotional well-being eight years later.

What matters for children's development?

In this section, we have focused on three important, but not exclusive, aspects of families that are critical for positive child development and that are open to direct policy intervention. In sum, our review shows that economic deprivation and poor parental mental health in the early years of childhood separately and collectively diminish the cognitive and emotional well-being of children, and part of the diminution emanates from less nurturing and engaged parenting by those with less economic and emotional resources. In addition, there is evidence of the stronger negative impacts of longer exposure to poverty and poor maternal mental health on child outcomes. It is also of concern that time-trend data suggest that the mental well-being gap between advantaged and disadvantaged children has not lessened in recent decades and may be getting worse (Collishaw et al., 2019). Also, evidence from UK primary care records for the period 2005–17 showed that one in four children aged 0–16 years were living with a mother who had been diagnosed with a mental health illness and that the prevalence of poor maternal mental health was increasing over time (Abel et al., 2019).

10. The role of fathers: a neglected component of family life

Fathers and mothers are both important to the well-being of children. Yet fathers' voices are largely absent in our UK data sets (Goldman and Burgess, 2018). In earlier decades, when a father's key role was that of breadwinner and provider of financial support for the family and the mother was the main provider of care, this was perhaps more understandable. But nowadays, when fathers are more engaged in their children's lives – being more likely to be present at the birth of their child, to take paternity leave following the birth and play a greater part in the upbringing of their child and contributing to the domestic domain – their relative invisibility is less fathomable (Burgess and Davies, 2017). There is much less information, for example, on the influence of fathers' engagement on children's social and behavioural, psychological and cognitive development, but the indications are that it is positive (Teubert and Pinguart, 2010) although as yet we have little understanding of why this is the case. Paralleling the rise of more involved fatherhood has been the growth in parental separation, the rise in so-called 'non-resident' parenthood and the potentiality of cross-household parenting, repartnering and multi-partnered childbearing. These have added to the complexity of family life and made it more

challenging for fathers to be involved in their children's lives. Data on the lives of separated fathers are very sparse (Bryson, Purdon and Skipp, 2017).

Nonetheless, government policy has increasingly recognised the importance of engaging fathers in family life, as exemplified in rights to paid paternity leave and the right of prospective fathers and mother's partners to take unpaid time off to attend antenatal appointments which came into force under the 2014 Children and Families Act. This Act is also designed to help people to achieve a better balance in their work and home life, with provisions for shared parental leave and pay and the extension of the right to request flexible working to all employees. In the context of separated families, the new policy ethos is of supporting separated families, and this Act also sent a clear signal to separated parents that courts will take account of the principle that both should continue to be involved in their children's lives where that is safe and consistent with the child's welfare. With the increasing engagement of fathers, there is now a presumption that both parents are involved and that, if separation occurs, courts are encouraged to recognise the role of each parent in a more equal way.

11. Implications of family change for social mobility

In this section, we briefly consider the implications of family change for social mobility, which has been a major focus of the UK's policy agenda in recent years (Social Mobility Commission, www.gov.uk/government/organisations/social-mobility-commission). Families play a key role in the study of social mobility as they form the units for defining socio-economic status of origin as well as being settings that shape the intergenerational transmission of resources from parents to children (Tach, 2015). Many of the mechanisms by which parents transmit economic, emotional, cultural and social resources require contact and interaction throughout childhood.

Consequently the growth in more unstable, diverse and complex family forms raises questions about how these resources are transmitted by non-resident parents, step-parents or other parent figures that share biological or residential ties with children. As we saw earlier based on the experiences of the MCS cohort, around 4 out of 10 British children do not spend their entire childhood living with both their biological parents. The data limitations of conventional household-based surveys make it particularly difficult to assess the role of non-resident parents (typically the father) and step or social fathers in social mobility. In the case of non-resident fathers, intergenerational transmission is likely to be contingent on parent-child custody arrangements, as well as frequency of contact and interaction, and he may well continue to be influential but probably less so than the resident parent. But the diminution of resources, both monetary and caring, that frequently follows on from parental separation undoubtedly affects children's life chances and circumstances, and the potentiality for social mobility as well as wealth transfers including inheritances.

12. Discussion

It is clear from this overview that amongst families with children, inequalities begin at home. Parental socio-economic resources, parental mental well-being, parental relationships and parental involvement, which tends to be less visible, create disparities between families, leading to diverging destinies for children (McLanahan, 2004), widening gaps in social mobility and inequalities that may last for generations (Ermisch, Jäntti and Smeeding, 2012; Putnam, 2015). Here we discuss a selection of the salient findings.

Education and family diversity

There are notable disparities across families in Britain. To illustrate with a simple dichotomy: more advantaged parents with degree-level qualifications, other things equal, tend to delay childbearing, have their children within marriage, marry similarly highly qualified partners, and are less likely to separate and thus are better placed to provide the resources and stability that enhance children's development and well-being. In contrast, the most disadvantaged and those with low-level or no qualifications are more likely to have children at relatively young ages, within cohabiting unions or outside a partnership, and are more likely to separate and have the most unstable and complex family lives. Children born into and reared in these families have the most unequal starts in life and disadvantaged childhoods.

Non-partnered parenthood: a most unequal start to life

A rarely highlighted feature of family formation in Britain is the extent to which children are born to parents who are not living together at the time of the birth: around 20% of first-born children and 16% of all children are to parents in this family setting. Strikingly, these births are very geographically concentrated and are a particular feature of the former industrial regions of the country that have been marginalised for decades following the deindustrialisation that began in the 1970s. These are areas with high rates of deprivation, low-wage economies, less secure labour markets, a preponderance of precarious occupations and low levels of social mobility. The reasons behind the geographical concentrations are likely to be multidimensional (economic, social and cultural) and are not fully understood. In the US context (Wilson, 1996; Autor, Dorn and Hanson, 2019), it has been observed that such situations reduce the pool of economically secure young adult men, thereby reducing women's gains from marrying or partnering and the desirability of sharing child-rearing with men who lack the economic resources to securely support a family life (Edin and Kefalas, 2011). We showed that this pattern of family formation is relatively longstanding in these communities and may well now be embedded in the local culture. It is clear that children born into these families compared with those born into two-parent families have the most unequal starts in life, experience more family instability and are the most disadvantaged across a spectrum of indicators through early childhood. As such, these families may require greater levels of state support to ensure a more secure basis for the lives of these mothers and children. If not, unequal starts will continue to translate into unequal futures.

A hierarchy of family disadvantage

Family structures matter as important contextual markers for vulnerabilities that affect children's development and the well-being of parents and children. It is not that structures are necessarily causally or directly related to child outcomes but they embody features and parental capabilities that are more or less likely to enhance the welfare of children.

It is clear from our analyses that there is a hierarchy of disadvantage: married couple families having more resources than cohabiting couples, and lone parents having the least resources. Moreover, even with the extensive growth in cohabiting families, the substantial disparities between cohabiting and married couples persist, with cohabiting couples being more concentrated among lower socio-economic groups and relatively more deprived parts of the country. Cohabiting unions compared with marriages, on average, tend to be more unstable, insecure and uncertain unions, and parents as well as being poorer economically are also more likely to have poorer mental health. If parents separate, children in these families have similar legal rights to those of children in married families. However, the parents have little recognition in law, despite a major Law Commission report on cohabitation that was laid before parliament in 2007 (Law Commission, 2007), unless they register their union as a civil partnership, which became an option in 2020.

Parental separation

A hallmark of British families is their greater fragility and complexity as compared with families in other western European countries. As well as relatively more children being born into lone-mother families, Britain has high and increasing rates of parental separation. Estimates from MCS data indicate that 44% of children born at the beginning of this century will not have lived with both their biological parents throughout their childhoods (to age 17) compared with a figure of 21% observed amongst children born in 1970. Parental separation lowers the economic and psychological well-being of parents and diminishes the resources available to children, as parental time, engagement and money are spread more thinly across households, which has legacies that reverberate into adulthood. Even children from more advantaged backgrounds whose parents separate are more likely to have lower educational attainment than similar children whose parents remain together. As parental separation has become more commonplace, the available evidence shows that the effects of parental separation have not diminished and moreover it is an almost universal finding that instability transmits from one generation to the next. This intergenerational transmission of vulnerability speaks to the need to foster stable family lives for parents and children via policies that enhance socio-economic and psychological well-being, but also provide support for parental relationships and, when difficulties occur, temper the fallout (Harold et al., 2016).

Families and the early years of childhood

The resources and contexts of family life in the early years of childhood are central to explaining the striking inequalities in children's early development, which underpins their futures. We have focused in on three key elements – income, mental health and parenting – and examined their impact on children's cognitive and emotional development. Economic and psychological vulnerabilities can occur across all types of families, with detrimental consequences for the development and well-being of children.

Money matters

The almost universal finding that the level of household income in early childhood is a strong predictor of cognitive development and subsequent school performance points to the central importance of families in determining the educational well-being of children. But how families transform monetary inputs into positive home learning environments and cognitive development is something of a black box and somewhat under-researched. This is currently the subject of an innovative US randomised controlled trial (RCT), by Greg Duncan and colleagues, which started in 2018, that provides unconditional cash of high and low values to two groups of low-income mothers for the first 40 months of the child's life. The aim is to examine whether basic income affects the way a child's brain develops. EEG headsets are being used to monitor the child's brain activities in the home environment. The researchers are also tracking household transactions; preliminary results suggest the mothers in the high-cash group are spending more on books and more time reading with their child (Noble et al., 2021).

Compared with the overall population, children are more likely to be living in low-income households. In 2020, 31% of households with children under age 16 were living in poverty (Department for Work and Pensions, 2021a). Reducing child poverty has been an espoused aim of recent governments, with the Labour administration that came to power in 1997 having a target of halving the rate of child poverty by 2010 and eradicating it by 2020. Child poverty amongst young children under age 5 did fall up to 2010 but increased sharply under the Conservative administrations (Stewart and Reader, 2021). Overall child poverty rates were projected to continue to rise into the mid 2020s based on pre-COVID estimates from the Resolution Foundation (Gardiner, 2019), but indicators such as the growth in the number of children

requiring free school meals during the pandemic (Department for Education, 2021) signal that actual rates may be higher than those projections.

Parenting matters

We illustrated the key role that positive parenting plays even in the poorest families in enhancing children's cognitive development and how well they are doing at the start of their school years. Parenting programmes have been shown to be effective at promoting children's development through changing parents' behaviour (Barlow et al., 2010), and enhancing parenting early in a child's life is likely to be the most effective point to intervene (Ryan, O'Farrelly and Ramchandani, 2017). Cochrane reviews have highlighted the effectiveness of group-based parent programmes to promote child and parent well-being for children aged 3 years and older (e.g. Furlong et al., 2012), but there is a dearth of information on programmes for younger children. A Life Chances Strategy developed under the Cameron administration was to include a 'significant expansion in parenting provision', but this was dropped when he left office in 2016 and there has been no explicit government policy focus on parenting since. Sure Start children's centres, which had been the main source of support for new parents since their inception in the early 2000s, have also been subject to substantial funding cuts (Stewart and Reader, 2021).

Parents' mental well-being

Child poverty was a prominent focus of the Labour government's policy agenda until the advent of the Coalition administration in 2010, but the psychological well-being of parents and children has received far less policy attention. However, the pandemic has brought a greater awareness of the importance of the mental health of both parents and children (British Academy, 2021; Office for National Statistics, 2021). As our review of the empirical literature showed, poverty is more strongly associated with children's cognitive development, and parental mental health with the child's emotional and behavioural development, and both impact on parenting. Most studies on this topic have looked only at mothers' mental health due to the lack of data for fathers. Poverty and mental health are also interrelated in that becoming poor increases the risk of children and mothers developing mental health problems. Moreover, current, prior and prolonged exposure to poor maternal health is associated with more emotional and behaviour problems amongst children. It is of concern, and particularly in the light of pandemic experiences that have shown substantial increases in reports of depression in families with children (Office for National Statistics, 2021), that an exposure to episodic maternal depression when a child was 3 years old impacted on the child's emotional well-being some eight years later.

Conclusion

A multitude of studies have shown that the most influential factor relating to family formation and dissolution and children's development is the educational attainment of their parents, which underpins the welfare of families. Parental education is a key backstory to children's lives. But improving the lives of families in the here and now requires more direct policy interventions such as the provision of quality education and care from the early years onwards, reductions in child poverty, improvement to mental health services, and provision of parenting and relationship education and support.

It is all too clear from this chapter and others in the IFS Deaton Review that the UK is far from equal with regard to children's opportunities and future options. Mitigating the reproduction of vulnerability within families and across families both in the short and long term is crucial for improving their economic, social and mental well-being, which will involve the implementation and delivery of long-term multifaceted policies which persist and are not subject to the vagaries of changes in government administrations.

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Appendix

Age and education adjustment

Table A1 shows the differences between married and cohabiting families relative to lone-parent families, unconditionally and after controlling for maternal age and education. Mother's age is controlled for using fixed effects for different age categories. Mother's education is measured using age left full-time education, controlled for quadratically.

Table A1. Age and education adjustment

Panel A. Household has £1,500 or less in savings

	(1)	(2)	(3)
Married	-0.507*** (0.015)	-0.491*** (0.016)	-0.442*** (0.015)
Cohabiting	-0.286*** (0.023)	-0.316*** (0.022)	-0.299*** (0.022)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	4,884	4,884	4,884

Panel B. In any form of employment

	(1)	(2)	(3)
Married	0.0763*** (0.016)	0.0417** (0.015)	0.0138 (0.019)
Cohabiting	0.0196 (0.022)	0.0498** (0.021)	0.0376 (0.022)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,296	5,296	5,296

Panel C. Socio-economic status

	(1)	(2)	(3)
Married	0.116*** (0.010)	0.105*** (0.010)	0.0618*** (0.009)
Cohabiting	0.0330*** (0.012)	0.0464*** (0.012)	0.0310** (0.012)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,002	5,002	5,002

Panel D. Housing benefit support

	(1)	(2)	(3)
Married	-0.305*** (0.014)	-0.308*** (0.014)	-0.301*** (0.014)
Cohabiting	-0.284*** (0.016)	-0.290*** (0.016)	-0.289*** (0.016)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,292	5,292	5,292

Panel E. Any means-tested benefit

	(1)	(2)	(3)
Married	-0.456*** (0.016)	-0.445*** (0.016)	-0.417*** (0.016)
Cohabiting	-0.400*** (0.020)	-0.416*** (0.020)	-0.405*** (0.020)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,296	5,296	5,296

Panel F. Owns home

	(1)	(2)	(3)
Married	0.462*** (0.017)	0.436*** (0.016)	0.398*** (0.017)
Cohabiting	0.239*** (0.024)	0.289*** (0.022)	0.272*** (0.020)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,296	5,296	5,296

Panel G. Household equivalised income

	(1)	(2)	(3)
Married	294.5*** (12.53)	279.6*** (12.36)	221.0*** (11.90)
Cohabiting	142.2*** (14.52)	169.0*** (14.56)	148.1*** (14.23)
Mother's age fixed effects	No	Yes	Yes
Mother's education controls	No	No	Yes
N	5,296	5,296	5,296

Note to Table A1

Table shows differences for married and cohabiting mothers, relative to lone mothers, sequentially controlling for maternal age and education. Mother's age is divided into the following bands: 16–24, 25–34, 35–44, 45–54, 55–64, and older than 64. Mother's education refers to age left full-time education, controlled for quadratically. Household-level variables are clustered at the benefit unit level. Standard errors are given in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source to Table A1

Source: Authors' calculations using the Family Resources Survey 2019–20.

Trends in married, cohabiting and lone-parent characteristics over time: relative changes

Figure A1. Mothers leaving education at age 21 or older by family type, 1994–95 to 2019–20 (1994–95 = 1)

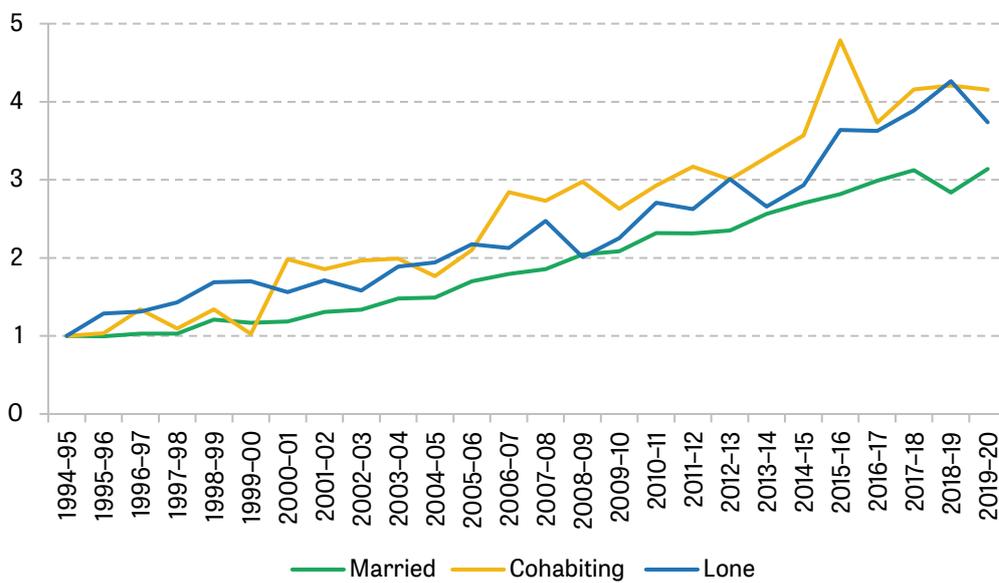
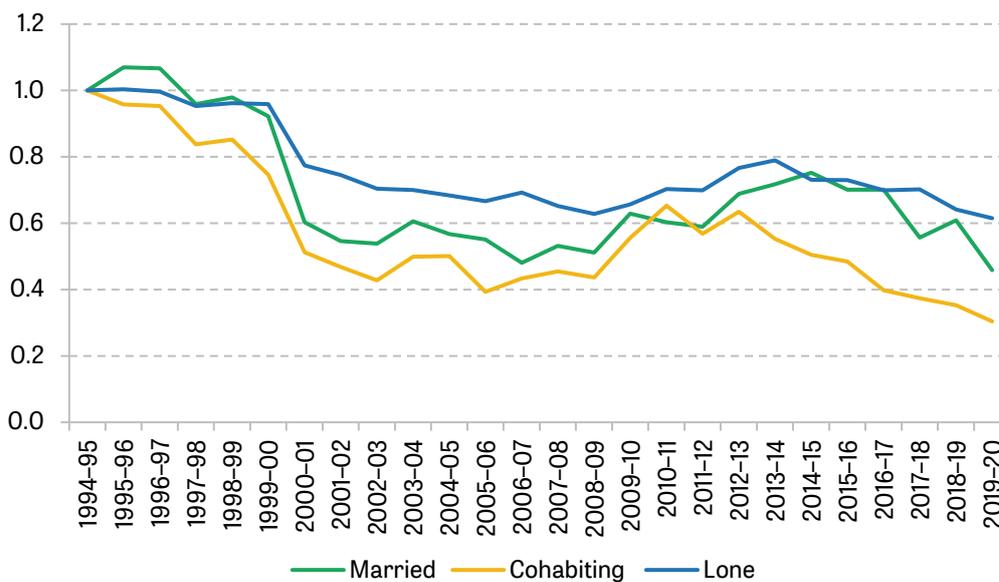


Figure A2. Families receiving means-tested benefits, by family type, 1994–95 to 2019–20 (1994–95 = 1)



Source to Figures A1 and A2: Authors' calculations from the Family Resources Surveys 1994–95 to 2019–20.

Sample selection in divorce and separation analysis

We apply two selection criteria when constructing the sample used in the separation analyses:

- We only include individuals aged 20–59 in the waves in which we observe them.
- We only include individuals in relationships that result in / have resulted in children who are aged 0–15 in the waves in which they are observed.

Any other observations dropped from an analysis will be due to non-response or missing data for variables being used.

Understanding Society sampling design and weighting

The aim of the sample selection process for Understanding Society (the UK Household Longitudinal Study, UKHLS) was to 'represent the general population of the United Kingdom and to enable a detailed analysis of different subgroups of the general population' (Lynn, 2009). Nonetheless, due to survey non-response and attrition, those respondents who eventually feature in the sample, and are subsequently followed, are generally selective among a number of dimensions. Lynn et al. (2012) provide an overview of which individuals and households responded to the full questionnaire in the first two waves of UKHLS. One finding relevant for our analysis is that, conditional on household response, sample women were much more likely than men to complete the individual interview (which we require for much of our analysis) in Wave 1. The use of UKHLS provided weights allows us to adjust our analysis to take into account differential non-response such as this, as well as selection probabilities and potential sampling error. We use the combined BHPS + UKHLS longitudinal weights in both the correlates analysis and the event study to attempt to account for selective sampling.

Even after weighting, the sample in Table 8 is not balanced between men and women. This can be explained by individuals in a relationship and with children being selected for the study, responding and attriting at different conditional (on observable characteristics) rates, compared with the general population (upon which the UKHLS weights are based). This is especially the case for separating couples, where men are interviewed at much lower rates than in the sample at large.

Correlates of divorce specification

We estimated a linear probability model for whether a given individual experienced partnership dissolution before the next survey wave (and in no more than 18 months from that interview date):

$$y_{it} = X_{it}\beta + \theta_t + \epsilon_{it}$$

where y_{it} is an indicator variable equal to 1 if the individual in question separates prior to the next survey wave and 0 otherwise, X_{it} is a vector of observable individual- and couple-level characteristics, θ_t are interview year dummies, and ϵ_{it} is an idiosyncratic error term.

The observation window for couples that separate is all waves of the relationship spell up to the wave of the separation, and for couples that do not separate it is all observed waves of their relationship spell.

Event study specification

The event study analysis consists of estimating a regression of the form

$$y_{it} = \beta_{\tau it} + \alpha_i + \theta_t + \gamma X_{it} + \epsilon_{it}$$

where $\beta_{\tau it}$ are the event study coefficients – the effect on the outcome of the separation at τ periods from the event, relative to a base period (in our case we choose one wave prior to the separation). Wave dummies are denoted by θ_t , additional time-varying characteristics are contained within X_{it} , ϵ_{it} is the idiosyncratic error, and α_i is an individual-specific fixed effect. The fixed effect is a latent variable capturing all non-time-varying characteristics of the individual, both observed and unobserved. All of these non-time-varying characteristics will be differenced out in the estimation, because we are looking at changes relative to a base period. Note that this means that the effect of observable non-time-varying characteristics cannot be identified in this set-up. But it does strengthen the causal interpretation of the event study coefficients.

Additional tables and figures for divorce and separation section

Table A2. Characteristics of divorcing/non-divorcing married parents

	(1) No divorce	(2) Divorce	(3) Diff. (2)–(1)
Age of youngest child	14.111 (7.961)	11.203 (6.732)	-2.908*** (-8.855)
Male–female age difference	2.993 (4.990)	3.534 (6.334)	0.540* (2.473)
Partnership duration (years)	17.468 (8.342)	12.682 (6.975)	-4.786*** (-13.500)
<i>Education, either partner</i>			
<=GCSE	0.196 (0.397)	0.265 (0.442)	0.069*** (4.102)
A-level equivalent	0.343 (0.475)	0.386 (0.487)	0.044* (2.184)
University	0.461 (0.499)	0.349 (0.477)	-0.112*** (-5.400)
Both partners same	0.516 (0.500)	0.463 (0.499)	-0.054* (-2.291)
<i>In full-time paid employment</i>			
Woman employed	0.406 (0.491)	0.363 (0.481)	-0.043 (-1.929)
Man employed	0.808 (0.394)	0.773 (0.419)	-0.034 (-1.592)
<i>Housing tenure</i>			
Own outright	0.147 (0.354)	0.083 (0.277)	-0.064*** (-4.410)
Mortgage	0.619 (0.486)	0.562 (0.497)	-0.057** (-2.817)
Rent, other	0.111 (0.314)	0.156 (0.363)	0.045*** (3.398)
Rent, social	0.123 (0.328)	0.198 (0.399)	0.076*** (5.454)
<i>Other</i>			
Net household income (monthly, 2019 prices)	4287.548 (2284.765)	3893.965 (2074.019)	-393.584*** (-4.192)
Household claim, income support	0.038 (0.191)	0.050 (0.218)	0.012 (1.472)
Household claim, housing benefit	0.077 (0.266)	0.087 (0.282)	0.010 (0.924)
Did not live with both biological parents at age 16	0.272 (0.445)	0.320 (0.467)	0.047* (2.495)
GHQ score >2	0.298 (0.457)	0.426 (0.495)	0.129*** (6.445)
Observations	7,203	643	7,846

Note: Numbers in parentheses are standard errors in (1) and (2) and t-statistics in (3), * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A3. Characteristics of separating/non-separating cohabiting parents

	(1) No separation	(2) Separation	(3) Diff. (2)–(1)
Age of youngest child	9.722 (7.333)	7.041 (6.279)	-2.681*** (-6.155)
Male–female age difference	2.472 (5.525)	3.076 (5.904)	0.604 (1.686)
Partnership duration (years)	10.462 (7.804)	6.431 (5.982)	-4.032*** (-8.199)
<i>Education, either partner</i>			
<=GCSE	0.337 (0.473)	0.384 (0.487)	0.047 (1.636)
A-level equivalent	0.407 (0.491)	0.462 (0.499)	0.055 (1.855)
University	0.256 (0.437)	0.154 (0.362)	-0.102*** (-4.027)
Both partners same	0.524 (0.500)	0.495 (0.501)	-0.030 (-0.865)
<i>In full-time paid employment</i>			
Woman employed	0.349 (0.477)	0.261 (0.440)	-0.087** (-2.723)
Man employed	0.763 (0.425)	0.685 (0.466)	-0.078* (-2.097)
<i>Housing tenure</i>			
Own outright	0.071 (0.257)	0.036 (0.187)	-0.035* (-2.374)
Mortgage	0.434 (0.496)	0.254 (0.436)	-0.180*** (-6.176)
Rent, other	0.223 (0.416)	0.324 (0.469)	0.102*** (3.924)
Rent, social	0.272 (0.445)	0.385 (0.487)	0.113*** (4.114)
<i>Other</i>			
Net household income (monthly, 2019 prices)	3452.640 (1676.381)	3087.286 (1582.419)	-365.354*** (-3.673)
Household claim, income support	0.074 (0.262)	0.133 (0.340)	0.058*** (3.451)
Household claim, housing benefit	0.138 (0.346)	0.271 (0.445)	0.132*** (5.946)
Did not live with both biological parents at age 16	0.425 (0.495)	0.477 (0.500)	0.052 (1.614)
GHQ score >2	0.324 (0.468)	0.385 (0.487)	0.061* (2.081)
Observations	1,199	362	1,561

Note: Numbers in parentheses are standard errors in (1) and (2) and t-statistics in (3), * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A4. Likelihood of separating in next survey wave, interacting variables with cohabitation

	(1) Female	× Cohabiting	(2) Male	× Cohabiting
Cohabiting	0.032* (0.018)	.	-0.005 (0.022)	.
Age of youngest child	0.000* (0.000)	-0.001 (0.001)	0.000** (0.000)	-0.001 (0.001)
<i>Age (excluded = 30–39)</i>				
20–29	0.007 (0.006)	0.005 (0.015)	0.002 (0.008)	-0.015 (0.015)
40–49	-0.002 (0.002)	-0.000 (0.011)	-0.001 (0.003)	-0.018* (0.011)
50–59	-0.006* (0.003)	0.007 (0.014)	-0.007* (0.004)	-0.009 (0.016)
Partner age -/+ 5 years	-0.003 (0.002)	0.002 (0.009)	-0.002 (0.002)	-0.005 (0.009)
Partnership duration (years)	-0.001*** (0.000)	-0.000 (0.001)	-0.001*** (0.000)	0.000 (0.001)
<i>Education (excluded = less than university)</i>				
Woman university educated, partner not	0.002 (0.003)	-0.009 (0.012)	-0.001 (0.003)	0.022 (0.015)
Man university educated, partner not	0.002 (0.003)	-0.002 (0.016)	-0.003 (0.003)	-0.011 (0.010)
Both partners university educated	-0.005*** (0.002)	-0.016 (0.012)	-0.007*** (0.002)	0.016 (0.012)
<i>Paid employment (excluded = not in employment)</i>				
Full-time	0.000 (0.003)	0.009 (0.012)	0.000 (0.004)	0.009 (0.018)
Part-time	-0.002 (0.002)	0.000 (0.011)	0.003 (0.006)	0.016 (0.030)
<i>Housing status (tenure: excluded = owner-occupier)</i>				
Tenure: renting, social	0.006 (0.004)	0.022* (0.012)	0.004 (0.004)	0.032** (0.015)
Tenure: renting, other	0.003 (0.004)	0.021 (0.013)	0.002 (0.004)	0.014 (0.013)
Behind on rent/mortgage payments	0.005 (0.004)	-0.002 (0.014)	0.005 (0.005)	0.013 (0.016)
<i>Household net income percentiles (excluded = 0–25th)</i>				
25 th –50 th percentile	0.005 (0.004)	-0.014 (0.014)	0.003 (0.004)	0.001 (0.013)
50 th –75 th percentile	0.004 (0.003)	-0.010 (0.014)	0.005 (0.004)	-0.008 (0.014)
75 th or higher	0.007* (0.004)	0.003 (0.017)	0.005 (0.004)	-0.014 (0.013)

Table A4 continued

	(1) Female	× Cohabiting	(2) Male	× Cohabiting
<i>Other</i>				
Household claim, income support	0.015 (0.010)	0.003 (0.029)	0.009 (0.012)	0.013 (0.036)
Household claim, housing benefit	-0.002 (0.006)	0.010 (0.018)	0.005 (0.007)	-0.000 (0.018)
Did not live with both biological parents at 16	-0.005** (0.002)	-0.015 (0.010)	0.000 (0.002)	0.016* (0.009)
GHQ score >2	0.008*** (0.002)	-0.008 (0.010)	0.007*** (0.003)	0.013 (0.012)
Constant	0.018*** (0.005)	.	0.012** (0.006)	.
Observations	34,368		31,712	

Note: Numbers in parentheses are standard errors in (1) and (2) and t-statistics in (3), * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A5. Separation event study coefficients for mental health outcome

	No controls		Controls	
	(1) Female	(2) Male	(1) Female	(2) Male
Sep. -3	-0.073*** (0.027)	-0.060 (0.040)	-0.075*** (0.027)	-0.064 (0.040)
Sep. -2	-0.052** (0.024)	-0.092*** (0.034)	-0.053** (0.024)	-0.094*** (0.034)
Sep. wave	0.059** (0.023)	0.089*** (0.034)	0.057** (0.023)	0.083** (0.034)
Sep. +1	-0.064** (0.026)	-0.035 (0.038)	-0.057** (0.027)	-0.040 (0.039)
Sep. +2	-0.091*** (0.028)	-0.112*** (0.043)	-0.078*** (0.029)	-0.119*** (0.045)
Sep. +3	-0.056* (0.033)	-0.108** (0.049)	-0.043 (0.034)	-0.119** (0.050)
Repartner			-0.036 (0.034)	0.021 (0.049)
Employed			-0.098*** (0.030)	-0.153** (0.062)
Constant	0.420*** (0.026)	0.372*** (0.039)	0.489*** (0.032)	0.506*** (0.064)
Observations	3,656	1,655	3,651	1,654

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A6. Separation event study coefficients for net household income (monthly, 2019 prices)

	No controls		Controls	
	(1) Female	(2) Male	(1) Female	(2) Male
Sep. -3	-163.628** (76.644)	-119.667 (109.713)	-149.881** (75.495)	-103.067 (104.211)
Sep. -2	-121.349* (68.025)	-80.719 (100.187)	-122.364* (68.074)	-77.863 (104.061)
Sep. wave	-1156.433*** (71.975)	-808.787*** (103.862)	-1151.506*** (72.125)	-795.990*** (100.182)
Sep. +1	-1002.053*** (78.526)	-859.252*** (113.022)	-1210.408*** (76.529)	-960.923*** (118.482)
Sep. +2	-923.091*** (82.650)	-542.405*** (162.287)	-1181.538*** (83.216)	-657.503*** (167.149)
Sep. +3	-797.723*** (96.752)	-829.425*** (164.803)	-1135.745*** (91.746)	-949.279*** (164.032)
Repartner			1125.741*** (127.447)	567.576*** (181.682)
Employed			546.092*** (97.832)	1112.038*** (268.328)
Constant	3449.121*** (80.738)	3779.236*** (150.335)	3069.654*** (97.772)	2844.842*** (212.983)
Observations	3,960	1,809	3,925	1,748

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7. Separation event study coefficients for equivalised net household income (monthly, 2019 prices)

	No controls		Controls	
	(1) Female	(2) Male	(1) Female	(2) Male
Sep. -3	-28.229 (34.988)	-45.009 (59.787)	-19.954 (34.576)	-22.678 (57.676)
Sep. -2	-35.910 (29.149)	-12.687 (46.478)	-33.286 (29.296)	-11.347 (48.503)
Sep. wave	-296.880*** (30.497)	133.417** (54.155)	-292.444*** (30.476)	167.467*** (52.400)
Sep. +1	-215.665*** (33.479)	227.283*** (60.355)	-265.555*** (33.368)	261.623*** (62.928)
Sep. +2	-194.181*** (34.752)	384.299*** (99.693)	-257.412*** (36.390)	439.127*** (102.607)
Sep. +3	-165.219*** (40.813)	181.087* (97.259)	-248.786*** (40.671)	261.065*** (95.518)
Repartner			253.610*** (53.924)	-201.047* (103.540)
Employed			283.238*** (45.687)	695.179*** (158.729)
Constant	1575.774*** (33.639)	1775.447*** (86.472)	1381.318*** (43.879)	1183.751*** (126.375)
Observations	3,960	1,809	3,925	1,748

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A8. Separation event study coefficients for housing tenure = owner-occupier

	No controls		Controls	
	(1) Female	(2) Male	(1) Female	(2) Male
Sep. -3	-0.003 (0.010)	0.021 (0.017)	-0.005 (0.010)	0.012 (0.017)
Sep. -2	0.017** (0.008)	0.009 (0.012)	0.015** (0.008)	0.006 (0.013)
Sep. wave	-0.075*** (0.012)	-0.079*** (0.024)	-0.075*** (0.012)	-0.085*** (0.025)
Sep. +1	-0.098*** (0.015)	-0.082*** (0.029)	-0.113*** (0.015)	-0.080** (0.032)
Sep. +2	-0.090*** (0.016)	-0.085*** (0.032)	-0.108*** (0.016)	-0.087** (0.035)
Sep. +3	-0.089*** (0.017)	-0.078** (0.035)	-0.113*** (0.017)	-0.076** (0.037)
Repartner			0.079*** (0.030)	-0.029 (0.046)
Employed			0.003 (0.017)	0.038 (0.043)
Constant	0.526*** (0.013)	0.609*** (0.030)	0.526*** (0.018)	0.580*** (0.049)
Observations	3,935	1,793	3,900	1,734

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A9. Separation event study coefficients for housing tenure = renting

	No controls		Controls	
	(1) Female	(2) Male	(1) Female	(2) Male
Sep. -3	0.003 (0.010)	-0.021 (0.017)	0.005 (0.010)	-0.012 (0.017)
Sep. -2	-0.017** (0.008)	-0.009 (0.012)	-0.015** (0.008)	-0.006 (0.013)
Sep. wave	0.075*** (0.012)	0.079*** (0.024)	0.075*** (0.012)	0.085*** (0.025)
Sep. +1	0.098*** (0.015)	0.082*** (0.029)	0.113*** (0.015)	0.080** (0.032)
Sep. +2	0.090*** (0.016)	0.085*** (0.032)	0.108*** (0.016)	0.087** (0.035)
Sep. +3	0.089*** (0.017)	0.078** (0.035)	0.113*** (0.017)	0.076** (0.037)
Repartner			-0.079*** (0.030)	0.029 (0.046)
Employed			-0.003 (0.017)	-0.038 (0.043)
Constant	0.474*** (0.013)	0.391*** (0.030)	0.474*** (0.018)	0.420*** (0.049)
Observations	3,935	1,793	3,900	1,734

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$