
PARENTING AS A “PACKAGE DEAL”: RELATIONSHIPS, FERTILITY, AND NONRESIDENT FATHER INVOLVEMENT AMONG UNMARRIED PARENTS*

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Fatherhood has traditionally been viewed as part of a “package deal” in which a father’s relationship with his child is contingent on his relationship with the mother. We evaluate the accuracy of this hypothesis in light of the high rates of multiple-partner fertility among unmarried parents using the Fragile Families and Child Wellbeing Study, a recent longitudinal survey of nonmarital births in large cities. We examine whether unmarried mothers’ and fathers’ subsequent relationship and parenting transitions are associated with declines in fathers’ contact with their nonresident biological children. We find that father involvement drops sharply after relationships between unmarried parents end. Mothers’ transitions into new romantic partnerships and new parenting roles are associated with larger declines in involvement than fathers’ transitions. Declines in fathers’ involvement following a mother’s relationship or parenting transition are largest when children are young. We discuss the implications of our results for the well-being of nonmarital children and the quality of nonmarital relationships faced with high levels of relationship instability and multiple-partner fertility.

In the late 1990s, over 80% of nonmarital births in the United States were to couples who were romantically involved. Forty percent of all unmarried parents and over half of urban unmarried parents were living together at the time of the birth (Bumpass and Lu 2000; McLanahan et al. 2003). Even though these parents express a desire to stay together and eventually marry each other, their romantic relationships dissolve rapidly in the first few years after the child’s birth. Over 40% of nonmarital relationships end by the child’s first birthday, and by the time the child is 5 years old, over 60% of parents are no longer romantically involved with each other (Center for Research on Child Wellbeing 2003, 2007). The fragility of nonmarital unions has led to concern about whether fathers will remain in contact with their children after their relationships with mothers end.

There is reason to be skeptical. In the American context, fatherhood has traditionally been viewed as part of a “package deal” (Furstenberg and Cherlin 1991; Townsend 2004) in which fatherhood is contingent on the relationship between the father and the child’s mother. In this view, men attempting to father outside the context of a marriage or a coresidential union will have difficulty staying involved with their children. Fatherhood roles may be even more difficult to fulfill if fathers have competing familial obligations, a challenge that is particularly salient for unmarried parents, who have high rates of multiple-partner fertility. Almost 60% of children born to unmarried parents have at least

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one half-sibling already, despite the fact that their parents are, on average, only in their mid-20s (Carlson and Furstenberg 2006).

In this article, we extend the “package deal” hypothesis, arguing that it predicts not only that fathers’ involvement with children will decline after a breakup but also that subsequent transitions into new partner and parenting roles pose significant added barriers to involvement. As the father and mother of a nonmarital child enter into new family-like relationships, they may feel considerable pressure to re-create the “package deal” with the new family, without the interference of prior partners or children from past relationships. Although this may occur among both married and unmarried parents as they transition from one partner to another, we focus on the latter group, which has received less scholarly attention. And while there are many dimensions of father involvement—including contact, shared activities, communication, emotional closeness, and financial contributions (Hawkins, Amato, and King 2007)—we focus on the amount of contact between father and child here because the level of involvement, rather than financial support (which is often adjudicated by law and collected and disbursed by the state) or the quality and content of involvement, is more closely linked to the concept of the “package deal.”

BACKGROUND

The image of unwed fathers as uninvolved parents plays a dominant role in public discourse about poverty, family structure, and race. A growing body of evidence from the social sciences, however, suggests that unmarried fathers with young children are usually quite involved. Two panel studies—the National Longitudinal Survey of Youth, which began to follow a sample of youth aged 14–19 in 1979, and the National Survey of Families and Households, a national probability sample of all U.S. households launched in 1981—provided the first nationally representative portraits of unmarried fathers (Lerman 1993; Mott 1990; Seltzer 1991). Mott (1990), for example, found that in the mid-1980s, almost 40% of children under age 4 had contact with their nonresident fathers at least once a week. A number of in-depth qualitative studies have also found that among unmarried fathers, the salience of the father role and engagement in fathering activities is high (Hamer 2001; Sullivan 1993; Waller 2002; Young 2003) and that mothers may serve as gatekeepers, controlling fathers’ access to their nonresident children (Classens 2007).

This body of work also demonstrated that involvement declined quite dramatically as the children got older (Lerman 1993; Seltzer 2000). Additional surveys conducted in the 1990s showed consistent evidence of a downward trend in involvement as the children aged, though the rates differed considerably across the studies (Argys et al. 2007). One study, using adolescents’ reports from the National Longitudinal Study of Adolescent Health, found that by the time nonmarital children reach adolescence, their chances of having a regularly involved father are quite low, with only 20% of fathers still involved by the time the children were 15 years old (Argys and Peters 2001).

This decline in father involvement seems surprising given the evidence from the baseline wave of the Fragile Families and Child Wellbeing Study, a representative survey of nonmarital children in large cities that began following families between 1998 and 2000, which found that the vast majority of fathers who had a nonmarital birth were present at the time of the birth and said that they wished to play an active role in their child’s life. When the surveyors interviewed the mothers of these children just after the birth, 8 in 10 said the father had been supportive during the pregnancy. Furthermore, nearly all the fathers interviewed said they intended to stay involved (McLanahan et al. 2003).

The degree of father involvement, measured along a variety of dimensions, varies depending on the particular subgroup being examined. Studies that considered all non-residential children, both marital and nonmarital, found lower rates of father involvement with nonmarital children. Father involvement also varies by race and ethnicity: typically, rates for African Americans are higher and rates for Hispanics are lower than for the

average American father, all else being equal (Danziger and Radin 1990; Huang 2006; King 1994; King, Harris, and Heard 2004; Mott 1990; Seltzer 1991; but see Seltzer and Bianchi 1988). Additional factors associated with father involvement include parental education (Argys and Peters 2001; Huang 2006; King et al. 2004), father's age (Lerman and Sorenson 2000), earnings (Lerman and Sorenson 2000; Seltzer 1991), work status (Danziger and Radin 1990), child gender (King et al. 2004; Manning and Smock 1999; but see Cooksey and Craig 1998), the presence of additional children, the father's current marital status, the number of years since the father left the home (Argys and Peters 2001), the payment of child support (Seltzer 1991), and the quality of the coparenting relationship (Sobolewski and King 2005; but see Amato and Rezac 1994). Waller and Swisher (2006) focused solely on unmarried fathers and found that a wide array of risk behaviors, such as physical abuse, drug and alcohol use, and incarceration, were associated with lower odds of father-child contact.

The "Package Deal" and Nonmarital Father Involvement

Fatherhood has been viewed as a relationship that is not independent of, but largely flows through and is contingent on, the relationship between the father and the child's mother. This explanation is often used to account for the surprisingly low levels of father-child contact and child support payment following a divorce (Furstenberg and Cherlin 1991). To the extent that notions of the "package deal" are still strongly institutionalized within American society, men attempting to father outside the context of a marriage, a coresidential union, or a romantic relationship will have more difficulty staying involved with their children. Fatherhood roles outside of coresidential relationships do not have fully institutionalized norms that mothers and fathers can follow to make routine involvement easier. As Cherlin has repeatedly reminded family scholars (1978, 2004), much of family behavior is "automatic," relying on ready-made solutions to daily problems that are typically designed for coresidential relationships.

On a practical level, fathers must pay additional transaction costs to retain contact with children after a coresidential or romantic partnership ends, such as planning for visitation time, traveling to the mother's house and picking up the child, and having to bargain with the custodial parent for access to the child. Never-married fathers' costs may be particularly high because no automatic legal procedure exists for adjudicating conflicts or granting visitation rights to unmarried fathers. Thus, while both formerly married and unmarried couples may enact the "package deal," unmarried fathers may have greater difficulty staying in contact with their children outside of a coresidential union.

Following Furstenberg (1995), we extend the application of the "package deal" hypothesis, arguing not only that it predicts declines in involvement after breakup but also that subsequent transitions into new partner and parenting roles pose significant added barriers to involvement. These processes are especially relevant for couples who bear children outside of marriage because such transitions are far more common among them (Graefe and Lichter 2007). The impact of these subsequent transitions is also particularly important in the U.S. context: Andersson (2002) has shown that both married and cohabiting American couples with children are significantly more likely to break up and are far more likely to repartner than comparable couples in other industrialized countries. Unmarried couples in the United States also lack the legal, institutional, and normative supports that unmarried couples in many other industrialized countries enjoy.

Most studies of transitions into subsequent partnerships have been limited to divorce and remarriage, thus ignoring the many transitions that occur outside of a marital bond. Nonetheless, such studies are instructive. Among formerly married parents, paternal visits and child support payments decline when divorced fathers and mothers remarry (Juby et al. 2007; Seltzer and Bianchi 1988; Stephens 1996), though in these studies, the effect of a mother's remarriage is weak. The sole study of formerly married parents (Stewart 1999) that

considers transitions into both cohabiting and marital relationships found that the dampening effect of new partnerships is stronger if the father or mother is cohabiting than if he or she marries. This study pools mothers and fathers, so we do not know if these associations differ for mothers and fathers. In terms of transitions to subsequent parental roles, the impact on father involvement of divorced fathers' new parenting roles have been studied (Juby et al. 2007; Manning and Smock 2000; Manning, Stewart, and Smock 2003), but the impact of divorced mothers' transitions in this domain have not. In these studies of formerly married parents, the findings on involvement are inconsistent, though the fathers' new children have consistently negative effects on support payments to prior children.

In sum, the extant literature is limited in a number of ways. First, almost without exception, these studies focus on the impact of fathers', and not mothers', transitions into subsequent partnership and parenting roles. To the extent that mothers, as well as fathers, may be enacting the "package deal" norm in the context of their new relationship, this may be an important omission. Second, none of these studies consider both the mother's and the father's transitions together. Third, no study focuses specifically on fathers and mothers of nonmarital children; indeed, because of the tendency to focus on divorced couples and remarriage behaviors, many studies do not even include parents of nonmarital children. Similarly, most studies consider only marital transitions, not new nonmarital partnerships.

For the large and growing subset of parents who have children outside of marriage and who experience exceptionally high rates of subsequent partner and parenting transitions, we expect that transitions into subsequent relationships, and subsequent fertility within those relationships, are key mechanisms through which nonresidential father involvement declines over time. As fathers move on to subsequent partners and parental roles, the demands inherent in maintaining these new relationships could crowd out obligations to children from prior relationships. Mothers' transitions into subsequent partnerships might also prompt them to play a gatekeeper role, excluding the biological father in favor of the new father figure in the home, especially if the new father figure becomes the biological father of a subsequent child.

DATA AND METHODS

Data

In the analyses that follow, we use four waves of the Fragile Families and Child Wellbeing Study to examine levels and changes in father-child contact among parents who had a nonmarital birth, focusing on how the subsequent partnerships and new parental roles of both mothers and fathers affect this contact. The Fragile Families and Child Wellbeing Study follows a cohort of nearly 5,000 children born in 20 U.S. cities between 1998 and 2000. The study interviews mothers and fathers at the time of the child's birth and again after about one year, three years, and five years. The survey contains a large oversample of nonmarital births and, when weighted, the data are representative of all U.S. cities with populations larger than 200,000. Both the mother and father are interviewed at each follow-up, regardless of their relationship status. These data are ideal for the study of father involvement because of the large sample of unmarried and nonresidential fathers and because they contain detailed longitudinal economic, attitudinal, and behavioral information collected independently from both the mother and the father. They also offer a significant advance over other data sources that suffer from underrepresentation problems (Hofferth et al. 2002); the response rate among fathers in the Fragile Families Study was comparatively high (75%).¹

1. This is presumably because unwed fathers' often tenuous connections to households made them hard to find in nationally representative surveys, and because many refused to admit to survey researchers that they had fathered children.

At each survey wave, our analyses are based on the subsample of the 4,898 children in the Fragile Families Study who were born outside of marriage ($N = 3,710$), whose mothers responded to the survey and answered the question about their relationship with the fathers ($N = 3,285$ at the one-year survey), and who lived with their biological mothers ($N = 3,243$ at the one-year survey). This results in sample sizes of 3,243 at the one-year survey, 3,123 at the three-year survey, and 3,050 at the five-year wave of the study. In our analyses, we restrict the sample to children whose unmarried fathers were nonresident at the time of the interview, which yields 1,686, 1,749, and 2,019 observations at each of the three respective follow-up survey waves.

Nonresponse and attrition were higher for unmarried mothers and fathers in the Fragile Families data than for married parents. At baseline, 87% of eligible unmarried mothers agreed to participate in the survey, and 75% of the fathers were interviewed. At subsequent survey waves, response rates for unmarried mothers were 91% at Wave 2, 88% at Wave 3, and 87% at Wave 4. Fathers had higher attrition rates, with 71%, 69% and 67% remaining for Waves 2, 3, and 4, respectively (Center for Research on Child Wellbeing 2008). Mothers who dropped out of the study were more likely to be white or Latino and had lower average socioeconomic status (Cooper et al. 2009). Fathers who dropped out of the study were less likely to be involved with their children and were less likely to be residing with the mother of the focal child. Because fathers' attrition is nonrandom and correlated with our outcome of interest, we use mothers' reports of father involvement. For fathers' independent variables, we use fathers' reports if they are available, mothers' reports if fathers' reports are unavailable, and single imputation if neither mothers' nor fathers' reports are available.² For example, fathers had valid reports of subsequent partnering and subsequent childbearing for 68% of 3,050 observations at the five-year follow-up, and mothers' reports were used for another 24% of cases, yielding responses for 92% of cases for these two variables. Fathers' response rates for these questions were slightly higher in the earlier survey waves (71% at one year and 70% at three years), and mothers contributed 24% of the additional cases for fathers at the three-year and one-year surveys as well. Item nonresponse for our other independent variables was generally low, in most cases less than 5%. The items for which nonresponse was higher include whether the father was employed (8%) and father's earnings (20%).

Measurement

Dependent variables. The main dependent variable in our study is father involvement, measured by two dimensions of father-child contact.³ Fathers were coded as having *no contact with child* if the mother reported that the father had not seen the child since the previous interview. This measure captures one extreme of father-child contact. We also use a more intensive measure of father involvement, the *number of days in the past month* the father saw the child, given that the father had contact with the child since the previous interview. This is a continuous variable ranging from 0 to 30 days. In our multivariate analyses using *number of days in the past month* as the dependent variable, we restrict the sample to fathers who had contact with the child since the previous interview so that fathers with no contact

2. Single imputation was conducted using Stata's *impute* command for missing values in mothers' and fathers' survey reports. The imputation model includes variables reported by mothers and fathers that are associated with either the dependent variable of interest, father involvement, or the likelihood of having missing data (Allison 2001). This includes parents' relationship status at baseline, parents' employment and educational characteristics, fathers' race, child gender, and fathers' history of drug use and incarceration.

3. In a comparison of mothers' and fathers' reports of father involvement at the one-year follow-up (when missing data are least for both mothers and fathers), we found that mothers and fathers agreed on reports of yearly contact in 94% of cases for which we had information reported by both the mother and father, and in 91% of cases for whether the father saw the child in the past month.

are excluded. With this sample restriction, fathers with values of zero have had contact with their child since the previous interview but not in the month prior to the current interview.

Independent variables. We use several measures to capture the subsequent relationship characteristics of unmarried mothers and fathers in our sample. We measure the *time since parents stopped coresiding* as an ordinal variable that indexes the number of survey waves the parents have not lived together. For example, in the fourth survey wave, parents were coded as 0 if they still lived together, 1 if they were living together at the third wave but were not living together at the fourth, 2 if they were living together at the second wave, but not in the third or fourth wave, and 3 if they were living together at the first wave but not any of the subsequent waves. Parents who never lived together during the study period (since the child was born) were coded as 4. This indexing was repeated for each of the survey waves.

We also measure at each wave whether the *father has a new partner*; the *mother has a new partner*; the *father has subsequent children with a different partner*; and the *mother has subsequent children with a different partner*. At each follow-up survey wave, mothers and fathers were asked whether they were currently involved in a romantic relationship with someone other than the father/mother. Mothers were also asked whether the father was living with or married to another woman at each follow-up survey wave. Each parent was also asked whether s/he had children with someone other than the father/mother, and mothers were asked whether the father had children with someone other than her. Responses to these questions are used in combination with the birthdates of the children to determine whether each parent had children with another partner before or after the birth of the focal child. Note that this analysis is restricted to *subsequent* biological children with new partners because of our focus on how father involvement declines for the focal child *after* parents stop living together, but we also include controls for multiple-partner fertility prior to the birth of the focal child. Fathers' relationship and fertility measures are taken from their own reports if available, and from mothers' reports if they are unavailable. As noted above, fathers had response rates of about 70% for these key independent variables in our analysis subsample, and mothers contributed data to another 20%–25% of cases. Dummy variable indicators for survey wave, and their interactions with the subsequent fertility measures, are also included to measure whether the effects of subsequent fertility and partnerships on involvement change as the child gets older.

These measures provide more information on nonmarital relationships and child-bearing than most prior nationally representative data sets, but they also have several limitations. First, the measures do not capture new partnerships that began but dissolved between survey waves, so some mothers and fathers who experienced short-term unions will not be counted as having new romantic partnerships. This means we will likely underestimate the true effect of subsequent partnerships on father involvement in our analyses, since couples in short-term relationships will be included in the "no new partnership" category. Second, fathers' relationships are likely to be measured with greater error than mothers' relationships, given their higher nonresponse rates and the reliance on mothers' reports in a substantial minority of cases. The measures of subsequent fertility may also be measured with error because they are inferred from birthdates provided by mothers and fathers. We address this limitation in our analyses by providing supplemental estimates of the impact of measurement error on our findings.

Time-constant controls. A father's race and ethnicity were determined using his own report if available, and using the mother's report if his own was not available. Fathers were classified into the mutually exclusive categories: *non-Hispanic white*, *non-Hispanic black*, *non-Hispanic other race*, and *Hispanic*. *Father's age* was measured at the time the child was born. *Father's education* was coded as a series of dummy variables for *less than high school*, *high school or GED*, *some college*, and *college or higher*. We experimented with also including comparable measures for mothers' background characteristics, but mothers'

and fathers' measures are highly correlated, so we include only father's measures in our regression analyses. We also include a dummy variable indicator for whether the *child is male*, whether the parents have additional *shared children* together, whether the *mother has previous multiple-partner fertility*, whether the *father has previous multiple-partner fertility*, and a dummy variable indicating whether the mother *lived in a two-parent family* when she was a child. Finally, we include a dummy variable indicator for whether the *father made financial contributions* to the mother during her pregnancy. All of these measures are taken from the Wave 1 baseline survey administered shortly after the child was born, with the exception of the previous fertility questions, which are derived from children's birthdates given in subsequent survey waves.

Time-varying controls. The parents' relationship status was categorized as *married*, *cohabiting*, *romantically involved*, or *no relationship* based upon the mothers' reports at each wave. Parents' residential status was defined as *living together* if mothers reported they lived together all or most of the time and as *not living together* otherwise. Fathers were coded as *employed* if they reported doing any regular work for pay during the week prior to the interview. Father's *annual earnings* were measured in thousands of dollars, derived from their reports of wages and weeks worked in the past year. *Father ever in jail or prison* is a dummy variable coded 1 at each survey wave if the father or mother reported that he had ever been in jail or prison. We include an indicator of *maternal health* that asks mothers to rate their general health on a five-point scale ranging from poor to excellent. Finally, we include a dummy variable indicator at each wave if the *father reported using drugs*. Again, we relied on the fathers' reports if they were available and the mothers' reports if they were not available from the fathers.

Analysis

Our central research question asks what happens to father involvement after parents stop living together and father-child contact is no longer "automatic." To address this question, we structure the data in person-period format in which the child enters the sample at the first survey wave when his or her two biological parents are no longer living together. Children and their parents then contribute observations to the data set at each wave that the father is nonresident. In total, 2,266 unmarried fathers in the Fragile Families study were nonresident in at least one survey wave, and together, these unmarried fathers contribute 4,890 person-wave observations.

We first use random-effects models to examine what happens to father involvement after coresidence ends. The models use variation within and between couples to estimate levels of father involvement after parents stop living together, after parents enter new romantic relationships, and after parents have subsequent children with new partners. We also include a series of time-invariant and time-varying controls to account for potential confounders that could influence both fathers' involvement and parents' subsequent relationship and fertility behavior. We estimate the following equation for the intensive measure of involvement (how many days in the past month the father saw the child):

$$\begin{aligned}
 (\text{Days per Month})_{it} = & \beta_0 + \beta_1(\text{NewPartner})_{it} + \beta_2(\text{NewChild})_{it} + \beta_3(\text{Wave})_{it} \\
 & + \beta_4(\text{Wave} \times \text{NewPartner})_{it} + \beta_5(\text{Wave} \times \text{NewChild})_{it} \\
 & + \sum_{m=6}^M \beta_m X_i + \sum_{n=M+1}^N \beta_n X_{i(t-1)},
 \end{aligned} \tag{1}$$

where t indexes the survey wave at which the observation of father involvement is measured for child i , at either the three-year follow-up or the five-year follow-up, relative to the one-year follow-up. β_1 and β_2 estimate the association between having a new romantic partner or a new child between survey waves $t - 1$ and t and father involvement at wave t . *Wave* is a variable indicating which survey wave the observation comes from (one, three,

or five), to capture the secular time trend that father involvement declines as children get older. β_4 and β_5 test whether the association between father involvement and repartnering or having a new child differ based on the child's age. New partners and new children are counted in these models only when the relationship has lasted more than 30 days prior to the interview or when the new child was born more than 30 days prior to the interview, so that the new relationships and children occurred temporally prior to the measure of father involvement. The model includes m time-constant controls measured at the baseline survey and n time-varying predictors measured at $t - 1$.

We use a similar model for the measure of father involvement at the extensive margin, whether the father saw the child at all since the prior survey wave. The only difference is that the measures of new partners and new children (estimated by β_1 and β_2) are taken from the surveys at $t - 1$ instead of at t , so that the measures of new relationships and children occurred temporally prior to this measure of father involvement, which covers a duration of at least one year. For this measure, we use logistic random-effects models to estimate the log-likelihood that a nonresident father has had *no contact* with his child between survey waves.

The validity of the random-effects models rests on the assumption that the unobserved heterogeneity between couples is uncorrelated with the key explanatory variables in our models. If this assumption is violated, the models will produce biased and inconsistent estimators (Halaby 2004).⁴ To eliminate the threat of unobserved heterogeneity bias, we also estimate fixed-effects models that examine only within-couple variation in father involvement over time and control for all time-constant differences between couples. In these models, we identify how *changes* in parents' subsequent relationship or fertility status between $t - 1$ and t are related to *changes* in the father's contact with his nonresident biological child between $t - 1$ and t . Thus, time-constant unobserved heterogeneity between couples is ruled out as a source of bias because we difference across time within the same unit, rather than differencing across units at the same time period. In the fixed-effects models, the time-constant differences between couples are not estimated, but we do include measures of time-varying controls for changes between $t - 1$ and t in certain father characteristics known to be associated with father involvement, including employment, earnings, prior incarceration, and drug use.

One potential concern is that our measures of subsequent relationships are endogenous to father involvement, meaning that the subsequent relationship transitions are themselves a product of father involvement, rather than vice versa. Our fixed-effects models provide a stringent test of this because the $t - 1$ measure of father involvement is measured prior to the subsequent relationship transition variables, while our measure of involvement at time t was measured after the subsequent relationships were formed. Thus, the lagged measure of involvement at $t - 1$ occurs temporally prior to the formation of the new relationships and birth of new children, and the new relationships and children are themselves formed temporally prior to the measure of father involvement at time t .

RESULTS

Table 1 shows descriptive statistics at baseline for all couples who had a nonmarital birth and for couples with a nonmarital birth by residential status at the five-year follow-up. In general, there were only small differences between residential and nonresidential unmarried couples, except that residential fathers exhibited greater financial contribution during pregnancy to mothers and children than nonresidential fathers. All unmarried fathers had

4. We explicitly test whether the random effects models suffer from unobserved heterogeneity bias by using the Hausman test (Hausman 1978). This test examines whether the predicted values generated by the random effects models are significantly different from the values estimated in the fixed-effects models, which by definition have eliminated the unobserved heterogeneity bias. These tests are significant for most of our models.

Table 1. Descriptive Statistics for Couples Who Had a Nonmarital Birth

Baseline Characteristics	All Unmarried Couples	Father Resident at Wave 4	Father Nonresident at Wave 4
Father's Race/Ethnicity			
Hispanic	40	45	35
Non-Hispanic white	13	17	13
Non-Hispanic black	43	36	48
Non-Hispanic other	5	2	3
Father's Age (in years)	26.9	27.3	26.2
Father's Education			
Less than high school	41	43	41
High school or GED	38	34	40
Some college	16	18	16
College or more	4	5	2
Intact Family at Age 16	36	41	31
Mother's Age (in years)	23.4	24.1	22.9
Mother's Education			
Less than high school	44	38	45
High school or GED	38	42	36
Some college	16	19	16
College or more	2	1	1
Mother's Health	3.8	3.7	3.8
Child Is Male	54	54	53
Prior Shared Children	28	38	25
Prior Nonshared Children, Mother	34	33	35
Prior Nonshared Children, Father	37	28	40
Financial Contributions in Pregnancy	80	96	74
Father Is Employed	79	84	77
Father's Earnings (\$)	17,342	18,621	16,692
Father Used Drugs	7	5	8
Relationship Status			
Cohabiting	51	76	38
Romantic nonresident	31	19	36
No relationship	18	5	26
<i>N</i>	3,050	1,031	2,019

Notes: Weighted by national sampling weights. The sample is restricted to couples in which the mother was in the study at the five-year follow-up. All values are percentages unless otherwise indicated.

relatively low levels of education, employment, and earnings. Many of them had spent time in jail, though less than 10% reported problems with drugs. Unmarried fathers were also disproportionately black, although residential fathers were more likely to be white or Hispanic than were nonresidential fathers. About 30% of unmarried parents had a prior shared child together, and 34% of unmarried mothers and 37% of unmarried fathers

already had previous children by different partners.⁵ These percentages do not vary greatly by residential status, except that unmarried couples who live together were more likely to have prior shared children. Eighty percent of all unmarried fathers made financial contributions to the mother during her pregnancy, and residential fathers were more likely than nonresidential fathers to do so. About half of unmarried fathers were cohabiting with the mother at the time of the child's birth, and only 18% were not romantically involved with the mother. This varies greatly by residential status, however. Over 75% of unmarried couples who were living together by the child's fifth birthday were cohabiting at the time of the child's birth, and only 5% were not in a relationship at that time. In contrast, only 38% of unmarried couples who were nonresident by the child's fifth birthday were cohabiting at the birth, while 36% were romantically involved but not living together, and 26% were not romantically involved.

While fathers' behavioral and economic characteristics remain relatively stable across the follow-up survey waves, Table 2 shows that their romantic and cohabiting relationships with mothers quickly dissolve. By the five-year follow-up, about 16% of unmarried mothers were married to the father, about 18% remained together in cohabiting unions, 5% were still romantically involved but did not live together, and over 60% were no longer in a relationship with each other. This does not mean that the parents remained single, because transitions out of relationships were followed by rapid transitions into new romantic relationships for both mothers and fathers. Around one year after the child's birth, one quarter of unmarried mothers who did not coreside with the father had new romantic partners. Over half of these new partnerships were cohabiting or marital unions. After five years, about half of unmarried, nonresident parents had a new romantic partner, and over a quarter had a subsequent child with a new partner. Of these new partnerships, 16%–17% were marital unions for both mothers and fathers, and another 60%–69% were cohabiting unions.

Table 2 also details the proportions of nonmarital children who had contact with their biological fathers at one, three, and five years. Both coresidence and involvement rates among unmarried fathers began high but declined throughout the first five years of a child's life. Almost half of nonmarital children resided with their fathers around the time of their first birthday, but this figure declined to only 36% by their fifth birthday. At their first birthday, 63% of nonresident children had seen their fathers in the past month. By the child's third birthday, only half had seen their fathers in the past month. Overall, by the time they reached age 5, nonresident children who had any contact with their fathers (since the prior survey) saw them an average of nine days per month, or about two times per week, on average.

Next, we examine nonresident father involvement at the five-year follow-up by parents' subsequent relationship and fertility statuses. Table 3 shows that mothers' repartnering and subsequent children are strongly associated with lower levels of father involvement. When mothers had no new partners or children, 77% of nonresident fathers had contact with the child in the past year, and 58% in the past month; when mothers had new partners and new children, these percentages decline to 45% and 27%, respectively. In contrast, nonresident fathers' subsequent transitions are not as strongly associated with their involvement. When they had no new partners or children, 71% of fathers had contact with their children since the last survey and 51% had contact in the past month; when they had a new partner and new child, 63% of fathers had contact with their child since the last survey wave, and 40% had contact in the past month. We compared these associations with other factors known

5. For 54% of the couples in our sample, either the mother or the father had a birth with a prior partner by the time of the one-year follow-up. Our estimate is slightly lower than the 59% found in Carlson and Furstenberg (2006) because our measure includes only multiple-partner fertility *prior* to the birth of the focal child, rather than *total* multiple-partner fertility at the time of the one-year follow-up.

Table 2. Behavioral and Relationship Characteristics After a Nonmarital Birth

Variable	One-Year Follow-up	Three-Year Follow-up	Five-Year Follow-up
All Unmarried Fathers			
Father employed	74	71	76
Father's earnings (\$)	19,507	20,669	22,758
Father ever in jail or prison	39	50	53
Father used drugs	10	12	15
Relationship status with biological mother			
Married	11	15	16
Cohabiting	37	26	18
Romantically involved	12	6	5
No relationship	40	53	61
Resident fathers	52	44	36
Nonresident fathers	48	56	65
Nonresident Fathers			
Mother new partner	26	41	51
Married to new partner	9	10	17
Cohabiting with new partner	40	56	69
Father new partner	23	44	51
Married to new partner	13	14	16
Cohabiting with new partner	43	70	60
Mother new child by new partner	2	18	24
Father new child by new partner	3	9	26
Saw child since previous survey	87	73	66
Saw child in past month	63	49	46
Mean number of days father saw child	9.9	8.9	8.7
<i>N</i>	3,243	3,123	3,050

Notes: Weighted by national sampling weights for each survey year. All values are percentages unless otherwise indicated.

to influence father involvement. The lower involvement rates associated with subsequent partners and children for mothers are comparable in magnitude to the lower involvement rates among fathers who have been in jail, have abused drugs, or are unemployed.⁶

Despite the strong descriptive findings in Table 3, there are several reasons to be cautious about their interpretation. First, it is possible that there are unobserved characteristics associated with entering new relationships and having children with new partners that are also associated with low levels of father involvement. In this case, the associations may be spurious and due to omitted variable bias. Second, it is possible that those who are in subsequent relationships and have new children simply ended their unions earlier than those who did not. If father involvement declines over time after parents stop living together, as indicated by previous literature, the observed associations could be simply due to having more time to create a new family. Finally, it is possible that subsequent partnerships and

6. Of course, lack of biological father involvement does not mean that there is no involvement on the part of a social father, and we discuss the role of social fathers in greater detail at the end of the article.

Table 3. Nonresident Father Involvement by Economic, Behavioral, and Subsequent Relationship Characteristics at the Five-Year Follow-up

Variable	Past Year	Past Month	Number of Days in Past Month	% of Nonresident Fathers
All Nonresident Fathers	66	46	8.7	100
Mother's Subsequent Relationships				
No partner or child	77	58	11.2	45
Partner but no child	67	44	6.5	33
Child but no partner	44	28	7.5	7
Partner and biological child	45	27	5.6	15
Father's Subsequent Relationships				
No partner or child	71	51	10.4	44
Partner but no child	60	41	7.8	30
Child but no partner	75	56	10.5	9
Partner and biological child	63	40	6.6	17
Father's Characteristics				
No drugs in past year	69	50	9.7	80
Drugs in past year	54	30	4.5	20
Never been in jail or prison	69	54	10.4	36
Ever been in jail or prison	64	41	7.6	64
Employed at prior survey wave	70	52	9.6	68
Not employed at prior survey wave	60	32	6.4	32
Earned more than \$15,000	65	43	7.9	62
Earned \$15,000 or less	68	50	9.9	38

Notes: $N = 2,019$. Figures are weighted by national sampling weights. The sample is restricted to couples who were unmarried at child's birth and in which the father was nonresident at the five-year follow-up. Number of days in past month is calculated based on the subsample of fathers who saw their nonresident child in the past year.

childbearing are themselves affected by low levels of initial father involvement, and couples for whom fathers initially had low levels of involvement were more likely to repartner than couples for whom involvement was high. In this case, it is possible that the observed associations are due to reverse causality. To address these concerns, we next examine father involvement in a longitudinal framework that accounts for observed and unobserved differences between couples, controls for the duration since coresidential unions ended, and properly specifies the temporal ordering of the independent and dependent variables so that it is consistent with our causal interpretation.

In Table 4, we show the results from random- and fixed-effects logistic regression models predicting whether a nonresident father had no contact with his child since the previous survey. In Model 1, we include the indicators for whether each parent had a subsequent partner at that survey wave and whether they had a new child. Mothers' subsequent partners and children are strongly associated with a lower likelihood of father-child contact, while fathers' subsequent partners and children are not. Additionally, the length of time since coresidence ended is strongly related to having no father-child contact. For every survey wave that parents have not been in a relationship with each other, the odds that the father has no contact with his child almost double. Hispanic fathers are less likely to have contact with

their nonresident children than black fathers. Father contact is higher when couples share prior children and when the father made financial contributions during the pregnancy. Mothers' previous children by different partners are unrelated to father involvement with the focal child, but interestingly, fathers who have previous children by different partners are *more* likely to maintain contact with the focal child, relative to fathers with no previous children.

Model 2 adds the time-varying control variables. As fathers' employment and earnings increase, so does the likelihood of contact. Fathers who used drugs or spent time in jail or prison had lower odds of contact, while mothers' health is unrelated to contact. The strong effects of mothers' subsequent relationships and children persist after including these characteristics, suggesting that fathers' behaviors are not driving this association.⁷ Fathers who had previous children with different partners continue to be more likely to have contact with their children than fathers who had no prior children.

In Model 3, we include interactions between the survey wave (an indicator of child's age) and the subsequent relationship and fertility variables. With the exception of mothers' new children, these interactions are not significant, indicating that the likelihood of having no contact following a relationship or parenting transition does not change as the child gets older. We also tested whether the effects of relationship transitions were sensitive to whether the new partnership was coresidential (i.e., the new couple was married or cohabiting). These interactions (not shown) were not significant for either mothers' or fathers' relationship transitions, indicating that fathers' contact does not vary significantly by the type of new partnership. This also indicates that the differences we find between mothers and fathers are not driven by mothers disproportionately entering married or cohabiting partnerships or fathers disproportionately entering noncoresidential partnerships.

We tested whether the associations between subsequent partnerships and fertility and father involvement varied by whether the parents had previous multiple-partner fertility. It is possible that fathers who already have children with other partners react differently to contact with subsequent nonresident children, in our case the focal child. They may be either more or less likely to drop their obligations to, or relationships with, the focal child upon repartnering than fathers who have only one nonresident child. We therefore interacted the subsequent partner and fertility variables by whether the mother or the father had previous children by different partners; the results are shown in Model 4. These results indicate that declines in the likelihood of father contact with nonresident children following repartnering are larger when *mothers*, not fathers, have previous multiple-partner fertility. This holds for both fathers' and mothers' subsequent relationships. Fathers' previous multiple-partner fertility is related to a *greater* likelihood of contact with the child, and this effect does not vary significantly by parents' subsequent relationship and childbearing transitions. Finally, we tested whether the coefficients for mothers' and fathers' subsequent relationships differed significantly from one another, and found that they did.

In Model 5, we estimate a conditional logit model that predicts the likelihood of having no contact, conditional on having contact in the prior wave. This is regressed on whether each parent got a new partner or had a new child with a new partner between survey waves. Mothers' subsequent relationship transitions remain significant in these models, suggesting that other time-constant unobserved factors that differ between couples are not driving this result. The other relationship transitions are statistically and substantively insignificant in this model. Fathers' transitions into employment are associated with an increased likelihood of child contact, while fathers who spent time in jail increased their odds of *no* contact.

Next, we repeat the analyses in Table 4 for our second measure of father involvement, the number of days in the past month the father saw the child given that he had any contact

7. We also ran these models with mother's background characteristics in the models rather than the father's. The results remained the same.

Table 4. Random- and Fixed-Effects Logistic Regression Models Predicting No Contact With Child in the Past Year

Variable	Model 1			Model 2			Model 3			Model 4			Model 5		
	Coeff.	SE	OR	Coeff.	SE	OR	Coeff.	SE	OR	Coeff.	SE	OR	Coeff.	SE	OR
Subsequent Relationships															
Mother has new partner	0.70	0.15	2.01***	0.69	0.15	1.98***	0.86	0.22	2.36***	0.45	0.20	1.57*	0.59	0.19	1.81**
Three-year survey	—	—	—	—	—	—	-0.35	0.28	0.71	—	—	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	0.51	0.30	1.66†	—	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	0.27	0.38	1.31	—	—	—
Father has new partner	0.11	0.16	1.12	0.10	0.16	1.10	0.16	0.25	1.17	0.16	0.21	1.17	-0.06	0.18	0.95
Three-year survey	—	—	—	—	—	—	-0.16	0.30	0.86	—	—	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	0.85	0.39	2.33*	—	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	-0.53	0.31	0.58†	—	—	—
Mother has new child	0.61	0.21	1.83**	0.55	0.21	1.73**	1.56	0.55	4.76***	0.66	0.27	1.93*	0.48	0.25	1.62†
Three-year survey	—	—	—	—	—	—	-1.26	0.59	0.28***	—	—	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	-0.50	0.41	0.60	—	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	0.45	0.53	1.56	—	—	—
Father has new child	0.06	0.26	1.06	-0.02	0.27	0.98	0.26	0.47	1.29	0.04	0.33	1.04	-0.06	0.27	0.94
Three-year survey	—	—	—	—	—	—	-0.35	0.52	0.7	—	—	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	-0.02	0.54	0.98	—	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	—	—	—	0.05	0.03	1.02	—	—	—
Time since coresidence ended	0.66	0.10	1.94***	0.68	0.10	1.96***	0.62	0.11	1.87***	0.68	0.11	1.96***	1.04	0.10	2.83***
Three-year survey	0.08	0.16	1.09	0.07	0.16	1.08	0.41	0.20	1.51*	0.09	0.16	1.09	—	—	—
Mother's prior multiple-partner fertility	0.15	0.15	1.16	0.11	0.15	1.12	0.16	0.15	1.17	0.14	0.18	1.15	—	—	—
Father's prior multiple-partner fertility	-0.84	0.19	0.43***	-0.92	0.20	0.39***	-0.92	0.20	0.39***	-1.29	0.25	0.27***	—	—	—

Time-Varying Controls															
Father employed at prior wave	—	0.11	0.13	1.12	0.11	0.13	1.12	0.11	0.13	1.12	0.11	0.13	1.12	0.19	0.57**
Father's earnings (in \$1,000s)	—	-0.020	0.001	0.99**	-0.02	0.001	0.99**	-0.02	0.001	0.99**	-0.02	0.001	0.99**	0.002	1.00
Father ever in jail or prison	—	0.36	0.15	1.43*	0.36	0.15	1.43*	0.36	0.15	1.43*	0.36	0.15	1.43*	0.69	1.23*
Father used drugs	—	0.54	0.17	1.71**	0.50	0.17	1.65**	0.55	0.17	1.73**	0.55	0.17	1.73**	-0.15	1.16
Mother's health	—	0.04	0.06	1.04	0.04	0.06	1.04	0.04	0.06	1.04	0.04	0.06	1.04	0.07	1.07
Time-Constant Controls															
Father's race/ethnicity															
Hispanic	0.96	0.17	2.61***	1.01	0.18	2.75***	1.04	0.18	2.82***	1.03	0.18	2.79***	—	—	—
Non-Hispanic white	0.40	0.26	1.49	0.37	0.27	1.45	0.38	0.27	1.46	0.39	0.27	1.48	—	—	—
Non-Hispanic other	0.28	0.42	1.33	0.27	0.42	1.31	0.25	0.42	1.28	0.26	0.43	1.30	—	—	—
Father's age (in years)	0.03	0.01	1.03**	0.04	0.01	1.04***	0.04	0.01	1.04**	0.04	0.01	1.04***	—	—	—
Father's education															
Less than high school	0.17	0.16	1.19	0.06	0.16	1.07	0.07	0.16	1.07	0.08	0.16	1.08	—	—	—
Some college	-0.56	0.22	0.57**	-0.48	0.22	0.62*	-0.47	0.22	0.62*	-0.50	0.22	0.61	—	—	—
College or more	0.13	0.44	1.14	0.50	0.45	1.65	0.51	0.45	1.66	0.50	0.45	1.65	—	—	—
Child is male	-0.04	0.14	0.96	-0.01	0.14	0.98	-0.01	0.14	0.99	-0.01	0.14	0.99	—	—	—
Prior shared children	-0.49	0.17	0.61**	-0.54	0.17	0.58**	-0.53	0.17	0.56**	-0.56	0.17	0.57**	—	—	—
Nonintact family at age 16	0.23	0.16	1.26	0.24	0.16	1.27	0.25	0.16	1.28	0.23	0.16	1.26	—	—	—
Financial contributions in pregnancy	-1.54	0.16	0.21***	-1.50	0.16	0.22***	-1.53	0.16	0.22***	-1.51	0.16	0.22***	—	—	—
Constant	-3.87***	0.45	-4.12***	0.48	-4.10***	0.48	-4.13***	0.48	-4.13***	0.48	-4.13***	0.48	—	—	—
Pseudo-R ²	.12	.12	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.15	.15	.15
Fixed Effects															X

Notes: The sample is restricted to couples who had a nonmarital birth and in which the father was nonresident at one or more survey waves. Random-effects regressions are based on 2,266 unique cases and 4,890 person-wave observations. Fixed-effects regressions are based on the 705 unique cases in which a change in the dependent variable occurred between survey waves.

p* < .10; *p* < .05; ****p* < .001

with the child since the previous survey. These results are shown in Table 5. The coefficients can be interpreted as the number of days a one-unit change in a particular independent variable increases or decreases father involvement. For example, Model 1 shows that each wave that fathers are nonresident lowers involvement by about one day per month, measured by the *time since coresidence ended* variable. Fathers who made financial contributions during pregnancy saw their children about four more days per month. Model 1 also shows that fathers saw their children, on average, three fewer days per month when mothers had new partners. When fathers themselves acquired new partners, they saw their children about two fewer days per month. Finally, fathers saw their children about one day less per month when mothers had subsequent children, but there is no significant difference when fathers had subsequent children. These findings hold up when we include the time-varying controls for fathers' characteristics in Model 2, even though each of them is also strongly related to father involvement. Fathers who were employed at the previous wave saw their children about two more days per month, while fathers who used drugs saw their children about three fewer days per month. Parents' previous children with other partners are unrelated to this more intensive measure of involvement.

In Model 3, we add interactions between the survey wave (an indicator of child's age) and the subsequent relationship and fertility variables. For this measure, the interactions are positive and significant for mothers' subsequent relationship transitions, but not for any other subsequent transitions. This means that the strong negative association between mothers' repartnering and fathers' monthly involvement declines as the child gets older. The sooner a repartnering occurs after the focal child's birth, the more consequential it is for the involvement of the father. In Model 4, we again test whether the effects of subsequent partnerships and children vary by whether the mother or father has previous children by different partners, since prior multiple-partner fertility may cause parents to react differently to new partnerships or children. The interactions have little significant effect overall, but in two cases—when fathers have subsequent relationships and mothers have subsequent children—father involvement is significantly lower when mothers have prior multiple-partner fertility than when they do not. Fathers' prior multiple-partner fertility has no effect on the association between father involvement and parents' subsequent relationship and parenting transitions. Although the effects of mothers' prior fertility are weaker for this more intensive measure of father involvement than they are for the measure of any father-child contact, the overall result again indicates that, if anything, mothers' previous fertility is more consequential than fathers'.

In Model 5, we run a fixed-effects regression in which the dependent variable is the change in the number of days fathers saw their children between survey waves and the changes in the independent variables occurred between those two points in time. Father involvement declines by about 2.5 days per month after a mother gets a new romantic partner, and by about one day per month when a father gets a new romantic partner. The transitions to having new subsequent children are not significant in the fixed-effects models. These results also hold net of changes in fathers' employment, earnings, incarceration, and drug use. We tested whether the effects of relationship transitions were sensitive to whether the new partnership was coresidential (i.e., the new couple was married or cohabiting). Similar to the results for Table 4, these interactions (not shown) were not significant for either mothers' or fathers' relationship transitions, indicating that fathers' monthly involvement does not vary significantly by the type of new partnership. It is possible, however, that we do not have the statistical power to detect such variations in our sample.

To estimate the consequences of father involvement for a combination of these factors, the coefficients can be added together. (Interaction models were tested, but they were usually not statistically or substantively significant.) For example, both the mother and the father repartnering between waves is associated with a three-day decline in father contact. Subsequent models (not shown) tested whether the duration of these subsequent unions

mattered, but we found that the declines in involvement occur very quickly—by the next survey wave—and do not continue to decline at significantly faster rates in future follow-ups.⁸

The measure of the number of days fathers saw their children in the past month was estimated as a continuous dependent variable. A large fraction of fathers (about 30% by the five-year follow-up) have zeros for this measure even when we restrict the sample to the cases in which the father had contact with the child since the previous survey. This violates the assumption of ordinary least squares regression that dependent variables are normally distributed. We therefore reestimated the models using ordinal logistic regression, in which each value of the dependent variable was estimated as a discrete category, rather than as a continuous variable. We experimented with using several different categorizations of the dependent variable, and the general pattern of results remained the same in all cases: effects were stronger for mothers' transitions than for fathers' transitions.

Our results indicate that mothers' transitions are more strongly related to nonresident fathers' involvement with their children than fathers' own transitions. It is possible that these gender differences are driven by the fact that mothers' transitions are measured with less error than fathers' transitions, since nonresponse was higher for fathers and we relied on mothers' reports of fathers' behaviors in some cases. Measurement error biases coefficients toward zero, so if fathers' transitions are measured with more error than mothers' transitions, we would expect mothers' coefficients to be larger than fathers' simply due to differences in measurement error. To test the sensitivity of our findings to measurement error, we performed several simulations to determine how our results would change if fathers' reports were measured with various levels of reliability.⁹ For our measure of any father-child contact, the measures of fathers' subsequent relationships would have to be measured with an unusually low level of reliability ($r = .35$) for fathers' coefficients to reach parity with mothers', and the coefficients for fathers' subsequent children did not reach parity with mothers' even at very low reliabilities. The disparities between mothers' and fathers' coefficients were smaller for the more intensive measure of days in the past month the father saw the child. The fathers' subsequent relationship coefficient reaches parity with mothers' coefficient when fathers' relationships are measured with a reliability of .7 and mothers' relationships are measured with no error, but the fathers' subsequent children coefficient never reaches parity with mothers', even when it is measured with very low levels of reliability ($r < .35$). Based on these simulations, we conclude that the differential effects of mothers' and fathers' subsequent relationships and childbearing are not driven primarily by differences in the accuracy of the measures.

DISCUSSION

Our analysis shows that transitions to subsequent partner and parental roles among unmarried parents, especially those of the mother, may be a driving force behind the large declines in father involvement that occur over time. Mothers' subsequent partners and children are strongly associated with increases in the probability that the biological father will have no contact with his child, but the association between fathers' own subsequent partners and children and their involvement is not nearly as large as mothers'. Second, both mothers' and fathers' subsequent romantic partnerships are associated with declines in the intensity of father involvement in the past month, although mothers' subsequent relationships are still nearly twice as strong as fathers'. Changes in a mother's romantic and parental status are strongly related to declines in paternal involvement and are at least as great in magnitude as changes in a father's economic characteristics or other personal characteristics. Changes

8. We also explored what happened to father involvement when subsequent partnerships ended. We found suggestive evidence that father involvement may increase again after mothers and fathers end their relationships with other partners. This result was limited to the more intensive measure of number of days the father saw the child in the past month.

9. These simulations were conducted using error-in-variables estimation (Draper and Smith 1998).

Table 5. Random- and Fixed-Effects Regression Models Predicting the Number of Days Father Saw Child in the Past Month

Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Subsequent Relationships										
Mother has new partner	-3.27***	0.34	-3.08***	0.33	-4.29***	0.59	-3.23***	0.44	-2.56***	0.43
Three-year survey	—	—	—	—	1.44†	0.77	—	—	—	—
Five-year survey	—	—	—	—	2.03**	0.78	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	0.55	0.67	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	-0.31	0.78	—	—
Father has new partner	-2.45***	0.31	-2.51***	0.34	-2.65***	0.63	-1.89***	0.49	-1.27**	0.45
Three-year survey	—	—	—	—	-0.05	0.79	—	—	—	—
Five-year survey	—	—	—	—	0.59	0.81	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	-2.61**	0.78	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	0.03	0.69	—	—
Mother has new child	-1.05**	0.52	-0.83*	0.51	-2.46†	1.65	-1.51*	0.66	-0.21	0.68
Three-year survey	—	—	—	—	1.27	1.78	—	—	—	—
Five-year survey	—	—	—	—	1.88	1.76	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	-2.09*	1.01	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	-0.28	1.18	—	—
Father has new child	-0.75	0.48	-0.38	0.47	-0.37	1.21	-0.95	0.61	-0.24	0.65
Three-year survey	—	—	—	—	0.66	1.33	—	—	—	—
Five-year survey	—	—	—	—	-0.56	1.29	—	—	—	—
Mother's prior multiple-partner fertility	—	—	—	—	—	—	-0.03	1.18	—	—
Father's prior multiple-partner fertility	—	—	—	—	—	—	1.45	0.91	—	—
Time since coresidence ended	-1.36***	0.21	-1.25***	0.20	-1.31***	0.20	-1.26***	0.20	-0.88***	0.24
Three-year survey	0.89	0.35	0.23	0.35	-0.15	0.45	0.15	0.35	—	—
Five-year survey	1.02*	0.44	1.13*	0.44	0.34	0.53	1.08*	0.43	—	—
Mother's prior multiple-partner fertility	0.35	0.42	0.58	0.41	0.59	0.41	-0.06	0.50	—	—
Father's prior multiple-partner fertility	-0.69	0.48	-0.03	0.46	0.00	0.47	1.02†	0.58	—	—

Time-Varying Controls										
Father employed at prior wave	—	1.78***	0.35	1.78***	0.34	1.77***	0.34	2.03***	0.46	
Father's earnings (in \$1,000s)	—	0.03**	0.01	0.03**	0.01	0.03*	0.02	0.04*	0.02	
Father ever in jail or prison	—	-2.69***	0.38	-2.69***	0.38	-2.73***	0.38	-3.22**	0.79	
Father used drugs	—	-3.47***	0.46	-3.41***	0.46	-3.49***	0.46	-2.95***	0.66	
Mother's health	—	0.08	0.15	0.08	0.15	0.08	0.15	-0.33	0.22	
Time-Constant Controls										
Father's race/ethnicity										
Hispanic	-0.88 [†]	0.49	0.49	-1.21***	0.49	-1.16*	0.49	—	—	
Non-Hispanic white	-0.83	0.71	0.69	-0.44	0.69	-0.37	0.69	—	—	
Non-Hispanic other	-1.09	1.12	1.09	-0.79	1.09	-0.85	1.09	—	—	
Father's age (in years)	-0.02	0.03	0.03	-0.06*	0.03	-0.06 [†]	0.03	—	—	
Father's education										
Less than high school	-1.03*	0.45	0.44	-0.22	0.44	-0.29	0.44	—	—	
Some college	0.14	0.55	0.53	-0.49	0.53	-0.48	0.54	—	—	
College or more	0.04	1.26	1.24	-2.13 [†]	1.23	-2.22 [†]	1.23	—	—	
Child is male	0.58	0.39	0.38	0.51	0.38	0.50	0.38	—	—	
Prior shared children (number)	0.99*	0.44	0.43	1.43**	0.43	1.46**	0.43	—	—	
Nonintact family at age 16	0.41	0.43	0.42	0.38	0.42	0.41	0.42	—	—	
Financial contributions in pregnancy	3.89***	0.51	0.49	3.49***	0.49	3.49***	0.49	—	—	
Constant	10.79***	1.21	1.22	11.92***	1.24	12.50***	1.23	13.96***	1.10	
R ²	.07	.13	.17	.18	.22	.22	.22	.22	.22	
Fixed Effects										
										X

Notes: The sample is restricted to couples who had a nonmarital birth and in which the father was nonresident at one or more survey waves. Regressions are based on 2,266 unique cases and 4,890 person-wave observations, in which fathers had contact with their children since the previous survey.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

in a father's status are not predictive of whether the father has contact with the child but are related to the intensity of his involvement, suggesting a "crowding out" effect.

These results are somewhat surprising given that research related to the "package deal" hypothesis has focused primarily on the impact of fathers' subsequent partnerships and parenting roles on ongoing father involvement, even though the theory itself is gender-neutral. Readers should also note the contrast between the small body of work on marriage transitions among divorced *mothers*, which have found only a modest effect, and the rather large associations we report here. It is possible that given the unique constraints and pressures unmarried mothers and fathers face, especially the lack of formal visitation agreements and the much greater frequency of partner transitions and multiple-partner fertility, father involvement is more contingent on cultural norms that regard fatherhood as part of a "package deal." This interpretation is consistent with Mincy and Pouncy's (2007) finding that nonresident black fathers are more likely to remain involved with their children than their white or Hispanic counterparts. Ideally, we would offer a fully comparable analysis of these processes among formerly married parents, but our data do not allow us to do this.¹⁰

The weakness of the relationship between fathers' transitions and their ongoing father involvement is also quite surprising, both in terms of what the "package deal" hypothesis would predict and the fact that studies of repartnering among formerly married parents show a dampening effect on involvement. However, our findings are consistent with evidence from a recent qualitative study of 165 low-income nonresident fathers, most of whom had at least one nonmarital birth, which found that fathers hold strong norms about maintaining involvement with past cohorts of children even while in new partnerships and parenting roles (Edin, Tach, and Mincy 2009).

In all, the evidence points more strongly to the role of mothers "swapping daddies" than it does to the role of fathers "swapping kids." Why might the impacts for mothers' transitions be so large? One possibility is that the sharp difference in the legal context within which divorcing and unmarried fathers must operate matters. Divorcing fathers' custody, financial obligations, and visitation rights are all adjudicated together at the time of the divorce. Conversely, in the nonmarital context, fathers are less frequently involved in the legal process by which child support orders are made and visitation is assigned. Under these circumstances, mothers who wish to "swap daddies" can far more easily do so. A second possibility is that for mothers who are unmarried at the time of their child's birth, subsequent partnerships may be especially fragile (as their past partnerships were) and thus especially vulnerable to the threat of ongoing involvement of a former partner, even if only for the purposes of seeing the child. This is consistent with the explanation offered by Classens (2007), who analyzed data drawn from an in-depth longitudinal qualitative study of a subsample of unmarried couples who also participated in the Fragile Families Study, that among mothers' new partners, the fear of sexual re-involvement with the old partner was high. Third, unmarried mothers who repartner typically do so with men who have more human capital and fewer behavioral problems than did their prior partners (Bzostek, Carlson, and McLanahan 2007; Graefe and Lichter 2007). If "partnering up" is more common among mothers who were unmarried at the time of their child's birth than for those who were married, unmarried mothers might have greater motivation to "swap daddies" than formerly married mothers have. It is quite possible that unmarried fathers' own very low human capital and high degree of other serious problems make their past partners less likely to cooperate in visitation than would otherwise be the case. Finally, the fact that mothers' transitions are more consequential does not necessarily mean that mothers are primarily responsible for

10. The Fragile Families Study does have a small ($N=1,100$) companion sample of marital births, but to date, not enough of these couples have broken up and transitioned to subsequent partnerships and parenting roles to allow us to analyze them.

the decline in father involvement. Our results are also consistent with fathers choosing to become less involved when mothers repartner than when they repartner themselves.

The impact of mothers' relationship transitions on intensive father involvement weakens as children get older, however, suggesting that relationship transitions may be less predictive of declines in father involvement after fathers have had sufficient time to cement their role as the primary father figure in their children's lives. The children themselves may also play a greater role in deciding the level of contact, thus limiting the mother's ability to be a gatekeeper. Additionally, qualitative evidence suggests that mothers' new partners do not tend to be active as social fathers unless the child is very young (Nelson and Edin forthcoming).

Unmarried couples with children are far more likely to break up and have children in multiple unions than are couples who bear children within marriage (Carlson and Furstenberg 2006; Graefe and Lichter 2007; Mincy 2001; Mincy and Huang 2002). Demographers have shown that the typical woman who has a first child outside of a marital bond is likely to experience a series of partnership transitions, both inside and outside of marriage (Graefe and Lichter 2007). The emerging literature on this topic has shown that the consequences of these transitions for children are usually either neutral or negative (Bzostek 2008, but see Coleman, Ganong, and Fine 2000), but can be positive if the tie with the new social father is strong (Amato and Sobolewski 2004) or the partnership is stable (Yuan and Hamilton 2006). As indicated above, two analyses have shown that over time, unmarried women do typically "trade up" in their new partnerships—that is, improve the quality of their partners via this process of serial partnering (Bzostek et al. 2007; Graefe and Lichter 2007; see also Hofferth 2006). At the same time, these new partnerships are quite unstable (Graefe and Lichter 2007). The coming and going of multiple surrogate fathers may well be harmful to child well-being (Fomby and Cherlin 2007; Lichter, Qian, and Crowley 2005, Manning and Lamb 2003; Osborne and McLanahan 2007).

We should note several limitations to our study. First, our analyses are restricted to parents' relationships and fathers' involvement during a short five-year window of time. We therefore miss relationships before the focal child was born and relationships that will occur after our five-year window of observation ends. Our findings thus underestimate the prevalence of multiple-partner relationships and fertility in the lives of the children in our sample. Second, it is likely that we underestimate the extent of multiple-partner relationships and fertility among the unmarried parents in our sample, particularly among fathers, during this five-year window. We rely on either fathers' or mothers' reports of fathers' behavior and involvement, and if a father has completely lost contact with the mother, it is possible that he was not surveyed and the mother did not know about (or was unwilling to report) his subsequent relationships or children. We also miss short-term relationships that both began and ended between survey waves, which may underestimate the effects we find in these analyses. Third, our study focuses on only one narrow measure of father involvement, which is his frequency of contact with his biological child, because the "package deal" hypothesis is primarily concerned with explaining the *level* of father involvement rather than the quality or content of the involvement. This does not reflect the types of activities the father and child do together, and it does not reflect the parenting that fathers do with other biological or social children. Many of the new partners with whom unmarried parents become involved have children from previous relationships, and parents may find that they have obligations to these new social children as well. Finally, this study does not address the growing body of research on how children's own characteristics affect fathers' involvement (Hawkins et al. 2007).

Especially for the mother, new partnerships may provide strong motivation to put the new partner in the "daddy" role, particularly after the mother has a child with that partner. For his part, the biological father may be under considerable pressure to use his scarce emotional and financial resources to fulfill the demands of his new partner and parenting roles, which he can more easily enact within the context of a romantic relationship.

Because fatherhood is generally enacted in the most meaningful way within the context of a conjugal union, because the fragility of these unions is high, and because repartnering and subsequent childbearing are common, children born to unmarried parents are likely to experience multiple father figures who represent a series of temporary commitments rather than a lifelong obligation. Since stability is critical for child well-being, the shifting cast of fathers and father figures in children's lives is likely to detract from, not add to, their well-being.

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