

Fragile Families in the US and UK

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Acknowledgements: *The authors thank the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) through grants R01 HD36916-06A1, Fragile Families and Child Wellbeing in Middle Childhood; R01 HD061310-01, Children's Health Disparities in the U.S. and in the U.K.: the Role of the Family; and R01 HD36916, Fragile Families and Child Wellbeing, as well as a consortium of private foundations for their support of the Fragile Families and Child Wellbeing Study. The authors also thank the Social Change Harvard-Manchester Initiative and the ESRC RES 000 22 2044 for supporting this project and the ESRC Data Archive for supplying the Millennium Cohort Data.*

Abstract

In both the UK and the US, dramatic increases in non-marital births over the past forty years have exposed growing numbers of children to non-traditional family structures. The capabilities of unmarried parents, the evolution of their relationships over their children's lives, and the effects of family structure and relationship transitions on children are largely unknown. This study explores these topics using the first five years of the Millennium Cohort Study and the Fragile Families and Child Wellbeing Study, which follow birth cohorts in the United Kingdom and in the United States, respectively. In both countries, unmarried parents have lower capabilities and less stable relationships than married parents, and single mothers tend to be more disadvantaged than cohabiting mothers. Relationship instability is associated with a variety of negative outcomes for both mothers and children. One key difference between the two countries is greater instability and family complexity in the United States. In addition, while cohabiting mothers in the UK are only slightly more disadvantaged than their married counterparts, cohabiting mothers in the US tend to be far worse off and more closely resemble single mothers than married ones.

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Introduction

Non-marital childbearing has increased dramatically over the past several decades in both the US and the UK. In 2008, 45 percent of British children were born outside of marriage, up from 8 percent in 1971. A similar trend appears in the US, with 41 percent of births in 2008 occurring to unmarried mothers, up from 11 percent in 1971. Whereas a great deal has been written about the causes of these trends, surprisingly little is known about the conditions and experiences of the parents and children in these families. In this paper we compare and contrast families formed by married and unmarried parents during the first five years after child's birth. An emerging body of research indicates that children's experiences in infancy and early childhood have lasting consequences for their future health and development (Shonkoff and Phillips 2000); a second literature indicates that parental resources and partnerships play a large role in shaping children's early experiences (Duncan and Magnuson 2005). Together, these two bodies of research suggest that in order to understand the long-run implications of the increase in non-marital childbearing for parents, children and society, we must understand how the parents and children in these families are doing during the first five years after birth.

This paper compares and contrasts families formed by unmarried parents in the US and the UK by addressing several questions:

- What is the nature of parental relationships and what are parents' characteristics and capabilities at the time their child is born?

- What happens to parental relationships over time?
- What happens to mothers' economic and psychological resources; What happens to non-resident fathers' contributions over time?
- How do children fare, and how do family structure and stability influence the quality of mothers' parenting and children's wellbeing?

To answer these questions, we rely on data from two birth cohort studies that follow children from the time they are born to the time they enter kindergarten: the Millennium Cohort Study (MCS), which has been following approximately 18,800 children born in the UK at the turn of the twenty first century, and the Fragile Families Study (FFS), which has been following approximately 5,000 children born in US cities between 1998 and 2000. Both of these studies contain rich information about the quality and stability of parental relationships, and both studies contain extensive information on parental resources parental behavior and children's wellbeing. Both studies also oversample for disadvantaged families. Given their overlap in questions and measures and their similarity in samples, these two data sets are ideal for comparing families formed by unmarried couples in the two countries. More detailed information about these two studies can be found for the MCS in Hansen et al. (2008) and for the FFS in Reichman et al. (2001).

Parents' Relationships, Characteristics and Capabilities at Birth

Our first question focuses on parents' relationships and capabilities around the time of their child's birth. Information on parental relationships is important for predicting whether or not a child is likely to be raised in a stable home environment and whether or not the biological father is likely to be involved in the child's life.

Information on parental resources (income and health) is important for assessing

parents' ability to provide economic and emotional support to their child. At present there are several stylized views about the relationships and capabilities of unmarried parents. At one extreme are those who argue that unmarried parents are just like married parents in terms of their resources and commitment to one another. This perspective relies heavily on a Scandinavian model where non-marital childbearing is very common and the majority of unmarried parents are in relatively stable cohabiting unions. At the other extreme are analysts who argue that births to unmarried parents are the product of casual unions in which parents have minimal commitment to one another and do not intend to raise their child together. Somewhere in the middle are those who argue that unmarried parents are just like married parents in terms of their commitment to one another but very different in terms of their resources; a "poor man's marriage."

(Table1 – Unmarried Parents' Relationship Status at Birth)

Table 1 shows the distribution of births to unmarried parents by parents' relationship status. The findings provide some evidence for each of the perspectives described above. Sixty two percent of unmarried parents in the UK are cohabiting at the time their child is born and another 18 percent are in a romantic relationship but living apart. The proportion of cohabiting parents is slightly lower in the US (50 percent), while the proportion of parents in romantic non-cohabiting relationships is slightly higher (32 percent). In both countries, no more than 20 percent of unmarried parents are not in a romantic relationship of some type at the time of their child's birth.

(Table 2 – Father Involvement at Birth)

As we might expect, unmarried fathers in both countries show high levels of involvement around the time of their child's birth (Table 2). About 75 percent of all unmarried fathers are at the hospital when their child is born, and nearly 85 percent of

fathers' names are on the child's birth certificate. In both countries there is a relationship status gradient in fathers' involvement, with cohabiting fathers showing the highest levels of involvement, followed by fathers in non-cohabiting romantic relationships and then by fathers who are not romantically involved with the child's mother.

(Table 3 – Parents' Relationship Quality and Attitudes)

The quality of parental relationships is high in both the US and the UK, with mothers reporting high levels of emotional support from fathers and low levels of domestic violence. The two countries differ with respect to the association between violence and relationship status. Whereas in the UK violence is lowest among married mothers, in the US it is lowest among single mothers. The measures in each country differ, as the UK survey asks about violent actions and the US survey about injuries due to a domestic fight, but this likely means that the UK measure will be an overestimate relative to the US. Thus, the table showing slightly lower levels of force in the United Kingdom may actually mask an even greater disparity between countries. Although the evidence presented thus far suggests that a large proportion of unmarried parents are in 'marriage-like' relationships when their child is born, at least one piece of evidence indicates that something else is also at play. When asked whether a single (lone) mother can raise a child as well as a married mother, a large proportion of mothers in both countries answered 'yes,' with unmarried mothers showing higher approval than married mothers, and US mothers showing higher approval than UK mothers. The fact that such a large proportion of unmarried mothers view single motherhood as equally efficacious as marriage suggests that the increase in non-marital childbearing is more than just a shift in how relationships between biological parents are labeled.

In the next section we examine parents' characteristics and capabilities, including demographic characteristics, economic resources and health. As shown in Table 4, unmarried parents are very different from married parents in terms of their demographic characteristics and capabilities.

(Table 4 Parents' Demographic Characteristics and Economic Capabilities)

In both countries, unmarried mothers are much younger than married mothers (four to five years) and mothers having a first birth are more likely to be in their teens. Teen motherhood is much more common in the US than in the UK, and this pattern holds for all relationship status groups. In fact, a third (35%) of all US mothers had their first baby in their teens as compared to 19% of the UK mothers (see final column). In both countries we observe a relationship gradient for age, with married mothers being older than cohabiting mothers and cohabiting mothers being older than single mothers. Despite their youth, unmarried mothers are much more likely than married mothers to have had a child by a different partner; among those with at least one other child, over 60 percent of cohabiting mothers in the US and nearly 30 percent of cohabiting mothers in the UK report 'multi-partner fertility,' defined as having a child with more than one partner. The high prevalence of multi-partner fertility among unmarried mothers is inconsistent with the Scandinavian and 'poor man's marriage' models, which imply that children born to unmarried parents are raised by both of their biological parents. Another indicator of family instability appears when we examine the family histories of new parents. Married mothers are much more likely than unmarried mothers to have grown up with both of their biological parents. US mothers also experienced much higher rates of parental separation than UK mothers, reflecting the higher divorce rates operating in the US. Finally, unmarried mothers in both countries are more likely than married mothers to be living with their own parents at the time of the birth, with US

mothers showing much higher levels of co-residence than UK mothers. Part of the difference in co-residence patterns is probably due to the younger age of US mothers; another part may be due to less generous housing policies for low income parents in the US, forcing families to 'double up.'

Relationship status also differs by race, ethnicity and nativity, although the patterns are somewhat mixed. In the UK, where the population is 89 percent white, the proportion of births to white mothers is slightly lower among married mothers as compared with unmarried mothers (86 percent versus 92 percent), whereas in the US, where racial and ethnic minorities make up 62 percent of mothers, it is much higher. Black mothers are disproportionately represented among unmarried mothers in both countries. Other ethnic groups, however, show different patterns, with Hispanic mothers being over-represented among unmarried mothers in the US and South Asian mothers being overrepresented among married mothers in the UK. In both countries, foreign-born mothers are disproportionately married.

Unmarried mothers are notably disadvantaged in terms of their economic resources, with US mothers showing a larger relationship gap than UK mothers. In the UK, the proportion of highly educated mothers follows an even gradient, going from 37.5 percent of married mothers to 18 percent of cohabiting mothers and 8 percent of single mothers. In the US, there pattern is somewhat different, with single mothers showing slightly higher levels of education than cohabiting mothers. Income differences by marital status are also pronounced, with the US showing greater income disparities than the UK. Whereas unmarried mothers in the UK have average incomes equal to 56 percent of married mothers' incomes, in the US their incomes are only 40 percent of married mothers'. Note that the country difference is due in large part to the higher incomes of married mothers in the US. Furthermore, whereas in the UK the income

drop-off is most dramatic between cohabiting and single mothers, in the US it is most dramatic between married and cohabiting mothers. This same pattern holds for the proportion of mothers in the lowest income quintile, which approximates the poverty line. Finally, married mothers are more likely than unmarried mothers to be working in the year following their child's birth. In the US, the proportion of working mothers is similar for cohabiting and single mothers, whereas in the UK, single mothers are much less likely to be working than cohabiting mothers. The higher level of employment among single mothers in the US is probably due to the stricter work requirements placed on mothers receiving public benefits.

In sum, the findings reported in Table 4 provide some support for the “poor man’s marriage” argument at least in terms of parents’ socioeconomic resources. They also highlight country differences in the status of cohabiting mothers. Whereas in the UK, cohabiting mothers are closer to married mothers on many indicators, in the US they are closer to single mothers. The lower socioeconomic status of cohabiting mothers in the US is due in part to the fact that Hispanic mothers, many of whom are immigrants with very low levels of education, are disproportionately represented in this group.

(Table 5 – Mothers’ Health and Health Behavior)

The last table in this section examines mothers’ health and health behavior in the two countries. In both the US and UK, smoking during pregnancy is far higher among unmarried mothers than among married mothers, around four times the rate, whereas drinking during pregnancy is relatively similar and even slightly lower among unmarried mothers. For both measures, these negative health behaviors are higher in the UK than in the US, although only modestly so for smoking. Around one third of UK mothers report drinking while pregnant as compared with only 9 percent of US

mothers. This difference may be related to differences in the advice related to drinking that is given to pregnant women in the two countries.

Post birth risky health behavior is also higher in the UK than in the US and more common among unmarried mothers. Heavy drinking during the first year after birth is higher among mothers with lower levels of partnership commitment and shows a clear gradient among UK mothers, rising from 4 percent among married mothers to 10 percent among cohabiters and 13 percent among single mothers. In the US, however, there is a sharp difference between married mothers (2 percent) and unmarried mothers (8 percent) with no difference between cohabiting and single mothers. Similarly, recreational drug use is higher among unmarried mothers in both countries, particularly among single mothers in the UK. These behaviors further suggest a difference in behavior between mothers based on relationship status, further discounting the Scandinavian model which in popular conception implies that unmarried mothers are similar to married mothers.

Ante-natal care during the first trimester is also lower among unmarried mothers (by about 10 percentage points) in both countries and follows a clear relationship gradient. Overall levels of care are lower in the UK than in the US, but single mothers in the UK experience a steeper drop in care relative to cohabiting mothers than single mothers in the US. The overall difference between the US and UK may reflect small differences in the timing or measurement of ante-natal care as no differences are found at 16 weeks of pregnancy. Post-natal depression and self-reported fair or poor health are also more common among unmarried mothers in both countries. While self reported health problems steadily increase as relationship commitment decreases, in the US depression is actually more common among cohabiting mothers than among single mothers. In contrast, UK mothers who are cohabiting report less depression than

UK mothers who are single. While aggregate depression levels are similar in the two countries, UK mothers experience a steeper gradient.

Finally, breastfeeding is negatively associated with relationship commitment both in incidence and duration, with married mothers reporting breastfeeding more often and for longer periods than unmarried mothers. Just over half of unmarried mothers in each country ever breastfeed their child, whereas close to three-quarters of married mothers do so. Levels of breastfeeding are slightly higher in the UK than in the US, but these differences come mostly from married and cohabiting mothers. While US mothers are less likely than UK mothers to ever breastfeed, those who do so report longer periods of breastfeeding, 24 weeks on average for US mothers as compared to 17 weeks for UK mothers. The relationship status gradient is similar in both countries, although the contrast between duration of breastfeeding was particularly pronounced amongst partnered mothers.

Overall, the data on mothers' health and health behavior suggest that unmarried mothers are disadvantaged relative to married mothers, with single mothers showing the greatest disadvantage. These findings are not so surprising given the lower income and education of these mothers.

Instability and Complexity in Family Life

Thus far we have examined the relationships, characteristics and capabilities of unmarried parents at birth as compared with those of married parents. Our findings indicate that about half of unmarried parents in the US and about 60 percent of unmarried parents in the UK are in 'marriage like' relationships when their child is born; that is, the parents are living together, fathers are very involved and relationship quality is high. At the same time, unmarried parents in both countries are very

disadvantaged in terms of their demographic characteristics, socioeconomic status and health, with a clear gradient from married to cohabiting to single. At first glance these findings would appear to support the claim that a substantial proportion of unmarried parents are involved in a 'poor man's marriage.' However, this concept implies that cohabiting unions are stable over time, which we have yet to determine. In the next section of the paper, we examine how the family lives of children unfold in terms of stability and change during the first five years of life.

We use several lenses to describe their experience. First we group family structures according to the cumulative experience of the mother between birth and year five, and second, we count the total number of partnership transitions (residential and dating transitions) children are exposed to. Finally, we examine the extent to which mothers have children with new partners.

(Table 6 – Family Pathways from Birth to Five)

As shown in Table 6, the vast majority of children born to married parents in the UK and the US are still living with both biological parents five years after birth, with the UK showing higher levels of marital stability than the US. The information in this table is based on parents' reports about their relationship status at each interview, which means that some transitions may be missed. The relationship history measure is more thorough in the MCS data than in the FFS, however, so the US estimates are more likely to overstate stability than the UK estimates. Stability follows the expected patterns in both countries, with married mothers being the most likely to have stable unions, followed by cohabiting mothers (including mothers who remain cohabiting and mothers who marry after the birth), with single mothers showing the least stability.

By age 5, children in the UK are much more likely to be living with their biological parents (75 percent) than children in the US are (62 percent). Marital unions are more stable in the UK by about 10 percentage points. The greatest country difference, however, is between cohabiting unions, where UK couples are much more stable than US couples. These findings indicate that cohabiting unions in the UK are more similar to marriages in terms of stability, differing by only 15 percentage points. By contrast, in the US the gap between marital and cohabitating union stability is larger, with a 25 percentage point difference. In sum, whereas cohabitation resembles a “poor man’s marriage” in the UK, with capabilities being the major difference between married and cohabiting couples, in the US, cohabiting unions are unstable as well as disadvantaged.

In both countries, single mothers largely remain single, with about 60 percent of mothers who are single at birth either remaining single or partnering and returning to single by year 5. Many of these mothers never cohabit with a partner during the child’s first five years, 40 percent of single mothers in the UK and 32 percent in the US. Whereas US mothers who are single at birth are more likely to form coresidential unions than UK mothers (24 percent for the US and 14 percent for the UK), UK mothers are more likely to enter a co-residential union with their child’s biological father than US mothers (26 percent and 17 percent respectively). These results do not suggest any strong trend in the partnership patterns of single mothers, as substantial proportions of mothers move in with the fathers, move in with new partners, and remain consistently single. They do, however, suggest that children born to single mothers spend much of their time in early childhood in households with neither a biological nor a social father.

Whereas Table 6 grouped mothers according to their cumulative relationship histories, Table 7 reports the total number of dating and co-residential transitions each

mother experienced. For this measure we count both the ending and beginning of a relationship as a transition so such events as divorce and remarriage would count as two transitions. The US measure only counts dating relationships that last a month or longer while the UK measure counts all dating experiences. This and other differences related to question wording mean that the US measure is more likely to undercount transitions than the UK measure. Given this fact, the high levels of partnership instability in the US are striking.

(Table 7 – Partnership Instability)

Residential transitions are least common for married couples, which is not surprising since most of these couples are in stable unions. The vast majority of married couples have no transitions at all, and over 90 percent of couples with at least one transition have only one or two. Changes in residence are more common for cohabiters, particularly in the US, where over half of mothers experience at least one transition as opposed to just 30 percent of cohabiting mothers in the UK. [Cohabiting mothers who marry the father of their child are counted as having 0 transitions.] Here as well, however, most mothers who experience a transition (around 85 percent) have only one or two transitions. As expected, single mothers are the most likely to experience a residential transition: 60 percent of single mothers in the UK and nearly 70 percent in the US. Also, among mothers who have a residential transition, single mothers are more likely than cohabiting mothers to have only one transition.

Dating transitions are somewhat less common than residential transitions except among single mothers in the US. As with residential transitions, mothers in the US experience more transitions than mothers in the UK for each relationship status. Unmarried mothers often experience dating changes, although cohabiting mothers do so far less frequently than single mothers. More than half of single mothers in the UK

and 70 percent of single mothers in the US experience at least one transition. Across all family types, mothers with at least one transition are most likely to change partners twice, and large proportions have at least 3 dating transitions. These figures suggest high levels of relationship instability among unmarried mothers, especially for those who were not living with their child's father at the time of the birth.

New partnerships may result in new children as shown in Table 8, leading to increasing family complexity and altering the domestic life for the focal child. The prevalence of children with a different father follows the patterns suggested by evidence on the stability and new partnerships: married mothers are the least likely to break up and least likely to form new partnerships, followed by cohabiting mothers and then single mothers. Instability is also higher in the United States, leading to more multi-partner fertility among American mothers.

(Table 8 – New Children with New Partners)

The between-country difference in multi-partner fertility may be somewhat overstated as the UK numbers are drawn from household grids and thus exclude any children living outside of the mother's household. Still, the variation between the two countries is large: only 2 percent of cohabiting mothers in the UK report having a child by a new father in the five years following the birth of the focal child as compared with 10 percent of mothers in the US. Although single mothers have a much higher rate in the UK than cohabiting mothers (10 percent), the US rate for single mothers is double at nearly 20 percent. It is very clear from the above analyses that, although family instability is common in both countries, it is markedly more so in the US. As a consequence, the family lives of American mothers are more complex than their UK counterparts and siblings in the same family are more likely to have different fathers.

The pervasiveness of multi-partner fertility further distinguishes unmarried parents, particularly in the US, from both the Swedish and “poor man’s marriage” models, which emphasize the stability and exclusivity of cohabiting couples.

Parental Resources and Contributions

In the next section of the paper we look at what happens to parental resources during the first five years following the child’s birth and how family structure and stability are associated with trajectories in resources. We focus on psychological as well as economic resources and examine fathers’ contributions of time as well as money. A large body of research shows that parental resources play an important role in children’s cognitive and socio-emotional development (Kiernan and Huerta 2008; Duncan and Magnuson 2005). Studies also show that family structure and stability are associated with parental resources. Single mothers and mothers who experience a divorce or union dissolution report lower income and more mental health problems than mothers who are stably married (Garfinkel and McLanahan 1986; Kiernan and Mensah 2009). Instability is also associated with mothers’ mental health problems and parenting stress (Meadows, McLanahan and Brooks-Gunn 2008; Cooper et al. 2009), at least in the short run. And finally, studies show that when fathers live apart from their children, their contributions of time and money are lower, as compared with resident fathers, and decline over time (Neponesky and Garfinkel 2010).

The next set of tables show trajectories in mothers’ income and health and fathers contributions by relationship status. Table 9 presents income over the waves based on the mother’s relationship stability through the child’s fifth year. Two major trends hold across both countries and all relationship types: marriage is better than

cohabitation, which is still better than single parenthood, and stability is better for incomes over time. Those who remain stably married fare best, followed most closely by cohabiting mothers who subsequently marry the child's biological father. Single mothers who later married also benefitted greatly, ending with incomes close to their other married peers despite starting from a much lower point. Entering co-residence with any partner brings a higher income level, likely because the partner contributes earnings, but single mothers fare better marrying the biological father than moving in with a new partner. In the UK, any form of partnership is economically advantageous, but in the US marriage seems to carry greater economic returns and alleviates a great deal of the disadvantages of unwed parenthood. Thus, while cohabiting marks a substantial increase in economic wellbeing for mothers in the UK, cohabiting mothers in the US fare more similarly to single mothers and do not see as sizeable a benefit to partnership unless it is through marriage.

Many different pathways make up the unstable categories, including varying length periods of partnership and single parenthood, so trends in any of these categories are harder to discern. Still, stability seems to be preferable. Single mothers who do not cohabit with a partner at any point start with lower incomes than single mothers who will have a partner at some point in the next five years, but their incomes are slightly higher at the five-year mark than those who experienced instability. Stably cohabiting couples also gain more over the five-year period than unstably cohabiting ones. This trend holds across the two countries, although overall income levels are generally somewhat higher in the United States.

Stability also plays a role in mental health, as is shown in Table 10, with stable relationships generally producing better outcomes than unstable ones. For each

relationship status in both countries, instability is the trajectory associated with the highest instances of mental health problems. By year 5, stably married mothers have the lowest proportions with mental health problems, with similar levels in each country. Stably cohabiting mothers have higher rates of depressive symptoms than their married counterparts. Single mothers at birth, however, exhibit depression differentially by country. Stably single mothers in the UK have much higher rates of reported depression than their US counterparts, and in general single British mothers report more depression than mothers in the US.

Meanwhile, father involvement decreases for unmarried fathers over the course of the first five years of a child's life (Table 11). The frequency that fathers who have been non-resident from birth see their child decreases slightly over the years for fathers in the UK, staying just over 50 percent, but drops steeply in the US from 85 percent at age one to 57 percent at age five. Relationships with the mothers also worsen somewhat from the baseline surveys to year five, again less drastically in the UK, to around 30 percent of mothers in each country being on friendly terms with the non-resident father when the child is five. Father contributions follow a less clear trajectory. Fathers in the UK become slightly more likely to contribute regularly to their child's maintenance, while fathers in the US drop off in regular contributions while increasing in irregular contributions. By year five, around 35 percent of non-resident fathers in the UK contribute to their child with some frequency and 45 percent of fathers in the US. Each of these numbers has increased about 10 percentage points from the original measure, showing that more fathers may become involved in caring for their child in some way, even if not always reliably.

Formal child support is higher in the United States, paid by nearly a third of these fathers by year five in contrast to only 13 percent of fathers in the UK. Fathers in the UK

are more likely to give informally and much more likely to give only in-kind support to mothers, which is relatively rare among non-resident fathers in the US. Some of this difference relates to greater use of child support orders in the US; it may also emanate from higher levels of instability and multi-partner fertility in the US. It is well established that when parents re-partner, fathers are less likely maintain contact with their children (Tach, Mincy and Edin 2010). Although the data in this table do not capture the full scope of father contributions, they do suggest that a large portion of non-resident fathers still contribute actively to their child's wellbeing despite not being in the household.

Child Wellbeing and the role of Family Status and Stability

In the last section of the paper we look at how family relationships are associated with the quality of children's home environments and, ultimately, children's wellbeing. A large body of research in both the US and the UK shows that single motherhood is associated with lower quality parenting and poorer outcomes in children (e.g. McLanahan and Sandefur 1994). Recent studies have shown that changes in relationship status – partnership instability – are also associated with poor outcomes in children (Osborne and McLanahan 2007; Cooper et al. forthcoming; Waldfogel et al. 2010; Kiernan and Mensah 2010). Here, we examine the association between family relationship status, children's home environments and children's cognitive and emotional wellbeing. We look at three aspect of the home environment: the extent to which mothers read to their child and engage in literacy activities such as singing songs or telling stories, whether the mother uses negative discipline and whether the child has a regular bedtime. These measures are commonly used to measure parenting quality and have been shown to be strongly associated with positive outcomes in children. We examine three aspects of child wellbeing: internalizing behavior (shy, withdrawn,

anxious), externalizing behavior (aggressive, low attention) and a measure of the child's cognitive development, namely language ability. These measures are also commonly used to measure child wellbeing and are associated with long term health and wellbeing (Duncan and Magnuson, forthcoming)

Since we know from previous studies and the analyses presented above that unmarried parents are much more disadvantaged than married parents in many domains, in this part of the paper we report estimates that are adjusted for differences in parental resources and capabilities.

(Table 12 – Mothers' Parenting)

Table 12 reports estimates from a model that treats parenting quality as a function of mothers' relationship status and partnership instability (plus control variables), and table 13 reports similar estimates for child wellbeing. Both tables report estimates from two different models: one using the family pathway categories to measure mothers' relationship status and another using the total number of residential and partnership transitions to measure instability.

Looking first at the home environment at age three, we find no evidence of family pathway differences in either the UK or the US. However, we do find that the total number of residential and partnership changes is associated with a lower quality home environment in the UK, although not in the US. With respect to harsh parenting, we find that the odds are much higher among divorced mothers and all groups of unmarried mothers in the UK. The total number of residential partnership changes is also associated with more harsh parenting in the UK. As before, the signs of the estimates for the US are in the same direction as the signs for the UK, but they are smaller and only one is statistically significant. Mothers who are stably single show higher odds of harsh parenting than stably married mothers. The last set of estimates examines whether or

not the child has a regular bedtime when he or she is age 5. For this outcome several of the family pathway categories are associated with lower quality parenting in both the UK and the US. In the UK, children in unstable cohabiting households and those in stable single mother households show higher odds of irregularity than children in stably married households. The total number of transitions is also associated with more irregularity. Somewhat surprisingly, in the UK children living with divorced mothers have lower odds of irregularity than children living with stably married mothers. In the US, all of the family coefficients for unmarried parents show higher odds of irregular bedtimes as compared with stably married families, although the total number of transitions does not seem to matter.

(Table 13 – Child wellbeing)

Table 13 reports a similar set of estimates for each of the child outcomes measured at age 5. As in the previous table, the estimates present a mixed pattern, with the US showing more significant marital status gaps for internalizing behavior, the UK showing more significant gaps for cognitive test scores and both groups showing significant gaps for children's externalizing behavior. In both countries, the total number of partnership transitions is associated with higher odds of externalizing behavior and lower cognitive test scores. Family instability appears to be more strongly associated with the development of emotional problems amongst US children, in particular those born outside of marriage, but this is not seen amongst British children.

Conclusions

This paper posed four questions regarding the nature of relationships, parental resources and child wellbeing in fragile families. Our examination revealed both similarities and differences across countries. For the first question - *What is the nature*

of parental relationships and what are parents' characteristics and capabilities at birth? – we found that, in both countries, a majority of unmarried parents are in what appear to be committed unions at the time their child is born, although these couples are much more disadvantaged than married parents. This finding offers more support for the view that in both countries cohabiting unions are a “poor man’s marriage” as opposed to being equivalent to marriage, as the “Swedish model” suggests. An important difference between the two countries is in the characteristics and capabilities of cohabiting couples, which are closer to married couples in the UK and closer to single mothers in the US.

For the second question - *What happens to relationships over time?* – we found that families formed by unmarried parents are less stable than families formed by married parents, with US couples showing much higher levels of instability than UK couples. Higher levels of instability lead to more partnership transitions and more family complexity for US children. In each country both of these trends followed a relationship gradient, with the lowest levels of transitions and complexity seen among mothers married at birth and the highest levels among single mothers. The greater fragility of cohabiting unions compared with marital ones would seem to mitigate somewhat the explanatory strength of the “poor man’s marriage” perspective.

For the third question – *What happens to parental resources and non-resident fathers' contributions?* – we found that mothers' resources and fathers' contributions are associated with relationship trajectories. While stably married mothers and cohabiting mothers that later marry see their family incomes go up over time, single mothers and mothers who dissolve their unions see their incomes go down. New partnerships, cohabitations or marriages increase a mother's income in the UK, and entering marriage holds similar benefits in the US. A pattern similarly favoring stability is observed for

mental health, with mothers in stable unions experiencing better outcomes at year five than mothers in unstable relationships. In the US, stable single motherhood is also associated with fewer mental health problems; however, rates are much higher for UK single mothers. Finally, contributions of time and money are low and consistent among non-resident fathers in the UK, whereas they start high and decline among fathers in the US. This suggests that the relations between never-married parents, particularly in the US, weaken over time.

For the last question – *What is the quality of parenting and how do children fare?* – we find that children born to unmarried parents have more externalizing problems and worse cognitive outcomes than children born to married parents. This may reflect some of the reduced capabilities of unmarried parents as well as negative effects associated with family instability and complexity. In the US, instability also seems to be associated with more internalizing problems, although the UK does not show such a strong trend. The evidence for parenting is more mixed, with UK unmarried mothers showing greater disadvantages relative to married mothers than US mothers.

In conclusion, these analyses indicate that the partnership contexts within which children are born and live matter. Cohabiting families with young children tend to be more unstable, vulnerable and impoverished than their married counterparts, and single mothers and their children tend to have lower levels of wellbeing than married or cohabiting families (but not consistently so). Moreover, parent's marital status at birth is a reasonably good proxy for whether children will grow up in more or less stable or more or less complex households. A theme emanating from the comparative findings is the greater cleavage in the US between living with married parents versus unmarried parents. For US children, living in a cohabiting-parent family does not seem to bestow the positive benefits observed amongst

British families, and the returns to marriage, particularly a continuing stable marriage, are more marked in the US than in the UK.

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Table 1: Parental relationship at birth

	UK	US
Married	59.1	60.2
All Unmarried	40.9	39.8
Cohabiting	61.7	49.7
Closely involved	18.2	32.3
Not in a relationship	20.1	18.0

Notes: All percentages weighted and sample limited to mothers who were the main respondent (UK) or primary caregiver (US)

Table 2: Unmarried fathers' involvement around the time of birth by relationship status at birth

	Cohabiting		Closely/Romantically involved ²		Not in a relationship		All unmarried	
	UK	US	UK	US	UK	US	UK	US
Father present at/shortly after the birth ¹	93.0	96.5	71.4	71.4	25.3	29.2	75.4	76.5
Father named on the birth certificate	97.3	96.1	81.0	80.3	45.8	51.6	84.0	83.2

Notes: All percentages weighted and sample limited to mothers who were the main respondent (UK) or primary caregiver (US)

¹ US survey asks if father visited the mother in hospital after birth; UK survey asks if father was present at the birth

² US survey asks if mother was romantically involved with the father; UK surveys asks if mother was closely involved with the father

Table 3: Mothers' views of lone parenthood and reports of relationship quality in infancy

	Unmarried									
	Married		Unmarried		Cohabiting		Single		All	
	UK	US	UK	US	UK	US	UK	US	UK	US
Partner ever used force in relationship*	2.8	4.2	5.3	4.0	5.3	4.4	5.1	2.2	3.6	4.2
Relationship quality score ^{†2*}	2.7	2.7	2.6	2.6	2.6	2.7	2.5	2.6	2.7	2.7
Positive attitude toward single motherhood ¹	46.0	59.5	75.2	84.3	69.2	80.4	84.9	88.2	58.1	69.4

Notes: All percentages weighted and sample limited to mothers who were the main respondent (UK) or primary caregiver (US)

Analyses based on baseline data except † measured at 1 year (US)

¹ UK wording: A single parent can bring up children just as well as a couple can; US wording: A mother living alone can bring up her child as well as a married couple

² UK score measures quality of relationship (higher scores indicate better relationship quality); US score measures relationship supportiveness (higher scores indicate greater supportiveness)

* Mothers with co-residential partners at 9 months (UK) / 1 year (US) only

Table 4: Parental demographic characteristics and capabilities

		Unmarried									
		Married		Unmarried		Cohabiting		Single		All	
		UK	US	UK	US	UK	US	UK	US	UK	US
Age at birth of cohort member (mean)		30.3	29.3	25.7	23.6	26.6	24.7	24.7	22.6	28.3	27.1
Teen parent at first birth [*]		7.9	21.2	33.9	55.9	26.1	50.6	46.6	61.2	18.6	35.0
<small>show first births only</small>		(2.0)	(7.7)	(28.9)	(47.4)	(19.6)	(36.5)	(43.8)	(55.7)	(15.2)	(25.9)
Has child with another partner ^{**}		4.5	11.7	15.6	36.7	14.7	38.7	16.9	34.5	9.1	21.6
<small>show higher order births only</small>		(7.1)	(17.7)	(31.1)	(66.6)	(29.3)	(63.4)	(34.0)	(70.8)	(15.6)	(34.7)
Grandmother of cohort member in household [‡]		3.6	8.1	8.9	26.8	3.4	16.6	17.8	37.6	5.8	15.5
Lived with both parents to age 15		84.0	60.9	65.8	39.7	67.9	44.2	59.8	35.2	76.2	53.1
Ethnicity	White (non-Hispanic)	85.9	48.9	92.4	21.9	96.8	25.9	85.3	18.0	88.6	38.2
	Hispanic		28.9		35.5		41.0		30.1		31.3
	Black (non-Hispanic)	1.8	11.7	3.9	39.2	1.5	29.1	7.7	49.1	2.6	22.6
	Mixed	0.1		1.4		0.8		2.4		1.0	
	Indian	3.0		0.4		0.1		0.9		1.9	
	Pakistani/Bangladeshi	6.5		0.8		0.1		1.8		4.2	
	Other	2.2	10.8	1.1	3.4	0.6	4.0	1.8	2.8	1.7	3.1
Born in the UK/US [†]		86.7	71.3	93.5	81.7	95.5	77.5	90.3	85.9	89.5	75.5
Qualifications ^{‡^}	Higher	37.5	35.7	14.0	2.3	17.9	2.0	7.7	2.5	27.9	22.3
	Lower tertiary	20.8	22.1	19.1	19.1	21.6	20.0	14.9	18.3	20.1	20.9
	Completed secondary	33.0	25.2	47.5	36.4	47.3	37.4	47.9	35.3	39.0	29.6
	No qualifications	8.7	15.9	19.4	41.4	13.2	39.7	29.5	43.1	13.1	26.1

Annual household income (mean) ^{1‡}	£28,895	£35,237	£16,193	£14,011	£20,796	£15,483	£8,790	£12,489	£23,648	£26,785
In bottom income quintile for whole UK/US [‡]	20.7	16.3	54.4	55.5	37.9	48.8	80.9	62.4	34.6	31.9
In work/on leave [‡]	57.2	54.3	40.1	45.5	50.4	44.0	23.5	47.1	50.2	50.8

Notes: All percentages weighted and sample limited to mothers who were the main respondent (UK) or primary caregiver (US)

Analyses based on baseline data except [†] measured at 3 years (UK) measured at 1 year (US); [‡] measured at 1 year (US)

¹ Income is not equivalised; US income is converted to pounds sterling using OECD purchasing power parity data (see technical appendix).

* () conditional on first birth; ** () conditional on higher order birth;

[^] Qualifications are harmonised between US/UK: UK (Higher, A/AS-Level, GCSE, None), US (College/Higher, Some college, High school, Less than high school)

Table 5: Maternal and health related behaviours

	Unmarried									
	Married		Unmarried		Cohabiting		Single		All	
	UK	US	UK	US	UK	US	UK	US	UK	US
Smoked during pregnancy	8.1	6.5	28.4	25.9	32.3	27.6	43.4	24.1	21.5	14.2
Drank during pregnancy	33.2	9.7	31.0	9.0	33.6	9.1	26.9	8.9	32.3	9.4
Received ante-natal care in first trimester ¹	84.1	88.0	74.7	79.9	78.9	83.0	67.8	76.9	80.3	84.8
Ever breast-fed cohort member [‡]	77.7	73.4	57.7	52.3	62.6	55.3	49.7	49.1	69.5	65.0
Duration of breastfeeding in weeks ^{2*}	18.8	26.3	14.0	19.0	14.3	21.3	13.2	16.4	17.2	24.0
Experienced post-natal depression [‡]	11.3	13.2	16.9	15.9	15.3	16.2	19.7	15.7	13.6	14.3
Self-reported general health is poor/fair [‡]	13.7	10.4	20.9	15.8	18.8	14.4	24.3	17.1	16.6	12.5
Heavy drinker [‡]	4.3	2.0	11.1	7.8	10.1	8.0	12.7	7.7	7.1	4.3
Ever takes recreational drugs [†]	2.0	0.7	7.0	5.9	6.7	5.9	7.6	5.8	4.1	2.8

Notes: All percentages weighted and sample limited to mothers who were the main respondent (UK) or primary caregiver (US)

Analyses based on baseline data except [†] measured at 3 years (UK/US), [‡] measured at 1 year (US)

¹ Lower rates of ante-natal care in the UK may be overstated as a first trimester limit of 13 weeks is used for comparability; however, 50 per cent of mothers not receiving ante-natal care in first trimester actually did so within 16 weeks.

² Includes 12 per cent of UK mothers and 9 per cent of US mothers who are still breastfeeding and duration is set to age of child at interview

* Conditional on baby having taken milk at least once.

Table 6: Family pathways from birth to 5 years

	Relationship between natural parents at child's birth (%)							
	Married		Cohabiting		Single		Total	
	UK	US	UK	US	UK	US	UK	US
Married at birth								
Stable	88.9	78.7					53.9	48.0
Periods of instability	2.1	0.7					1.3	0.4
Other unstable ¹	9.0	20.7					5.5	12.6
Total	100.0	100.0						
Cohabiting at birth								
Stable			44.0	23.4			10.9	4.8
To married			25.2	28.8			6.2	5.9
Periods of instability			6.0	3.2			1.5	0.7
Other unstable ¹			24.8	44.6			6.1	9.1
Total			100.0	100.0				
Single at birth								
Stable					40.4	31.8	5.9	5.9
To married					8.5	6.7	1.3	1.3
To cohabiting					17.7	10.6	2.6	2.0
To new partner					13.8	23.6	2.0	4.4
Periods of partnership					19.6	27.4	2.9	5.1
Total					100.0	100.0		
Total sample (%)	60.6	61.0	24.7	20.3	14.7	18.7	100.0	100.0
N (unweighted sample)	7,790	918	2,979	1,289	2,026	1,389	12,795	3,576

Notes: Percentages are weighted, sample limited to households present at all waves where the mother is the main respondent (UK) or primary caregiver (US)

¹ Includes married/cohabiting to lone parent and married/cohabiting to re-partnered.

Table 7: Residential and dating transitions by family status at birth

	Married		Cohabiting		Single		All		N	
	UK	US	UK	US	UK	US	UK	US	UK	US
Number of residential transitions										
0	88.9	78.5	69.1	48.7	40.2	31.3	76.9	63.6	9,822	1,224
1	6.7	14.5	16.3	21.3	36.2	39.4	13.4	20.6	1,753	677
2	3.4	6.1	10.5	22.3	17.9	16.1	7.3	11.3	891	417
3	0.8	0.2	2.5	5.4	3.3	11.3	1.6	3.4	214	155
4	0.3	0.6	0.9	2.3	1.8	0.7	0.7	1.0	80	39
5 – 10	0.0	0.0	0.7	0.0	0.6	1.2	0.3	0.2	35	13
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12,795	2,525
Mean	0.17	0.30	0.52	0.91	0.92	1.14	0.37	0.58		
Number of dating transitions ¹										
0	95.2	83.2	84.6	70.8		28.7	86.8	70.5	8,862	1,426
1	1.3	5.6	3.2	10.7	11.0	15.2	3.0	8.5	312	309
2	1.6	8.2	4.5	13.0	20.1	24.9	4.6	12.3	470	382
3	0.9	1.6	2.7	3.4	6.5	13.9	2.0	4.3	193	215
4	0.5	0.1	2.9	1.2	9.7	6.1	2.2	1.5	222	97
5+	0.5	1.3	2.2	0.8	5.4	11.2	1.5	3.0	147	96
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10,206	2,525
Mean	0.12	0.34	0.45	0.56	1.46	1.87	0.36	0.67		
Total number of transitions ²										
0	90.2	78.5	72.9	48.7	12.7	0.2	76.5	57.8	7,750	924
1	2.3	0.3	4.1	3.9	34.7	18.9	6.7	4.5	770	217
2	3.5	8.9	8.9	18.0	18.1	21.4	6.6	13.1	654	424
3	1.8	6.7	4.7	16.8	8.3	27.5	3.3	12.6	343	464
4	1.1	3.9	3.1	9.3	12.8	13.3	3.0	6.8	297	260
5+	1.2	1.7	6.3	3.4	13.3	18.7	3.9	5.2	392	236
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	10,206	2,525

Mean	0.26	0.62	0.86	1.44	2.33	2.91	0.66	1.22
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Notes: Percentages are weighted, sample limited to households present at all waves where the mother is the main respondent (UK) or primary caregiver (US)

¹ Dating transitions are non-residential romantic relationships of unspecified duration (UK) or lasting at least a month (US) as reported retrospectively

² Total transitions is the sum of residential and dating transitions where information on both is available.

Table 8: Multi-partnered fertility by family status at birth

Family status at birth	New child by different partner	
	UK ¹	US
Married	0.5	3.4
Cohabiting	2.4	10.1
Single	10.3	19.1
Total	2.4	7.7

Notes: Percentages are weighted, sample limited to households present at all waves where the mother is the main respondent (UK) or primary caregiver (US)

¹ UK figures may be underestimates as MCS does not permit identification of the parentage of new children not living in the household

Table 9: Mean annual household income at each wave by family pathways

	Mean annual household income ³					
	9 months (UK)/1 year (US)		3 years		5 years	
	UK (£)	US (£)	UK (£)	US (£)	UK (£)	US (£)
Married at baseline						
Stably married	30,086	38,286	33,939	47,899	36,180	46,190
Unstably married ¹	23,095	21,741	21,788	22,806	20,205	23,289
Cohabiting at baseline						
Cohabiting stable	23,062	13,421	26,735	14,389	28,579	16,934
Cohabiting to married	25,285	20,412	29,656	20,571	31,412	24,348
Unstably cohabiting ¹	14,827	16,032	13,533	15,279	15,236	16,147
Single at baseline						
Single stable	7,603	11,060	8,484	11,696	10,132	12,654
Single to married	14,225	16,877	22,348	28,226	25,524	24,929
Single to cohabiting	9,519	12,306	14,483	8,731	18,886	14,268
Single to new partner	8,820	14,704	12,165	19,275	19,457	15,851
Unstably single ²	8,621	12,834	9,590	13,705	10,010	12,402

Notes: Percentages are weighted, sample limited to households present at all waves where the mother is the main respondent (UK) or primary caregiver (US)

¹ Residual category including married/cohabiting to lone parent, married/cohabiting with periods of separation and married/cohabiting to re-partnered.

² Residual category including single to new partner and single with periods of partnership.

³ US income is converted to pounds sterling using OECD purchasing power parities (see technical appendix).

Table 10: Mental health problems at each wave by family pathways

	Mothers experiencing mental health problems (%)					
	9 months (UK)/1 year (US)		3 years		5 years	
	UK ²	US ⁴	UK ³	US ⁴	UK ³	US ⁴
Married at baseline						
Stably married	10.1	8.8	9.6	10.5	9.7	8.8
Unstably married ¹	16.1	31.9	22.5	36.2	21.0	28.6
Cohabiting at baseline						
Cohabiting stable	14.4	17.2	14.1	10.9	13.7	10.7
Cohabiting to married	11.5	7.4	13.2	17.8	12.2	15.2
Unstably cohabiting ¹	19.0	15.6	23.9	17.7	19.7	22.7
Single at baseline						
Single stable	21.1	19.3	25.5	31.6	25.0	8.7
Single to married	19.5	8.4	18.1	16.5	12.0	9.8
Single to cohabiting	15.9	14.8	19.2	14.3	20.5	12.9
Single to new partner	18.0	16.0	20.5	17.5	22.5	23.5
Unstably single	21.6	16.3	32.7	22.6	33.7	24.7

Notes: Percentages are weighted, sample limited to households present at all waves where the mother is the main respondent (UK) or primary caregiver (US)

¹ Residual category including married/cohabiting to lone parent, married/cohabiting with periods of separation and married/cohabiting to re-partnered.

² based on Rutter Malaise Inventory, score over 4 indicates mental health problems (UK) (see technical appendix)

³ based on Kessler Psychological Distress Scale, score over 7 indicates mental health problems (UK) (see technical appendix)

⁴ based on the Composite International Diagnostic Interview Short-Form (CIDI-SF) (see technical appendix)

Table 11: Non-resident father involvement

	9 months (UK)/1 year (US)		3 years		5 years	
	UK	US	UK	US	UK	US
<i>All fathers who were unmarried at birth</i>						
Lives with child full-time	66.8	54.8	61.8	48.8	56.9	36.5
<i>Non-resident fathers</i>						
Ever sees child	54.2	85.8	53.7	64.8	52.6	53.1
Sees child once a month or more	40.6	56.1	47.1	36.4	34.7	31.9
Makes regular contributions to child maintenance	19.0	17.5	19.8	17.3	24.8	12.3
Makes irregular contributions to child maintenance	9.7	15.1	8.0	22.1	8.7	34.0
No contribution to child maintenance	71.3	67.4	72.3	60.7	66.6	53.7
Formal child support (court order/CSA) ¹	-	-	-	-	12.7	29.7
Informal child support ¹	-	-	-	-	20.8	14.8
In-kind support	-	-	-	-	42.5	6.5
Mother on friendly terms with non-resident father	36.4	46.1	34.2	24.6	32.6	30.6
Non-resident fathers (N)	1,142	572	1,142	561	1,142	564

Notes: Sample is limited to households present at all waves where the natural mother is the main respondent (UK) or primary caregiver (US) and the natural father was non-resident at all waves.

¹ Regular and irregular contributions to child maintenance are mutually exclusive categories (UK)

Table 12: Multivariate OLS regression models of child outcomes at 5 years by family transitions

	Child outcomes at 5 years (standardised β)					
	Internalising behavioural problems ¹		Externalising behavioural problems ¹		Cognitive development ²	
	UK	US	UK	US	UK	US
Model 1: Family pathway³						
Stably married	-	--	-	-	-	-
Unstably married	0.03 **	0.03	0.06 ***	0.02	-0.02 **	-0.08 ***
Cohabiting stable (inc. to married)	0.00	0.06 *	0.04 ***	0.01	-0.02 *	-0.06 *
Unstably cohabiting	0.01	0.08 **	0.10 ***	0.07 *	-0.03 **	-0.06 †
Single stable	0.01	0.06 *	0.07 ***	0.08 *	-0.02 *	-0.04
Unstably single	0.03 *	0.11 ***	0.08 ***	0.09 **	-0.03 **	-0.05
Model 2: Total transitions						
Total number of transitions	0.01	-0.02	0.05 ***	0.07 **	-0.03 †	-0.06 **

*** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$; † $p \leq 0.1$

Notes: Regressions are unweighted. The sample for all models is limited to families present at all waves where the natural mother is the main respondent (UK) or primary caregiver (US).

All models control for poverty, cohort member characteristics: birth weight, parity of birth, sex and age; maternal characteristics: age at first birth, age at birth of cohort member, ethnicity. Model 2 also controls for family status at birth. Controls are measured at birth or 1-year follow-up. UK cognitive development model does not control for cohort member's age as scores are normalised for age.

¹ Based on the Strengths and Difficulties Questionnaire (UK) and the Child Behaviour Checklist (US)

² Based on the British Ability Scales Naming Vocabulary test (UK) and Peabody Picture Vocabulary Test (US)

Table 13: Regression models of children’s parenting experiences by family status and stability

	Parenting at 3 years				Parenting at 5 years	
	Home Learning Environment score		Any negative discipline in home observation ⁴		Irregular bedtimes ⁴	
	UK ¹	US ²	UK	US	UK	US
Model 1: Family pathway⁵						
Stably married	-	-	1.00	1.00	1.00	1.00
Unstably married	-0.01	-0.02	1.71 **	1.10	0.66 **	1.31
Cohabiting stable (inc. to married)	0.01	-0.02	1.26 *	1.34	1.11	1.97 **
Unstably cohabiting	-0.01	-0.00	1.79 ***	1.40	1.35 *	1.55 *
Single stable	-0.01	-0.02	2.03 ***	1.88 *	1.76 ***	1.75 **
Unstably single	-0.02	0.01	1.71 ***	1.35	1.08	1.50 *
Model 2: Degree of instability						
Number of residential transitions ⁵	-0.03 **	-0.01	1.12 *	1.02	0.86 **	0.96

*** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$; † $p \leq 0.1$

Notes: Sample for all models is limited to respondents at all waves where the natural mother is the main respondent (UK) or primary caregiver (US)

¹ Home learning environment score records the extent to which parents helped the child to learn the alphabet read to the child and taught the child poems, songs or nursery rhymes.

² Home learning environment score records the extent to which parents sang songs or nursery rhymes with the child, read stories to the child and told stories to the child.

³ OLS regressions: Coefficients are standardised betas, regressions are unweighted

⁴ Logistic regressions: Coefficients are odds ratios; regressions are unweighted

⁵ Where parenting is measured at 3 years, longitudinal family variables are truncated accordingly.

All models control for poverty, cohort member characteristics: birth weight, parity of birth, sex and age; maternal characteristics: age at first birth, age at birth of cohort member, ethnicity. Model 2 also controls for family status at birth. All controls are measured at baseline.