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## Parents' Marital Distress, Divorce, and Remarriage: Links with Daughters' Early Family Formation Transitions

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### Abstract

We used data from the Add Health study to estimate the effects of parents' marital status and relationship distress on daughters' early family formation transitions. Outcomes included traditional transitions (marriage and marital births) and nontraditional transitions (cohabitation and nonmarital births). Relationship distress among continuously married parents was not related to any outcome. Offspring with single parents and remarried parents had an elevated risk of nonmarital births and nonmarital cohabitation. Offspring with remarried parents with a high-distress relationship had an elevated risk of early marriages and marital births. These results, combined with analyses of mediating variables, provide the strongest support for a modeling perspective, although some support also was found for a perspective based on escape from stress.

### Keywords

marital distress; divorce; remarriage; marriage; marital births; cohabitation; nonmarital births

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Nearly half of all marriages in the United States continue to end in divorce or permanent separation (Schoen & Canudas-Romo, 2006). In addition, many marriages that do not dissolve are plagued by chronic discord between parents. Studies suggest that parental divorce (Amato, 2001), parental remarriage (Amato, 1994), and marital discord (Buehler, Anthony, Krishnakumar, Stone, Gerard, & Pemberton, 1997) increase the risk of behavioral, emotional, social, and academic problems among children. In contrast to the large number of studies that focus on child problems, few studies have focused on how marital discord, divorce, and remarriage affect adult offspring's family formation transitions, including cohabiting, marrying, and having children within or outside of marriage.

To address this gap in the research literature, we use data from the National Longitudinal Study of Adolescent Health (Add Health) to estimate the effects of parents' relationship distress and family structure on daughters' traditional and nontraditional family transitions. Although nonmarital cohabitation and having children outside of marriage have become increasingly common, one can still view these as nontraditional transitions and marriage and marital childbearing as traditional transitions. We do not assume that nontraditional paths are necessarily better or worse than traditional paths. Instead our intention is to understand the factors that predict young women's diverse family transitions. As we describe later, we

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focus on daughters rather than sons because women tend to form their first families at earlier ages and report higher quality retrospective data on family formation events.

Our analysis incorporates the following family-of-origin types: (1) continuously married parents with nondistressed relationships, (2) continuously married parents with distressed relationships, (3) single divorced parents, (4) remarried parents with nondistressed relationships, and (5) remarried parents with distressed relationships. Combining information on relationship distress and family structure makes it possible to parse the estimated effects of distress from those of divorce and remarriage. We also assess the mediating roles of several theoretically relevant factors: parents' economic resources, parental warmth, the perceived quality of the family environment, adolescents' attitudes, adolescents' school success, and adolescents' psychological well-being.

## Previous Studies

Many studies indicate that childhood family structure has implications for young adults' family formation transitions. Youth with divorced single parents are more likely than those with continuously married parents to engage in nonmarital cohabitation (Amato & Booth, 1997; Axinn & Thornton, 1993; Cherlin, Kiernan, & Chase-Landale, 1995; Furstenberg & Teitler, 1994; Musick & Meier, 2010; Ryan, Franzetta, Schelar, & Manlove, 2009; Sassler, Addo & Hartmann, 2010; Teachman, 2003; Teachman, 2004; Thornton, 1991) and to have nonmarital births (Cherlin, Kiernan, & Chase-Landale, 1995; Furstenberg & Teitler, 1994; McLanahan & Bumpass, 1988; McLanahan & Sandefur, 1994; Musick & Meier, 2010; Teachman, 2004). These studies provide consistent evidence that parental divorce is linked with an increased likelihood that youth will adopt nontraditional family behaviors.

Research on offspring marriage is mixed. Some studies suggest that parental divorce *increases* the odds of marriage (McLanahan & Bumpass, 1988; Teachman, 2004), other studies suggest that parental divorce *decreases* the odds of marriage (Kobrin & Waite, 1984; Li & Wojtkiewicz, 1994; South, 2001), and yet other studies find no association between parental divorce and marriage (Amato & Booth, 1997; Cherlin, Kiernan & Landale, 1995; Furstenberg & Teitler, 1994). These discrepancies may exist because most studies in this literature have not distinguished between early marriages and later marriages. Wolfinger (2003) directly addressed the timing issue and found that parental divorce was associated with an increased likelihood of marriage among teenagers; in contrast, youth with divorced parents who remained single beyond age 20 were disproportionately likely to avoid wedlock. Few studies have considered whether parental divorce is related to marital births, although Cherlin, Kiernan, and Chase-Landale (1995) found no evidence for this notion. Although parental divorce appears to increase the likelihood of forming nontraditional families, the evidence is less clear that childhood family structure has implications for forming traditional families.

Only a few studies have considered how parental remarriage might affect young adults' family formation transitions. Some research suggests that living with a stepparent has few implications for cohabitation and nonmarital births beyond the estimated effects of divorce (McLanahan & Sandefur, 1994; McLanahan & Bumpass, 1988). In contrast, other studies suggest that parental remarriage increases the likelihood that youth will form cohabiting relationships (Teachman, 2003) and early marriages (Goldscheider & Goldscheider, 1993; Ryan, Franzetta, Schelar, & Manlove, 2009; Teachman, 2003; Thornton, 1991). These latter findings suggest a modeling interpretation. That is, parents who remarry convey the belief that marriage is a desirable status, despite a previously unsuccessful union. Nevertheless, the number of existing studies is too small to reach clear conclusions.

Few studies of family formation transitions have focused on parents' marital quality. One exception is a study by Amato and Booth (1997), which found that parents' divorce proneness (thinking and talking about divorce) was associated with nonmarital cohabitation among offspring, even in the absence of parental divorce. Another study by Musick and Meier (2010) found that marital conflict predicted offspring's likelihood of having a nonmarital birth. The general lack of attention to this issue is probably due to the fact that most data sets do not contain information on parents' marital quality when children were living at home.

## CONCEPTUAL PERSPECTIVES

Three broad perspectives underlie our thinking about how childhood family structure might be related to daughters' traditional or nontraditional family transitions. Although these explanatory perspectives are not mutually exclusive, they emphasize different variables and social processes.

An *economic deprivation perspective* focuses on the fact that most single mothers have a low level of financial resources due to the loss of economies of scale associated with splitting one household into two and the lower earnings of mothers compared with fathers. (Research also indicates that single fathers are more economically disadvantaged than are married fathers, U.S. Census Bureau, 2010, table 676). A lack of economic resources makes it difficult for single parents to afford goods and services that facilitate children's school success--such as computers, travel, and special lessons--and to provide financial support for higher education. Because many daughters from disadvantaged families have low expectations for higher education, they tend to begin their families at relatively early ages. In contrast, daughters from economically advantaged families tend to delay family formation until they have completed college (Amato et. al, 2008). Although most young women from low-income families of origin want to marry, many believe that attaining economic security is a prerequisite to marriage (Edin & Kefalas, 2005). Disadvantaged youth also may believe that the economic returns to marriage are minimal if most available partners in their social networks also are disadvantaged. Because an economically secure marriage seems out of reach, daughters from low-income families tend to form cohabiting unions and bear children outside of marriage as an alternative (Edin & Kefalas, 2005; McLanahan & Sandefur, 1994). Parental remarriage, however, generally improves the financial situations of mothers and their children substantially (Teachman & Paasch, 1994). For this reason, young women with remarried parents may be more likely than those with single parents to obtain education beyond high school and avoid early family transitions.

A focus on economic resources suggests the following hypotheses: (1) Daughters with divorced single parents are especially likely to form nontraditional families early in the life course and, correspondingly, less likely to form traditional families. (2) Daughters with remarried parents exhibit patterns of family formation comparable to daughters with continuously married parents. (3) The associations between living with single parents and forming nontraditional families are mediated by parents' household income, parents' perceived economic stress, and adolescents' school success.

A *modeling perspective* assumes that girls living in nontraditional households (with single parents or remarried parents) adopt nontraditional views about family life. Their parents have demonstrated that union dissolution is an acceptable solution to an unsatisfying relationship. Moreover, most children in single-parent families have opportunities to observe their parents engage in dating and perhaps covert sexual behavior (as when parents' partners spend the night). Through observational learning and identification with parents, daughters are likely to adopt many of their parents' attitudes and behaviors. Consistent with this

assumption, studies show that young adults with single parents tend to hold nontraditional attitudes about nonmarital sex, cohabitation, nonmarital births, and divorce (Amato, 1988; Amato & Booth, 1991; Axinn & Thornton, 1996). Attitudes about sex and family life, in turn, are good predictors of early sexual activity, cohabitation, and nonmarital births (Carlson, McLanahan, & England 2004; Clarkberg, Stolzenberg, & Waite 1995).

This perspective suggests the following hypotheses: (1) Young women with single *or* remarried parents are more likely than other young women to form nontraditional families early in the life course, and, correspondingly, less likely to form traditional families. (2) These associations are mediated by daughters' nontraditional attitudes.

An *escape from stress perspective* focuses on the level of stress associated with various family arrangements. Studies show that single parents spend less time with their children, are less emotionally supportive, dispense harsher discipline, and report more conflict with their children than do continuously married parents (Hetherington & Clingempeel, 1992; Thompson, McLanahan, & Curtin, 1992). Presumably, these deficits in parenting result from the stress of union disruption, the strains of solo parenting, and trying to make ends meet on a restricted budget. Other studies show that marital distress in two-parent families is associated with comparable deficits in parenting (Krishnakumar & Buehler, 2000). With respect to stepfamilies, tension between children and stepparents is not uncommon—especially during adolescence (Hetherington & Clingempeel, 1992). Stepfamily life is especially stressful for children when parents and stepparents have poor marital relationships (King, 2006; Marsiglio, 2004). Irrespective of family structure, tension in the family of origin is associated with lower ratings of closeness to parents, less happiness, lower self-esteem, and more symptoms of psychological distress among offspring (Amato & Booth, 1997).

Adolescent females living in stressful homes may be motivated to leave their families of origin and establish their own families—traditional as well as nontraditional—relatively early in the life course. Marriage and cohabitation both represent opportunities to escape from unhappy family environments and find emotional support and intimacy elsewhere. Similarly, nonmarital as well as marital births can provide mothers with a sense of meaning and purpose in life (Edin & Kefalas, 2005). The decision to embark on a traditional or nontraditional pathway may depend on a variety of contingencies, including whether suitable marriage partners are available. Consistent with this assumption, Amato et al. (2008) found that adolescent females with weak emotional ties to parents or low levels of psychological well-being were especially likely to cohabit, have nonmarital births, marry, and have marital births at early ages.

This perspective suggests the following hypotheses: (1) Daughters with divorced single parents, continuously married parents with distressed relationships, and remarried parents are at risk of making early family transitions—nontraditional as well as traditional. (2) Daughters with remarried parents are especially likely to engage in early family formation, given that they have experienced a larger number of family-of-origin transitions (Wu & Martinson, 1993). (3) Living with remarried parents with distressed relationships is the most aversive home environment and, hence, most strongly associated with early family formation. (4) These associations are mediated by adolescents' relationships with parents, perceptions of the family environment, and psychological well-being.

Few studies have considered the long-term demographic consequences of growing up with two continuously married parents with a distressed relationship. Nevertheless, compared with children from low-conflict households, children from high-conflict households tend to have weaker ties to parents (Amato & Booth, 1997; Krishnakumar & Buehler, 2000), more

liberal attitudes toward divorce (Amato & Booth, 1991; Cunningham & Thornton, 2006), and lower levels of psychological well-being (Amato & Booth, 1997; Benson, Buehler, & Gerard, 2008). These findings raise the possibility that the estimated effects of union disruption on children's family formation transitions are due to the relationship distress that frequently precedes disruption. The current study addresses this commonly proposed selection factor by comparing daughters with continuously married parents with low and high levels of distress.

## METHODS

### Sample

This analysis utilized data from the National Longitudinal Study of Adolescent Health—a nationally representative, longitudinal dataset of over 20,000 adolescents and young adults. In-home interviews with adolescents were completed in 1994–5 (Wave I), 1996 (Wave II), and 2001–2 (Wave III). A parent or parent figure (usually the mother) also was interviewed in Wave I. We focus exclusively on young women's family formation transitions for two reasons. First, women tend to make family formation transitions earlier than do men—a trend confirmed in preliminary analyses of these data. Because the statistical power of event history analysis (see below) depends on the number of observed transitions, statistical power is lower for men than for women in this data set. Research also indicates that men underreport nonmarital births, and currently single or remarried men underreport marital births that occurred in first marriages (Rendall, Clarke, Peters, Ranjit, & Verropoulou, 1999). Consequently, the amount of measurement error for parenthood is higher for men than for women.

Several sequential sample selections were made. Youth were selected if they completed a Wave I and Wave III interview ( $n = 15,197$ ) and had a parent who completed a Wave I interview ( $n = 13,145$ ). Next, the oldest portion of the cohort (defined as 16 years of age or older at Wave I) was selected ( $n = 6,902$ ). We took this step because younger adolescents could experience parental divorce or remarriage after the Wave I interview but before reaching age 16, which would make our assignment of these cases to family types inaccurate. To ensure the correct time ordering of variables, we omitted 903 adolescents who reported cohabiting, marrying, or having a nonmarital birth prior to Wave I. Adolescents had to be living with continuously married biological (or adoptive) parents, divorced (or separated) single parents, or remarried parents ( $n = 5,412$ ). Adolescents with cohabiting parents were excluded from the analysis. Cases also were dropped if they were missing values on the sample weight. After dropping sons from the analysis, the final analytic sample consisted of 2,461 daughters.

### Independent Variables

We relied on a constructed variable available in the Add Health data set, along with information on the interviewed parent's marital status, to define family structure in Wave I. At this time, 1,647 (67%) daughters were living with two continuously married parents, 402 (16%) were living with a divorced or separated single mother, 59 (2%) were living with a divorced or separated single father, 292 (12%) were living with a remarried parent with a low-distress relationship, and 61 (2%) were living with a remarried parent with a high-distress relationship. Preliminary analyses found no significant differences between daughters living with single mothers and single fathers, so we combined these two groups in subsequent analyses.

Information on relationship distress was obtained from the Wave I parent interview. Most studies of marital quality have focused on positive as well as negative dimensions (e.g.,



Johnson, White, Edwards, & Booth, 1986), with the most commonly used measures being marital happiness (or satisfaction) and marital conflict, respectively. To incorporate both dimensions, we relied on two questions from the parent interview: “On a scale from 1 to 10, how would you rate your relationship with your spouse?” (1= *completely unhappy*, 10= *completely happy*), and “How much do you fight or argue with your spouse?” (1= *a lot*, 2 = *some*, 3 = *a little*, 4= *not at all*). The distressed group consisted of parents who provided a rating of 7 or less on the happiness item and 1 or 2 on the conflict item. That is, the distressed group reported a relatively low level of happiness and a relatively high level of conflict. This procedure yielded 432 parents, or 22% of all married parents—a figure that corresponds to other studies. For example, a taxonomic analysis by Beach, Fincham, Amir, and Leonard (2005) found that 20% of married couples fell into a high discord category, and a latent class analysis by Dush, Taylor, and Kroeger (2008) found that 22% of married individuals fell into a low marital quality category.

Because parents were not interviewed in subsequent waves, distress was measured on a single occasion. This is not a serious problem, however, because many dimensions of marital quality are remarkably constant over time. For example, Johnson, Amalozza, and Booth (1992) found correlations of .57 and .54 for measures of marital happiness and conflict over an eight-year period. When they used structural equation methods to account for measurement error, the respective correlations were .85 and .77. For most couples, relationship quality changes only modestly, even over long stretches of time.

### Dependent Variables

Family formation transitions were based on detailed relationship history information collected from daughters in Wave III. Questions asked whether respondents had ever married, lived with someone in a marriage-like relationship, and had births within or outside of these relationships. Follow-up questions addressed the month and year in which these events took place. (We thank Johanne Boisjoly of the University of Quebec at Rimouski for providing an updated Add Health file with corrected data on age at first cohabitation and marriage.) When the respondent reported a union but did not provide information on when it occurred, we imputed the date according to the median value for respondents of the same age. Imputation was necessary for only a small number of cases (8 marriages and 20 cohabitations). When information on births was missing, we relied on syntax created by Schoen, Landale, and Daniels (2007) to impute dates. Overall, first unions involved 1,078 cohabitations and 396 marriages, and first births involved 477 nonmarital and 256 marital events.

### Mediating Variables

During the Wave I interview, parents provided information on total household income. We used a log transformation of this variable to reduce skewness. Parents also responded to the following question, “Do you have enough money to pay your bills?” (0 = *no*, 1 = *yes*). We reverse coded this item to represent perceptions of economic hardship.

The other mediating variables were constructed from the Wave I interviews with adolescents. We assessed maternal and paternal warmth with seven questions, including “How close do you feel to your mother[father],” and “How much do you think she[he] cares about you,” (1 = *not at all*, 5 = *very much*). Scores on these variables were based on the first component from a principal components analysis of the items. Theta is the appropriate reliability coefficient for a scale in which items have been weighted to maximize internal consistency (Carmines & Zeller, 1979). Theta reliability coefficients were .86 for mothers and .89 for fathers. The two parental warmth variables were weakly correlated ( $r = .18, p < .001$ ).

A positive family environment was based on five items: how much “you feel your parents care about you,” “people in your family understand you,” “you want to leave home,” “you and your family have fun together,” and “your family pays attention to you” (1 = *not at all*, 5 = *very much*). The first component from a principal components analysis served as the scale score ( $\theta = .76$ ).

Two variables were created to assess nontraditional attitudes. A measure of nontraditional attitudes towards sex was based on ten items, including “If you had sex, it would upset your mom/dad,” and “If you had sexual intercourse, it would make you more attractive to the opposite sex.” Correspondingly, a measure of nontraditional attitudes towards pregnancy was based on seven items, including “Getting pregnant at this time in your life is one of the worst things that could happen to you,” and “It wouldn’t be all that bad if you got pregnant at this time in your life” (1 = *strongly disagree*, 5 = *strongly agree*). Theta reliability coefficients were .79 for attitudes toward sex and .64 for attitudes toward pregnancy. Responses for both measures were scored so that high values reflected nontraditional attitudes. The two attitude variables were moderately correlated ( $r = .29, p < .001$ ). Previous researchers have used these items to create similar attitude scales (e.g., Jaccard, Dodge, & Dittus, 2003; Rostovsky, Regnerus, & Wright, 2003).

School success involved two variables. School adjustment included four items dealing with how frequently adolescents had trouble getting along with teachers, paying attention in school, getting homework done, and getting along with other students (0 = *never*, 4 = *every day*,  $\theta = .68$ ). The second measure was the mean of reported grades in Math, English, History/Social Sciences, and Science (1 = *A*, 4 = *D or lower*), which were reverse coded. For both measures, higher values indicated greater school success. The two variables were moderately correlated ( $r = .31, p < .001$ ).

Two measures of psychological well-being were available. Self-esteem was based on four items: “You have a lot of good qualities,” “You have a lot to be proud of,” “You like yourself just the way you are,” and “You feel like you are doing everything just about right” (1 = *strongly agree*, 5 = *strongly disagree*,  $\theta = .80$ ). Depressive symptomology was based on 19 items that dealt with how often during the previous week the adolescent reported feelings “depressed,” “too tired to do things,” “sad,” and so on (0 = *never or rarely*, 3 = *most of the time or all of the time*,  $\theta = .90$ ). Items were scored so that high scores represented high levels of self-esteem and depression. The two well-being variables were moderately correlated ( $r = -.43, p < .001$ ).

### Control Variables

Control variables included offspring’s age and race (non-Hispanic black, Hispanic, and other, with non-Hispanic white serving as the omitted reference category). We also included the gender of the interviewed parent (0 = *father*, 1 = *mother*), whether the interviewed parent was born outside of the United States (1 = *yes*, 0 = *no*), the age at which the interviewed parent married for the first time, the frequency of the interviewed parent’s attendance at religious services during the previous year (1 = *never*, 4 = *once a week or more*), and the interviewed parent’s education (0 = *less than or equal to 8<sup>th</sup> grade education*, 9 = *professional training beyond a 4-year college or university*). We included these variables because they could be correlated with family type during adolescence as well as daughters’ early family formation transitions.

### Analysis

We relied on discrete-time event history analysis. We treated cohabitation and marriage as competing risks, so the outcome reflected first union transitions. We created a person-year

file that included information for each year of age between the Wave I and Wave III interviews. Respondents were censored from the data file after they had cohabited, married, or reached the Wave III interview without forming any unions. The second person-year file treated nonmarital births and marital births as competing risks. Respondents were censored from the data file after they reported either type of birth or reached the Wave III interview without become parents. Multinomial logistic regression in STATA was utilized to estimate these models. All analyses were adjusted for the sample design (clustering and stratification) as well as weighting to produce the correct standard errors for significance testing.

Because the amount of missing data was low (4% or less across variables), we used a single imputation to replace all missing values. Household income was the one exception with 11% missing data. Consequently, we created an imputation flag for each case (0 = *not imputed*, 1 = *imputed*) and included this variable in all analyses involving income. The imputation variable was never significant, however, and we do not report it in the tables.

As noted earlier, a primary goal was to assess the extent to which multiple explanatory variables mediate the associations between family-of-origin type and demographic outcomes in early adulthood. To assess mediation, we relied on the classic formulation of Baron and Kenny (1986). That is, a mediating variable must be significantly associated with the independent as well as the dependent variable, and the *b* coefficient for the independent variable must decline substantially after including the mediator in the equation. Instead of *b* coefficients, however, we relied on relative risk ratios (RRRs). RRRs are appealing because they involve probabilities, and most individuals find probabilities to be easier to understand than logits. We assumed that a 20% reduction in RRRs between models is large enough to be substantively significant—a criterion often adopted in public health research (e.g., Foshee, Bauman, Arriaga, Helms, Koch, & Lindner, 1998).

### Attrition

Because some cases dropped out of the sample between Waves I and III, we performed an attrition analyses using logistic regression and all variables described earlier. Although several variables were significant predictors of attrition, a logistic regression model successfully predicted less than 5% of excluded cases. This result is consistent with studies showing that most sample attrition is random and has relatively modest consequences for estimates of population parameters (e.g., Falaris & Peters 1998).

## RESULTS

### Descriptives

Table 1 shows means (or proportions) and standard errors for all control and mediating variables by family type. The final column indicates whether the overall differences across groups were significant. With respect to the control variables, the average age of respondents in Wave III was about 23 in all family types. The proportion of black adolescents was elevated in the single parent group. The proportions in other racial and ethnic categories varied modestly across family types. Mothers were usually the interviewed parent, although the proportion of mothers was somewhat lower in single-parent families because fathers were sometimes the custodial parent. The level of parental education was between 5 and 6 in all groups, which is equivalent to graduating from high school or obtaining a GED, respectively. Immigrant parents were over represented in families with continuously married parents. Parental age at first marriage showed little variation across groups. Parents' religious attendance was highest among continuously married parents with low-distress relationships and lowest among single parents and remarried parents with high-distress relationships.



Because the scale of measurement was arbitrary for most of the explanatory variables (with the exception of income and difficulty paying bills), these variables were standardized to have means of 0 and standard deviations of 1 to facilitate subsequent interpretation. Single parents reported the lowest level of household income and the most difficulty paying bills. Maternal and paternal warmth were highest among adolescents living with continuously married parents with low-distress relationships. Paternal warmth, in particular, was comparatively low among adolescents living with a single parent, and a positive family environment was especially low among adolescents living with remarried parents with high-distress relationships. Adolescents living with continuously married parents had the most conventional attitudes. School adjustment and grades were highest among adolescents with continuously married parents. Finally, adolescents had the highest level of self-esteem and the lowest level of depression when they lived with continuously married parents with low-distress relationships. These results are generally consistent with prior research.

Additional *t*-tests revealed that adolescents with continuously married parents with a high-distress relationship, compared with adolescents with continuously married parents with a low-distress relationship, reported significantly less maternal warmth, less paternal warmth, less positive family environments, and lower self-esteem (all  $p < .05$ ). Given that reports of marital distress came from parents and reports of explanatory variables came from adolescents, these findings support the construct validity of our measure of marital distress.

### Union Formation among Daughters

We begin by presenting the results for nonmarital cohabitation and marriage. Tables 2a and 2b show the RRRs from a multinomial discrete-time event history model in which nonmarital cohabitation and marriage were treated as competing risks. Women who did not transition to a coresidential union served as the omitted reference group. Model 1 in Table 2a indicates that the risk of cohabitation was no higher for daughters living with continuously married parents with distressed relationships than for daughters living with continuously married parents with nondistressed relationships (the omitted reference group). In contrast, living with a single parent was associated with a 47% increase in the risk of cohabitation between Waves I and III  $((1.47 - 1) * 100)$ . Similarly, living with a remarried parent was associated with a 104% increase in the risk of cohabitation when the relationship was not distressed and a 212% increase when the relationship was distressed. Although not shown in the table, the risk of cohabitation was significantly higher for daughters with single parents or remarried parents (irrespective of relationship distress) than for daughters with continuously married parents with high-distress relationships (all  $p < .05$ ). The RRR for the single parents was marginally lower than the RRR for low-distress remarried parents ( $p = .07$ ) and significantly lower than the RRR for high-distress remarried parents ( $p < .05$ ). The two remarried groups did not differ from each other. These findings indicate that the risk of cohabitation was elevated when offspring lived with a single parent and even higher when offspring lived in a stepfamily.

Models 2–7 introduce the explanatory variables. In Model 2, parents' income and difficulty paying bills were not associated with cohabitation. In Model 3, positive family environment was negatively associated with cohabitation, although maternal and paternal warmth were not significant. Model 4 shows that positive attitudes toward pregnancy and sexual behavior were positively associated with cohabitation. Model 5 indicates that school grades and school adjustment were both negatively associated with cohabitation. Model 6 reveals that self-esteem was (marginally) negatively associated with cohabitation, and depression was positively associated with cohabitation. Finally, Model 7 includes all of the mediators. Taken together, these variables reduced the RRR for living with a single parent by 96%, for living with a remarried parent with a low-distress relationship by 35%, and for living with a remarried parent with a high-distress relationship by 29%. These declines meet our 20%

criterion for a substantively important mediation. In the final model, adolescents' ratings of the home environment, attitudes, and school grades continued to be significant predictors of cohabitation, whereas maternal warmth, paternal warmth, school adjustment, self-esteem, and depression were no longer significant. As noted in Table 2, family environment, the two attitude variables, and school grades were significantly associated with all family types involving union disruption. These three variables, therefore, met all the criteria for mediation.

Table 2b shows the results of the multinomial logistic regression analysis for marriage. In Model 1, only living with remarried parents with high-distress relationships was a significant (positive) predictor of marriage. Additional analyses (not shown) indicated the RRR for living with remarried parents with high-distress relationships was significantly different from every other family type, with the exception of living with remarried parents with low-distress relationships. In subsequent models, parental income and adolescents' attitude toward sex were negatively associated with marriage, whereas attitude toward pregnancy and school adjustment was positively associated with marriage. The RRR for living with a remarried parent with a high-distress relationship declined by only 6% between Models 1 and 7, which does not meet our criterion for mediation. In other words, the explanatory variables cannot account for the association between living with a remarried parent with a high-distress relationship and early marriage among daughters.

### Nonmarital and Marital Births among Daughters

Tables 4a and 4b show that the results of the multinomial event history analysis for nonmarital and marital births, which were treated as competing risks. Model 1 in Table 3 reveals that the risk of having a nonmarital birth between Waves I and III was not significantly greater for daughters living with two parents in high-distress marriages than for daughters living with two parents in low-distress marriages. In contrast, living with a single parent was associated with a 132% increase in the risk of having a nonmarital birth. Similarly, living with a remarried parent with a low distress relationship was associated with a 97% increase in risk, and living with a remarried parent with a high distress relationship was associated with a 352% increase in risk. Rotating the omitted group (not shown) revealed that the differences between daughters with single parents and those with remarried parents, irrespective of distress, were not significant. The coefficient for remarried parents with distressed relationships, however, was significantly larger than the coefficient for remarried parents with nondistressed relationships ( $p = .03$ ). Taken together, these results indicate that parental union disruption is a better predictor of nonmarital births than is marital distress among continuously married parents, irrespective of whether custodial parents remarry. These results also indicate, however, that the risk of having a nonmarital birth is highest among daughters living with a remarried parent with a distressed relationship. Marital distress appears to make a difference but only in remarriages.

In Model 2, parents' income (but not lack of money to pay bills) was negatively related to having a nonmarital birth. Model 3 shows that maternal warmth, paternal warmth, and family environment were not significant predictors. Model 4 reveals that nontraditional views about having sex and pregnancy were both positively associated with nonmarital births. Model 5 shows that daughters who obtained higher grades were less likely than other daughters to have nonmarital births. Model 6 indicates that scores on the depression measure were positively associated with nonmarital births. Finally, in Model 7, parents' income, adolescents' attitudes toward pregnancy and sex, school grades, and depression all continued to be significant predictors. Self-esteem also attained significance in the full model. Moreover, although not shown in the table, all of these mediating variables were associated with living with a single parent or a remarried parent (irrespective of marital distress). Comparing Model 7 with Model 1 reveals that the explanatory variables reduced the RRR

for living with a single parent by 62%, and the remaining coefficient was only marginally significant. Correspondingly, the RRRs declined by 39% for living with a married parent with a low-distress relationship but by only 11% for living with a remarried parent with a high-distress relationship. Overall, although parents' income, adolescents' attitudes, adolescents' school grades, and adolescents' psychological well-being accounted for some of the associations in Model 1, these factors were least successful in accounting for associations involving high-distress parental remarriages.

With respect to marital births, Model 1 in Table 3b shows that daughters living with a remarried parent with a high-distress relationship were more likely than daughters living with continuously married parents with low-distress relationships to have a marital birth. In subsequent models, parents' income, difficulty paying bills, the quality of the family environment, and school grades were negatively associated with marital births. A nontraditional attitude toward pregnancy was positively associated with marital births, as was school adjustment in the final model. Changes in the RRR for daughters from high-distress stepfamilies were modest across all models, however, with little evidence of mediation.

## DISCUSSION

The current study replicates previous research (described earlier) showing that parental divorce is positively associated with daughters' nonmarital cohabitations and nonmarital births, irrespective of whether resident parents remarry. As noted earlier, studies of early marriage have yielded contradictory results, with some suggesting that parental divorce increases the odds of marriage (e.g., McLanahan & Bumpass, 1988) and other studies suggesting the opposite (e.g., Kobrin & Waite, 1984). The present study found that parental divorce did not increase the risk of early marriage, except when daughters lived with remarried parents with high-distress relationships. Given the contradictory findings in the literature, more studies are necessary to reach a firm conclusion about this issue. Our results are similar to those of Cherlin et al. (1995) in suggesting that parental divorce does not increase the risk of marital births in general, although this does occur among daughters living with remarried parents with high-distress relationships.

A major goal of the current study was to assess three general conceptual perspectives on the links between family structure and daughters' subsequent family formation transitions. The economic deprivation perspective assumes that living with single (but not remarried) parents increases the likelihood of nontraditional transitions, and that these links are mediated primarily by parents' household income, perceptions of economic hardship, and offspring's school success. Consistent with this perspective, parents' household income appeared to lower the risk of nonmarital births. Contrary to this perspective, however, cohabitation and nonmarital births were elevated among daughters living with remarried parents, despite the fact that remarried parents had incomes comparable to those of continuously married parents. Moreover, income mediated little of the estimated effect of parental remarriage on cohabitation and nonmarital births. And household income and parents' perceptions of hardship were not associated with cohabitation. In general, our analyses provide little support for the notion that economic deprivation leads daughters with single parents to adopt nontraditional family forms.

The second conceptual perspective focused on modeling and social learning. This perspective assumes that transitions to nontraditional family formation are elevated among youth with single parents *and* remarried parents, given that both groups of parents have modeled disruption as a solution to an unsatisfying relationship. Moreover, this perspective assumes that adolescents' attitudes mediate the associations between parental union

disruption and offspring's nontraditional transitions. The results for cohabitation and nonmarital births generally support this perspective. Adolescents' attitudes were significant predictors of nonmarital cohabitation and childbearing, and attitudes partly mediated the associations between parental divorce (and remarriage) and offspring's nontraditional transitions. Presumably, daughters with unconventional views toward sex and pregnancy are less concerned about the moral implications or stigma associated with cohabitation and nonmarital births than are more conventional daughters.

Finally, the escape from stress perspective assumes that living with continuously married parents with high distress relationships, as well as living with single or remarried parents, increases the likelihood of nontraditional *and* traditional transitions. That is, any kind of transition can represent an escape from an aversive home environment and an opportunity to find emotional support and intimacy in one's own family. Our analyses were not consistent with a key prediction of this perspective: The level of distress among continuously married parents was not related to any family formation outcome. Nevertheless, the current study provides partial support for the notion that remarriage increase the risk of all traditional as well as nontraditional transitions. The estimated effects of parental remarriage on daughters' marriage and marital births, however, reached significance only when parents had a high-distress relationship. Because conflicted stepfamilies are the most likely to be aversive home environments, the escape from stress perspective is supported. This perspective also assumes parental warmth, perceptions of the home environment, and psychological well-being play key mediating roles. We found some support for this notion, in that perceptions of the home environment, self-esteem, and depression played mediating roles with respect to nontraditional transitions. These variables did not play mediating roles in the analyses of marriage or marital births, however. Overall, the support for this perspective was mixed.

Like all studies, the current investigation contains several limitations. For example, our measure of marital distress was limited to only two items measured at a single point in time. A broader measure of this construct might have revealed significant associations. In addition, the sample was relatively young, with a mean age of about 23 at Wave III. For this reason, we were not able to capture family formation transitions that occur at older ages. With respect to selection, we incorporated two rarely studied groups (continuously married parents with distressed relationships and remarried parents with distressed relationships) as well as a variety of control variables that may represent selection factors. Nevertheless, it is probable that unmeasured selection factors (such as parents' personality traits) affect parental union disruption and remarriage as well as offspring's family formation transitions. We also were not able to consider the length of time that youth spent in various family forms. Nevertheless, research shows that marital happiness and conflict tend to be highly stable over long periods of time (Johnson, Amalozza, & Booth, 1992), so it is likely that youth with distressed parents experienced a troubled home environment for many years. Moreover, some studies show that the length of time in a single-parent family is less important than *ever* living in a single-parent family (McLanahan & Sandefur, 1994). Youth born outside of marriage, however, are a heterogeneous group, with some born to cohabiting parents and others not. Including this distinction was beyond the reach of the current study, although future research will no doubt pay closer attention to the life courses of these individuals.

Despite these limitations, the present study makes three contributions to the literature. First, it replicates previous studies suggesting that divorce and remarriage increase the likelihood that daughters will cohabit or have nonmarital births. Second, we show that living with two continuously married parents appears to "protect" youth from nonmarital cohabitations and births, *even when the marital relationship is troubled*. For young women's early family formation decisions, having two married parents is more important than the quality of the

parents' marital relationship. These findings suggest that the relationship distress that often precedes union disruption is unlikely to be the cause of subsequent family formation transitions among offspring. Third, our data provide moderately strong support for a perspective based on modeling. Adolescents with divorced parents are especially likely to adopt unconventional attitudes and adolescents' attitudes, in turn, are good predictors of their decisions to cohabit or have a child outside of marriage. We also find some support for the escape from stress perspective. That is, daughters living in distressed stepfamilies were especially likely to make nontraditional as well as traditional family formation transitions. Marital distress appeared to affect daughters' subsequent transitions only when it occurred in stepfamilies. These findings suggest that future research should pay greater attention to stepfamily dynamics when attempting to understand the family formation behaviors of youth. More generally, our findings suggest the utility of combining information on family structure and family process (parents' marital distress) in understanding children's life courses.

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**Table 1**  
Means and Standard Errors for Control and Mediating Variables by Family Type.

	Two parent low distress	Two parent high distress	Single parent	Remarried low distress	Remarried high distress	<i>p</i>
<i>Control variables</i>						
Age at Wave III	22.97 (.03)	23.12 (.06)	22.97 (.10)	23.06 (.07)	23.03 (.16)	
Non-Hispanic White	.75 (.04)	.67 (.05)	.72 (.04)	.75 (.04)	.84 (.06)	*
Non-Hispanic Black	.09 (.02)	.11 (.03)	.21 (.04)	.10 (.03)	.06 (.03)	***
Hispanic	.07 (.02)	.11 (.04)	.02 (.01)	.05 (.02)	.04 (.03)	*
Other	.10 (.02)	.11 (.03)	.04 (.02)	.09 (.03)	.06 (.03)	*
Parent is Mother	.98 (.01)	.99 (.01)	.92 (.02)	.96 (.02)	.99 (.00)	*
Parent Education	5.66 (.17)	5.32 (.25)	5.34 (.17)	5.55 (.16)	5.61 (.28)	
Parent is Immigrant	.16 (.03)	.20 (.04)	.09 (.03)	.10 (.03)	.03 (.02)	*
Parent Age at First Marriage	20.91 (.17)	20.87 (.28)	20.34 (.22)	20.30 (.36)	21.17 (.55)	
Parent Religious Attendance	3.01 (.05)	2.79 (.10)	2.49 (.09)	2.73 (.07)	2.50 (.23)	***
<i>Mediating variables</i>						
Household Income (log base 10)	1.67 (.02)	1.60 (.03)	1.36 (.02)	1.64 (.03)	1.61 (.04)	***
Difficulty Paying Bills	.11 (.01)	.22 (.03)	.30 (.04)	.12 (.02)	.16 (.06)	***
Maternal Warmth (Z)	.08 (.03)	-.23 (.09)	-.13 (.07)	-.13 (.09)	-.17 (.18)	**
Paternal Warmth (Z)	.46 (.02)	.11 (.05)	-1.32 (.05)	.02 (.09)	-.15 (.16)	***
Positive Family Environment (Z)	.14 (.03)	-.18 (.06)	-.09 (.06)	-.11 (.07)	-.43 (.13)	***
Positive Attitude Pregnancy (Z)	-.14 (.04)	-.09 (.07)	.18 (.07)	.14 (.08)	.13 (.21)	**
Positive Attitude Sex (Z)	-.15 (.04)	-.01 (.07)	.35 (.07)	.35 (.08)	.40 (.16)	***
School Adjustment (Z)	.06 (.03)	.06 (.08)	-.13(.08)	-.18 (.09)	-.11 (.15)	*
School Grades (Z)	.21 (.04)	.13 (.06)	-.17 (.08)	-.11 (.07)	.01 (.16)	***
Self-Esteem (Z)	.08 (.03)	-.14 (.08)	-.02 (.10)	-.02 (.09)	-.36 (.18)	**
Depression (Z)	-.12 (.03)	.03 (.07)	.09 (.08)	.02 (.09)	.21 (.18)	**
(Sample size)	(1,276)	(371)	(461)	(292)	(61)	

Note: Standard errors are in parentheses. Means are weighted and sample sizes are unweighted. Significance tests reflect the overall difference across family types.

\* *p* < .05,  
 \*\* *p* < .01,  
 \*\*\* *p* < .001

**Table 2a**  
 Estimated Effects of Parents' Marital Distress and Family Structure on Daughters' Nonmarital Cohabitation

	1	2	3	4	5	6	7
<i>Family Structure (ref = Two Parent, Low Distress)</i>							
Two Parent, High Distress	0.92	0.93	0.86	0.92	0.92	0.89	0.88
Single Parent	1.47*	1.40*	1.22	1.39*	1.36*	1.42*	1.02
<i>Stepparent, Low Distress</i>							
Stepparent, High Distress	2.04***	2.03***	1.87***	1.91***	1.85***	2.01***	1.68***
Stepparent, High Distress	3.12***	3.05***	2.70***	2.94***	2.94***	2.88***	2.50***
Age (in person years)	1.25***	1.26***	1.26***	1.26***	1.27***	1.27***	1.28***
<i>Race/Ethnicity (ref = non-Hispanic White)</i>							
Black	0.59***	0.57***	0.59***	0.5***	0.54***	0.59***	0.47***
Hispanic	0.85	0.81	0.83	0.83	0.84	0.85	0.78
Other	0.87	0.85	0.84	0.85	0.84	0.84	0.79
Parent Education	0.92***	0.94*	0.92***	0.92***	0.94**	0.93***	0.95 <sup>†</sup>
Parent Respondent (1 = mother, 0 = father)	1.03	1.05	1.02	0.99	1.00	1.05	0.97
Parent Immigrant Status (1 = yes, 0 = no)	0.82	0.82	0.83	0.82	0.84	0.83	0.84
Parent Age at First Marriage	0.96***	0.96**	0.95***	0.96**	0.96***	0.95***	0.96**
Frequency of Parent Church Attendance	0.79***	0.79***	0.80***	0.86***	0.80***	0.79***	0.86***
(Log) Income		0.77					0.79
Difficulty Paying Bills (1 = yes, 0 = no)		0.90					0.90
Maternal Warmth			1.03				1.06
Paternal Warmth			0.92				0.94
Positive Family Environment			0.81**				0.87*
Positive Attitude toward Pregnancy				1.19***			1.13*
Positive Attitude toward Sex				1.22**			1.19**
Grades					0.70***		0.76***
School Adjustment					0.89*		0.95
Self-Esteem						0.90 <sup>†</sup>	0.96
Depression						1.15**	1.04

	1	2	3	4	5	6	7
<i>F</i> value	15.94***	13.91***	14.32***	20.74***	17.81***	17.89***	11.92***

Note: Analysis is based on 13,575 person-years, 2,461 cases, and 1,078 first cohabitations. Cohabitation and marriage are treated as competing risks.

\*\*\*  $p < .001$ ,

\*\*  $p < .01$ ,

\*  $p < .05$ ,

<sup>†</sup>  $p < .10$  (two-tailed)



**Table 2b**  
 Estimated Effects of Parents' Marital Distress and Family Structure on Daughters' Marriage

	1	2	3	4	5	6	7
Family Structure ( <i>ref</i> = <i>Two Parent, Low Distress</i> )							
Two Parent, High Distress	0.95	0.93	0.94	0.98	0.94	0.96	0.96
Single Parent	0.86	0.68	0.84	0.87	0.86	0.85	0.70
Stepparent, Low Distress	1.41	1.36	1.4	1.44	1.42	1.41	1.43
Stepparent, High Distress	2.42*	2.29 <sup>†</sup>	2.36*	2.46*	2.48*	2.4*	2.31*
Age (in person years)	1.35****	1.36****	1.35****	1.35****	1.35****	1.35****	1.36****
Race/Ethnicity ( <i>ref</i> = <i>non-Hispanic White</i> )							
Black	0.35****	0.31****	0.35****	0.33****	0.35****	0.34****	0.28****
Hispanic	0.97	0.87	0.97	0.89	0.96	0.94	0.78
Other	0.86	0.79	0.85	0.83	0.85	0.85	0.75
Parent Education	0.87**	0.92 <sup>†</sup>	0.87**	0.87**	0.88**	0.87**	0.93
Parent Respondent ( <i>1</i> = <i>mother</i> , <i>0</i> = <i>father</i> )	0.97	1.01	0.97	0.94	0.98	0.98	1.00
Parent Immigrant Status ( <i>1</i> = <i>yes</i> , <i>0</i> = <i>no</i> )	0.81	0.79	0.81	0.82	0.80	0.80	0.78
Parent Age at First Marriage	0.88****	0.88****	0.88****	0.88****	0.88****	0.88****	0.88****
Frequency of Parent Church Attendance	1.31**	1.30**	1.31**	1.27**	1.31**	1.32**	1.28**
(Log) Income		0.46****					0.47****
Difficulty Paying Bills ( <i>1</i> = <i>yes</i> , <i>0</i> = <i>no</i> )		0.92					0.93
Maternal warmth			1.02				1.02
Paternal warmth			0.99				1.01
Positive family environment			0.96				0.95
Positive Attitude toward Pregnancy				1.23*			1.24*
Positive Attitude toward Sex				0.82 <sup>†</sup>			0.82 <sup>†</sup>
Grades					0.94		0.99
School Adjustment					1.10		1.17 <sup>†</sup>
Self-Esteem						1.07	1.06
Depression						1.12	1.16

	1	2	3	4	5	6	7
<i>F</i> value	15.94***	13.91***	14.32***	20.74***	17.81***	17.89***	11.92***

*Note:* Analysis is based on 13,575 person-years, 2,461 cases, and 396 first marriages. Cohabitation and marriage are treated as competing risks.

\*\*\*  $p < .001$ ,

\*\*  $p < .01$ ,

\*  $p < .05$ ,

†  $p < .10$  (two-tailed)

**Table 3a**  
 Estimated Effects of Parents' Marital Distress and Family Structure on Daughters' Nonmarital Births

	1	2	3	4	5	6	7
Family Structure ( <i>ref = Two Parent, Low Distress</i> )							
Two Parent, High Distress	1.16	1.14	1.13	1.19	1.19	1.16	1.18
Single Parent	2.32***	1.96**	2.11**	2.15***	2.04***	2.26***	1.57†
Stepparent, Low Distress	1.97***	1.92**	1.89**	1.83**	1.75**	1.91**	1.59*
Stepparent, High Distress	4.52***	4.20***	4.25***	4.30***	4.55***	4.51***	4.13***
Age (in person years)	1.06*	1.07*	1.06*	1.06*	1.08**	1.07*	1.09**
Race/Ethnicity ( <i>ref = non-Hispanic White</i> )							
Black	2.63***	2.41***	2.63***	2.25***	2.43***	2.53***	1.77**
Hispanic	1.97**	1.81*	1.98**	1.85*	1.95**	1.94**	1.66*
Other	1.61*	1.51†	1.59*	1.58*	1.44	1.56*	1.43
Parent Education	0.85***	0.89**	0.85***	0.86***	0.89**	0.86***	0.94
Parent Respondent ( <i>1 = mother, 0 = father</i> )	0.98	0.94	0.94	0.99	0.88	1.01	0.86
Parent Immigrant Status ( <i>1 = yes, 0 = no</i> )	0.57†	0.57†	0.57†	0.57†	0.59†	0.55†	0.52*
Parent Age at First Marriage	0.93***	0.93***	0.93***	0.94***	0.94**	0.93***	0.95**
Frequency of Parent Church Attendance	0.85*	0.84*	0.85*	0.93	0.86*	0.86*	0.91
(Log) Income		0.62**					0.62**
Difficulty Paying Bills ( <i>1 = yes, 0 = no</i> )		1.09					1.15
Maternal Warmth			0.99				1.00
Paternal Warmth			0.96				0.94
Positive Family Environment			0.94				1.01
Positive Attitude toward Pregnancy				1.27**			1.23**
Positive Attitude toward Sex				1.22**			1.16†
Grades					0.47***		0.50***
School Adjustment					1.03		1.09
Self-Esteem						1.05	1.19*
Depression						1.22***	1.19**

	1	2	3	4	5	6	7
<i>F</i> value	15.15***	11.66***	12.21***	12.81***	20.45***	13.67***	12.12***

*Note:* Analysis is based on 15,759 person-years, 2,461 cases, and 477 nonmarital births. Marital and nonmarital births are treated as competing risks.

\*\*\*  $p < .001$ ,

\*\*  $p < .01$ ,

\*  $p < .05$ ,

<sup>†</sup>  $p < .10$  (two-tailed)

**Table 3b**  
 Estimated Effects of Parents' Marital Distress and Family Structure on Daughters' Marital Births

	1	2	3	4	5	6	7
Family Structure ( <i>ref = Two Parent, Low Distress</i> )							
Two Parent, High Distress	1.05	1.07	1.04	1.11	1.04	1.03	1.11
Single Parent	1.22	1.11	1.35	1.17	1.11	1.16	1.08
Stepparent, Low Distress	1.43	1.38	1.42	1.34	1.35	1.39	1.29
Stepparent, High Distress	2.67*	2.57 <sup>†</sup>	2.44 <sup>†</sup>	2.70*	2.69*	2.59*	2.53 <sup>†</sup>
Age (in person years)	1.37****	1.38****	1.37****	1.37****	1.39****	1.38****	1.39****
Race/Ethnicity ( <i>ref = non-Hispanic White</i> )							
Black	0.35**	0.34**	0.35**	0.28****	0.31****	0.34**	0.26****
Hispanic	0.80	0.77	0.80	0.67	0.80	0.80	0.65
Other	0.81	0.76	0.78	0.72	0.75	0.78	0.64
Parent Education	0.78****	0.81****	0.78****	0.79****	0.81****	0.79****	0.84**
Parent Respondent ( <i>1 = mother, 0 = father</i> )	1.71	1.71	1.77	1.56	1.58	1.79	1.52
Parent Immigrant Status ( <i>1 = yes, 0 = no</i> )	0.83	0.86	0.83	0.88	0.84	0.82	0.87
Parent Age at First Marriage	0.91**	0.91**	0.91**	0.91**	0.91*	0.91**	0.92**
Frequency of Parent Church Attendance	1.12	1.12	1.15	1.18	1.14	1.13	1.2 <sup>†</sup>
(Log) Income		0.56**					0.59*
Difficulty Paying Bills ( <i>1 = yes, 0 = no</i> )		0.67 <sup>†</sup>					0.69 <sup>†</sup>
Maternal Warmth			1.13				1.16
Paternal Warmth			1.08				1.07
Positive Family Environment			0.79*				0.84
Positive Attitude toward Pregnancy				1.49****			1.46****
Positive Attitude toward Sex				0.94			0.91
Grades					0.60****		0.65****
School Adjustment					1.15		1.24*
Self-Esteem						0.99	1.00
Depression						1.20 <sup>†</sup>	1.13



	1	2	3	4	5	6	7
F value	15.15***	11.66***	12.21***	12.81***	20.45***	13.67***	12.12***

Note: Analysis is based on 15,759 person-years, 2,461 cases, and 256 marital births. Marital and nonmarital births are treated as competing risks.

\*\*\*  $p < .001$ ,

\*\*  $p < .01$ ,

\*  $p < .05$ ,

†  $p < .10$  (two-tailed)