Influences of Family Structure, Conflict, and Change on Transitions to Adulthood

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INFLUENCES OF FAMILY STRUCTURE, CONFLICT, AND CHANGE ON TRANSITIONS TO ADULTHOOD

ABSTRACT. Using new data from the third wave of the National Survey of Families and Households, we examine the influence of detailed and time-varying measures of family life on children's academic achievement, substance use, and early family formation and dissolution. First, focusing on adolescent family experiences, we compare young adult outcomes of children exposed to parental conflict in biological two-parent families, relative to those living in step and single-parent families. Next, following younger children who were in the parental home over the course of two waves of data collection, we model stability and change in family structure and parental conflict between early childhood and adolescence. We find that exposure to parental conflict in adolescence is related to young adult outcomes, often in ways that are indistinguishable from living in a step or single-parent family. Further, we find that sustained high conflict and marital disruption are related in similar ways to young adult outcomes, irrespective of levels of pre-disruption conflict. Conflict does not appear to explain the association between marital disruption and child outcomes, nor does it appear to moderate the association. While children tend to fare better living with two biological married parents, it is clear that advantages are not equally shared by all.

The association between childhood family structure and child wellbeing is frequently cited: children who grow up with two married parents tend to fare better than others on a range of outcomes (for reviews see Amato 2005; McLanahan and Sandefur 1994; Sigle-Rushton and McLanahan 2004). Most studies of family structure compare children in single-parent and stepparent families to all children living with continuously married parents, irrespective of the level of parental conflict. Variation in two-parent families and its influence on children is relatively under-studied, although a growing body of work shows the importance of considering parental relationship quality and, in particular, conflict between parents. Exposure to parental conflict in childhood is associated with poorer child outcomes, including lower levels of psychological wellbeing, academic achievement, and relationship quality (Amato and Booth 1997; Amato and Sobolewski 2001; Musick and Bumpass 1999).

From a social science perspective, understanding variation in married-parent families is important because it provides vital information about *how* family structure matters for children. Understanding how marriage matters is also important from a policy perspective. Marriage has emerged high on the policy agenda in the United States over the past decade (Nock 2005). Marriage promotion was an explicit goal of the 1996 welfare reform legislation, and Congress recently authorized $150 million a year under the Bush administration's "Healthy Marriage Initiative" to encourage and strengthen marriage. While living with married parents may confer benefits to the average child, recognizing variation in marriage and its consequences for children is an essential task.

In the presence of parental conflict, are children better off with two married parents? We rely on new data from the third wave of the National Survey of Families and Households (NSFH) to address this question. We examine how family structure, conflict, and change

influence children's academic achievement, substance use, and family-related transitions. First, focusing on adolescent family experiences, we compare the relative influences of exposure to parental conflict in biological two-parent families to living in a step or single-parent family. Second, we explore the relationship between parental conflict, marital disruption, and child outcomes by following a subset of children who were in the parental home over the course of two waves of data collection and modeling stability and change in family structure and conflict between early childhood and adolescence. We extend work on parental conflict and child wellbeing in several ways. Our analysis focuses on family experiences during the critical period of adolescence, follows children well into their transitions to adulthood, and includes outcomes across various domains of behavior. It takes advantage of three waves of rich, prospective data, including reports of marital conflict from both parents. Finally, we provide a broad descriptive portrait of family structure, conflict, and child outcomes, as well as a closer look at how the related processes of conflict and divorce unfold over time.

BACKGROUND

Growing up without both biological parents is associated with a range of child outcomes, including socioeconomic attainment, health and risk-taking behaviors, and family-related transitions. Children who spend time with a single parent have higher poverty rates and lower levels of educational and occupational attainment than children who grow up with both biological parents (Amato and Cheadle 2005; Astone and McLanahan 1991; Biblarz and Raftery 1993, 1999; DeLiere and Kalil 2002; Kiernan 1992; McLanahan and Sandefur 1994; Wojtkiewicz 1993). They report greater substance use and risk-taking behavior, such as smoking, drinking, and drug use (Carlson 2006; DeLiere and Kalil 2002; Hoffman & Johnson 1998). Spending time with a single parent is also associated with an early age at first sex (Davis

and Friel 2001; Miller 1998; Thornton and Camburn 1989), early and nonmarital family formation (Kiernan 1992; Kiernan and Hobcraft 1997; Cherlin, Kiernan, and Chase-Lansdale 1995; McLanahan and Sandefur 1994), and union dissolution (Amato and DeBoer 2001; Furstenberg and Kiernan 2001; Kiernan and Cherlin 1999; Wolfinger 1999).

While associations between family structure and child outcomes have been found consistently in U.S. and international data (e.g. Wu and Schimmele 2003 on Canada; Kiernan 1992 on the UK; Jonsson & Gahler 1997 on Sweden; Diekmann and Engelhardt 1999 on Germany), causal relationships are not as clear. Multiple pathways may link family structure to children's life chances: economic deprivation (Thomas and Sawhill 2005; Bianchi 1995; Duncan and Rodgers 1991; Eggebeen and Lichter 1991), stress (Martinson and Wu 1992; Wu 1996), and parenting (Astone and McLanahan 1991; Thomson, Hanson and McLanahan 1994; Axinn and Thornton 1996; Thornton and Camburn 1987). There are theoretical reasons to expect influences of family structure on children, but selection also undoubtedly plays a role. Couples who divorce differ in many ways from those who do not, and pre-existing characteristics may account for the relationship between divorce and child outcomes. For example, couples who divorce have less education, tend to marry younger, and are more likely to have had a premarital birth than couples who remain together (Phillips and Sweeney 2006; Raley and Bumpass 2003). Some individual characteristics associated with marital disruption are observed in data on the family, but others, such as relationship skills, go unmeasured. The same is certainly true of unmarried couples, who tend to be socioeconomically disadvantaged and face serious barriers to maintaining romantic relationships (Edin and Kefalas 2005; Carlson, McLanahan, and England 2004). A recent generation of studies using longitudinal designs and sophisticated approaches to addressing selection tend to report weaker and less consistent effects of family structure on

children's outcomes (Aughinbaugh, Pierret, and Rothsetin 2005; Cherlin, Chase-Lansdale, and McRae 1998; Cherlin et al. 1995; Cherlin et al. 1991; Morrison and Cherlin 1995; Sigle-Rushton et al. 2005; Strohshein 2005; Sun 2001).

By and large, the literature on family structure compares single-parent and stepparent families to continuously married two-parent families. Over the past decade, however, more attention has been paid to conflict within continuously married two-parent families. This work stems from an interest in the effects of divorce, exploring the relationship between parental conflict, marital disruption, and child wellbeing. In particular, it examines the extent to which parental conflict explains or moderates the effects of subsequent marital disruption on children. Most studies in this line of research focus on continuously married families at initial observation and examine subsequent divorce, controlling for pre-disruption conflict (but see Amato & Sobolewski 2001; Musick and Bumpass 1999); some test interactions between conflict and divorce (Amato and Booth 1997; Booth and Amato 2001; Amato, Spencer Loomis and Booth 1995; Hanson 1999; Jekielek 1998; Morrison and Coiro 1999; Strohschein 2005).

The potential mechanisms linking parental conflict and child outcomes are similar in some ways to those linking family structure and child wellbeing. In particular, parenting is likely related to marital conflict and, in turn, child wellbeing. Disagreements may prevent cooperation between parents in decisions regarding children; they may also spill over into relationships with children. Moreover, children may model parents' unsuccessful patterns of interaction. Stress is another likely mechanism linking marital conflict and child outcomes. Overt hostility, as well as changes in family situations, may generate stressful environments for children. Because two parents (and thus two possible earners and caretakers) remain in the household, economic hardship probably plays less of a role in mediating the effects of conflict on

children, just as it plays little role in mediating the effects of stepparent families on children (McLanahan and Sandefur 1994).

Parental conflict is often cited as an important factor in the association between parental separation and child outcomes. Studies are somewhat mixed in their findings on this question. Exposure to parental conflict prior to divorce explains some but not all of the effect of marital disruption on a number of outcomes, including grades in school, delinquency, self esteem, and quality of life (Hanson 1999); college attendance, pregnancy, and psychological wellbeing (Furstenberg and Teitler 1994); and behavior problems, especially among boys (Cherlin et al. 1991). Others find that pre-disruption conflict does not explain the relationship between marital disruption and behavior problems (Morrison and Coiro 1999), dropping out of high school, early sexual initiation, or entry into premarital cohabitation (Furstenberg and Teitler 1994). For a number of outcomes but not all, the association between divorce and child outcomes is at least in part attributable to martial conflict leading up to divorce.

A recent set of studies suggests that conflict may also condition the effects of divorce on children. According to the "stress relief hypothesis" (Amato et al. 1995; Jekeilek 1998), divorce following high levels of parental conflict should improve child outcomes relative to remaining married, since in the case of conflict, parental separation removes children from stressful home environments. Several empirical studies support this hypothesis for selected outcomes, finding that children from high conflict families whose parents divorce do better than those whose parents stay together. The corollary is also supported: children from low conflict families whose parents divorce have poorer outcomes than those whose parents remain married (Amato and Booth 1997; Booth and Amato 1991; Jekielek 1998; Strohschein 2005). Other studies, however, find that divorce has the same effect on children regardless of pre-disruption conflict (Morrison

and Coiro 1999), or they find conditional effects on some outcomes but not others (Hanson 1999).

Much of the research on parental conflict and child well-being treats conflict either as a selection or moderating factor in the divorce process, and not as a family factor with independent effects on child outcomes (e.g., Cherlin et al. 1991; Furstenberg and Tietler 1994). Studies that do consider the relationship between conflict and child outcomes find that it is associated with transitions to adulthood (Musick and Bumpass 1999), child behavior problems (Morrison and Coiro 1999), parent-child relations (Amato and Booth 2001), psychological well-being (Amato and Sobolewski 2001), and school-related well-being (Hanson 1999).

In summary, the prior literature on conflict, divorce, and child wellbeing comes to somewhat mixed results. For a number of outcomes, pre-disruption conflict explains at least part of the association between divorce and child wellbeing. Some studies report that conflict conditions the effects of divorce on child wellbeing; others test for but do not find interactions between divorce and pre-disruption conflict, or they find them for some outcomes but not others. Finally, a handful of studies suggest that parental conflict may have effects on child well-being regardless of whether parents divorce. This assorted set of findings could be due to several factors: differences in the relationship between conflict, divorce, and child wellbeing across outcomes; the age of child when exposed to conflict and divorce; the measurement of conflict; and the extent to which studies account for selection factors.

PRESENT STUDY

Recent U.S. studies on conflict rely on four longitudinal data sets: the Marital Instability over the Life Course Study (studies by Amato and colleagues), the National Longitudinal Survey of Youth (Jekeliek 1998; Morrison and Coiro 1999), the first two waves of the National Survey

of Families and Households (Hanson 1999), and the National Survey of Children (Cherlin et al. 1991; Furstenberg and Tietler 1994). Only the Marital Instability over the Life Course Study includes information on children beyond their early 20s. Children in this study, however, range widely in age; they are 0-25 when exposure to conflict and divorce is observed and 19-43 when outcomes are measured (depending on which waves are used and how samples are constructed). With the exception of the NSFH, all other data sources include reports of marital conflict from only one parent. Data also vary in the extent to which it is possible to control for other pre-disruption characteristics of families or children. Jekielek's work using the NLSY is particularly strong in this regard, as it includes the same child measures both before and after marital disruption, effectively estimating change in child outcomes following divorce. While this approach probably comes closest to estimating a divorce effect, it likely understates the effects of conflict by measuring pre-disruption child characteristics (potentially a product of parental conflict) at the same time as parental conflict.

We use new data from the third wave of the National Survey of Families and Households (NSFH) to examine the influence of various family-of-origin factors on young adult academic achievement, substance use, and family transitions. The NSFH has some significant strengths relative to other data used to address conflict. It allows us to focus on two key stages in the life course: adolescence and young adulthood. Perhaps more than other stages, adolescence is characterized by intense developmental change (Petersen 1988), and young adulthood by dense demographic transitions (Rindfuss 1991). Family experiences and consistency and change in the family environment during adolescence may be particularly important in setting the course for the demographic changes of young adulthood (Hogan 1985; Hogan and Astone 1986). The NSFH also has interviews with multiple members of the same family; in particular, it includes

both parents' reports of marital conflict and children's reports of young adult behaviors. Finally, the NSFH contains rich information from parents about their own social class backgrounds, as well as education, union, and childbearing histories. With these data, we are able to control for background characteristics and mothers' family formation experiences that are prior to prospectively measured conflict and family structure.

Our study has two parts. In the first, we focus on adolescent family experiences. While most studies of conflict are limited to continuously married-parent families at first observation, we compare conflict in two-parent families in adolescence to single-parent and stepparent family structures. This provides a broader descriptive portrait than past work of the influence of exposure to parental conflict relative to other family types, including parents that separated early in a child's life, as well as families formed through nonmarital childbearing. In the second part, we analyze change in parental conflict and family structure over time for a subset of the sample in the parental home at two waves of data collection. While past work has examined the extent to which conflict explains or moderates divorce effects on children, it has not looked at the influence of persistence or change in levels of conflict for child wellbeing. We examine outcomes related to academic achievement, substance use, and family formation, looking at whether associations between family structure, conflict, and change differ across these domains.

Our analyses address the following question: Is living with two married biological parents better for children than divorce, even in the case of persistent parental conflict? Stress and parenting perspectives suggest that exposure to parental conflict and separation may affect child wellbeing in similar ways. For example, there may be stress associated both with persistent conflict and the residential moves, income loss, and other transitions related to divorce. Stress may reduce school performance, increase risky behaviors, and hasten homeleaving and own

family formation. Parental attitudes and behaviors associated with conflict and divorce may leave children with fewer relationship skills or less confidence in marriage as an institution, increasing rates of union disruption for children later in life. The stress relief hypothesis suggests that the effects of divorce may depend on prior levels of parental conflict, with divorces following high levels of conflict improving child wellbeing relative to remaining married, and those following low levels of conflict leading to poorer child outcomes. Although not discussed in the literature, it is just as plausible that the combined effects of high conflict and subsequent marital disruption are more harmful than divorce in the absence of conflict. Both parental conflict and separation may be stressful, and their effects may be additive, rather than interactive.

DATA AND METHODS

National Survey of Families and Households (NSFH)

The first wave of the NSFH was collected between 1987 and 1988 and involved interviews with over 13,000 respondents, including a main cross-section and an over-sample 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. The second wave of data collection (NSFH2) was fielded between 1992 and 1994; the most recent wave (NSFH3) was fielded in 2001 and 2002.

Of particular interest to the present study, a focal child was randomly selected from the household roster at NSFH1 and followed over the subsequent surveys. At the first wave, primary respondents provided information on the designated focal child. At the second and third waves, focal children themselves were also interviewed. The availability of prospectively measured self-reports from multiple members of the same family allows us to examine variation

in parental conflict and its relationship to child outcomes. Three waves of data make it possible to examine stability and change in the family lives of children. We examine how family experiences reported by parents at NSFH1 and NSFH2 relate to focal child outcomes at NSFH3.

Focal child interviews were attempted with children age 10 and older at NSFH2. Attempts were made to interview focal children 18 and older at NSFH3, regardless of whether an interview was completed at NSFH2. About half of all eligible NSFH1 focal children were interviewed at NSFH3. Attrition was greater among nonwhite and socioeconomically disadvantaged respondents, as well as those living with a step or single-parent family at NSFH1. Despite these differences, we found (in results not shown) that NSFH1 family experiences were related to NSFH2 focal child outcomes in similar ways, regardless of whether samples were restricted to respondents at NSFH3. This provides some evidence that results reported here are not affected by attrition.

In all, 1,952 focal children were interviewed at NSFH3. We restrict our analyses to children who were living with their biological mother at NSFH1, thereby excluding single father and stepmother families, which are relatively rare and cannot be analyzed separately. We also exclude cases who experienced the death of a parent, as there are likewise too few deaths in this sample to analyze separately, and the processes of divorce and death affect children differently (Biblarz and Gottainer 2000). Finally, we lose a small number of cases due to missing values on parental conflict and union transitions, child outcomes, and family background characteristics. Sample restrictions are discussed in greater detail below.

Samples

We conduct analyses on two separate samples. The first relates adolescent family experiences to a range of outcomes measured at NSFH3. For the older focal children, we use

data on family of origin from the NSFH1 main respondent and spouse interviews (when the older children are 12-18); for the younger focal children, we use data from NSFH2 (when they are 10-17). Assessing family structure and functioning while all children are adolescents is important; evidence indicates that age or developmental stage affects children's experiences of family (Amato and Sobolewski 2005; Duncan Brooks-Gunn and Smith 1998; Allison and Furstenberg 1989).[1] For this analysis, we start with 1,773 children living with their biological mother at NSFH1. We lose 102 of the younger focal children either because their parents were not interviewed at NSFH2 or because they were not in the parental home at NSFH2, we exclude 40 children living with widowed single mothers, and we drop another 34 due to missing values on conflict, family structure, or controls, leaving a final sample of 1597 (which varies slightly by outcome due to item nonresponse).

The second sample is restricted to the younger focal children, ages 4-11 at NSFH1 and 10-17 at NSFH2, i.e., in the parental home at both NSFH1 and NSFH2. We further restrict this sample to children living with continuously married parents at NSFH1 so that we can examine levels of marital conflict prior to any marital disruption. We construct trajectories of change in family structure and marital conflict between NSFH1 and NSFH2. We start with 1,063 children ages 4-11 at NSFH1, we exclude 432 children living without both biological parents at NSFH1, and we lose another 69 because the focal child's parents were not interviewed at NSFH2, the focal child was not in the parental home at NSFH2, a parent died between waves, or there were missing values on key variables, leaving a final sample of 562.

[1] While this opens the possibility of differential period effects, recent work finds no evidence of change over time in the association between family structure and at least some aspects of child wellbeing (Musick and Mare 2006; Li and Wu 2002; Sigle-Rushton et al. 2005).

Measures of Childhood Family Experience

Parental conflict is measured on the basis of couples' 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. We generate a disagreement scale by averaging all valid responses from husbands and wives to these six items. We keep observations on conflict when only one spouse report is available. Over 80% of our conflict scores are based on data from both parents.

Families are classified according to their scores on conflict: "low conflict" families fall in the bottom third of scores, "medium" in the middle, and "high" in the top. We use this classification in the analyses reported here, although we explored alternative measures. In particular, we examined agreement and disagreement in parent reports of conflict, where both parents agreed that conflict was low, parents disagreed about the level of conflict, and both agreed that conflict was high. We examined how child outcomes were related to our measure of average parent reports on the one hand and our measure of parent agreement-disagreement on the other. Results were very similar regardless of definition.

Using conflict scores to make distinctions between continuously married-parent families, we generate 5 adolescent family types: low, medium, and high conflict continuously married-parent families; stepparent families; and single-parent families. As described earlier, we use reports of family structure and conflict from NSFH1 for the older focal children and NSFH2 for the younger focal children. Family structure is determined on the basis of the resident parent's union status and history. Children are coded as living with continuously married parents if their

parents were married or living together within one year of the focal child's birth and remain in the same union (we include 3 cohabiting families by this definition).[2] They are coded as coming from stepparent families if parents are in a union that began more than a year after the focal child's birth (in our adolescent family sample, there are 48 cohabiting stepfamilies). Finally, they are classified as coming from single-parent families if their mothers are not married or cohabiting. Table 1a shows the distribution of our adolescent family measure.[3]

-- Table 1 about here --

Our analysis of change over time among the younger focal children is restricted to continuously married-parent families at NSFH1. Of 562 families, 73 (or 13%) experience a marital disruption by NSFH2. We map trajectories of stability and change in family structure and marital conflict between NSFH1 and NSFH2, constructing a total of 6 trajectories. Here, we collapse conflict categories, combining the lowest and middle third of the conflict distribution to represent "low" conflict, with the top third representing "high" conflict. Trajectories of change in conflict between NSFH1 and NSFH2 for those continuously married at NSFH2 are: low conflict at both waves, low conflict to high conflict, high conflict to low conflict, and high conflict at both waves. The final two trajectories involve marital disruption by NSFH2 following

[2] Marriage chances drop off sharply following a nonmarital birth (Brien, Lillard, and Waite 1999). Allowing parents one year to marry following the focal child's birth captures those biological parents that do marry without including (many) step relationships. Bumpass, Raley, and Sweet (1995) follow a similar approach.

[3] Data are unweighted to represent the samples being analyzed. The weighted distributions would be different because of the nature of oversampling in the original sampling design.

low versus high levels of conflict at NSFH1. Table 1b shows the percent distribution of these trajectories.

Outcomes

We examine a range of outcomes related to the transition to adulthood. Outcomes are measured at NSFH3, when focal children are ages 19-34 (the younger focal children are 19-27). They include a set of outcomes related to academic achievement: high school dropout,[4] poor grades in high school ("C" or below), and never attended a two- or four-year college. Three outcomes relate to substance use: smoking in the past 30 days, binge drinking in the past 30 days (5 or more drinks in one sitting), and marijuana use in the past year. These are associated with poor socioeconomic and health outcomes, delinquency, psychological problems, and later substance addiction (e.g., Cooper et al. 2003; Kandel 2002). Table 2 shows the frequency of each of these behaviors in our two samples. In our adolescent family sample (first set of columns), 13% dropped out of high school, nearly a quarter had poor grades in high school, and about 40% never attended college. Substance use is reasonably common: about a third of the sample reported smoking and binge drinking in the past month, and about a quarter had used marijuana in the past year.

-- Table 2 about here --

We also include a set of transitions related to family formation: early age at first sex (before age 16), early cohabitation (before age 21), nonmarital childbearing, and union

[4] High school dropout is defined as not having received a diploma at graduation, and it includes children who passed 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).

dissolution. Children from single-parent families are typically younger at first sex and are more likely to have a child out of marriage, cohabit, and experience the dissolution of their first union (Wu 1996; McLanahan and Bumpass 1988; Thornton 1991; Pears et al. 2005). While sex, union formation, and childbearing are clearly normative life course transitions, *early* sex and *early* and *nonmarital* union formation and childbearing may have negative consequences not associated with later transitions. First sex at a young age increases exposure to sexually transmitted diseases and nonmarital pregnancy (Alan Guttmacher Institute 1994; Resnick et al. 1997). Nonmarital childbearing may truncate educational attainment (Astone and Upchurch 1989; Teti and Lamb 1989) and foreclose or diminish opportunities on the marriage market (Anderson 2000). Early cohabitation and disruption may set up expectations with respect to the permanency of marriage-like relationships. Further, cohabitation potentially pulls young people out of the socialization and interactions that might lead to successful partner selection. Early marriage is not only tied to much higher rates of divorce (Raley and Bumpass 2003), but also with associated experiences of single-motherhood, remarriage and the link between these and the third generation's wellbeing. The same may hold of early cohabitation.

Table 2 shows the frequency of family-related transitions in our two samples. In our adolescent family sample, the transition to first sex occurred before age 16 for 22% of young men and women (that is, of those who did not make the transition to first sex prior to the time we observed their adolescent family experiences; this is discussed in more detail when we discuss our hazard models). About 23% cohabited by the age of 21, 13% had a child outside of marriage, and 45% experienced the dissolution of their first cohabiting or marital union. We do not model nonmarital fertility in our trajectories of change sample, as there are too few transitions in this sample to generate stable estimates.

We consider outcomes for males and females together. Recent literature indicates that there are few differences in the effects of family disruption by child gender (Amato 2005; Jekielek 1998). Where differences exist, they are observed for only a few outcomes during childhood, but not during adolescence or young adulthood, and not for the outcomes we investigate (see Amato 2005). In the one case of nonmarital childbearing, because we were concerned about the quality of men's nonmarital fertility reports (Rendall et al. 1999), we examined models of nonmarital childbearing separately for women. Results for women were similar to those of the pooled sample, and so we report only the pooled results.

Controls

We control for as rich an array of characteristics as possible, while being careful not to include variables that are a product of family structure or conflict. This is especially an issue in our analysis of adolescent family type, which includes continuously married parents and families that have experienced at least one – if not multiple – transitions. The availability of mothers' education, union, and childbearing histories, as well as detailed information on her social class background, allow us to control for important characteristics of mothers that are prior to family structure and conflict, including: race, highest level of education prior to the focal child's birth, childhood family structure, age at first birth, and union dissolution prior to the focal child's birth.[5] These factors are likely associated with both family structure and child wellbeing. We

[5] When mothers' childbearing and union histories are not available, for example, in the case that the mother is the secondary respondent and the partner interview was not completed, we set values to 0 and include a flag for missing mother report in all models. When we have no report of mother's race or education, we fill this information in with partners' reports, if available, since

also control for the focal child's sex and NSFH3 age (age dummies are not included in our hazard models, which account for time dependence in their baseline functions).

For our analysis of change over time, we have somewhat greater options in terms of controls. Because we limit our sample to continuously married parents at NSFH1, any factor measured at NSFH1 is by definition prior to disruption (i.e., unless it is affected by the anticipation of divorce). However, since we also measure parental conflict at NSFH1, we have to be careful that any such factor is not a product of prior conflict. Family income is a good candidate to include in our models: it is a major factor in the association between family structure and child wellbeing (McLanahan and Sandefur 1994), while likely not a product of parental conflict. We tested its role in explaining family trajectories, in addition to a host of other, potentially more endogenous, variables measured at NSFH1: mother's attitudes about the family, mother's religious participation, mother's depressive symptoms, substance use problems in the household, and child temperament. Net of family background factors included in the adolescent family analysis, most of these had no effect on our outcomes, or affected only one or two outcomes, and none accounted in any significant way for associations between family trajectories and outcomes. Because of limited sample sizes, we left all of these out of our models. We included the same set of controls as in the adolescent family analysis: focal child's sex and age and mother's race, education, childhood family structure, age at first birth, and union dissolution history.

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these characteristics tend to vary little within couples (see Schwartz and Mare [2005] on education and Qian [1997] on race).

Methods

We use logistic regression to analyze high school dropout, poor grades, no college attendance, and substance use. For these models, exponentiated coefficients represent the proportionate change in the odds associated with a unit change in the observed characteristic x_i, holding all else constant (Agresti 1990). We use Cox proportional hazard models to examine the determinants of time to sex, cohabitation, nonmarital birth, and union dissolution. The Cox model provides multivariate estimates of the effects of independent variables on the time-dependent risk of transition (Cox 1972; Cleves, Gould, and Gutierrez 2002). These models are appropriate for analyzing time to an event, especially when there is censoring. Exponentiated coefficients represent the proportionate change in the baseline hazard associated with characteristic x_i, and can be interpreted as a change in the relative risk of an event for a one-unit change in x_i. The Cox model assumes that the effect of covariates remains constant at all durations, but it makes no assumptions about the shape of the baseline hazard over time.

We model the age-specific risks of sex, cohabitation, and nonmarital childbearing and the duration-specific risk of union dissolution (i.e., duration since the start of the first union). Age 16 is treated as a competing risk in the model of first sex (i.e., at age 16, individuals are removed from the risk set). In models of cohabitation and nonmarital childbearing, age 21 and age at marriage are treated as competing risks, respectively. For early sex, early cohabitation, and nonmarital childbearing, children's exposure to risk starts after we observe their family circumstances in adolescence (i.e., NSFH1 for the older focal children and NSFH2 for the younger), and cases are left-truncated if children make the transition of interest or age out of the transition of interest prior to that date. For union dissolution, exposure starts at the time of the first union, and cases are left-truncated if their unions begin prior their adolescent family

observation. The only outcome for which left-truncation results in a significant loss of cases is first sexual intercourse. Because we are modeling age-specific risks of first sex and all ages up to 16 are represented in our models, censoring these cases reduces the precision of estimates but does not lead to bias.[6]

RESULTS

We report two sets of analyses: The first relates adolescent family type to NSFH3 outcomes among all focal children. The second limits our sample to the younger focal children so that we can follow changes in their family lives while they are still in the parental home. For both analyses, we compared models estimated with and without controls for the background characteristics discussed above, namely, child's age and sex and mother's race, education, childhood family structure, and past childbearing and union experiences. Control variables tended to attenuate relationships between family experiences and outcomes, in some cases reducing coefficients to statistical insignificance. Overall, however, associations were fairly robust to the inclusion of background characteristics. Our main tables show results of models that include controls, but they do not show parameter estimates for the controls, nor do we discuss them here. We include full models for both sets of analyses in Appendix Tables 1 and 2.

Adolescent Family Type

Table 3 shows results of our analysis of adolescent family type: Panels A and B report exponentiated coefficients or odds ratios from logistic regression models of school achievement

[6] Of 1499 valid reports of first sex in the adolescent family sample, 325 or 22% had first sex and 222 or 15% turned 16 (without first having sex) prior to the interview in which family experiences were assessed. Of 525 valid reports of first sex in the trajectories of change sample, 55 (10%) had first sex and 53 (10%) turned 16 prior to NSFH2.

and risk-taking, and Panel C reports exponentiated coefficients or relative risks from hazard models of time to sex, cohabitation, nonmarital childbearing, and union dissolution. First, we examine the associations between child outcomes and exposure to conflict, living in a stepparent family, and living in a single-parent family in adolescence, all relative to living in a low conflict continuously married-parent family. Next, in the rows labeled "key relative family influences," we provide additional contrasts of interest, examining differences among high conflict, step, and single-parent families.

-- Table 3 about here --

Compared to children from low conflict families, children from families with relatively high levels of conflict are at an increased odds or relative risk of 7 of our 10 outcomes: dropping out of school, poor grades, smoking, drinking, early sex, early cohabitation, and union dissolution. The increase in odds or relative risks associated with high conflict ranges from 50% greater for smoking and union dissolution to over 2 times greater for dropping out of school. High conflict does not appear to be associated with college attendance, marijuana use, or nonmarital fertility (odds or relative risks are 1.4 or lower and are statistically insignificant). Family experiences appear to be relatively weakly associated with these outcomes in general: stepparent families are not statistically significantly associated with college attendance or nonmarital fertility, and both step and single-parent families have relatively modest associations with marijuana use, increasing odds by about 50%. Step and single-parent families also appear to be weakly associated, if at all, with heavy drinking. They are associated with statistically significant and sizable increases in all other outcomes.

Are the associations between child outcomes and high conflict similar to their well-established associations with step and single-parent families? The rows labeled "key relative

family influences" test the contrasts among high conflict, step, and single-parent families. Differences among these family types are small relative to differences between them and low conflict families, and only a few contrasts are statistically significant. The chances of dropping out of school, smoking, and cohabiting by age 21 are between 25-50% lower for children from high conflict families, compared to those from step or single-parent families. By contrast, the odds of binge drinking are about 40% *higher* for children from high conflict families compared to stepfamilies. There is only one statistically significant contrast between step and single-parent families: children from stepparent families are less likely to dissolve their first union than children from single-parent families.

We examined an alternative specification of adolescent family type, investigating differences within step and single-parent families on the basis of whether the focal child was born in or out of marriage. Children living without their father tend to have less contact with him and receive less child support from him if they were born outside of marriage (Seltzer 1991), and these factors may influence later-life outcomes. About a quarter of all children in both our step and single-parent categories were born outside of marriage. In results not shown, we found that typically, although not always, children in step and single-parent families born outside of marriage had poorer outcomes than those born in marriage. We found especially large differences between children born in and out of marriage in academic achievement and nonmarital childbearing, although differences in college attendance and nonmarital fertility were substantially attenuated when we included controls for background characteristics. Overall, these results, like those reported in Table 3, highlight the similarity in outcomes for children in step and single-parent families in adolescence, regardless of marital status at birth.

In sum, we find that exposure to conflict in adolescence is related in very similar ways to living without both biological parents. This is consistent with work (e.g., Morrison and Coiro 1999) showing strong, independent influences of conflict and marital disruption on child wellbeing. Most studies comparing relative influences of conflict and family structure start with continuously married-parent families at initial observation, thus excluding families that experience divorce early in children's lives, as well as families formed through nonmarital fertility. We include these families, but find limited evidence that the distinctions between step and single-parent families matter for young adult outcomes. This echoes findings in the literature on the similarity in outcomes for children living without both biological parents, whether with a divorced, never-married, or remarried mother (McLanahan 1997; McLanahan and Sandefur 1994; Wojtkiewicz 1993).

Trajectories of Change in Family Experiences

Our analysis of adolescent family type addresses questions related to the independent effects of conflict and parental separation on child wellbeing, but it does not speak to the role of conflict in explaining or moderating the effects of parental separation on child outcomes. Our second set of analyses focuses on the younger focal children, who were in the parental home at two waves of data collection. We restrict the sample to children living with continuously married parents at NSFH1 so that we can examine the relationship between conflict, subsequent parental disruption, and child outcomes. We compare trajectories of change in family structure and conflict that are directly linked to important theoretical and policy questions, e.g., comparing child outcomes associated with remaining in a high conflict marriage, dissolving a high conflict marriage, and dissolving a low conflict marriage. This approach provides greater insight into the process of marital dissolution, but the more stringent data requirements leave us with a smaller

overall sample and fewer cases in each of our contrasts of interest. Thus, in discussing results, we emphasize contrasts between trajectories that are statistically significant at standard levels. We also make reference, in more tentative terms, to odds ratios and relative risks that are substantially greater than one, even when they fall below standard levels of statistical significance. As noted earlier, we exclude nonmarital fertility from this analysis, as transitions are too sparse among the younger focal children to provide stable estimates of their relationship to earlier family experiences.

Following the same structure as the adolescent family analysis, here we report results of logistic regression models of young adult schooling and substance use in Panels A and B, respectively, and results of hazard models of family-related transitions in Panel C. Each panel shows two sets of contrasts. The first takes continuously married parents reporting low levels of conflict at both NSFH1 and NSFH2 as the reference category (we will call these "stable low conflict"). The second alters the contrast category, examining differences among key trajectories of change in family structure and conflict. Again, all previously discussed controls are included but not shown.

Compared to stable low conflict families, the odds or relative risks associated with all other family trajectories are greater than one for nearly all outcomes, and many are statistically significant, despite relatively small samples. We focus on the trajectories of greatest substantive concern, i.e., sustained conflict and marital disruption preceded by varying levels of conflict. These trajectories generally appear to be more strongly and consistently associated with child outcomes than those involving change in conflict. Nonetheless, it is worth noting that change in conflict is associated with statistically significant increases in the chances of poor grades, early sex, early cohabitation, and union dissolution. In particular, the change from high to low conflict

is related to child outcomes, while the odds or relative risks associated with change in the other direction (i.e., from low to high conflict) are generally closer to one and not statistically significant. It is possible that exposure to conflict in early childhood is more consequential than conflict in adolescence, particularly in setting the stage for early family transitions. It is also plausible that some couples may disengage after a period of high conflict, ceasing disagreements but not improving overall marital quality, and thus exposing children to a longer period of poor parental interaction.

Sustained high conflict is associated with statistically significant increases in 7 of our 9 outcomes, increasing the odds of dropping out, poor grades, not attending college, and marijuana use by nearly 2 times or more, and the chances of heavy drinking, early sex, and early cohabitation by 60% or more. Divorce trajectories are not as often statistically significant. Disruption preceded by low conflict is associated with statistically significant increases in the chances of poor grades and smoking, and disruption preceded by high conflict, with increases in poor grades, no college attendance, early sex, and early cohabitation. With a single exception, however, odds ratios and relative risks associated with trajectories of divorce are well above one, and in many cases they are closer to two. Even for outcomes in which they are not statistically significant, their large magnitude and consistent direction indicate that statistical power may be at issue.

-- Table 4 about here --

A comparison of key relative family influences reveals no statistically significant differences among the trajectories of sustained high conflict, disruption preceded by low conflict, and disruption preceded by high conflict. Sustained conflict and marital disruption appear to be associated in similar ways to a range of child outcomes. Moreover, similarities between marital

disruption preceded by low and high levels of conflict suggest that: 1) conflict does not explain the association between divorce and child outcomes; 2) conflict does not condition the association between divorce and child outcomes.

Are sample sizes too small to discern important differences among these trajectories? To address this question, we step back from tests of statistical significance and focus on the size of odds ratios and relative risks. We examine whether differences are consistent with notions of conflict explaining or conditioning the effects of marital disruption. For 6 of our 9 outcomes (all of those relating to academic achievement and family transitions), the coefficients on divorce preceded by high conflict are larger – often substantially so – than those on either sustained conflict or divorce preceded by low conflict. In 6 of our 9 outcomes (all of those relating to academic achievement, as well as heavy drinking, marijuana use, and early cohabitation), the coefficients on sustained high conflict are the same size or larger than those on divorce preceded by low conflict. In sum, patterns suggest that if differences among these key family trajectories were to be statistically significant in a larger sample, divorce preceded by high conflict would be the most strongly associated with poor child outcomes, followed by sustained high conflict, and, finally, divorce preceded by low conflict. Our findings are inconsistent with the stress relief hypothesis, which posits that divorce following high levels of parental conflict improves child outcomes relative to divorce following low conflict (e.g., Amato et al. 1995; Jekeilek 1998; Hanson 1999; Strohschein 2005). They are more in line with the idea that stress associated with conflict between married parents and subsequent marital disruption (as well as post-divorce conflict that may continue between nonresidential parents) has cumulative effects on children. Divorce itself may not affect children as much when preceded by conflict, but the double

exposure to conflict and divorce may in combination be more harmful to children than either low conflict divorce or sustained high conflict.

DISCUSSION

Our results clearly show that the advantages of living with two continuously married parents are not shared equally by all children. Living in a family characterized by high levels of parental conflict during adolescence is associated with dropping out of school, poor grades, smoking, drinking, early sex, early cohabitation, and union dissolution. In only a few instances do the associations between exposure to high conflict and young adult outcomes differ from those of living without both biological parents. In general, high conflict, step, and single-parent families are more similar than they are different in their associations with the outcomes examined. Further, where there are differences, they are not consistently in one direction.

Our analysis of adolescent family type compares exposure to parental conflict to a broader array of alternative family structures than past work. Unlike most past work, we include families that experience divorce early in children's lives, as well as families formed through nonmarital fertility. In addition, we explore differences between step and single-parent families based on whether the focal child was born in or out of marriage. We find substantial similarity in the associations between young adult outcomes and living in high conflict, step, and single-parent families in adolescence. Moreover, there is little difference in outcomes by how children come to live without both parents, i.e., by nonmarital birth or divorce. This is consistent with others' reports of similarities in outcomes for children living without both biological parents, whether with a divorced mother, never-married mother, or mother and stepfather (McLanahan 1997; McLanahan and Sandefur 1994; Wojtkiewicz 1993).

We examine trajectories of change in family structure and conflict among a subset of our sample living with both biological parents at initial observation and still in the parental home at a second observation. Compared to stable low conflict families, all trajectories – including change in conflict, sustained high conflict, and marital disruption preceded by varying levels of conflict – are associated with poorer young adult outcomes. Sustained high conflict is associated with statistically significant increases in the odds or relative risks of 7 of our 9 outcomes. Divorce trajectories are not as often statistically significant, likely because of the relatively small number of divorces in our sample, but their odds or relative risks are nearly always substantially greater than one. Sustained conflict and marital disruption are associated in very similar ways to young adult outcomes.

We find no statistically significant differences among sustained high conflict and divorce trajectories. The magnitude of odds ratios and relative risks suggest that, if anything, child outcomes are least – not most – affected by divorce following low conflict. That is, we find no indication of an interaction between divorce and conflict in the direction of high conflict divorces being "better" for children than low conflict ones. Our findings are inconsistent with a handful of recent studies supporting the stress relief hypothesis, that is, showing that divorce has little or no effect on children when preceded by high conflict, but negative effects when preceded by low conflict. Indeed, some of this work (e.g., Amato et al. 1995; Jekielek 1998) finds that children whose parents separate following high levels of conflict fare just as well as children in low conflict continuously married-parent families. Amato et al. caution not to over-interpret this finding because of the small number of divorces in their sample, but speculate that coping with family conflict and crisis may develop strengths in children that then translate into adult wellbeing.

Our results are more consistent with the idea that the stress of conflict and subsequent parental separation accumulate. Divorce itself may not affect children as much when preceded by conflict, but the double exposure to conflict and divorce may in combination be more harmful to children than either low conflict divorce or sustained high conflict. Our results are also consistent with common-sense notions that the "good" divorce (here, one free of conflict) is not more harmful to children than the "bad" one (Ahrons 2004).

Should parents stay together for the sake of the children? Children tend to fare better with both married parents, but mean differences in child wellbeing mask considerable variation. We find little evidence that children are better off with parents in high conflict marriages. Indeed, outcomes for these children are very similar to those of children in step and single-parent families. Our analysis accounts for basic demographic characteristics of children, as well as characteristics of mothers that pre-date the focal child's birth, such as education, family background, and union and childbearing experiences. In considering change over time in family life, we also tested a broader set of controls, none of which substantially altered our main findings. That said, it should be noted that we were unable to account for potentially important pre-existing characteristics of children and families. For example, we were limited in the extent to which we could control for children's problem behaviors prior to parental conflict or separation. But further accounting for selection would likely only attenuate the differences in child outcomes by family structure and conflict reported here. It seems fair to say that marriage is not a blanket prescription for the wellbeing of children. Recent policy initiatives to promote marriage need to take account of how variation within marriage relates to child wellbeing.

REFERENCES

Agresti, A. 1990. *Categorical Data Analysis*. New York: John Wiley & Sons.

Ahrons, C. 2004. *We're Still Family: What Grown Children Have to Say About Their Parents' Divorce*. New York: HarperCollins Publishers.

Alan Guttmacher Institute. 2002. *In Their Own Right: Assessing the Sexual and Reproductive Health Needs of American Men*. New York: Alan Guttmacher Institute.

Allison, P.D. and F.F. Furstenberg. 1989. "How Marital Dissolution Affects Children: Variations by Age and Sex." *Developmental Psychology* 25:540-549.

Amato, P.R. 2002. "Good Enough Marriages: Parental Discord, Divorce, and Children's Well-Being." *Virginia Journal of Social Policy & the Law* 9:71-94.

Amato, P.R. 2005. "The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation." *Future of the Children* 15: 75-96.

Amato, P.R. and A. Booth. 1997. *A Generation at Risk*. Cambridge, MA: Harvard University Press.

------. 2001. "Parental Predivorce Relations and Offspring Postdivorce Well-Being." *Journal of Marriage and Family* 63:197–212.

Amato, P.R. and J. Cheadle. 2005. "The Long Reach of Divorce: Divorce and Child Well-Being Across Three Generations." *Journal of Marriage and Family* 67:191-206.

Amato, P.R. and D.D. DeBoer. 2001. "The Transmission of Marital Instability Across Generations: Relationship Skills or Commitment to Marriage?" *Journal of Marriage and Family* 63:1038–1051.

Amato, P.R., L. Spencer Loomis, and A. Booth. 1995. "Parental divorce, marital conflict, and offspring well-being during early adulthood." *Social Forces* 73:895-915.

Amato, P.R. and J.M. Sobolewski. 2001. "The Effects of Divorce and Marital Discord on Adult Children's Psychological Well-Being" *American Sociological Review* 66: 900-921.

Anderson, K. 2000. The Life Histories of American Stepfathers in Evolutionary Perspective. *Human Nature* 11: 307-333.

Astone, N.M. and D.M. Upchurch. 1989. "Socioeconomic and Marital Outcomes of Adolescent Marriage, Adolescent Childbirth, and Their Co-Occurrence." *Journal of Marriage and Family* 51:203-212.

Astone, N.M. and S.S. McLanahan. 1991. "Family Structure, Parental Practices and High School Completion." *American Sociological Review* 56:309-320.

Aughinbaugh, A., C.R. Pierret, and D.S. Rothstein. "The Impact of Family Structure Transitions on Youth Achievement: Evidence from the Children of the NLSY79." *Demography* 42: 447-468.

Axinn, W.G. and A. Thornton. 1996. "The Influence of Parents' Marital Dissolutions on Children's Attitudes Toward Family Formation." *Demography* 33:66-81.

Bianchi, S.M. 1995. "The Changing Demographic and Socioeconomic Characteristics of Single Parent Families." Pp. 71-97 in *Single Parent Families: Diversities, Myths and Realities*, edited by S. M. H. Hanson, M. L. Heims, D. J. Julian, and M. B. Sussman. New York: Haworth Press Inc.

Biblarz, T.J. and G. Gottainer. 2000. "Family Structure and Children's Success: A Comparison of Widowed and Divorced Single-Mother Families." *Journal of Marriage and the Family* 62:533-548.

Biblarz, T.J. and A.E. Raftery. 1993. "The Effects of Family Disruption on Social Mobility." *American Sociological Review* 58:97-109.

-----. 1999. "Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the 'Pathology of Matriarchy'." *American Journal of Sociology* 105:321-65.

Booth, A. and P. Amato. 1991. "Divorce and Psychological Stress." *Journal of Health and Social Behavior* 32:396-407.

-----. 2001. "Parental Predivorce Relations and Offspring Postdivorce Well-Being." *Journal of Marriage and the Family* 63:197-212.

Brien, M. J., L.A. Lillard, and L.J. Waite. 1999. "Interrelated Family-Building Behaviors: Cohabitation, Marriage, and Nonmarital Conception." *Demography* 36:535-551.

Bumpass, L., R.K. Raley, and J. Sweet. 1995. "The Changing Character of Stepfamilies: Implications of Cohabitation and Nonmarital Childbearing." *Demography* 32:425-436.

Cameron, S.V. and J.J. Heckman. 1993. "The Nonequivalence of High School Equivalents." *Journal of Labor Economics* 11:1-47.

Carlson, M. 2006. "Family Structure, Father Involvement, and Adolescent Behavioral Outcomes." *Journal of Marriage and Family* 68:137–154.

Carlson, M., S. McLanahan, and P. England. 2004. "Union Formation in Fragile Families." *Demography* 41:237-261.

Cherlin, A., K. Kiernan, and P.L. Chase-Lansdale. 1995. "Parental Divorce in Childhood and Demographic Outcomes in Young Adulthood." *Demography* 32:299-318.

Cherlin, A., P.L. Chase-Lansdale, and C. McRae. 1998. "Effects of Parental Divorce on Mental Health Throughout the Life Course." *American Sociological Review* 63:239-249.

Cherlin, A.J., F.F. Furstenberg, P.L, Chase-Lansdale, K.E. Kiernan, P.K. Robins, D.R. Morrison, and J.O. Teitler. 1991. "Longitudinal Studies of Effects of Divorce on Children in Great Britain and the United States." *Science* 252:1386-1389.

Cleves, M.A., W.W. Gould, and R.G. Gutierrez. 2002. *An Introduction to Survival Analysis Using STATA*. College Station, TX: Stata Press.

Cooper, M.L., P.K. Wood, H.K. Orcutt, and A. Albino. 2003. "Personality and the Predisposition to Engage in Risky or Problem Behaviors During Adolescence." *Journal of Personality and Social Psychology* 84:390-410.

Corak, M. 2001. "Death and Divorce: The Long-Term Consequences of Parental Loss on Adolescents." *Journal of Labor Economics* 19: 682-715.

Cox, D.R. 1972. "Regression Models and Life-Tables." *Journal of the Royal Statistical Society* B74:187-220.

Davis, E.C. and L.V. Friel. 2001. "Adolescent Sexuality: Disentangling the Effects of Family Structure and Family Context." *Journal of Marriage and Family* 63:669–681.

DeLeire, T. and A. Kahl. 2002. "Good Things Come in Threes: Single-Parent Multigenerational Family Structure and Adolescent Adjustment." *Demography* 39:393-413.

Diekmann, A. and H. Engelhardt. 1999. "The Social Inheritance of Divorce: Effects of Parent's Family Type in Postwar Germany." *American Sociological Review* 64:783-793.

Duncan, G.J. and W. Rodgers. 1991. "Has Children's Poverty Become More Persistent?" *American Sociological Review* 56:538-550.

Duncan, G.J, W.J. Yeung, J. Brooks-Gunn, J.R. Smith. 1998. "How much Does Childhood Poverty Affect the Life Chances of Children?" *American Sociological Review* 63: 406-423.

Edin, K. and M. Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Berkeley: University of California Press.

Eggebeen, D.J. and D.T. Lichter. 1991. "Race, Family Structure, and Changing Poverty Among American Children." *American Sociological Review* 56:801-817.

Furstenberg, F.F. and K.E. Kiernan. 2001. “Delayed Parental Divorce: How Much do Children Benefit?” *Journal of Marriage and the Family* 63: 446-457.

Furstenberg, F.F. and J.O. Teitler. 1994. "Reconsidering the Effects of Marital Disruption: What Happens to Children of Divorce in Early Adulthood?" *Journal of Family Issues* 15:173-190.

Hanson, T.L. 1999. "Does Parental Conflict Explain Why Divorce Is Negatively Associated with Child Welfare?" *Social Forces* 77:1283-1315.

Hoffmann, J.P. and R.A. Johnson. 1998. "A National Portrait of Family Structure and Adolescent Drug Use." *Journal of Marriage and the Family* 60:633-645.

Hogan, D.P. 1985. "Parental Influences on the Timing of Early Life Transitions." *Current Perspectives of Aging and the Life Cycle* 1:1-59.

Hogan, D.P. and N.M. Astone. 1986. "The Transition to Adulthood." *Annual Review of Sociology* 12:109-30.

Jekielek, S.M. 1998. “Parental Conflict, Marital Disruption and Children’s Emotional Well-Being.” *Social Forces* 76: 905-35.

Jonsson, J.O. and M. Gahler. 1997. "Family Dissolution, Family Reconstitution, and Children's Educational Careers: Recent Evidence for Sweden." *Demography* 34:277-293.

Kandel, D.B. 1980. “Drug and Drinking Behavior Among Youth.” *Annual Review of Sociology* 6:235-285.

Kiernan, K. 1992. "The Impact of Family Disruption in Childhood on Transitions Made in Young Adult Life." *Population Studies* 46:213-234.

Kiernan, K. and A. Cherlin. 1999. "Parental Divorce and Partnership Dissolution in Adulthood: Evidence From a British Cohort Study." *Population Studies* 53:39-48.

Kiernan, K. and J. Hobcraft. 1997. "Parental Divorce During Childhood: Age at First Intercourse, Partnership and Parenthood." *Population Studies* 51:41-55.

Li, J.C.A. and L.L. Wu. 2002. "No Trend in the Intergenerational Transmission of Divorce." Unpublished manuscript. Madison, Wisconsin.

Martinson, B.C. and L.L. Wu. 1992. "Parent Histories: Patterns of Change in Early Life." *Journal of Family Issues* 13:351-377.

McLanahan, S.S. 1997. "Parent Absence or Poverty: Which Matters More?" Pp. 35-48 in *Consequences of Growing Up Poor,* edited by G. J. Duncan and J. Brooks-Gunn. New York: Russell Sage Foundation.

McLanahan, S.S. and L. Bumpass. 1988. "Intergenerational Consequences of Family Disruption." *American Journal of Sociology* 94:130-152.

McLanahan, S. and Sandefur, G. 1994. *Growing Up with a Single Parent: What Hurts, What Helps*. Cambridge, MA: Harvard University Press.

Miller, B.C. 1998. "Families Matter: A Research Synthesis of Family Influences on Teen Pregnancy." Washington, D.C.: National Campaign to Prevent Teen Pregnancy.

Morrison, D.R. and A.J. Cherlin. 1995. "The Divorce Process and Young Children's Well-Being: A Prospective Analysis." *Journal of Marriage and the Family* 57: 800-812.

Morrison, D.R. and M.J. Coiro. 1999. "Parental Conflict and Marital Disruption: Do Children Benefit When High-Conflict Marriages Are Dissolved?" *Journal of Marriage and the Family* 61:626-637.

Musick, K. and L. Bumpass. 1999. “How do Prior Experiences in the Family Affect Transitions to Adulthood.” Pp. 69-102 in *Transitions to Adulthood in a Changing Economy: No Work, No Family, No Future?,* edited by A. Booth, A.C. Crouter and M. Shanahan. Westport, CT: Praeger.

Musick, K. and R.D. Mare. 2006. “Recent Trends in the Inheritance of Poverty and Family Structure.” *Social Science Research* 35: 471-499.

Nock, S.L. 2005. “Marriage as a Public Issue.” *Future of the Children* 15: 13-32.

Painter, G. and D. Levine. 2000. “Family Structure and Youth’s Outcomes: Which Correlations are Causal?” *Journal of Human Resources* 35: 524-49.

Pears, K.C., S.L. Pierce, H.K. Kim, D.M. Capaldi, and L.D. Owen. 2005. "The Timing of Entry into Fatherhood in Young, At Risk Men." *Journal of Marriage and Family* 67:429-447.

Petersen, A.C. 1988. "Adolescent Development." *Annual Review of Psychology* 39:583-607.

Phillips, J.A. and M. Sweeney. 2006. "Can Differential Exposure to Risk Factors Explain Recent Racial and Ethnic Variation in Marital Disruption?" *Social Science Research* 35:409-434.

Qian, Z. 1997. “Breaking the Racial Barriers: Variations in Interracial Marriage between 1980 and 1990.” *Demography* 34(2):263-276.

Raley, R.K. and L. Bumpass. 2003. "The Topography of the Divorce Plateau: Levels and Trends in Union Stability in the United States After 1980." *Demographic Research* 8[np].

Rendall, M.S., L. Clarke, H.E. Peters, N. Ranjit, and G. Verropoulou. 1999. “Incomplete Reporting of Men’s Fertility in the United States and Britain: A Research Note.” *Demography* 36(1):135-144.

Resnick, M.D., P.S. Bearman, R.W. Blum, K.E. Bauman, K.M. Harris, J. Jones, J. Tabor, T. Beuhring, R. Sieving, M. Shew, M. Ireland, L.H. Bearinger, and J.R. Udry. 1997.

"Protecting Adolescents from Harm: Findings from the National Longitudinal Study on Adolescent Health." *Journal of the American Medical Association* 278:823-832.

Rindfuss, R.R. 1991. "The Young Adult Years: Diversity, Structural Change, and Fertility." *Demography* 28:493-512.

Schwartz, C.R. and R.D. Mare. 2005. "Trends in Educational Assortative Marriage from 1940 to 2003." *Demography* 42:621-646.

Seltzer, J.A. 1991. "Relationships between Fathers and Children Who Live Apart: The Father's Role after Separation." *Journal of Marriage and the Family* 53:79-101.

Sigle-Rushton, W. and S. McLanahan. 2004. "Father Absence and Child Well-Being: A Critical Review." Pp. 116-155 in *The Future of the Family*, edited by D. P. Moynihan, T. M. Smeeding, and L. Rainwater. New York: Russell Sage.

Sigle-Rushton, W., J. Hobcraft, and K. Kiernan. 2005. "Parental Divorce and Subsequent Disadvantage: A Cross-Cohort Comparison." *Demography* 42: 427-226.

Strohschein, L. 2005. "Parental Divorce and Child Mental Health Trajectories." *Journal of Marriage and Family* 67: 1286-1300.

Sun, Y. 2001. "Family Environment and Adolescents' Well-Being Before and After Parents' Marital Disruption: A Longitudinal Analysis." *Journal of Marriage and Family* 63:697–713.

Teti, D.M. and M.E. Lamb. 1989. "Socioeconomic and Marital Outcomes of Adolescent Marriage, Adolescent Childbirth, and Their Co-Occurrence." *Journal of Marriage and Family* 51:203-212.

Thomas, A. and I.V. Sawhill. 2005. "For Love and Money? The Impact of Family Structure on Family Income." *The Future of Children* 15:57-74.

Thomson, E., T.L. Hanson, and S.S. McLanahan. 1994. "Family Structure and Child Well-Being: Economic Resources vs. Parental Behaviors." *Social Forces* 73:221-242.

Thornton, A. 1991. “Influence of the Marital History of Parents on the Marital and Cohabitational Experiences of Children.” *The American Journal of Sociology* 96: 868-894.

Thornton, A. and D. Camburn. 1987. "The Influence of the Family on Premarital Sexual Attitudes and Behavior." *Demography* 24:323-340.

-----. 1989. “Religious Participation and Adolescent Sexual Behavior.” *Journal of Marriage and the Family* 51: 641-53.

Wojtkiewicz, R.A. 1993. "Simplicity and Complexity in the Effects of Parental Structure on High School Graduation." *Demography* 30:701-717.

Wolfinger, N.H. 1999. "Trends in the Intergenerational Transmission of Divorce." *Demography* 36:415-420.

Wu, Z. and C. Schimmele. 2003. “Childhood Family Experience and Completed Fertility.” *Canadian Studies in Population* 30: 221-240.

Wu, Lawrence L. 1996. "Effects of Family Instability, Income, and Income Instability on the Risk of a Premarital Birth." *American Sociological Review* 61:386-406.

Table 1a. Adolescent Family Type, All Focal Children

	N	Percent
Continuously married low conflict	256	16.03
Continuously married middle conflict	308	19.29
Continuously married high conflict	335	20.98
Stepfamily	336	21.04
Single-parent family	362	22.67
Total	1,597	100

Table 1b. Trajectories of Family Change, Younger Focal Children Only

	N	Percent
Low-low conflict	266	47.33
Low-high conflict	66	11.74
High-low conflict	55	9.79
High-high conflict	102	18.15
Low conflict-disruption	42	7.47
High conflict-disruption	31	5.52
Total	562	100

Notes: Data unweighted. Adolescent family type is constructed using data from NSFH1 for the older focal children and NSFH2 for the younger focal children. Trajectories of change rely on data from NSFH1 and NSFH2 for the younger focal children only, all living in continuously married families at NSFH1.

Table 2. Focal Child Outcomes Measured at NSFH3

	Sample 1: Adolescent Family Analysis		Sample 2: Trajectories of Change Analysis	
	N	Percent	*N*	Percent
Academic Achievement				
High school dropout	1592	12.56	559	8.05
Poor grades in high school	1577	23.15	560	18.21
Never attended college	1595	38.93	561	34.76
Substance Use				
Smoking past 30 days	1570	32.55	556	31.47
Binge drinking past 30 days	1595	35.55	562	43.06
Marijuana use past year	1586	24.21	560	30.18
Family-Related Transitions				
First sex by age 16	947	21.65	417	17.75
Cohabitation by age 21	1574	22.74	558	21.15
Nonmarital birth	1566	13.22	--	--
Union dissolution (of those ever in a union)	955	45.34	220	45.00

Notes: Data unweighted.

Table 3. Adolescent Family Type and Young Adult Outcomes

Panel A: Academic Achievement	Drop Out	Poor Grades	No College Attendance
Low conflict (reference)			
Middle conflict	1.68	1.20	0.94
High conflict	2.29 **	1.62 **	1.04
Stepfamily	3.53 ***	1.64 **	1.24
Single-parent family	4.52 ***	1.72 **	1.39 *
Key Relative Family Influences			
High conflict vs. step	0.65 *	0.99	0.85
High conflict vs. single	0.51 ***	0.94	0.75
Step vs. single	0.78	0.95	0.89

Panel B: Substance Use	Current Smoking	Heavy Drinking	Recent Marijuana
Low conflict (reference)			
Middle conflict	1.54 **	1.23	1.43 *
High conflict	1.52 **	1.78 ***	1.40
Stepfamily	2.10 ***	1.28	1.50 *
Single-parent family	2.33 ***	1.39 *	1.48 *
Key Relative Family Influences			
High conflict vs. step	0.73 *	1.39 **	0.94
High conflict vs. single	0.65 **	1.28	0.95
Step vs. single	0.90	0.92	1.01

Panel C: Family Transitions	First Sex by Age 16	Cohabitation by Age 21	Nonmarital Fertility	Union Dissolution
Low conflict (reference)				
Middle conflict	0.94	1.32	1.03	1.35
High conflict	1.70 *	1.66 **	1.40	1.53 **
Stepfamily	1.96 **	2.15 ***	1.50	1.37 *
Single-parent family	2.19 ***	2.48 ***	1.79 **	1.72 ***
Key Relative Family Influences				
High conflict vs. step	0.87	0.77	0.93	1.12
High conflict vs. single	0.78	0.67 **	0.78	0.89
Step vs. single	0.89	0.87	0.84	0.80 *

Notes: Exponentiated coefficients are from logistic regression models in Panels A and B and from hazard models in Panel C. All models control for focal child's sex and mother's race, education, childhood family structure, age at first birth, and union dissolution history. Models of academic achievement and substance use also control for focal child's age at NSFH3. Data are unweighted.

** p<.10; ** p<.05; *** p<.01*

Table 4. Trajectories of Family Change and Young Adult Outcomes

Panel A: Academic Achievement	Drop Out	Poor Grades	No College Attendance
Low-low conflict (reference)			
Low-high conflict	1.57	1.16	1.00
High-low conflict	1.31	2.02 *	1.17
High-high conflict	2.24 *	2.23 ***	1.93 **
Low conflict-disruption	2.23	2.13 *	1.47
High conflict-disruption	2.73	3.21 **	2.10 *
Key Relative Family Influences			
High-high vs. low-disruption	1.00	1.05	1.31
High-high vs. high-disruption	0.82	0.69	0.92
Low-disruption vs. high-disruption	0.82	0.66	0.70

Panel B: Substance Use	Current Smoking	Heavy Drinking	Recent Marijuana
Low-low conflict (reference)			
Low-high conflict	1.45	0.83	0.96
High-low conflict	1.55	1.21	1.66
High-high conflict	1.45	1.61 *	2.00 ***
Low conflict-disruption	1.94 *	1.61	1.24
High conflict-disruption	1.28	1.34	1.23
Key Relative Family Influences			
High-high vs. low-disruption	0.75	1.00	1.61
High-high vs. high-disruption	1.13	1.20	1.62
Low-disruption vs. high-disruption	1.52	1.20	1.01

Panel C: Family Transitions	First Sex by Age 16	Cohabitation by Age 21	Union Dissolution
Low-low conflict (reference)			
Low-high conflict	1.18	0.98	1.21
High-low conflict	1.94 *	2.29 ***	2.19 **
High-high conflict	1.76 *	1.65 *	1.01
Low conflict-disruption	2.28	1.40	0.86
High conflict-disruption	3.36 ***	2.16 **	1.66
Key Relative Family Influences			
High-high vs. low-disruption	0.77	1.17	1.18
High-high vs. high-disruption	0.52	0.76	0.61
Low-disruption vs. high-disruption	0.68	0.65	0.52

Notes: Exponentiated coefficients are from logistic regression models in Panels A and B and from hazard models in Panel C. All models control for focal child's sex and mother's race, education, childhood family structure, age at first birth, and union dissolution history. Models of academic achievement and substance use also control for focal child's age at NSFH3. Data are unweighted.

** p<.10; ** p<.05; *** p<.01*

Appendix Table 1. Adolescent Family Type and Young Adult Outcomes, Full Models

	Drop Out	Poor Grades	No College Attendance	Current Smoking	Heavy Drinking	Recent Marijuana	First Sex by Age 16	Cohabitation by Age 21	Nonmarital Fertility	Union Dissolution
Adolescent family type (low conflict reference)										
Middle conflict	1.68	1.20	0.94	1.54 **	1.23	1.43 *	0.94	1.32	1.03	1.35
High conflict	2.29 **	1.62 **	1.04	1.52 **	1.78 ***	1.40	1.70 *	1.66 **	1.40	1.53 **
Stepfamily	3.53 ***	1.64 **	1.24	2.10 ***	1.28	1.50 *	1.96 **	2.15 ***	1.50	1.37 *
Single-parent family	4.52 ***	1.72 **	1.39 *	2.33 ***	1.39 *	1.48 *	2.19 ***	2.48 ***	1.79 **	1.72 ***
Focal child female	0.65 ***	0.49 ***	0.64 ***	0.78 **	0.31 ***	0.52 ***	1.04	1.62 ***	1.97 ***	0.80 **
Focal child age at NSFH3 (<22 reference)										
Age 22-25	1.35	1.21	0.94	0.94	0.85	0.67 **	--	--	--	--
Age 26-29	1.52 *	1.58 **	0.90	0.80	0.65 ***	0.49 ***	--	--	--	--
Age 30-34	1.28	1.74 ***	0.84	0.61 ***	0.51 ***	0.30 ***	--	--	--	--
Mother's race (white reference)										
Race black	0.73	0.93	1.32 *	0.46 ***	0.57 ***	0.67 **	1.49 **	0.54 ***	2.01 ***	1.53 ***
Race other	1.42	1.07	1.36	0.63 *	0.91	1.10	1.62 *	0.93	1.57 *	0.71
Mother's education (<high school reference)										
High school	0.53 ***	1.23	0.54 ***	1.10	0.88	2.28 ***	1.43	0.85	0.55 ***	1.10
Some college	0.32 ***	0.93	0.25 ***	0.91	0.96	2.73 ***	1.24	0.75	0.39 ***	1.10
College or more	0.19 ***	0.46 ***	0.10 ***	0.76	1.33	3.30 ***	0.86	0.40 ***	0.15 ***	1.10
Mother spent time in single-parent family	0.96	1.00	1.30 **	1.24 *	1.06	1.27 *	0.87	1.19	1.11	1.13
Mother had first birth in teens	1.32	1.11	1.36 **	1.12	0.89	1.09	1.33 *	1.43 ***	1.32 *	0.89
Mother had union dissolution before focal's birth	1.57 **	1.23	1.14	1.15	1.25	1.40 **	1.24	1.24	1.61 ***	1.35 **
No NSFH1 interview with mother	1.58	1.64	1.28	1.07	1.07	0.74	0.39	0.98	1.06	0.76
Constant	0.10 ***	0.21 ***	1.70 **	0.41 ***	1.08	0.21 ***	--	--	--	--

Notes: For academic achievement and substance use, exponentiated coefficients from logistic regression models are shown; for family-related transitions, exponentiated coefficients from hazard models are shown. Data are unweighted.

** p<.10; ** p<.05; *** p<.01*

Appendix Table 2. Trajectories of Family Change and Young Adult Outcomes, Full Models

	Drop Out	Poor Grades	No College Attendance	Current Smoking	Heavy Drinking	Recent Marijuana	First Sex by Age 16	Cohabitation by Age 21
Family trajectories (low-low conflict reference)								
Low-high conflict	1.57	1.16	1.00	1.45	0.83	0.96	1.18	0.98
High-low conflict	1.31	2.02 *	1.17	1.55	1.21	1.66	1.94 *	2.29 ***
High-high conflict	2.24 *	2.23 ***	1.93 **	1.45	1.61 *	2.00 ***	1.76 *	1.65 *
Low conflict-disruption	2.23	2.13 *	1.47	1.94 *	1.61	1.24	2.28	1.40
High conflict-disruption	2.73	3.21 **	2.10 *	1.28	1.34	1.23	3.36 ***	2.16 **
Focal child female	0.58 *	0.58 **	0.68 *	0.78	0.28 ***	0.53 ***	0.81	1.48 **
Focal child age at NSFH3 >21	1.43	1.54 *	1.19	1.01	0.94	0.54 ***	--	--
Mother's race (white reference)								
Race black	0.78	1.56	1.26	0.34 ***	0.42 ***	0.51 *	2.14 **	0.52 *
Race other	1.47	1.14	1.90 *	0.92	0.82	1.06	2.03 *	1.18
Mother's education (<high school reference)								
High school	0.66	0.73	0.98	1.73	1.07	2.88 **	1.93	0.87
Some college	0.59	1.02	0.49 *	1.86	0.76	3.26 **	1.75	1.00
College or more	0.28 **	0.41 *	0.18 ***	1.74	1.93 *	4.60 ***	0.96	0.45 **
Mother spent time in single-parent family	0.96	1.34	1.82 **	1.72 **	1.11	1.30	1.03	1.56 **
Mother had first birth in teens	1.29	0.99	1.13	1.16	0.87	1.17	2.10 **	1.60 **
Mother had union dissolution before focal's birth	0.87	1.22	0.93	1.42	1.83 **	1.60 *	1.49	1.12
No NSFH1 interview with mother	1.02	1.14	1.68	0.95	1.01	0.70	0.33	1.78
Constant	0.11 ***	0.18 ***	0.67	0.23 ***	1.20	0.19 ***	--	--

Notes: For academic achievement and substance use, exponentiated coefficients from logistic regression models are shown; for family-related transitions, exponentiated coefficients from hazard models are shown. Data are unweighted.

** p<.10; ** p<.05; *** p<.01*