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How Do Prior Experiences in the Family Affect Transitions to Adulthood?

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1. Introduction

Central features of children's family experiences are structured by the composition of the family and by the nature of family interaction. Single-parent and stepparent families are major components of our family system, and it is well established that children living with both biological parents do better on many developmental outcomes than do those from other living arrangements. From both scientific and social policy perspectives, it is essential that we further our understanding of the causal mechanisms behind this association. Following a review of relevant trends and theories to set this analysis in context, we explore the relationship of several young adult transitions to family structure and parental conflict during adolescence.

The present study examines the extent to which differential outcomes associated with children's living arrangements are mediated by parents' attitudes and behavior. We investigate the adult transitions of a recent cohort of youth using data from the Older Focal Child Sample of the second wave of the National Survey of Families and Households (NSFH2, 1992-94). We use parent interviews from the first wave of data collection (NSFH1, 1987-88) to obtain self-reports from both mothers and fathers on their family formation attitudes and parenting behavior during the child's adolescence. In addition, we address the role of conflict in intact families by differentiating these families on the basis of parental conflict and contrasting intact families with high levels of conflict, stepfamilies, and single-parent families to intact families with low levels of conflict.

Sections 2 and 3 review the increasing diversity in family experiences and evidence on the consequences of this diversity for the life chances of children. Section 4 discusses the paths

through which we expect the family to influence child outcomes. Section 5 describes our data, and section 6 explores patterns of adult transitions using the NSFH2 Older Focal Child Sample. Outcome variables examined here include high school completion, first sexual intercourse, premarital childbearing, cohabitation, and marriage. Section 7 examines NSFH1 measures of living arrangements, family formation attitudes, and parenting behavior, and looks at how these variables differ between mothers and fathers and among intact, step, and single-parent families. Section 8 presents results of multivariate hazard and logit analyses used to evaluate the potential role of attitudes and parenting in mediating family background effects on children, differences between mothers' and fathers' parenting on the processes examined, and differences across transitions with respect to key variables. Section 9 concludes.

2. Increasing Diversity in Family Life

The dramatic changes in children's family contexts over recent decades result from decisions about union formation and dissolution made by their parents. These changes result from the continuation of long-term trends in individuation and secularization that have systematically eroded the significance of marriage. Trends in marriage, divorce, cohabitation and unmarried childbearing are widely shared across Western industrialized countries, and, in our view of the forces underlying them, seem unlikely to be reversed (Bumpass 1990; Lesthaeghe 1995; Lesthaeghe and Moors 1995; Lesthaeghe 1983; Thornton 1989).

While the divorce rate has plateaued in the U.S. for nearly two decades, trends in unmarried childbearing and cohabitation have continued to increase the diversity of children's family experiences (Bumpass and Raley 1995; Bumpass, Raley, and Sweet 1995). Half of all entries into single-parent families are now through birth rather than divorce, and we have only

begun to record the volatility of family contexts through the formation and dissolution of cohabiting unions. The diversity increases even further when we take into account intergenerational coresidence, age at entry into various living arrangements, and duration in these arrangements (e.g., see Aquilino 1996; Bumpass and Sweet 1989).

3. Consequences of Childhood Family Structure for Young Adult Outcomes

The young adult years require the negotiation of a large number of transitions (Rindfuss 1991), the timing and sequencing of which are important for success in the subsequent life course (Hogan and Astone 1986). Rates of school leaving, unemployment, marriage, and childbearing are highest in the late teens and twenties, and these young adult transitions have become increasingly disorderly since about the 1980s (Goldscheider et al. 1993; Aquilino 1990; Rindfuss 1991).

These young adult transitions are clearly associated with childhood family structure. Growing up without both biological parents is associated with dropping out of high school (McLanahan and Sandefur 1994; Astone and McLanahan 1991; McLanahan 1985), being out of work and out of school in early adulthood (McLanahan and Sandefur 1994), early onset of sexual activity (Wu et al. 1997), early childbearing (McLanahan and Sandefur 1994; McLanahan and Bumpass 1988), premarital childbearing (Wu 1996; Wu and Martinson 1996), and entry into cohabitation (Cherlin et al. 1995; Thornton 1991). Results are less clear with respect to the effect of family structure on entry into marriage. Some studies report no effect of marital disruption on marriage formation (Cherlin et al. 1995; Thornton 1991). However, this may result from differing effects by age. McLanahan and Bumpass (1988) find that living in a single-parent family increases the risk of teenage marriage for women, whereas Goldscheider and Waite (1986) show that

coming from an intact family is associated with a small but significant increase in the likelihood of marriage for women after age 20.

4. Paths through which the family influences transitions to adulthood

Described by Amato (1993) in a more general model as "resources and stressors," an array of factors have been identified as potentially important mediators of family structure effects on young adult outcomes. Foremost among these are the differences in economic resources associated with family type, but also potentially important are differences in social capital, socialization and modeling, supervision and control, and stress.

Economic resources

Economic differences between family types are clear. Median family income of mother-child families is less than a third that of two-parent families (Bianchi 1995). About 20 percent of all children, but 50 percent of children from single-parent families, live in poverty (Bianchi 1995). Moreover, the poverty experienced by single-parent families is likely to last longer and be more severe (Duncan and Rodgers 1991; Eggebeen and Lichter 1991; Garfinkel and McLanahan 1986).

Parents with limited economic resources have less to invest in the welfare of their children (Becker 1991). Low income may also proxy poor social conditions such as distressed neighborhoods, bad schools, and weak community connections which restrict access to social capital (Coleman 1988). McLanahan and Sandefur (1994) find differences in family income account for about half the difference in high school dropout rates, teen birth rates and idleness between children in single-parent and two-parent families. Wu (1996) finds low income and declining income are associated with significantly increased premarital birth risks, independent of family structure.

Socialization and modeling

The family provides children with a social and economic environment, role models, and standards of conduct. Socialization theory posits that children's notions of appropriate behavior and their patterns of interacting are influenced from an early age by their experiences in the home. Various dimensions of socialization within single-parent families have been examined in the literature, and family structure has been hypothesized to affect children's attitudes and behavior through father-absence, modeling, and parental attitudes. Empirical support is mixed.

One component of this theory emphasizes the importance of the male role model to the sex-role learning of children and to the overall cognitive and emotional development of children. According to this view, father-absence accounts for single-parent effects on children, implying that the negative consequences of single parenthood should be consistent across all types of single-parent families and should grow stronger as more time is spent in a single-parent family. Further, contact with the noncustodial father in cases of marital disruption should positively affect child well-being. Empirical research does not support the father-absence hypothesis. Research indicates that the effect of parent-absence varies by family type and is inconsistent with respect to duration (McLanahan 1985; McLanahan and Bumpass 1988; Wu and Martinson 1993). Moreover, there is no clear evidence that paternal involvement after divorce affects children's well-being (Furstenberg, Morgan, and Allison 1987; Seltzer 1994), though these effects may interact with the level of conflict between divorced parents.

Other components of socialization theory emphasize the direct and indirect effects of family experiences on children's sexual attitudes and behavior (Axinn and Thornton 1996; Thornton and Camburn 1987). Early family experiences can have direct impacts on children

through observation and modeling. Growing up in a nontraditional family may cause children to regard sexual activity and childbearing outside of marriage as more acceptable (Axinn and Thornton 1996). In addition, marital disruption may shape children's views on marriage, either causing them to be more anxious about long-term commitments (Wallerstein and Blakeslee 1989) or lowering their perceived barriers to ending an unhappy relationship (Axinn and Thornton 1996).

Early family experiences can affect children indirectly as well, through their parents' attitudes toward family formation. Parents who experience marital disruption, never marry, have a child out of wedlock, or give birth in their teens are likely to hold less traditional family values, and these values may in turn be transmitted to children (Thornton and Camburn 1987). Further, the transmission of parental values to children seems more likely the closer the emotional link between parents and children (Weinstein and Thornton 1989). The importance of emotional closeness in protecting young adults from risky behavior is suggested by recent findings from the National Longitudinal Study on Adolescent Health (Resnick et al. 1997).

Parenting resources

Both the transmission of parental values and the supervision and control necessary to raise compliance with these values differ by family structure. Family disruption generally means less father-child contact. It also strains mother-child interaction, as most single mothers are forced to parent without adequate support, often in conjunction with increased employment hours. In the year following divorce, Hetherington et al. (1978) find parents become less consistent, less affectionate, and less able to control children's behavior – patterns associated with less desirable developmental outcomes in children (Baumrind 1991). Amato (1987), using Australian data, and

Thomson et al. (1992), using the NSFH, also report negative associations between nonintact families and parenting styles.

Research on how parenting affects child outcomes is mixed. Using High School and Beyond data, Astone and McLanahan (1991) report children who live with single parents or stepparents during adolescence receive less encouragement and help with school work than children from intact families. Although associated with dropout rates, differences in parental involvement by family type account for only 10 percent of the difference in dropout rates between children from intact and nonintact families. McLanahan and Sandefur (1994) find stronger parenting effects. Their results show parenting practices account for over half the difference in dropping out of high school, 20 percent of the difference in teen childbearing, and nearly all of the difference in idleness between single-parent families and two-parent families. Differences in parenting practices explain less of the difference between stepfamilies and intact families.

Stress and instability

Family stress can obviously arise from economic circumstances or parenting practices, but the emphasis in accounting for family structure effects is usually on role and status changes associated with family disruption. For children, marital dissolution involves the loss of a parent, a period of discord, and changes in family roles. The stresses associated with loss, conflict and uncertainty are critical factors in conceptualizing the short-term effects of divorce on children (Hetherington 1981), and considerable support exists in the literature for the negative effects of stress and instability on children. Multiple marital transitions are associated with a higher incidence of behavior problems (Peterson and Zill 1986), lower rates of high school completion

(McLanahan 1985), and higher rates of premarital childbearing (Wu 1996; Wu and Martinson 1993).

Parents involved in conflict are likely to be less successful role models, to be inconsistent in their discipline, and to place stress on their children (Emery 1982). Experiencing the stress of marital discord is not limited to children of divorce, and thus the stress hypothesis can be extended to children living in high-conflict intact households. Parental conflict in intact families has been shown to relate to behavior problems in children (Peterson and Zill 1986; Emery1982) and to maladaptive styles of personal interaction among college students (Greenberg and Nay 1982). Amato and Booth (1996) show that marital discord largely accounts for the more problematic parent-child relationships found in families that later experience divorce.

The attempts in the literature to disentangle the unique effect of parental separation is useful, but it is important that we continue to recognize pre-divorce conflict as part of the stress of the divorce process. In calling our attention to conflicted intact marriages, this literature underscores the fact that many intact families are in the process of disrupting. In addition, it points out an important dimension of diversity in family experience *within* intact families. The present analysis is designed in part to address this issue.

Problematic issues

The literature reviewed above has contributed substantially to our understanding of the linkages between childhood family structures and young adult outcomes, but the evidence is often ambiguous. We see three kinds of problems that underlie this ambiguity. First, existing data sources do not adequately capture diversity in the family experiences of children. Our study designs are not adequate to permit stable estimates of theoretically important distinctions in terms

of household composition, timing of family transitions, and duration in different family arrangements. Second, the pathways of family influence are often framed as competing theories, while they may operate simultaneously or differentially depending on the developmental stage and outcome under examination. If theories are not generally competing, then we must have better measures relevant to the mediating processes.

Finally, research often understates the importance of selection effects. Some of the limitation to our success in distinguishing different effects for different mechanisms may result from unmeasured parental traits such as depression or antisocial behavior that are causally prior to both family transitions and child outcomes (Capaldi and Patterson 1991). We are not likely to satisfactorily resolve selection issues by statistical modeling, in part because it is substantively important to identify and measure the content of such selection. Data is needed to measure these variables directly. The following analysis is presented in the spirit of trying to learn what we can from what we have, but it is offered in full recognition of the difficulties discussed above.

5. National Survey of Families and Households

The NSFH is a national survey focusing on family structure, process and relationships (Sweet, Bumpass, and Call 1988). The first wave of data collection was conducted between 1987 and 1988 and involved interviews with over 13,000 respondents, including a main cross-section and an oversample of minorities, single-parent families, families with stepchildren, cohabiting couples, and recently married persons. In each household, an adult was randomly selected as the primary respondent, and the spouse or cohabiting partner was asked to complete a shorter, self-administered questionnaire. Between 1992 and 1994, the NSFH sample was re-interviewed.

Of particular interest to this analysis is the NSFH Older Focal Child Sample. At NSFH1, a resident "focal child" aged 12 to 18 was designated, and detailed information pertaining to the child was collected from the primary respondent and spouse or partner. In most cases, the focal child is the biological child of the primary respondent, but may also be a stepchild, foster child, adoptive child, or child of the spouse or partner. NSFH2 includes interviews with the focal children.[1]

The sample used in this analysis is limited to non-Hispanic whites. Family processes vary considerably by race and ethnicity (Castro Martin and Bumpass 1989; Bennett, Bloom and Craig 1989), and the Older Focal Child Sample is too small to allow separate treatment of Hispanics and nonwhites. In all, the sample contains 842 children, including 787 mother-child pairs and 571 father-child pairs.

6. Dependent variables

Table 1 provides descriptive statistics on children's transitions to adulthood. All dependent variables are measured at NSFH2, when the focal children are aged 18 to 26.

[1] At NSFH2, 1762 children were eligible for interview, and interviews were obtained for 1090 (62 percent). The response rate at NSFH2 for parents of the older focal children was 87 percent (compared to 82 percent overall). The response rate for the older focal children was 71 percent. Of those not interviewed, 236 (13 percent) were lost due to the non-response of the parent and 436 (an additional 29 percent) to the non-response of the focal child. The proportion of eligible focal children interviewed at time two reflects the cumulative loss of primary respondents and focal children.

High school graduation

High school graduation is defined as having received a diploma at graduation.[2] This definition excludes children who pass a high school equivalency test such as the GED. In terms of labor market outcomes, exam-certified high school equivalents bear a stronger resemblance to high school dropouts than to graduates (Cameron and Heckman 1993). About 13 percent of the sample did not graduate from high school, including 17 percent of the young men and 9 percent of the young women.

First sexual intercourse

Each child was asked "How old were you the first time (if ever) that you had sexual intercourse?" By NSFH2, about 89 percent of the sample had experienced their first sexual intercourse; 35 percent of the young men and 21 percent of the young women had made this transition before the age of 16. For most all of the sample, first sexual intercourse preceded marriage.

Premarital childbearing

Premarital childbearing is identified from the comparison of marriage and fertility histories. By NSFH2, about 5 percent of the sample reported having a child out of wedlock; 4 percent of the young men and 7 percent of the young women. In addition to being more common among women and probably more reliably reported, early childbearing is also more closely related to women's future well-being than to men's. For these reasons, premarital childbearing is analyzed

[2] Thirty-three young men and women who were still attending high school at NSFH2 are excluded from this analysis.

for young women only. Just under two-thirds of the premarital births observed in this sample were to teen mothers.[3]

Union formation

In addition to marriage histories, cohabitation histories were collected from all focal children at NSFH2. By NSFH2, forty percent of the sample had entered into a marital or cohabiting union, including 32 percent of the young men and 47 percent of the young women. Just under thirty percent of the sample had entered into a cohabiting union, and 12 percent entered into marriage not preceded by cohabitation. Whereas rates of cohabitation differ little by sex, sex differences in marriage are substantial. Nearly three times as many young women (17 percent) entered directly into marriage as men (6 percent). Women are more likely than men to enter into family roles early in life. By NSFH2, 25 percent of the young women in this sample had either given birth to a child, married, or cohabited in their teens, compared to only 17 percent of the young men.

7. Independent variables

All independent variables are measured at NSFH1, when the focal children were between the ages of 12 and 18. Spouses and cohabiting partners of the main respondent were interviewed at NSFH1, so that self-reports of numerous attitudinal and behavioral items exist in parallel for mothers and fathers. We examine differences in attitudes and behavior between mothers and fathers and among family types. Due to the presence of single-parent families and non-response of some partners, our samples of mothers and fathers do not completely overlap.

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[3] We also examined teen childbearing, but the number of transitions does not support a separate analysis.

Family structure

Family living arrangements are measured at NSFH1, during the focal children's adolescence. Five family types are distinguished. A static measure of family structure is required by our concern with the potential mediating role of parental variables measured at the first interview. In addition, the Older Focal Child Sample is too small to construct complex, dynamic measures of living arrangements. Previous research has shown that multiple transitions and family types have important consequences for child well-being (Aquilino 1996; Wu 1996; Wu and Martinson 1993). But research also points to the overall similarities among children raised in different types of single-parent families and suggests that the circumstances surrounding a family disruption may be less critical to children's well-being than the disruption itself (McLanahan and Sandefur 1994; Wojtkiewicz 1993).

The five family types examined are: low-conflict intact, middle-conflict intact, high-conflict intact, step, and single-parent. An intact family is defined as one in which the parents have been continuously married since the birth of the child. A stepfamily includes one biological parent and a spouse or cohabiting partner. A single-parent family is defined as having only one parent present in the household, where the main respondent may be divorced, separated, widowed, or never married and not in a cohabiting relationship.

Intact families are divided into those with low, middle, and high levels of inter-parental conflict. Conflict is measured on the basis of responses to six items concerning frequency of disagreement. Main respondents and their spouses were asked: "The following is a list of subjects on which couples often have disagreements. How often, if at all, in the last year have you had open disagreements about each of the following…" The subjects include household tasks,

money, spending time together, sex, in-laws, and the children. Responses range from 1 (never) to 6 (almost every day). Responses of 1 and 2 are most common for any given subject. We generate a disagreement scale (with a reliability of .82) by averaging over all available responses for both spouses. "Low-conflict" intact families are defined as those falling within the bottom half of the scale's distribution, "middle-conflict" intact families within the third quartile of the distribution, and "high-conflict" intact families within the top quartile of the distribution.

Using this classification scheme, 37 percent of the focal children at NSHF1 live in low-conflict intact households, 20 percent in middle-conflict intact households, 18 percent in high-conflict intact households, 15 percent in stepfamilies, and 9 percent in single-parent families. While it would be desirable to differentiate stepfamilies on the basis of parental conflict, and indeed to include conflict with absent partners in single-parent families, the sample size will not support such distinctions.

Income

We use the natural log of total household income at NSFH1. Low income is expected to increase the chances of dropping out of high school, early sexual onset, and premarital childbearing. The existing literature provides less guidance concerning the effects of income on union formation. Evidence suggests that an unpleasant home environment leads to earlier exits from the nest. To the extent that low income decreases the quality of the home environment, it might be expected to increase the risk of entry into marriage and cohabitation.

Family formation attitudes

Multiple indicators of attitudes toward the family are available for both main respondents and their partners or spouses. Four questions concerning views on cohabitation, premarital sexual

relations, and nonmarital childbearing are used to construct a measure of attitudes toward nonmarital relations (precise wording and response alternatives are shown in Table 2). Each item is given equal weight and is averaged over all available data. The resulting scale has a reliability of .73 for mothers and .79 for fathers and is coded so that higher values represent more traditional views toward nonmarital relations. We expect more traditional parental views to be associated with a lower risk of early sexual onset, premarital childbearing, and cohabitation, but also with earlier marriage.

Parenting behavior

Questions used in this analysis regarding parenting (listed in Table 2) are asked of all parents and refer to behavior toward all children. Based on the self-reports of mothers and fathers, four measures of parenting are constructed: 1) how many days per week the parent eats breakfast or dinner with the children; 2) how much time the parent spends with the children in home activities and outings; 3) how often the parent engages in positive behavior, i.e., praises and hugs the child; 4) how often the parent engages in negative behavior, i.e., hits or yells at the children.[4] Measures of meal-sharing, positive behavior, and negative behavior include only two

[4] In addition to questions about meal-sharing, time, and actions toward children, the NSFH also asks a series of questions about supervision and parent-child conflict. These data are not the main focus of our investigation for two reasons: 1) they are not asked of spouses and partners; 2) they refer specifically to the focal child and are thus more susceptible to problems of endogeneity, i.e., parents changing their behavior in response to the behavior of their children (see discussion in Baumrind 1991). We will return to our concerns about endogeneity in the concluding section.

items and thus have relatively low reliability. The reliability for meal-sharing is .56 for mothers and .50 for fathers; for positive behavior, .56 for mothers and .65 for fathers; for negative behavior, .53 for mothers and .50 for fathers. How much time a parent spends with the children is an average of four items and has a reliability of .73 for mothers and .76 for fathers.

Sharing meals, spending time, and acting positively toward children are expected to decrease the likelihood of dropping out of school, entering into sexual activity, and having a premarital birth. Acting negatively toward children is expected to increase the likelihood of these transitions. Again, the literature provides less direction with respect to the effects of parenting on union formation. To the extent that fewer parenting resources erodes the quality of the home environment, we would expect earlier entry into marriage and cohabitation.

Differences by family type in income, attitudes, and parenting

Table 3 displays means of the income, attitude, and parenting variables separately for mothers and fathers by family type. Data show that income varies considerably by family type. Income levels are highest for low-conflict intact families, followed by middle-conflict intact families, stepfamilies, high-conflict intact families, and finally single-parent families. As expected, income levels are considerably lower for single parents. They are somewhat lower for mothers than fathers, overall, due in part to the greater proportion of single mothers than single fathers.

There appears to be no difference, on average, between mothers and fathers in their attitudes toward nonmarital relations. For both mothers and fathers, low-conflict intact families hold the most traditional family values. Stepparents hold the most permissive views toward nonmarital relations, although single-parents are also considerably more liberal than the parents from intact families. Stepparents may have had more exposure to courtship and dating, and thus

acquired more permissive views than single parents, or they may have selected into these experiences on the basis of more permissive views.

The relationships between parenting, sex of parent, and family type are generally consistent with previous research (see Thomson et al. 1992). The data show that mothers are more engaged with their children on every measure of parenting than fathers. On average, mothers share more meals with their children, spend more time with their children, and exhibit more positive as well as negative behavior toward their children.

Mothers in low-conflict intact families share more meals with their children than other mothers, and single mothers share fewer meals. Similarly, fathers in low-conflict intact families share more meals with their children than other fathers. Fathers in stepfamilies and in families characterized by high levels of conflict share fewer meals with their children than any of the other parents.

Among mothers, those in high-conflict intact families spend the most time with their children in home activities and outings. This anomalous result may reflect fewer hours in paid employment, since these mothers have less education than mothers in low- and middle-conflict intact families. Mothers in stepfamilies spend the least time with their children, although even these mothers spend more time with their children than any of the fathers. Among fathers, single fathers spend the most time with their children, followed by fathers from low- and middle-conflict intact families. Fathers from stepfamilies and high-conflict intact families spend the least time with their children in the activities measured.

There is little variation by family type in positive behavior toward children. Single mothers score slightly higher on this measure than other mothers. This lends some support to the hypothesis that single mothers make confidants of their children (Astone and McLanahan 1991).

Mothers and fathers in stepfamilies are the least likely to hug or praise their children. Parents in low-conflict intact households are the least likely to hit or yell at their children, and parents in high-conflict intact households are the most likely to do so. This supports the notion that marital discord extends to parent-child relationships (Dornbusch et al. 1985).

8. Multivariate analysis

NSFH1 measures of family structure, household income, parental attitudes toward nonmarital relations, and parenting practices are used to predict young men's and women's transitions to adulthood by NSFH2. Hazard and logit models are used to evaluate: 1) the potential role of household income, attitudes, and parenting behavior in mediating the effect of family structure on transitions to adulthood; 2) differences between mothers' and fathers' attitudes and parenting behavior on the processes examined; and 3) differences across transitions with respect to key variables. Controls are included for the sex of the child, the number of children 18 and under living in the household, parent's age, and whether the parent has less than a high school education. Table 4 provides descriptive statistics for all variables, separately for mothers and fathers.

The focal child is the unit of analysis. Mothers' and fathers' responses are modeled separately since they are expected to affect the sex-role learning of daughters and sons in different ways. Mothers' values and attitudes may be more important than fathers' in shaping children's attitudes and behavior, regardless of the child's sex (Acock and Bengtson 1978). The same may hold true of parenting behavior (Baumrind 1991).

Missing values on exogenous variables are treated using mean replacement. Cases missing values on the endogenous variable of interest are dropped so that sample sizes vary slightly

depending on the transition of interest. Dummies for the focal child's age at NSFH1 are included in all of the models. These variables are not of substantive interest, but control for design effects of the sample.[5]

Logit models are used to evaluate high school graduation. For the logit, exponentiated coefficients represent the proportionate change in the odds associated with a unit change in the

[5] Children no longer living in the parental home at NSFH1 were not included in the Older Focal Child Sample. To the extent that early homeleavers are selected with respect to the processes under investigation, their exclusion could introduce bias into the present analysis. We explored the possible effects of excluding early homeleavers on our results. First, we examined the 20-24 age cohort of NSFH1 main respondents to assess differences in outcomes of interest between those leaving the parental home before age 18 and those leaving after age 18. Indeed, substantial differences in the proportions graduating, giving birth out of wedlock, giving birth in the teen years, cohabiting, and marrying exist between those leaving home before and after age 18. Early homeleavers tend to have higher dropout rates and tend to enter into family roles earlier than those who remain longer in the parental home. Second, we ran models of each of the outcomes of interest omitting 17 and 18-year-olds, the age group most likely to be affected by an exclusion of early homeleavers. There are no substantive differences in the results run for the full sample versus results run excluding 17 and 18-year-olds. Third, we included age dummies in all models estimated (representing children aged 12-14, 15-16, 17-18 at NSFH1). The dummies adjust for the reduced number of transitions experienced by the older focal children due to the absence from the sample of early homeleavers. Including the age controls has no significant effect on the results. This is true across outcomes.

observed characteristic x_i given constant values of other predictors (Agresti 1990). Cox proportional hazards are used to analyze premarital sex, premarital childbearing, and union formation. The Cox model provides multivariate estimates of the effects of independent variables on the age-specific risk of making these transitions (Cox 1972; Kalbfleisch and Prentice 1980). Exponentiated coefficients represent a proportionate change in the baseline hazard associated with characteristic x_i. This model implies that the effect of covariates are the same at all durations.

In the hazard models, the exposure clock is child's age in months.[6] Children's exposure to risk starts at the time of the NSFH1 interview or, for premarital childbearing, ten months after the date of the interview.[7] Cases are left-truncated if children experience the transition of interest prior to the date of the first interview[8] or, for premarital and teen childbearing, the date of the

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[6] Data on age at first sexual intercourse are available only at the year level. Values for age in months at first intercourse are imputed by assuming that, on average, the event occurs mid-way through the reported year at first intercourse.

[7] For premarital and teen childbearing, exposure to risk starts ten months after the date of the NSFH1 interview to ensure that any variables measured at time one are not affected by knowledge of pregnancy.

[8] The only outcome for which left-truncation results in a significant loss of cases is first sexual intercourse. Of 759 valid cases, 230 or 30 percent of the sample experienced first sexual intercourse prior to the date of the NSFH1 interview. This reduces the precision of estimates, but should yield unbiased estimates in the absence of very rapid change in the processes governing transitions for the children under study (an unlikely event given such a narrow age cohort). A simple model including only demographic variables was estimated for two samples, one including

interview plus ten months. Cases are right-censored if they have not yet made the transition of interest by NSFH2. In the premarital sex, premarital childbearing, and cohabitation equations, marriage is treated as a competing risk. In the marriage equation, cohabitation is treated as a competing risk.

The analytical strategy employed here is the following. The high school graduation, premarital sex, and union formation equations are estimated for a pooled sample of young men and women, and the childbearing equations are estimated for young women only. For each outcome, three models are examined. Model 1 includes only family structure variables. Model 2 adds demographic and socioeconomic controls. Model 3 adds parenting practices and, for the family formation outcomes, parental attitudes toward nonmarital relations. Estimates from the constrained models are compared to estimates from the full model. Tables 5-9 present results for high school graduation, premarital sex, premarital childbearing, cohabitation, and marriage, respectively.

High School Graduation

Consistent with previous research, we find family structure has a significant effect on children's chances of receiving a high school diploma (see Table 5). The basic story is the same whether we examine mothers' or fathers' responses. Living in a high-conflict intact family, stepfamily, or single-parent family significantly increases the likelihood of dropping out of school. Looking at mothers and their children, Model 1 shows that living in a high-conflict intact home increases the odds of dropping out of school by over two and a half times, living in a stepfamily

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cases who experienced first sexual intercourse prior to NSFH1 and another excluding them. Omission of these cases does not appear to affect the results of the analysis.

increases the odds by nearly three times, and living in a single-mother family increases the odds by more than three times as compared to living in a low-conflict intact home. The similarity between the high-conflict intact families and nonintact families is an important result pointing to the potential significance of conflict (or unmeasured factors associated with conflict) in mediating child outcomes (Amato and Booth 1996).

In Model 2, which includes socioeconomic and demographic variables, the coefficient on single-parent family is reduced by a quarter. However, socioeconomic and demographic variables mediate none of the effect of living in a high-conflict intact family or a stepfamily on graduating from high school. In fact, the coefficients on these variables increase in magnitude with the inclusion of socioeconomic and demographic controls. We will see this pattern again for other outcome variables. The deleterious effects of these family contexts appear off-set by the higher income associated with a two-parent family. Once that is controlled, the coefficients become larger.

Model 3, the full model, shows that the parenting variables play virtually no role in mediating the effects of family type on high school graduation. Including measures of how often mothers eat breakfast and dinner with their children, participate in home activities and outings with their children, praise or hug their children, and hit or yell at their children does not appreciably change the magnitude of the family structure effects. With the exception of positive parenting, the parenting coefficients have the expected signs, but only spending time with children has a statistically significant independent effect on high school graduation.

Premarital sex

As in the high school graduation equations, living in a high-conflict intact, stepparent, or single-parent family has a significant effect on onset of first sexual intercourse (see Table 6). For mothers' responses, results indicate that compared to living in a low-conflict intact family, the age-specific risk of first sex is about 60 percent greater for children from high-conflict intact families, 70 percent greater for children from stepfamilies, and 40 percent greater for children from single-mother families. Socioeconomic and demographic variables play virtually no role in mediating the effect of family structure on first sex. While mother's attitudes and time with children have significant effects, including measures of parenting and attitudes in the model only slightly reduces the effects of the family structure variables and all remain significant. The largest mediating effect is an 11 percent reduction in the size of the stepfamily coefficient.

Results of the father equations are similar. Compared to living in a low-conflict intact family, living in a high-conflict, stepparent, or single-father family nearly doubles the risk of sexual onset. Father's education is the only socioeconomic variable that has a significant effect on the risk of child's first sex, and the socioeconomic and demographic variables play little role in mediating the effects of family structure. None of the parenting and attitude variables has effects, and hence they play no role in mediating the large family structure effects on sexual onset.

Premarital childbearing

Turning to premarital childbearing, we again find the expected effects of family structure. Living in a step or single-parent family increases the risk of a premarital birth by four times or more relative to living in a low-conflict intact home (see Table 7). Our measure of conflict in intact families is associated with unmarried childbearing in the expected direction, although these

effects are not significant. Adding the socioeconomic and demographic variables modestly *increases* the magnitude of the family structure variables among mothers, but decreases them among fathers (only father's age and education are significant in this set).

Of the parenting and attitude variables, only meals with children among the mothers has a significant effect. Adding these variables reduces the stepparent effect by about one-fifth among mothers. The results in the father sample are perverse. When the parenting and attitude variables are added, the two nonintact and the high-conflict intact coefficients become substantially larger. The effects of these variables, however, are not significant.

Union formation

The risk of entry into cohabitation is increased by about two to three times in both the mother and father samples by living in a high-conflict intact, step, or single-parent family (see Table 8). Consistent with an economic argument for the substitution of cohabitation for marriage, we find a negative relationship in both samples between household income and children's cohabitation.

In the mother sample, including socioeconomic and demographic variables has little effect on the size of the family coefficients. Introducing parenting practices and attitudes into the model reduces the magnitude of the high-conflict intact family coefficient by about 10 percent and the step and single-parent coefficients by about 20 percent. Sharing meals with children and holding traditional attitudes toward nonmarital relations exert statistically significant, albeit modest, negative effects on children's entry into cohabitation. All other parenting variables have the expected signs but are not statistically significant.

Looking at the father equations, we find that although the socioeconomic and demographic variables play little role in mediating the effects of living in a step or single-parent family, they reduce the magnitude of the high-conflict intact family coefficient by nearly 30 percent and render it insignificant. Positive behavior toward children has a statistically significant, negative effect on children's entry into cohabitation, with a one-unit increase in the index reducing the risk by about 30 percent. No other parenting or attitudinal variable has a significant effect. Including the parenting and attitudinal variables, we find a reduction in the magnitude of the stepfamily coefficient of less than 15 percent and a reduction in the single-father coefficient of about 5 percent. Strong effects of step and single-parent families remain in the full model.

We find little evidence of family structure effects on entry into marriage, treating cohabitation as a competing risk (see Table 9). For mothers' responses, the full model shows only mother's age and attitudes toward nonmarital relations to have statistically significant effects on the age-specific risk of children's entry into first marriage. In particular, traditional attitudes toward nonmarital relations increase the risk of entry into marriage by 66 percent.

The father equations also show no evidence of family structure effects on entry into marriage. The time a father spends with his children and attitudes toward nonmarital relations exert statistically significant effects on children's entry into first marriage. A one-unit increase in the time scale reduces the age-specific risk of entry into marriage by about 30 percent and a one-unit increase in the traditional attitudes scale increases the risk of entry into marriage by about 60 percent. Marriage and cohabitation are the only outcomes considered for which the inclusion of fathers' parenting behavior and attitudes contributes significantly to the fit of the model, and it is not readily apparent why this should be so.

The relative importance of family structure variables in influencing entrance into cohabitation compared to marriage is consistent with recent studies by Cherlin et al. (1995) and Thornton (1991). However, our results indicate some complexity in this process, including some suggestion that fathers have a greater impact on children's decisions to form unions than other outcomes examined.

9. Summary and Discussion

We set out to examine family structure effects on failure to graduate from high school, early sex, premarital childbearing, cohabitation, and marriage, and then to see how much these differences could be understood in terms of parental attitudes and behavior. This major task we set for ourselves has yielded partially disappointing results. We do find large and persistent family structure effects on children's transitions to adulthood; in particular, we find strong effects of conflict within intact families for high school graduation, premarital sex, and cohabitation. However, the effects of parents' attitudes and behavior are much weaker than expected. Given the weakness of the attitude and parenting effects, it is not surprising that we find only a small mediating role for these variables in explaining the family structure differences in children's transitions to adulthood.

We do find that the attitude and parenting variables generally have a stronger effect for mothers than for fathers. For mothers and their children, adding the attitude and parenting variables contributes significantly (with at least 90 percent confidence) to model fit for all but the transition to premarital childbearing. For fathers, adding the attitude and parenting variables improves model fit for transitions to marriage and cohabitation only. This is consistent with

previous research on the relative influence of mothers and fathers (Acock and Bengtson 1978; Inazu and Fox 1980; Baumrind 1991).

Nonetheless, we have to ask why the results of this analysis seem so divergent from what we would expect theoretically, and from what others have reported. As always, part of the answer necessarily concerns the nature of the measures available and the reliability with which they are measured. Surely the limited number of transitions to nonmarital childbearing is relevant, and differential attrition in the young adult sample is also a potential source of unreliability. It is also possible, however, that we need to rethink this area of research more generally. As the field turns increasingly to concerns with fathering, we must take the occasion to carefully review how well we are capturing the salient dimensions of parenting. There are two issues here. One has to do with the extent to which our indicators are correlated with the subtle aspects of tone and attentiveness in the great number of little parenting acts that are coincident with sharing a residence. These acts are brief and scattered in time, but may make up the great bulk of the real substance of parenting.

The second issue is even more difficult. On the one hand, it would seem that we need parenting measures specific to the child whose behavior is being predicted. But on the other, we face a causal tangle that is difficult to resolve even with longitudinal data. If a parenting style is reactive to child behavior problems, then finding an "effect" of early parenting styles on later outcomes leaves causal ordering unresolved. Most obviously, it is possible that the difficult child earlier in childhood (when parenting might be measured) would likely also be the difficult child as measured in young adult transitions. The current attempts at improved measures of early childhood development become relevant to our efforts to understand parental structure and young

adult outcomes – not simply as early proxies, but as important variables in trying to sort out the reciprocal influences of parenting styles and child outcomes over the life course.

To return to where we began, children's family lives are becoming ever more diverse, and differences in family structure are clearly associated with young adult outcomes. The importance of this relationship ultimately depends on our understanding of the causal mechanisms behind it. The literature has made considerable progress on this, but our current analysis at least raises some questions about how large a role parental attitudes and practices play in the process.

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Table 1. Weighted sample proportions of young men and women experiencing transitions to adulthood

Transition	Mean
Did not receive high school diploma (n=806)	.13
Young men (n=407)	.17
Young women (n=399)	.09
Premarital sex (n=759)	.88
Young men (n=388)	.88
Young women (n=371)	.88
First sex before age 16 (n=759)	.28
Young men (n=388)	.35
Young women (n=371)	.21
Premarital childbearing (n=839)	.05
Young men (n=426)	.04
Young women (n=413)	.07
First union (n=831)	.40
Young men (n=422)	.32
Young women (n=409)	.47
Cohabitation as first union (n=831)	.28
Young men (n=422)	.26
Young women (n=409)	.30
Marriage as first union (n=831)	.12
Young men (n=422)	.06
Young women (n=409)	.17

Notes: Data are from the Older Focal Child Sample of NSFH2 (1992-94). Number of observations are unweighted and sample proportions are weighted. Cases missing data on transitions of interest are deleted. For high school graduation, 1 case is missing relevant data and 33 cases are excluded for still being in high school; for premarital sex, 83 cases are missing; for premarital childbearing, 1 case is missing; for cohabitation, 9 cases are missing.

Table 2. Wording, response alternatives and coding of family formation attitudes and parenting behavior

Questions	Response alternatives and coding
Traditional views on nonmarital relations (liberal to conservative)	
Attitudes toward the family – how strongly do you agree with/approve of...?	
1. "It is all right for an unmarried couple to live together even if they have no interest in considering marriage."	1 (strongly agree) to 5 (strongly disagree)
2. "It is all right for an unmarried couple to live together as long as they have plans to marry."	1 (strongly agree) to 5 (strongly disagree)
3. "It is all right for unmarried 18 year olds to have sexual relations if they have strong affection for each other."	1 (strongly agree) to 5 (strongly disagree)
4. "Women who have a child without getting married?"	1 (strongly approve) to 7 (strongly disapprove)
Sharing meals with children	
How many days last week did you...?	
1. eat breakfast with at least one of your children?	0 to 7 days
2. eat dinner with at least one of your children?	0 to 7 days
Spending time with children	
How often do you spend time with the children...?	
1. in leisure activities away from home	1 (never or rarely) to 6 (almost every day)
2. at home working on a project or playing together	1 (never or rarely) to 6 (almost every day)
3. having private talks	1 (never or rarely) to 6 (almost every day)
4. helping with reading or homework	1 (never or rarely) to 6 (almost every day)
Positive behavior toward children	
Here are several ways parents behave with their children. How often do you...?	
1. praise child	1 (never) to 4 (very often)
2. hug child	1 (never) to 4 (very often)
Negative behavior toward children	
Here are several ways parents behave with their children. How often do you...?	
1. spank or hit children	1 (never) to 4 (very often)
2. yell at children	1 (never) to 4 (very often)

Notes: Questions are from NSFH1 (1987-88). In constructing the measure of parental attitudes toward nonmarital relations, the four related items are scaled to equal intervals.

Table 3. Differences in income, parenting, and attitudes toward nonmarital relations between mothers and fathers and among family types -- weighted means

	Mothers					
	All	Low-Conflict Intact	Middle-Conflict Intact	High-Conflict Intact	Step	Single
	n=787	n=198	n=108	n=91	n=190	n=187
household income	$55,497	$62,068	$59,680	$47,133	$56,509	$29,591
breakfast and dinner with children	4.47	4.80	4.47	4.39	4.05	3.89
home activities and outings with children	3.89	3.88	3.83	4.04	3.76	3.87
positive behavior toward children	3.64	3.64	3.66	3.65	3.60	3.66
negative behavior toward children	2.17	2.03	2.30	2.30	2.21	2.17
traditional attitudes toward nonmarital relations	4.29	4.57	4.19	4.33	3.82	3.87

	Fathers					
	All	Low-Conflict Intact	Middle-Conflict Intact	High-Conflict Intact	Step	Single
	n=571	n=180	n=103	n=88	n=157	n=34
household income	$57,682	$62,403	$60,367	$46,784	$56,497	$34,214
breakfast and dinner with children	3.78	4.03	4.00	3.38	3.45	3.54
home activities and outings with children	3.23	3.29	3.22	3.14	3.16	3.40
positive behavior toward children	3.31	3.32	3.38	3.26	3.26	3.30
negative behavior toward children	2.13	2.02	2.24	2.28	2.06	2.10
traditional attitudes toward nonmarital relations	4.27	4.57	4.19	4.05	3.91	3.95

Notes: Data are from NSFH1 (1987-88). Number of observations are unweighted and sample means are weighted.

Table 4. Descriptive statistics of analysis variables -- weighted means with standard deviations of continuous variables in parentheses

	Mothers (n=787)		Fathers (n=571)	
Variable	Mean	Std. Dev.	Mean	Std. Dev.
low-conflict intact	0.37		0.40	
middle-conflict intact	0.20		0.22	
high-conflict intact	0.19		0.20	
step	0.16		0.15	
single	0.08		0.02	
child is a girl	0.50		0.49	
number of children in household	2.24	(1.17)	2.27	(1.19)
parent's age	40.60	(5.83)	43.01	(6.44)
parent has less than high school education	0.09		0.09	
natural log of household income	10.69	(0.70)	10.75	(0.60)
breakfast and dinner with children	4.47	(1.88)	3.78	(1.88)
home activities and outings with children	3.89	(1.06)	3.23	(1.05)
positive behavior toward children	3.64	(0.45)	3.31	(0.61)
negative behavior toward children	2.17	(0.60)	2.13	(0.61)
traditional attitudes toward nonmarital relations	4.29	(0.97)	4.27	(0.99)

Notes: Data are from NSFH1 (1987-88). Number of observations are unweighted and sample means are weighted.

Table 5. Failure to graduate from high school among young men and women
Logistic regression, separate models for mothers and fathers

	Model 1 Mothers, n=757 Fathers, n=545			Model 2 Mothers, n=755 Fathers, n=541			Model 3 Mothers, n=755 Fathers, n=541		
	B	SE	exp(B)	B	SE	exp(B)	B	SE	exp(B)
Mothers									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.10	0.46	1.10	0.25	0.47	1.28	0.11	0.49	1.12
high-conflict intact	0.98	0.40	2.68 ***	1.00	0.42	2.72 **	0.95	0.44	2.59 **
step	1.06	0.34	2.89 ***	1.22	0.37	3.39 ***	1.21	0.39	3.35 ***
single	1.18	0.33	3.27 ***	0.87	0.37	2.38 **	0.85	0.39	2.34 **
child is a girl				-0.59	0.23	0.55 ***	-0.63	0.23	0.53 ***
number children in household				0.02	0.12	1.02	0.04	0.13	1.04
parent's age				0.03	0.02	1.03	0.03	0.02	1.03
less than 12 years education				0.98	0.30	2.67 ***	1.04	0.31	2.84 ***
natural log income				-0.39	0.13	0.68 ***	-0.41	0.13	0.67 ***
meals with children							-0.09	0.07	0.92
time with children							-0.20	0.13	0.82 *
positive behavior toward children							0.07	0.25	1.08
negative behavior toward children							0.25	0.20	1.28
constant	-2.47	0.31	0.08 ***	0.49	1.66	1.63	1.01	1.95	2.74
Log likelihood	-290.25			-272.74			-262.38		
2 x diff. LL models 1 & 2 (df=6)	35.02 ***								
2 x diff. LL models 2 & 3 (df=8)	20.72 ***								
Fathers									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.16	0.51	1.18	0.15	0.52	1.16	0.11	0.53	1.12
high-conflict intact	1.14	0.44	3.11 ***	1.00	0.45	2.73 **	0.93	0.46	2.54 **
step	1.31	0.39	3.72 ***	1.42	0.41	4.12 ***	1.36	0.42	3.92 ***
single	1.95	0.52	7.01 ***	1.77	0.54	5.85 ***	1.81	0.54	6.12 ***
child is a girl				-0.69	0.29	0.50 **	-0.69	0.29	0.50 **
number children in household				0.09	0.13	1.10	0.09	0.14	1.09
parent's age				0.02	0.02	1.02	0.02	0.02	1.02
less than 12 years education				0.45	0.42	1.57	0.44	0.42	1.55
natural log income				-0.37	0.24	0.69	-0.36	0.25	0.70
meals with children							0.00	0.08	1.00
time with children							-0.19	0.17	0.83
positive behavior toward children							0.23	0.26	1.26
negative behavior toward children							0.19	0.26	1.21
constant	-2.38	0.35	0.09 ***	0.76	2.76	2.13	0.12	2.98	1.13
Log likelihood	-189.88			-182.67			-180.23		
2 x diff. LL models 1 & 2 (df=6)	14.41 **								
2 x diff. LL models 2 & 3 (df=7)	4.89								

Notes:

*** p<.01 ** p<.05 * p<.10
Model 1 includes family structure variables only.
Model 2 = Model 1 + demographic and socioeconomic controls.
Model 3 = Model 2 + parenting variables.
Data are from NSFH1 (1987-88) and NSFH2 (1992-94).
Data on high school graduation are missing for 1 case; 33 cases are excluded for still being in high school.
Mean replacement is used on missing values of the exogenous variables.
Parameter estimates of age group dummies and skip dummies are not shown.

Table 6. Transition to premarital sexual intercourse by young men and women
Cox proportional hazards, separate models for mothers and fathers

	Model 1			Model 2			Model 3		
	B	SE	exp(B)	B	SE	exp(B)	B	SE	exp(B)
Mothers (n=500, events=430)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.27	0.16	1.31 *	0.26	0.17	1.30	0.18	0.17	1.20
high-conflict intact	0.49	0.17	1.63 ***	0.48	0.17	1.61 ***	0.44	0.18	1.55 ***
step	0.55	0.14	1.73 ***	0.47	0.15	1.59 ***	0.35	0.15	1.42 **
single	0.35	0.14	1.42 ***	0.34	0.15	1.41 **	0.28	0.16	1.32 *
child is a girl				-0.08	0.10	0.92	-0.06	0.10	0.94
number children in household				-0.03	0.05	0.97	0.01	0.05	1.01
parent's age				-0.02	0.01	0.98	-0.01	0.01	0.99
less than 12 years education				0.25	0.16	1.28	0.30	0.16	1.35 *
natural log income				0.00	0.06	1.00	0.00	0.06	1.00
meals with children							-0.02	0.03	0.98
time with children							-0.12	0.06	0.89 **
positive behavior toward children							0.16	0.12	1.18
negative behavior toward children							0.00	0.09	1.00
traditional attitudes							-0.11	0.06	0.90 *
Log likelihood	-2282.87			-2280.02			-2272.49		
2 x diff. LL models 1 & 2 (df=7)	5.71								
2 x diff. LL models 2 & 3 (df=9)	15.06 *								
Fathers (n=368, events=317)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.33	0.17	1.39 **	0.28	0.17	1.32	0.27	0.18	1.31
high-conflict intact	0.55	0.18	1.73 ***	0.55	0.18	1.72 ***	0.48	0.19	1.61 ***
step	0.62	0.15	1.87 ***	0.55	0.16	1.73 ***	0.47	0.17	1.60 ***
single	0.67	0.26	1.96 ***	0.67	0.27	1.96 ***	0.58	0.28	1.79 **
child is a girl				-0.05	0.11	0.95	-0.04	0.12	0.96
number children in household				-0.03	0.06	0.97	-0.01	0.06	0.99
parent's age				-0.01	0.01	0.99	-0.01	0.01	0.99
less than 12 years education				0.38	0.20	1.46 **	0.37	0.20	1.44 *
natural log income				0.12	0.09	1.13	0.07	0.10	1.07
meals with children							-0.04	0.04	0.96
time with children							0.03	0.07	1.03
positive behavior toward children							-0.05	0.11	0.95
negative behavior toward children							0.01	0.11	1.01
traditional attitudes							-0.09	0.06	0.92
Log likelihood	-1578.63			-1575.87			-1573.41		
2 x diff. LL models 1 & 2 (df=7)	5.52								
2 x diff. LL models 2 & 3 (df=7)	4.93								

Notes:

*** p<.01 ** p<.05 * p<.10
Model 1 includes family structure variables only.
Model 2 = Model 1 + demographic and socioeconomic controls.
Model 3 = Model 2 + parenting variables.
Data are from NSFH1 (1987-88) and NSFH2 (1992-94).
Date of first intercourse is missing on 83 cases; 230 cases are left-censored.
Marriage is treated as a competing risk.
Mean replacement is used on missing values of the exogenous variables.
Parameter estimates of age group dummies and skip dummies are not shown.

Table 7. Transition to premarital childbearing by young women
Cox proportional hazards, separate models for mothers and fathers

	Model 1			Model 2			Model 3		
	B	SE	exp(B)	B	SE	exp(B)	B	SE	exp(B)
Mothers (n=388, events=36)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.45	0.74	1.56	0.63	0.79	1.89	0.68	0.82	1.98
high-conflict intact	0.61	0.74	1.85	0.76	0.79	2.13	0.78	0.82	2.17
step	1.40	0.55	4.07 ***	1.45	0.63	4.28 **	1.21	0.69	3.37 *
single	1.32	0.55	3.73 **	1.38	0.63	3.99 **	1.39	0.67	4.01 **
number children in household				0.00	0.17	1.00	0.08	0.18	1.08
parent's age				-0.04	0.04	0.96	-0.04	0.04	0.96
less than 12 years education				0.41	0.51	1.50	0.36	0.54	1.43
natural log income				-0.15	0.15	0.86	-0.12	0.17	0.88
meals with children							-0.21	0.11	0.81 *
time with children							0.03	0.22	1.03
positive behavior toward children							-0.36	0.35	0.70
negative behavior toward children							0.48	0.31	1.62
traditional attitudes							0.04	0.23	1.05
Log likelihood	-182.55			-177.44			-169.80		
2 x diff. LL models 1 & 2 (df=6)	10.22								
2 x diff. LL models 2 & 3 (df=10)	15.28								
Fathers (n=276, events=21)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.77	0.83	2.15	0.52	0.84	1.69	0.63	0.87	1.88
high-conflict intact	0.91	0.83	2.48	0.58	0.86	1.78	0.96	0.90	2.60
step	1.39	0.68	4.00 **	0.98	0.71	2.67	1.18	0.79	3.24
single	2.01	0.84	7.47 **	1.87	0.86	6.48 **	2.22	0.89	9.21 ***
number children in household				-0.29	0.26	0.75	-0.34	0.28	0.71
parent's age				-0.08	0.05	0.92 *	-0.10	0.05	0.91 **
less than 12 years education				1.59	0.64	4.91 ***	1.39	0.70	4.02 **
natural log income				-0.22	0.43	0.81	-0.21	0.45	0.81
meals with children							0.20	0.15	1.22
time with children							0.03	0.30	1.03
positive behavior toward children							-0.66	0.49	0.52
negative behavior toward children							0.21	0.50	1.23
traditional attitudes							0.16	0.27	1.18
Log likelihood	-97.99			-92.28			-86.11		
2 x diff. LL models 1 & 2 (df=6)	11.41 *								
2 x diff. LL models 2 & 3 (df=8)	12.34								

Notes:

*** p<.01 ** p<.05 * p<.10
Model 1 includes family structure variables only.
Model 2 = Model 1 + demographic and socioeconomic controls.
Model 3 = Model 2 + parenting variables.
Data are from NSFH1 (1987-88) and NSFH2 (1992-94).
No cases are missing data on premarital childbearing; 9 cases are left-censored.
Marriage is treated as a competing risk.
Mean replacement is used on missing values of the exogenous variables.
Parameter estimates of age group dummies and skip dummies are not shown.

Table 8. Transition to cohabitation as first union by young men and women
Cox proportional hazards, separate models for mothers and fathers

	Model 1			Model 2			Model 3		
	B	SE	exp(B)	B	SE	exp(B)	B	SE	exp(B)
Mothers (n=775, events=246)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.36	0.25	1.43	0.37	0.26	1.44	0.27	0.26	1.30
high-conflict intact	0.56	0.25	1.75 **	0.53	0.25	1.70 **	0.46	0.26	1.58 *
step	1.10	0.19	3.00 ***	1.06	0.20	2.88 ***	0.84	0.21	2.31 ***
single	0.88	0.19	2.41 ***	0.74	0.21	2.10 ***	0.60	0.22	1.82 ***
child is a girl				0.38	0.13	1.46 ***	0.44	0.13	1.56 ***
number children in household				0.01	0.07	1.01	0.08	0.07	1.08
parent's age				-0.02	0.01	0.98	-0.02	0.01	0.98
less than 12 years education				0.25	0.20	1.28	0.28	0.21	1.33
natural log income				-0.20	0.07	0.82 ***	-0.23	0.07	0.79 ***
meals with children							-0.07	0.04	0.93 *
time with children							-0.08	0.08	0.93
positive behavior toward children							0.00	0.14	1.00
negative behavior toward children							0.03	0.12	1.03
traditional attitudes							-0.15	0.08	0.86 *
Log likelihood	-1433.57			-1415.07			-1406.58		
2 x diff. LL models 1 & 2 (df=7)	37.01 ***								
2 x diff. LL models 2 & 3 (df=10)	16.98 *								
Fathers (n=564, events=166)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.47	0.27	1.60 *	0.43	0.28	1.54	0.42	0.28	1.52
high-conflict intact	0.59	0.27	1.80 **	0.42	0.27	1.53	0.26	0.28	1.29
step	1.19	0.21	3.28 ***	1.08	0.22	2.94 ***	0.94	0.24	2.57 ***
single	1.24	0.29	3.47 ***	1.26	0.30	3.52 ***	1.19	0.31	3.28 ***
child is a girl				0.45	0.16	1.57 ***	0.45	0.17	1.57 ***
number children in household				-0.01	0.08	0.99	0.04	0.08	1.04
parent's age				-0.04	0.01	0.97 ***	-0.04	0.01	0.96 ***
less than 12 years education				0.35	0.26	1.42	0.32	0.26	1.38
natural log income				-0.36	0.15	0.70 **	-0.42	0.16	0.66 ***
meals with children							-0.08	0.05	0.93
time with children							0.01	0.10	1.01
positive behavior toward children							-0.34	0.15	0.71 **
negative behavior toward children							-0.02	0.15	0.98
traditional attitudes							-0.07	0.09	0.93
Log likelihood	-906.85			-894.29			-885.60		
2 x diff. LL models 1 & 2 (df=7)	25.13 ***								
2 x diff. LL models 2 & 3 (df=9)	17.37 **								

Notes:

*** p<.01 ** p<.05 * p<.10
Model 1 includes family structure variables only.
Model 2 = Model 1 + demographic and socioeconomic controls.
Model 3 = Model 2 + parenting variables.
Data are from NSFH1 (1987-88) and NSFH2 (1992-94).
No cases are missing data on marriage; 9 cases are missing data on cohabitation; 4 cases are left-censored.
Marriage is treated as a competing risk.
Mean replacement is used on missing values of the exogenous variables.
Parameter estimates of age group dummies and skip dummies are not shown.

Table 9. Transition to marriage as first union among young men and women
Cox proportional hazards, separate models for mothers and fathers

	Model 1			Model 2			Model 3		
	B	SE	exp(B)	B	SE	exp(B)	B	SE	exp(B)
Mothers (n=775, events=89)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.12	0.31	1.13	0.19	0.32	1.21	0.22	0.33	1.25
high-conflict intact	-0.13	0.37	0.88	-0.30	0.38	0.74	-0.08	0.39	0.93
step	-0.34	0.32	0.71	-0.44	0.34	0.64	-0.14	0.36	0.87
single	-0.38	0.30	0.68	-0.40	0.33	0.67	-0.01	0.35	0.99
child is a girl				1.07	0.24	2.92 ***	1.07	0.24	2.92 ***
number children in household				0.07	0.11	1.07	-0.01	0.12	0.99
parent's age				-0.03	0.02	0.97	-0.05	0.02	0.95 **
less than 12 years education				0.47	0.34	1.60	0.39	0.36	1.48
natural log income				-0.13	0.14	0.88	-0.07	0.15	0.93
meals with children							-0.01	0.07	0.99
time with children							-0.04	0.13	0.96
positive behavior toward children							-0.07	0.26	0.93
negative behavior toward children							0.02	0.19	1.02
traditional attitudes							0.51	0.15	1.66 ***
Log likelihood	-506.89			-490.70			-480.19		
2 x diff. LL models 1 & 2 (df=7)	32.39 ***								
2 x diff. LL models 2 & 3 (df=10)	21.00 **								
Fathers (n=564, events=65)									
low-conflict intact	--	--	--	--	--	--	--	--	--
medium-conflict intact	0.40	0.32	1.49	0.44	0.33	1.55	0.47	0.34	1.61
high-conflict intact	-0.08	0.39	0.92	-0.35	0.39	0.71	0.01	0.41	1.01
step	-0.48	0.39	0.62	-0.53	0.40	0.59	-0.48	0.42	0.62
single	-0.73	0.73	0.48	-0.38	0.75	0.68	-0.16	0.75	0.85
child is a girl				1.27	0.28	3.55 ***	1.16	0.29	3.19 ***
number children in household				0.00	0.13	1.00	0.04	0.13	1.05
parent's age				-0.05	0.02	0.95 *	-0.07	0.03	0.93 ***
less than 12 years education				0.05	0.47	1.05	0.00	0.46	1.00
natural log income				-0.29	0.24	0.75	-0.16	0.25	0.85
meals with children							0.07	0.08	1.07
time with children							-0.34	0.17	0.71 **
positive behavior toward children							0.27	0.28	1.31
negative behavior toward children							-0.18	0.24	0.84
traditional attitudes							0.45	0.15	1.57 ***
Log likelihood	-338.02			-322.20			-311.19		
2 x diff. LL models 1 & 2 (df=7)	31.65 ***								
2 x diff. LL models 2 & 3 (df=9)	22.03 ***								

Notes:

*** p<.01 ** p<.05 * p<.10
Model 1 includes family structure variables only.
Model 2 = Model 1 + demographic and socioeconomic controls.
Model 3 = Model 2 + parenting variables.
Data are from NSFH1 (1987-88) and NSFH2 (1992-94).
No cases are missing data on marriage; 9 cases are missing data on cohabitation; 4 cases are left-censored.
Cohabitation is treated as a competing risk.
Mean replacement is used on missing values of the exogenous variables.
Parameter estimates of age group dummies and skip dummies are not shown.

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