HIGH FATHER INVOLVEMENT AND SUPPORTIVE COPARENTING PREDICT
INCREASED SAME-PARTNER AND DECREASED Multipartnered Fertility

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further information.
Non-marital childbearing in the US has reached historic levels. Because of the instability of non-marital partnerships, multipartnered fertility, whereby a woman has children with different men, has also increased. High father involvement and supportive coparenting may serve as barriers to multipartnered fertility. Using a subsample of the Fragile Families and Child Wellbeing Study (N=2363), we examined father involvement (measured as engagement, responsibility, and accessibility) and supportive coparenting as predictors of unmarried mothers’ fertility. Discrete-time survival analysis models indicated that mothers who perceived greater paternal engagement, responsibility, and supportive coparenting were more likely to have another child with the focal child’s biological father, and less likely to have a child with a new man. Among non-coresidential mothers (mothers who were not living with the focal child’s biological father), the same pattern of results emerged with one exception: paternal engagement did not predict either same or multipartnered fertility. Also, non-coresidential mothers that reported higher levels of accessibility, or contact between the focal child and the biological father, were more likely to have another child with him, and less likely to have a child with a new man. Overall, greater supportive coparenting and father involvement may decrease multipartnered fertility, even among non-coresidential parents.
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Nonmarital childbearing has reached historic levels; 41% of all births in 2009 were to unmarried parents, with the highest proportions to racial and ethnic minorities (see Figure 1). Because non-marital relationships are often unstable (Bumpass and Lu 2000), a growing number of mothers have children with more than one man, a phenomenon termed multipartnered fertility (Guzzo and Furstenberg 2007). Mothers may incur costs from childbearing with multiple partners including decreased eligibility on the marriage market (Manning, Trella, Lyons, and Du Toit 2010), increased stress and mental health problems, and lower parenting quality (McLanahan 2009). Children in families with multipartnered fertility exhibit more behavior problems (Bronte-Tinkew, Horowitz, and Scott 2009) while children born to unmarried mothers spend more of their lives in poverty and experience lower levels of social and financial support from their families (Furstenberg 1995; Manning and Smock 2002; Wu 2008). Despite negative maternal and child outcomes associated with multipartnered fertility, family-related factors that put women at risk for multipartnered fertility have not yet been identified. We posited that greater father involvement and supportive coparenting decreased the risk of multipartnered fertility among unmarried mothers.

Unmarried mothers that have an involved and supportive coparent may be deterred from repartnering and hence at lower risk for multipartnered fertility. The financial, instrumental, and emotional benefits of a concerned, active coparent may encourage mothers to maintain their romantic relationship with him, or, if the relationship ends, to be cautious about having another relationship or pregnancy that might negatively impact his involvement. Guided by a social
exchange perspective, we examined whether maternal perceptions of supportive coparenting and father involvement, measured as time spent interacting and caring for the child, coordinating childcare, and father-child contact, reduced the risk of multipartnered fertility using data from the Fragile Families and Child Wellbeing Study.

**Factors Associated With Multipartnered Fertility**

One in five women aged 41 to 49 in the National Longitudinal Survey of Youth 1979 reported they had children with more than one partner (Dorius 2011). Multipartnered fertility is more common among mothers who are young, Black or Hispanic, less educated, and socioeconomically disadvantaged (Plotnick and Butler 1991; Sweet and Bumpass 1987; Upchurch, Lillard, and Panis 2002; Wu, Bumpass, and Music 2001). Similarly, union status is an important determinant of multipartnered fertility as women in coresidential relationships are less likely than those in nonresidential relationships to have an additional birth with a new partner (Guzzo and Furstenberg 2007).

Previous studies examining the impacts of multipartnered fertility have traditionally focused on the potential negative consequences for children’s development by examining the impact of men’s multipartnered fertility on family functioning (Manning and Smock 2002). Specifically, men’s multipartnered fertility is associated with less father involvement (Carlson, McLanahan and Brooks-Gunn 2008) and more externalizing behavior problems among children (Bronte-Tinkew et al. 2010) Men who bear children with multiple women have competing financial and time obligations that may decrease the amount of support they are able to give to their children (Manning and Smock 2002). Fathers may be more likely to take on parenting roles in their new partnerships (Furstenberg 1995; Furstenberg and Cherlin 1991; Furstenberg and Harris 1992), reducing investments in their previous children who remain in the mother’s home.
Fewer studies have focused on the consequences of women’s multipartnered fertility, though repartnered mothers who are at greater risk of multipartnered fertility have less supportive coparenting relationships with former partners (Kamp Dush, Kotila and Schoppe-Sullivan forthcoming) and former partners perceive more problems maintaining contact with their child after the mother repartners (Classens 2007) and become less involved (Tach, Mincy and Edin 2010).

**A Social Exchange Perspective on the Predictors of Multipartnered Fertility**

The social exchange perspective (Thibaut and Kelley 1959) suggests that individuals make decisions based on a constant calculation of a cost to benefits ratio. Similar to Becker’s (1981) rational choice model of family economics, the social exchange perspective contends that individuals are rational and make decisions in order to maximize the benefits received by their investments. Hence, a mother who receives benefits in the form of social and instrumental support from the biological father of her child may be less likely to consider alternative partners, as her benefits in the current relationship exceed the costs of leaving or jeopardizing her coparental relationship with the biological father. As a result, her risk for multipartnered fertility decreases.

Coordinated care may reduce the costs of parenthood for both residential and non-residential mothers; mothers in coresidential relationships with fathers have less parenting stress than single mothers (Cooper, McLanahan, Meadows and Brooks-Gunn 2009). Even when parents are not coresidential, father involvement and support – both financial and instrumental – are associated with benefits for mothers (Edin and Lein 1997). Indeed, because of the benefits mothers enjoy when fathers are involved, the costs of entering a new relationship may exceed the benefits of staying together or remaining single. When mothers enter new partnerships, father
involvement and coparenting suffer (Tach et al. 2010) either because women engage in
gatekeeping behaviors that make it difficult for fathers to maintain involvement (Classens 2007;
Walker and McGraw 2000) or the new partner becomes involved with the child (Bzostek 2008)
and discourages the father from being involved. Some mothers may avoid new relationships
because they foresee potential losses in financial and/or instrumental support from the father
(Edin and Kafalas 2004).

In contrast to the benefits of parenting with an involved father, the drawbacks of an
uninvolved father may be associated with union dissolution and an increased risk of
multipartnered fertility. Relationships in which one partner shoulders a greater share of the
burden of childcare and housework may breed resentment, decreasing benefits and increasing
costs of the relationship, and these relationships are more prevalent among low-income families
(Brines 1994). A social exchange perspective implies that after a relationship dissolves, a mother
may be motivated to enter a new intimate partnership if she perceives the father of her child as
uninvolved and unsupportive. Low-income mothers who repartner may experience multiple
benefits, in part because compared to initial partners, new partners are generally of higher quality
– with high school degrees, stable employment, and fewer drug and alcohol problems (Bzostek,
Carlson and McLanahan 2006). New partners also tend to be involved with children and may act
as a father-figure when biological fathers are uninvolved (Bzostek 2008). However, re-partnering
significantly increases a woman’s risk of multipartnered fertility (Guzzo and Furstenberg 2007).
Overall, a mother’s perception of father involvement and the coparental relationship may shed
light on the reasons mothers choose to repartner and risk multipartnered fertility.

Father Involvement
Lamb, Pleck, Chernov, and Levine (1987) conceptualized the benefits that fathers provide not only to their children, but to mothers as well. In this widely used model, engagement, responsibility, and accessibility define the nature of the involved father. Engaged fathers participate in activities that promote child development such as reading, singing, and playing with their child. These fathers also assist in everyday childcare activities such as diapering, bathing, or feeding their children. Mothers whose partners are highly engaged with their children may choose to remain with these partners rather than seek out alternatives due to the relief from the burden of solo childcare.

Responsible fathers not only provide financially for their children, but are support systems for mothers to rely on. These fathers assist in making childcare arrangements, transporting children to and from appointments, and show interest in more mundane activities of childrearing that may allow mothers to maintain either their relationship with the father or a single-parent household, rather than repartner. Similarly, accessible fathers maintain father-child contact, fostering positive father-child relationships and providing mothers with additional support through their time investments with their children. Therefore, fathers who are responsible and accessible to their children may provide mothers with the additional time and flexibility necessary to provide for her family or accomplish personal goals.

Mothers whose partners are supportive in their childrearing endeavors may be less stressed in their parenting roles. High levels of parenting stress are associated with harsh, negative parenting styles (Belsky, Woodworth, and Crnic 1996; Deater-Deckard and Scarr 1996) that may lead to behavioral problems in children (Stormshak, Beirman, McMahon, and Lengua 2000). Thus, mothers may perceive many benefits of father involvement, not only for herself, but for her child as well.
Yet, it is not only biological father involvement that is associated with positive child development. Repartnering may also provide benefits to children. A mother who chooses to repartner with a man who will be involved with her children provide the child with a father figure that may function much in the same way as a biological father in reducing risks for experiencing adverse outcomes. Bzostek (2008) found that new partner involvement provides a child with the same protective effects for behavioral outcomes and overall health status as those associated with biological father involvement. As a result, a mother who “trades up” by repartnering with a man who is of higher quality and who is also highly involved with her child may experience little loss or even slight gains in the welfare of her family if the biological father of her child is under- or uninvolved (Bzostek et al. 2006).

Supportive Coparenting

Defined as the extent to which parents agree to cooperate in the upbringing of their child including the demonstration of support and commitment to childrearing (McHale 1995), the coparenting relationship has been shown to exist distinctly from the parent-child relationship and regardless of whether the parents remain romantically involved (Schoppe-Sullivan, Mangelsdorf, Frosch and McHale 2004). A mother who feels she is supported in her parenting efforts may not perceive additional benefits of repartnering partly due to the sense of family promoted by the supportive coparenting relationship (McHale 1997). Supportive coparenting is linked to positive child development (Schoppe-Sullivan et al. 2009), and non-resident fathers who are able to support mothers in their coparenting endeavors may be more involved with their children (Carlson, McLanahan and Brooks-Gunn 2008). When mothers do not feel supported in their parenting by the father of their child, negative outcomes may follow; Schoppe-Sullivan et al. (2001) found that less supportive coparenting relationships were associated with higher levels of
child behavior problems. Further, a mother who feels unsupported in her coparenting with a nonresident father may limit her contact with him, thus reducing the potential benefits associated with non-resident father involvement (Jackson 1999) and leading her to seek out a new partner.

Potential Confounding Variables

Multipartnered fertility histories may be an important factor associated with the extent to which parents are able to support each other in their parenting endeavors. For instance, a father who has previous children with a different woman (or women) may be less able to provide a mother with an adequate amount of support due to competing parental obligations (Manning and Smock 1999; Manning, Stewart and Smock 2003). Further, because previous multipartnered fertility reduces the likelihood that parents will marry (Mincy 2002; Steward, Manning and Smock 2003; Upchurch, Lillard and Panis 2001) and unmarried parents are more likely than married parents to have children with previous partners (Carlson and Furstenberg 2006), we included an indicator of each parent’s previous multipartnered fertility status in our analyses. Further, because multipartnered fertility is more common among young, minority, less educated mothers (Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007), we controlled for a variety of sociodemographic characteristics that may be associated with multipartnered fertility, father involvement, and coparenting.

Hypotheses

In accordance with the social exchange perspective, we expected to find that a mother who had a child with a highly involved father would be less likely to have an additional child with a new partner and more likely to do so with the biological father of the focal child. That is, a mother bearing a child with an engaged, responsible, and accessible father would be less likely to bear an additional child with a new man and more likely to have an additional child with the
same partner. Additionally, we expected that a mother who had a child with a father who was a supportive coparent would also be less likely to have a subsequent birth with a new man and more likely to have an additional birth with the focal child’s biological father. Finally, we examined both the full nonmarital sample as well as the nonresident subsample, and we expected the same pattern of results in both samples. The nonresident subsample consisted of mothers who reported that they lived with the biological father of the focal child lived either rarely or never.

Method

Data for this project came from the Fragile Families and Child Wellbeing Study, a longitudinal study designed to assess the characteristics of unmarried parents, their relationships, and the impact of these factors on children. The full study sample consisted of 3,712 children born to unmarried parents and a comparison group of 1,186 children born to married parents; the weighted sample was representative of births in US cities with populations greater than 200,000 (McLanahan et al. 2001). Births from parents in seventy-five hospitals located within twenty cities were recorded. Interviews were conducted with mothers and fathers (when available) separately following the birth (Carlson et al. 2008). Follow-up interviews were conducted at birth and at one, three, and five years post-partum. Researchers asked parents detailed questions about their relationships, living arrangements, fertility histories, support, involvement, etc. Only mother reports were used in this study as maternal perceptions of the father rather than the father’s perception of himself are arguably more influential in ultimately shaping the mother’s fertility decisions.

We limited the full sample to $n = 2363$ by dropping mothers who 1) responded that they were married at birth ($n = 1309$; 27% of sample lost), 2) reported they were either pregnant, had an additional child between the baseline interview and year one, or refused to answer whether or
not that had another child or were pregnant since the focal child was born \((n = 441; 9\% \text{ of sample lost})\), 3) attritted, was not interviewed at Wave 2 a birth occurred between Waves 2 and 3, or was not interviewed at Waves 2 and 3 if a birth occurred between Waves 3 and 4 \((n = 498; 10\% \text{ of sample lost})\), 4) were missing data on father involvement because the father had not seen the child since the previous wave and was not eligible to answer father involvement and coparenting questions \((n = 156; 3\% \text{ of sample lost})\), 5) reported the father did not know the child \((n = 4; 0.1\% \text{ of sample lost})\), 6) had pregnancy end in miscarriage, stillbirth, or abortion \((n = 51; 1\% \text{ of sample lost})\), 7) was missing data on the age of additional reported children \((n = 23; 0.9\% \text{ of sample lost})\), and 8) was missing data on coparenting or father involvement \((n = 53; 1\% \text{ of sample lost})\). The nonresident sample was limited to \((n=1745)\) by including only those mothers who reported they lived with the biological father of the focal child either rarely or never at the wave prior to the birth of the subsequent child.

**Variables**

**Independent Variables.** Supportive coparenting was measured at years one and three, with the level at the year prior to the censor date used to predict subsequent multipartnered fertility. Therefore, we treated supportive coparenting as a time-varying covariate. Responses to questions such as “You and (FATHER) talk about problems that come up with raising (CHILD),” and, “You can trust (FATHER) to take good care of (CHILD),” were used to determine the level of support mothers perceived within the coparenting relationship. Responses options were \(1 = \text{always true}\), \(2 = \text{sometimes true}\) and \(3 = \text{rarely true}\). We reverse coded and then averaged the responses, creating a single score for this measure. Cronbach’s alphas of .83 and .85 correspond to measurements at year one and year three. Similar measures for supportive
coparenting have been successfully utilized in previous research (e.g. Carlson et al. 2008; Kamp Dush et al. forthcoming)

Similarly, dimensions of father involvement were measured at years one and three of the study. Engagement was measured from responses to an eight-item scale (eleven items at year three) of number of days per week the father participated in certain activities with the child. Examples include “How often does the father play inside with toys such as blocks or legos with the child?” and; “How often does the father hug or show physical affection to the child?” Childcare activities were also included in the dimension of engagement and included questions such as, “How many days a week does he (father) usually change (his/her) diaper?” and “How many days a week does he (father) usually feed or give a bottle to (him/her)?” Response options were 0 = never, 1 = 1 day per week, 2 = 2 days per week, 3 = 3 days per week, 4 = 4 days per week, 5 = 5 days per week, 6 = 6 days per week, and 7 = 7 days per week. The Cronbach’s alpha of the scale was .88 at year one and .90 at year three.

Responsibility was determined by responses to questions from a three-item scale at each year. Sample questions include, “How often does he (father) look after (child) when you need to do things,” and “How often does he (father) take (child) to places where (he/she) needs to go, such as to daycare or to the doctor.” Response options were 1 = often, 2 = sometimes, 3 = rarely, 4 = never. We reverse coded and averaged the responses. The Cronbach’s alpha of the scale was .79 at year one and .87 at year three.

In non-resident models only, accessibility was measured as a continuous variable ranging from zero to thirty, where higher numbers indicated higher levels of accessibility. Mothers reported the biological father’s accessibility by responding to the following interview question,
“During the past 30 days, how many days has (FATHER) seen (CHILD)?” Response options included \( 1 = \text{once this month}, \ 2-30 = \text{number of days}, \) and \( 0 = \text{none}. \)

**Dependent Variables.** The primary dependent variable was an indicator of whether the mother had a birth with the biological father of the focal child or a new man, or was censored. The household roster (at waves 3 and 4) was used to determine whether a birth occurred; for each child reported in the household, the age of the child in years was reported. Further, the mother was asked for each child if the biological father of the focal child was the father of each child. If the mother reported a biological child that was at least a year younger than the focal child and the father of the new child was the same father as the focal child, the mother was coded as having a child with the focal child’s biological father. If a biological child was reported that was at least one year younger than the focal child and the father of the child was not reported as the biological father of the focal child, the mother was coded as having a child with a new man. The new child had to be at least a year younger than the focal child because we used father involvement and coparenting at Wave 2, which was collected when the focal child was a year old, as predictors. Note that if multiple biological children were reported that fit the criteria, we used the oldest child reported, or the earliest birth that occurred. We were unable to get a precise measurement of the duration of time from the birth of the focal child to the first subsequent birth because age was reported in years in the household roster. If no birth was reported, mothers were treated as censored at their final interview date.

**Control Variables.** We measured parental age at the focal child’s birth (baseline) in years. Parental race/ethnicity was coded as a categorical variable and determined by self-identification at the baseline survey. We coded mother’s education at birth as a categorical variable including less than high school, high school (excluded comparison group) and some college. A
a dichotomous variable was created for parental employment and was determined by mother report at years one and three. In addition, we created an indicator of the previous multipartnered fertility of mothers and fathers determined by mother response to the following interview questions at year one, “Do you have any children with someone other than (FATHER)?” and “Does (FATHER) have any children by someone else?” Response options were 1 = yes and 2 = no.

**Analytic Strategy**

We used maximum likelihood discrete-time event history methods with a multinomial logit (Allison 1982) to examine the competing risks of a birth with the biological father of the focal child versus a birth with a new father. The event, birth, was measured within discrete points of time because the exact birth month of new children was unavailable. Respondents contributed person-years to the file beginning with the birth of the focal child until an event occurred (a birth with the biological father of the focal child or a birth with a new man) or they were censored (last interviewed). Each mother could contribute as few as 2 or as many as 5 person-years. Following Allison’s (1982) strategy for analyzing discrete-time data, multinomial logistic models of the competing risks of birth with the biological father of the focal child versus a new man were run. The model took the following form:

\[
\log \left( \frac{P_{ij}}{P_{i0}} \right) = \alpha + \sum_{m=1}^{M} \beta_m x_{mj} + \sum_{n=1}^{N} \beta_n x_{mj(t-1)}, j = 1, 2
\]

where \( P_{ij} \) was the conditional probability of a mother \( i \) at year \( t \) since the focal child’s birth experiencing event \( j \) (\( j = 1 \) for a birth with the biological father of the focal child or \( j = 2 \) for a birth with a new man) versus no event occurring \( P_{i0} \) at year \( t \). When year \( t \) was either the year at which the mother was censored or an event occurred, the dependent variable was coded 0 =
censored (no birth observed), 1 = birth with the biological father of the focal child, and 2 = birth with a new man. For person-years prior to the year the mother was censored or a birth occurred, the dependent variable was coded as 0. $\alpha$ was an indicator of time since the birth of the child included in the model to control for time dependence (Allison, 2006). The model also included $m$ time-invariant predictors measured at baseline (e.g. age) and $n$ time-varying predictors measured at $t-1$ (e.g. coparenting) because the time-varying predictors predicted births between $t-1$ and $t$. When the lag between waves was longer than a year (i.e. between waves 2 and 3 and waves 3 and 4), the value of the time-varying predictor at both times $t$ and $t-1$ was the value of the previous wave that occurred at $t-2$. Due to multicollinearity between the father involvement and coparenting predictors, models were run separately for each of the indicators of father involvement and coparenting.

Results

**Descriptive Statistics.** Of the mothers in the full sample, 67.06% of mothers reported no births, 20.27% of mothers reported a birth with the same father, and 12.67% of mothers reported a birth with a new father. Overall, mean levels of all domains of father involvement and supportive coparenting were above the midpoint of the scales (see Table 1). Non-resident fathers spent roughly 10 days with their child in the previous month. Correlations between the father involvement domains were high; engagement and responsibility were correlated ($r = .54$), accessibility and responsibility were correlated ($r = .54$), and accessibility and engagement were correlated ($r = .49$).

Both parents were in their mid-twenties on average, with mothers slightly younger than fathers. A majority of mothers were non-Hispanic Black, and slightly more than one-third of mothers had some college education. Most fathers were employed at baseline, while only slightly
more than half of mothers were employed at birth. Previous multipartnered fertility in the sample was high, with 41 percent of mothers and 44 percent of fathers reporting children with previous partners.

**Maximum Likelihood Discrete-Time Event History Models.** In the full sample, mothers who reported higher levels of supportive coparenting, paternal responsibility and paternal engagement were significantly more likely to have a new child with the focal child’s biological father (see Table 2). Further, high levels of supportive coparenting, paternal responsibility, and paternal engagement were each significantly negatively associated with having a new child with a new man. Specifically, the relative risk of an additional birth with the focal child’s biological father increased by 43% and the relative risk of a birth with a new man decreased by 36% with a one point increase in maternal perceptions of paternal responsibility. A one point increase in perceived paternal engagement was associated with 10% greater relative risk of a subsequent birth with the focal child’s father and 18% lower relative risk of a birth with a new man. A one point increase in perceived supportive coparenting was associated with 69% greater relative risk of an additional birth with the focal child’s father, and 42% lower relative risk of a birth with a new man. The results were robust to the inclusion of controls.

Next, we examined the non-resident father sample and included the additional accessibility aspect of father involvement. In these models, higher levels of paternal responsibility and accessibility emerged as significant predictors of fertility; higher levels of each predicted an increased relative risk of a subsequent birth with the focal child’s father, whereas lower levels of each resulted in an increased relative risk of a subsequent birth with a new man. In particular, a one point increase in paternal responsibility was associated with 25% greater relative risk of an additional birth with the biological father, and 15% lower relative risk of a new
birth with a new man. For each additional day the biological father of the focal child saw the focal child, a mother’s relative risk of having a birth with him increased by 4%, and a mother’s relative risk of having a birth with a new man decreased by 2%.

Additionally, lower levels of supportive coparenting were associated with greater risk for a subsequent birth with a new man. A one point increase in supportive coparenting was (marginally significantly) associated with 22% lower relative risk of a new birth with a new man. Paternal engagement of non-resident fathers was not significantly associated with a mother’s subsequent fertility. The pattern of results remained unchanged after the addition of controls.

**Controls.** In the main models, parental age was significantly negatively associated with having an additional birth with the biological father. Young mothers were more likely to have a subsequent birth with a new man.

**Discussion**

Father involvement and supportive coparenting were important predictors of subsequent fertility for low-income, unmarried mothers. Mothers who perceived less father involvement and lower supportive coparenting from the focal child’s biological father were more likely to have a child with a new man. These mothers may have benefitted the most from repartnering, thus increasing their risk of multipartnered fertility (Guzzo and Furstenberg 2007). For these mothers, the costs associated with repartnering such as reduced father involvement (Tach et al. 2010) and strained coparenting (Kamp Dush et al. forthcoming) were outweighed by the benefits, as suggested by the social exchange perspective (Thibaut and Kelley 1959). For instance, a mother who received little or no support from her child’s father may have been able to better provide for her child, both financially and emotionally, after repartnering. Her new partner may have more education and stable employment compared to her child’s father (Bzostek et al. 2006) and also
may be highly involved with her child (Bzostek 2008) benefitting mother and child alike. Her new partner may be able to provide her with instrumental and emotional support that is critical to successful parenting and her own mental health as well as her child’s development (Edin and Lein 1997).

In contrast, high father involvement and supportive coparenting predicted less risk of multipartnered fertility. According to social exchange theory (Thibaut and Kelley 1959), a mother who benefitted from an involved father and coparent would be less likely to consider alternative partners because the benefits of her current relationship would exceed the costs of leaving the relationship or jeopardizing her relationship with the father (Tach et al. 2010). In particular, our results suggest that the domains of responsibility and accessibility were particularly important for all mothers, including those who were not living with the focal child’s father. Responsible and accessible fathers provided non-resident mothers with support through their additional time commitments and fathers who were supportive coparents may have provided mothers with emotional and informational support such as empathy, affirmation, feedback, and advice (House 1981).

The engagement domain of father involvement seemed to be somewhat less important, particularly among the non-resident mothers. In the full sample, higher father engagement in play and child care was associated with a lower risk of a birth with a new man, but engagement was not a significant predictor of fertility in the non-resident sample. Rather, non-resident mothers who perceived fathers as more accessible to the focal child, that is fathers who saw their child more often, were less likely to have a birth with a new man. While engagement has consistently been found to be associated with positive child behavior (Tamis-LeMonda, Shannon, Carbrera and Lamb 2004), the benefits for the mother were more indirect. In contrast,
mothers who perceived fathers as high in responsibility and accessibility including looking after the child and taking the child to appointments, and supportive coparenting including being able to count on and trust the father, received more direct benefits. Because multipartnered fertility may put children at risk for adverse outcomes (Bronte-Tinkew et al. 2009), increasing father involvement in the domains of accessibility and responsibility as well as fostering supportive coparenting among high risk populations may not only protect children from maladjustment (Flouri and Buchanan 2003; McBride, Schoppe-Sullivan and Ho 2005), but also may help slow the growth of multipartnered fertility.

In predicting same-partner fertility, mothers who had a subsequent child with the biological father of the focal child did so with those fathers who were more involved with the focal child and were supportive coparents. In particular, in the full sample, mothers who perceived the father as involved in the domains of responsibility and engagement with the focal child, and as a supportive coparent, were more likely to have an additional child with him. In the non-resident sample, mothers who perceived the father of the focal child as responsible and accessible to the focal child were more likely to have an additional child with him. A social exchange perspective would suggest that couples that enjoy coordinated care of their child would have reduced costs of parenthood and less parenting stress (Cooper et al. 2009), and our findings suggest that coordinated care of children may reduce the cost of parenthood to the point that couples decided to add an additional child to their family. These findings also suggest that if, as Bzostek (2008) suggested, social fathers or new partners in the Fragile Families and Child Wellbeing study are highly involved with the focal child, mothers may be more likely to have a child with him because of the perceived possibility of coordinated care of additional children.
Limitations of this study include missing data due to nonresponse and attrition. Further, due to the structure of the interview questionnaire, mothers who reported they were not in a relationship with the focal child’s father at the birth or who reported no father-child contact within the past month were unable to answer questions pertaining to father involvement. Thus, these findings cannot be generalized to mothers who were not in relationships with fathers at the birth of their child, nor to mothers whose child had not recently seen their father. Although the use of mother reports for measuring levels of father involvement is subject to reporter bias and mothers often report lower levels of father involvement than fathers themselves (Manlove and Vernon-Feagans 2002), mother reports for father involvement have been widely used in research. For our purposes, the mother’s perception of the father’s parenting abilities and cooperation with her, rather than the father’s perceptions of himself, may be the most relevant opinion to consider when studying multipartnered fertility as it is most often the woman who controls her fertility.

Because explicit questions were not asked about mothers’ subsequent fertility after the birth of the focal child, pregnancies could have been underreported. That is, pregnancies that resulted in miscarriage or abortion are not reported here, and biological children of the mother who were not coresident with her were missed. Further, the intentionality of the pregnancy was not assessed, and some of the pregnancies could have been unplanned. Future research should test the robustness of these results with complete fertility histories including the month and year of births as well as abortions and miscarriages, and should take into account the intentionality of the birth.

The measure of father engagement used in this study was less than ideal for non-resident fathers. The measure is a popular measure of paternal engagement used in the Child Development Supplement to the Panel Study of Income Dynamics (Hofferth and Anderson
2003) and modified for use in the Fragile Families and Child Wellbeing Study. But, the measure relies on frequency counts of the number of days in the past week the father engaged in the activities, and in any frequency measure, non-resident fathers are penalized. Hence, we were missing data on engagement particularly among the non-resident sample. This study should be replicated with a measure of engagement that is even more distinct from accessibility for non-resident fathers. Though expensive, observational data on father-child interactions (e.g. Tamis-LeMonda et al. 2004) would be beneficial in studies that include resident and non-resident fathers.

A final limitation is the limited generalizability of the Fragile Families and Child Wellbeing Study. Our results do not generalize to unmarried mothers in rural areas, nor do they generalize to fertility decisions after a marital birth. The Fragile Families and Child Wellbeing Study is appropriate to answer the questions posed in this study, but future research might expand the scope of this paper to include rural nonmarital populations and marital populations.

The implications of these results are two-fold. First, recent public policy efforts that focus on increasing the quality of father-child interactions may benefit from additional programs that focus on father participation in a wide range of parenting activities in addition to strengthening the coparental relationship. These parenting programs may not only increase the chance that children and parents receive the many benefits associated with supportive coparenting (Schoppe-Sullivan et al. 2009) and positive father involvement (Amato 1994; Flouri and Buchanan 2003) but also may have the hidden benefit of decreasing the risk of multipartnered fertility. Further, programs that provide financial assistance could be broadened to include assistance in other forms such as through flexible or emergency childcare options or transportation services that may increase her ability to maintain a single-parent residence. Future
Father Involvement and Subsequent Fertility

multipartnered fertility research should make continue to examine family-related predictors and outcomes of multipartnered fertility while keeping in mind the potential benefits mothers and children may receive when new families are formed.
References


Flouri, E. and A. Buchanan 2003. ”The Role of Father Involvement in Children’s Later Mental Health.” Journal of Adolescence 26: 63-78.


Father Involvement and Subsequent Fertility


Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Full sample</th>
<th>Resident Sample</th>
<th>Non-Resident Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>% Missing</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Supportive Coparenting</td>
<td>2.52</td>
<td>17.18%</td>
<td>2.80 (0.29)</td>
</tr>
<tr>
<td></td>
<td>(0.64)</td>
<td></td>
<td>(0.16)</td>
</tr>
<tr>
<td>Responsibility</td>
<td>1.78</td>
<td>11.73%</td>
<td>2.49 (0.64)</td>
</tr>
<tr>
<td></td>
<td>(1.16)</td>
<td></td>
<td>(0.29)</td>
</tr>
<tr>
<td>Engagement</td>
<td>4.01</td>
<td>21.81%</td>
<td>4.94 (1.59)</td>
</tr>
<tr>
<td></td>
<td>(2.15)</td>
<td></td>
<td>(0.64)</td>
</tr>
<tr>
<td>Accessibility*</td>
<td>9.75</td>
<td>1.05%</td>
<td>9.55 (11.03)</td>
</tr>
<tr>
<td></td>
<td>(11.13)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal Age</td>
<td>24.18</td>
<td>0%</td>
<td>24.32 (5.69)</td>
</tr>
<tr>
<td></td>
<td>(5.69)</td>
<td></td>
<td>(5.69)</td>
</tr>
<tr>
<td>Paternal Age</td>
<td>26.90</td>
<td>1.27%</td>
<td>27.04 (7.08)</td>
</tr>
<tr>
<td></td>
<td>(7.14)</td>
<td></td>
<td>(7.08)</td>
</tr>
<tr>
<td>Maternal Race</td>
<td></td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.15</td>
<td></td>
<td>0.16 (0.16)</td>
</tr>
<tr>
<td>Black</td>
<td>0.57</td>
<td></td>
<td>0.52 (0.52)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.26</td>
<td></td>
<td>0.29 (0.29)</td>
</tr>
<tr>
<td>Other</td>
<td>0.02</td>
<td></td>
<td>0.03 (0.03)</td>
</tr>
<tr>
<td>Maternal Education</td>
<td></td>
<td>0.13%</td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>0.37</td>
<td></td>
<td>0.38 (0.38)</td>
</tr>
<tr>
<td>High School</td>
<td>0.35</td>
<td></td>
<td>0.34 (0.34)</td>
</tr>
<tr>
<td>Some College</td>
<td>0.27</td>
<td></td>
<td>0.27 (0.27)</td>
</tr>
<tr>
<td>Maternal Employment</td>
<td>0.59</td>
<td>3.87%</td>
<td>0.58 (0.58)</td>
</tr>
<tr>
<td>Paternal Employment</td>
<td>0.75</td>
<td>8.60%</td>
<td>0.82 (0.82)</td>
</tr>
<tr>
<td>Maternal Previous Multipartnered Fertility</td>
<td>0.41</td>
<td>4.32%</td>
<td>0.41 (0.41)</td>
</tr>
<tr>
<td>Paternal Previous Multipartnered Fertility</td>
<td>0.44</td>
<td>7.53%</td>
<td>0.39 (0.39)</td>
</tr>
<tr>
<td>N</td>
<td>2363</td>
<td></td>
<td>1526 (1745)</td>
</tr>
</tbody>
</table>

*Note: Accessibility is measured for non-resident fathers only.
Table 2 Multinomial Logistic Regression Model Results Predicting the Competing Risks of Having a Subsequent Child with the Biological Father of the Focal Child Versus a New Father From Coparenting and Father Involvement

<table>
<thead>
<tr>
<th>Key Independent Variables</th>
<th>No Controls</th>
<th></th>
<th>Adjusted for Controls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same Father Birth</td>
<td>Birth with a New Man</td>
<td>vs. no birth</td>
<td>Same Father Birth</td>
</tr>
<tr>
<td></td>
<td>β</td>
<td>RRR</td>
<td>β</td>
<td>RRR</td>
</tr>
<tr>
<td>Coparenting</td>
<td>0.53</td>
<td>1.69***</td>
<td>-0.55</td>
<td>0.58***</td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td>(0.08)</td>
<td>(0.11)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.36</td>
<td>1.43***</td>
<td>-0.44</td>
<td>0.64***</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Engagement</td>
<td>0.10</td>
<td>1.10***</td>
<td>-0.20</td>
<td>0.82***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
</tbody>
</table>

Note. Standard errors reported in parentheses. RRR stands for Relative Risk Ratios. * p<0.05, ** p<0.01, *** p<0.001
Table 3 *Multinomial Logistic Regression Model Results Predicting the Competing Risks of Having a Subsequent Child with the Biological Father of the Focal Child Versus a New Father From Coparenting and Father Involvement for Non-Resident Fathers*

<table>
<thead>
<tr>
<th>Key Independent Variables</th>
<th>No Controls</th>
<th>Adjusted for Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same Father Birth</td>
<td>Birth with a New Man</td>
</tr>
<tr>
<td></td>
<td>vs. no birth</td>
<td>vs. no additional child</td>
</tr>
<tr>
<td></td>
<td>β</td>
<td>RRR</td>
</tr>
<tr>
<td>Coparenting</td>
<td>0.22</td>
<td>1.25+</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.22</td>
<td>1.25**</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Engagement</td>
<td>0.04</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Accessibility</td>
<td>0.04</td>
<td>1.04***</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.04)</td>
</tr>
</tbody>
</table>

Note. Standard errors reported in parentheses. RRR stands for Relative Risk Ratios. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
Figure 1. *Unmarried Births as a Percent of All U.S. Births 1970 – 2009. Source: National Center for Health Statistics.*