

## **Child Gender and Father Involvement in Fragile Families\***

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**Abstract:** In this paper, we use data from the first two waves of the Fragile Families and Child Wellbeing Study to examine the effects of child gender on father involvement and to determine if gender effects differ by parents' marital status. We examine several indicators of father involvement, including whether the father acknowledges "ownership" of the child, whether the parents live together at year one, and whether the father provides financial support when the child is one year old. We find some evidence that child gender is associated with unmarried father involvement around the time of the child's birth: sons born to unmarried parents are more likely than daughters to receive the father's surname, especially if the mother has no other children. However, one year after birth, we find very little evidence that child gender is related to parents' living arrangements or the amount of time or money fathers' invest in their children. In contrast, and consistent with previous research, fathers who are married when their child is born are more likely to live with a son one year after birth than with a daughter. This pattern supports an interpretation of child gender effects based on parental beliefs about the importance of fathers for the long-term development of sons.

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## **I. Introduction**

As rates of non-marital childbearing have risen in the United States, researchers and policy makers have become increasingly interested in whether children born to unmarried parents will suffer from reduced contact with their fathers. In turn, studies have begun to focus attention on the benefits to children of father involvement and on the factors that promote connections between unmarried fathers and their children (Carlson and McLanahan 2002; Carlson, McLanahan and Brooks-Gunn 2005). The association between child gender and father involvement is of particular interest. If children benefit from close connections with their fathers, and if boys are more likely than girls to maintain such connections following a non-marital birth, the recent increase in non-marital childbearing may have important implications for future gender equality.

A sizeable literature suggests that having a son increases marital happiness and reduces the likelihood of divorce (Katzew et al. 1994; Morgan, Lye and Condran 1988; Mott 1994; Spanier and Glick 1981) among married parents in the United States, although the association between child gender and divorce may be weaker today than it was in the past. In their replication of an earlier study by Morgan et al (1988), Morgan and Pollard (2003) find a negative effect of sons on divorce for the 1960-1979 decades but no significant effect for later periods. Most recently, Dahl and Moretti (2004) report that daughters are substantially less likely than sons to live with their fathers, due to a combination of child gender effects on marriage, divorce, and father custody. However, studies using non-American data have found no such difference (Bracher et al. 1993; Diekmann and Schmidheiny 2004).

Child gender has also been shown to affect the amount of time fathers spend with their children. Several studies indicate that fathers spend more time with sons than with daughters, particularly in play and companionship activities and achievement-related activities

(Lundberg, Pabilonia, and Ward-Batts 2006, Yeung, Sandberg, Davis-Kean, and Hofferth 2001; Yeung and Stafford 2002). Fathers also spend more time with their children overall if they have sons (Barnett and Baruch 1986), and Mammen (2005) finds that girls with brothers spend more time with their fathers than girls without brothers. Fathers of sons are more involved with their children's discipline, schoolwork and other activities than are fathers of daughters (Lamb et al. 1987; Morgan et al. 1988).<sup>1</sup> Moreover, mothers report greater emotional attachment of their husbands to sons than to daughters (Morgan et al.).

There are two possible explanations for the observed effects of child gender on father involvement and relationship stability. First, fathers may prefer boys over girls and thus receive greater utility from living with and spending time with male children as compared with female children. If there is this sort of gender bias in paternal preferences, the birth of a son will increase the value of marriage relative to being single for both parents, making the parental relationship more stable. Second, fathers may be more productive parents for sons than for daughters because of gender-specific parenting skills and/or gender differences in developmental requirements. Social norms can contribute to a belief by both parents that fathers are more important for raising happy and successful sons than for raising daughters. If father time is, or is believed to be, of greater value to the healthy development of boys, having a son will also increase the value of a long-term coresident relationship for both mothers and fathers.

These competing hypotheses, son preference and greater father productivity in raising sons, yield similar predictions for married parents. Among unmarried parents, however, lower levels of commitment and a shorter expected period of father-child contact allow us to differentiate between the two arguments. If greater father involvement with sons is due to differences in paternal productivity, then a father's return to investing in sons increases with the

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<sup>1</sup> Though Snarey (1993) reports no difference in paternal interaction with sons and daughters.

number of years a father lives with his child and/or the amount of control he expects to have over child-rearing. For this reason, we might expect the effect of sons to be weaker among unmarried fathers than married fathers. In contrast, if greater father involvement is due to son preference (i.e. a father's enjoyment of time spent with male children), the gender effect should be less dependent upon parents' marital status. Almost all of the research to date on the effects of child gender on union stability and father involvement has focused on married couples, and the few studies that have examined unmarried parents have produced mixed results. Using the NLSY data, Lundberg and Rose (2003) found that the birth of a son to unmarried parents increased the rate of transition into marriage; other researchers, using the Fragile Families and Child Wellbeing data, found no such effect (Carlson and McLanahan 2004; Nepomnyaschy and Garfinkel 2006; Reichman et al. 2004). A possible reason for the negative findings, however, is that researchers controlled for parental relationship quality which is likely to mediate the effect of child gender on union stability.

In this paper, we use data from the first two waves of the Fragile Families and Child Wellbeing Study to examine the effects of child gender on father involvement among unmarried parents and to determine if gender effects differ by parents' marital status. We examine several indicators of father involvement, including whether the father acknowledges "ownership" of the child, whether the parents live together at year one, and whether the father provides financial support when the child is one year old. We also examine child gender effects for samples of first-time mothers and first-time fathers. Many unmarried parents have complex households, including children from other partnerships (Carlson and Furstenberg 2006): focusing on first births allows us to isolate the effects of child gender on parents with fewer competing obligations. Finally, by focusing on fathers' behavior during the first year after birth, we avoid

the possible effects of behavioral differences between boys and girls in eliciting gender differences in father involvement.

We find some evidence that child gender is associated with unmarried father involvement around the time of the child's birth: sons born to unmarried parents are more likely than daughters to receive the father's surname, especially if the mother has no other children. However, one year after birth, we find very little evidence that child gender is related to parents' living arrangements or the amount of time or money fathers invest in their children. In contrast, and consistent with previous research, fathers who are married when their child is born are more likely to live with a son one year after birth than fathers with daughters.

## **II. Data**

The Fragile Families Study follows a birth cohort of nearly 5000 children from birth through age 5. Parents are interviewed at birth and again when the child is one, three and five years old. The study includes a large over-sample of births to unmarried parents (about 3700), and thus the data are well-suited for examining the effects of child gender on father involvement among unmarried as well as married parents. Sampling occurred in three stages: cities, hospitals within cities, and births within hospitals. A national sample, consisting of sixteen cities, was selected randomly from a stratified sample of 77 cities with populations of 200,000 or more. Four additional cities were added to the sample because of foundation interest and funding. Parents were enrolled in the study between spring of 1998 and fall of 2000. When weights are used, the data are representative of births within cities and births in all U.S. cities with populations of 200,000 or more. (For a more detailed account of the study design, see Reichman et al. 2001.)

Response rates for mothers at baseline, calculated as a percentage of eligible sampled births, were 82 percent for married mothers and 87 percent for unmarried mothers. Baseline response rates for fathers, calculated as a percentage of mothers who were interviewed, were 88 percent for married fathers and 75 percent for unmarried fathers. Response rates for mothers at the 1-year interview, calculated as a percentage of mothers who participated in the baseline interview, were 91 percent for married mothers and 90 percent for unmarried mothers. Response rates for fathers at the 1-year interview, calculated as a percentage of mothers interviewed at birth, were 82 percent for married fathers and 70 percent for unmarried fathers.

For children born to unmarried parents, we compare three measures of the father's "ownership" of sons and daughters from the baseline survey immediately after the child's birth. These indicators are: whether the child will take the father's last name, whether the father's name will be on the birth certificate, and whether the father visited the mother in the hospital. For all children, we use the one-year survey to examine the effects of child's gender on parents' relationship status (whether they live together) and, for children born to unmarried parents only, the provision of financial support by the father and other family members. All variables are based on mothers' reports to minimize the selection bias associated with higher non-response rates among the fathers.

Since child gender at birth can be treated as exogenous and independent of parental characteristics at the time of birth, we present some simple models that compare the behavior of parents with sons and parents with daughters, as well as models that include a set of mother's demographic characteristics. We exclude other covariates, such as the parents' relationship quality and mothers' employment, that may themselves be influenced by child gender.

The indicators of the parent's relationship and father's contact with the child from the one-year follow-up survey include: whether the father is living with the mother, whether the father has seen the child in the last 30 days, and whether the mother has a new partner. We examine two variants of the latter outcome: whether the mother has a new partner conditional on no romantic relationship with the child's father, and whether she has a new partner without conditioning on the end of her relationship with the father. The one-year survey includes a variety of questions about the establishment of paternity and a legal support agreement, and who provides financial support for the child, including the mother's and father's relatives.

Many of the mothers and fathers of children in the Fragile Families sample have other children, either together or with other partners, and the presence and gender of previous children may affect parental responses to newborn sons or daughters. For example, Teachman and Schollaert (1989) find that women with a son have a second child more quickly because they are more likely to remain married than women with a daughter. Since the interpretation of child gender effects is simpler for first-born children, we present parallel results for a subsample of first time mothers and first time fathers as well as for the full sample.

Table 1 reports the means of control variables and early outcomes for our baseline sample of 3311 non-marital births and 1145 marital births. These samples exclude observations with multiple births and with missing values for key variables.<sup>2</sup> About 40 percent of the non-marital sample and 35 percent of the marital sample are identified as the first child of either the mother or the father. The typical unmarried mother in the sample is in her twenties, about three-quarters have a high-school education or less, and 56 percent are black.

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<sup>2</sup> Our baseline sample (Table 1) includes 3311 cases instead of the approximately 3600 cases at birth. The loss of 300 cases is due to our decision to drop twins (74 cases) and to missing data on father involvement at birth (250 cases), mothers' ethnicity (86 cases), and whether the child would take the fathers' last name (161 cases). An additional 400 cases (about 11 percent of the sample) were lost between the baseline and first year follow-up interview.

The excluded racial category is “other” and Hispanic women may be of any race. We see here the high level of paternal presence at the birth that has been reported in the earliest analyses of the Fragile Families data: 77 percent of unmarried fathers have visited the child in the hospital, and this fraction rises to 86 percent if the child is the father’s first. The married mothers are older, more educated, and more likely to be white, particularly those for whom this is a first birth.

Table 2 reports the mean values for outcome measures from the one-year survey. The one-year sample consists of 2904 observations from the non-marital birth sample and 1166 from the marital sample. Most of the reduction in the sample size in the first year is due to attrition from the survey, but some observations were deleted due to missing data on whether the father has seen the child within the last 30 days, or on whether the mother had a new partner.

At the time of the one-year survey, half of the parents in the non-marital birth sample are cohabiting or married and more than 80 percent of the fathers have seen their child during the past 30 days.<sup>3</sup> About 14 percent of the mothers have a new partner, (one-quarter of those who have ended their relationship with the child’s father). One year after the birth, paternity has been formally established for 70 percent of the children born outside marriage and one-quarter of the non-cohabiting mothers have a legal child support agreement. More than 40 percent of the mothers, and more than 50 percent of first-time mothers, have received some financial support from family members or other adults, including 40 percent who received support from the mother’s family and 16 percent who received support from the fathers’ family. The mothers’ first-birth and full samples are very similar in terms of relationship

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<sup>3</sup> Carlson, McLanahan, and England (2004) find that three-quarters of the couples who were cohabiting at the child’s birth are either married or cohabiting at 12 months.

status and fathers' contact with the child, but fathers' contact is higher in the fathers' first birth sample, and first-time fathers are more likely to have had paternity formally established. In the marital birth sample, 94 percent of fathers still live with the child's mother after one year, and almost all have seen the child in the past month.

### **III. Analysis**

#### *Non-marital father involvement at birth*

The effects of child gender on the baseline outcomes for the non-marital birth sample are reported in Table 3. The three outcomes – whether the child will be given the father's last name, whether the father's name will be on the birth certificate, and whether the father visited the child in the hospital – are binary, so we estimate the gender effects using the logit model and report odds-ratios.

As shown in Table 3, boys who are born to unmarried parents are about 20 percent more likely to be given their fathers' last name than are girls for the sample as a whole, and the effect is even larger for the sub-sample of mothers with a first birth. The coefficient on 'boy' remains positive and significant with or without controls for the mothers' characteristics,<sup>4</sup> but it is not significantly different from zero when the child is the father's first. Hispanic children born outside marriage are more likely to be given their father's last name than non-Hispanic children, and parental education increases the likelihood that the child will be given the father's last name. Children of mothers with some college are significantly more likely to take the father's last name relative to children of mothers who did not graduate high school.

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<sup>4</sup> We include only one set of parents' characteristics, as mothers' and fathers' characteristics are highly collinear. Mothers' rather than fathers' characteristics are used in all models as mothers' characteristics were substantially less likely to be missing than fathers' characteristics.

The next two panels of Table 3 show the same analysis on variables indicating whether the father's name will be reported on the birth certificate and whether the father visited the child in the hospital. A son is significantly and substantially more likely to have his father's name on his birth certificate if he is the mother's first child, but the effect of 'boy' is not significant for the full sample or for the sample of fathers' first births. There is no significant effect of child gender on the likelihood that the father visited the hospital in any sample, or for either specification. We do, however, find that the children born to more educated unmarried mothers are more likely to be visited by their fathers.

*Parent relationship status, father contact, and financial support at one year*

Table 4a presents the results for the first set of one-year outcomes for the non-marital birth sample—measures of the father's attachment to the family. There is no significant effect of child gender on whether the father lives with the mother, whether the father has seen the child within the last 30 days, or whether the mother has a new partner (both conditional on her not being in a relationship with the father, and unconditional). Mothers' age and education are positively associated with the probability of co-residence and father-child contact.

Table 4b reports the results for fathers' presence and contact with the child for the marital birth sample. Here we do see some evidence of positive effects of a son on marital stability and father involvement: fathers of sons are much less likely to leave the household or to fail to have contact with their child than fathers of daughters. The sample of non-coresident fathers who were married at birth is small, however, and the effect of 'boy' is not significant once maternal characteristics are added to the model. The effects of 'boy' on these outcomes are larger (though not statistically significant) for fathers' as well as mothers' first birth. The fact that the effects of child gender on father involvement are stronger in the marital sample, as compared with the non-marital sample, provides some support for the argument that child

gender effects are due to fathers' greater productivity with male children (and therefore increasing in fathers' level of commitment at birth) rather than to fathers' preferences for male children. If simple son preference were the explanation for greater father involvement, we might expect to observe similar effects of child gender for the married and non-marital sample.

In Table 5, we report the coefficients on 'boy' for a variety of indicators of paternal involvement and receipt of financial support for the non-marital birth sample. Again, there are no significant positive effects of a son on any indicators of a father's acceptance of legal and financial responsibility for the child. However, having a daughter outside marriage is associated with a higher probability that the mother receives financial support from her own family.

#### **IV. Conclusion**

Although numerous studies have found that fathers with sons are more likely to live with and spend time with their children, most of this research has focused on children in married-couple families. In this paper we examine the effect of child gender on multiple indicators of early father involvement in families with a non-marital birth—which now constitute nearly one-third of births in the United States – as well as families with a marital birth. In addition, we use the marital status comparison to test two explanations for the observed association between child gender and father involvement.

Consistent with past research, we find that married parents are more likely to stay together during the first year if their child is a boy (Dahl and Moretti 2004; Morgan et al. 1988). In contrast, we find only weak evidence of greater father involvement when the boy is born to unmarried parents. The only evidence of a child gender effect among unmarried parents is the finding that sons are more likely than daughters to be given the father's surname

name and to have the father's name on the birth certificate, and this effect appears to be driven by mothers who are having a first birth. One year after birth, there is no evidence that unmarried fathers are more likely to see their sons or to accept legal and/or financial responsibility for their sons as compared with daughters, and this is consistent with previous research that finds no child gender effect on the transition to marriage of unmarried parents in the Fragile Families sample.

Our findings, which indicate that the effect of sons depends on parents' marital status at birth, are consistent with the argument that fathers are more productive at raising sons than daughters and that fathers invest relatively more in sons when their initial commitment to the child's mother is high. In contrast, our findings are less consistent with the argument that fathers have a stronger preference for spending time with very young sons.

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**Table 1: Means of Control Variables and Baseline Outcomes**

	Non-marital Births			Marital Births		
	All Births	Mother's First Birth	Father's First Birth	All Births	Mother's First Birth	Father's First Birth
Boy	0.53	0.54	0.53	0.53	0.53	0.54
Mother's First Child	0.40			0.35		
Father's First Child	0.39 <sup>a</sup>			0.34		
Child Takes Father's Name	0.81	0.78	0.86			
Father's Name on Birth Certificate	0.88	0.86	0.92			
Father Visited Child in Hospital	0.77	0.78	0.86			
Mother's Race/Ethnicity						
White	0.24	0.29	0.30	0.52	0.59	0.60
Black	0.56	0.50	0.50	0.26	0.17	0.16
Hispanic	0.27	0.28	0.28	0.25	0.26	0.24
Mother's Education						
Less Than High School	0.40	0.36	0.38	0.17	0.13	0.13
High School Graduate	0.34	0.31	0.32	0.20	0.15	0.13
Some College	0.23	0.28	0.26	0.29	0.26	0.27
College Graduate	0.03	0.04	0.04	0.34	0.47	0.47
Mother's Age						
<20	0.22	0.39	0.33	0.03	0.06	0.05
20-29	0.62	0.54	0.60	0.49	0.56	0.54
30+	0.15	0.06	0.08	0.25	0.37	0.41
N	3311	1317	1087	1145	399	348

<sup>a</sup> Based on N=2777.



**Table 3: Baseline Outcomes, Non-marital Births  
Logit Odds-ratios (absolute value of z-scores)**

	All	All	Mother's First	Mother's First	Father's First	Father's First
<b>Child Took Father's Last Name</b>						
Boy	<b>1.17</b> (1.84)	<b>1.20</b> (1.98)	<b>1.28</b> (1.84)	<b>1.27</b> (1.78)	0.88 (0.73)	0.90 (0.63)
Mom Black		<b>0.65</b> (2.34)		0.80 (0.84)		0.70 (1.01)
Mom White		<b>0.62</b> (2.80)		<b>0.66</b> (1.73)		0.70 (1.09)
Mom Hispanic		<b>1.68</b> (3.36)		<b>1.72</b> (2.44)		<b>1.65</b> (1.70)
Mom in 20's		1.14 (1.22)		0.84 (1.12)		1.27 (1.24)
Mom 30+		0.94 (0.39)		0.86 (0.47)		1.72 (1.32)
Mom HS Grad		1.15 (1.37)		1.19 (1.00)		1.15 (0.65)
Mom Some College		<b>1.23</b> (1.70)		<b>1.55</b> (2.29)		1.13 (0.51)
Mom Coll. Grad		<b>1.82</b> (2.05)		1.54 (1.19)		1.70 (0.94)
<b>Father's Name on Birth Certificate</b>						
Boy	1.11 (0.97)	1.11 (0.94)	<b>1.36</b> (1.92)	<b>1.36</b> (1.94)	1.07 (0.30)	1.07 (0.32)
Mom Black		1.13 (0.59)		1.14 (0.44)		1.27 (0.62)
Mom White		<b>0.67</b> (2.32)		0.72 (1.31)		1.22 (0.54)
Mom Hispanic		1.03 (0.21)		0.94 (0.26)		1.46 (1.09)
Mom in 20's		1.07 (0.55)		0.97 (0.18)		1.38 (1.29)
Mom 30+		0.90 (0.54)		0.83 (0.53)		1.06 (0.14)
Mom HS Grad		1.11 (0.79)		1.16 (0.75)		0.96 (0.15)
Mom Some College		<b>1.39</b> (2.20)		<b>1.54</b> (1.89)		0.93 (0.23)
Mom Coll. Grad		1.80 (1.62)		1.42 (0.78)		1.17 (0.24)
<b>Father Visited Child in Hospital</b>						
Boy	1.01 (0.16)	1.02 (0.22)	1.04 (0.31)	1.04 (0.30)	1.07 (0.41)	1.09 (0.49)
Mom Black		<b>0.70</b> (2.23)		0.88 (0.52)		0.96 (0.13)
Mom White		1.01 (0.06)		1.00 (0.00)		1.46 (1.25)
Mom Hispanic		0.96 (0.27)		1.07 (0.31)		1.30 (0.89)
Mom in 20's		0.99 (0.06)		0.88 (0.82)		<b>1.51</b> (2.15)
Mom 30+		0.87 (0.99)		0.96 (0.12)		<b>2.66</b> (2.14)
Mom HS Grad		<b>1.35</b> (3.08)		1.28 (1.48)		1.34 (1.31)
Mom Some Coll.		<b>1.48</b> (3.41)		<b>1.65</b> (2.67)		1.09 (0.38)
Mom Coll. Grad		<b>1.65</b> (1.91)		1.28 (0.71)		1.40 (0.60)

**Table 4a: Twelve Month Outcomes—Relationship Status and Child Contact**  
**Non-marital Births**  
**Logit Odds-ratios (absolute values of z-scores)**

	All	All	Mother's First	Mother's First	Father's First	Father's First
<b>Mother Lives with Father</b>						
Boy	0.94 (0.82)	0.95 (0.72)	1.09 (0.80)	1.08 (0.64)	0.99 (0.07)	0.99 (0.07)
Mom Black		<b>0.68</b> (2.71)		<b>0.61</b> (2.27)		0.70 (1.57)
Mom White		1.17 (1.22)		1.13 (0.59)		<b>1.43</b> (1.72)
Mom Hispanic		<b>1.31</b> (2.17)		1.31 (1.43)		1.35 (1.48)
Mom in 20's		<b>1.21</b> (2.05)		1.15 (1.01)		<b>1.34</b> (2.03)
Mom 30+		<b>1.36</b> (2.34)		1.52 (1.47)		<b>1.58</b> (1.72)
Mom HS Grad		<b>1.26</b> (2.54)		<b>1.34</b> (1.89)		<b>1.48</b> (2.46)
Mom Some College		<b>1.22</b> (1.99)		<b>1.32</b> (1.67)		1.30 (1.55)
Mom College Grad		1.05 (0.23)		1.02 (0.07)		1.03 (0.09)
<b>Father has Seen Child within Last 30 Days</b>						
Boy	0.95 (0.54)	0.95 (0.50)	0.84 (1.22)	0.84 (1.19)	0.98 (0.11)	1.00 (0.02)
Mom Black		1.00 (0.02)		1.15 (0.51)		0.74 (0.81)
Mom White		0.93 (0.45)		0.85 (0.69)		0.98 (0.07)
Mom Hispanic		0.97 (0.17)		1.03 (0.12)		0.86 (0.47)
Mom in 20's		1.19 (1.51)		1.13 (0.74)		<b>1.55</b> (2.01)
Mom 30+		<b>1.54</b> (2.46)		1.46 (1.01)		<b>4.14</b> (2.27)
Mom HS Grad		<b>1.25</b> (1.96)		1.04 (0.24)		1.38 (1.28)
Mom Some College		<b>1.30</b> (1.95)		1.15 (0.69)		1.20 (0.66)
Mom College Grad		<b>2.01</b> (1.90)		1.39 (0.74)		0.88 (0.22)
<b>Mother has a New Partner, Conditional on no Relationship with Child's Father</b>						
Boy	1.09 (0.79)	1.07 (0.64)	1.05 (0.29)	1.07 (0.39)	1.05 (0.22)	1.02 (0.10)
Mom Black		0.98 (0.08)		1.00 (0.01)		1.23 (0.53)
Mom White		1.13 (0.56)		1.11 (0.31)		1.49 (0.99)
Mom Hispanic		0.79 (1.17)		0.90 (0.35)		0.65 (1.16)
Mom in 20's		0.97 (0.22)		0.85 (0.81)		1.02 (0.10)
Mom 30+		<b>0.28</b> (4.96)		<b>0.32</b> (1.78)		0.66 (0.77)
Mom HS Grad		0.93 (0.49)		0.75 (1.27)		<b>0.58</b> (2.09)
Mom Some College		0.84 (1.05)		1.03 (0.11)		0.81 (0.74)
Mom College Grad		0.86 (0.40)		0.64 (0.84)		<b>0.27</b> (1.66)
<b>Mother has a New Partner, Unconditional</b>						
Boy	1.08 (0.75)	1.07 (0.66)	1.00 (0.00)	1.02 (0.10)	1.07 (0.36)	1.06 (0.29)
Mom Black		1.27 (1.09)		1.35 (0.90)		1.58 (1.17)
Mom White		0.98 (0.10)		0.97 (0.08)		1.05 (0.14)
Mom Hispanic		<b>0.67</b> (2.04)		0.74 (1.03)		0.56 (1.63)
Mom in 20's		0.86 (1.18)		0.79 (1.24)		0.87 (0.63)
Mom 30+		<b>0.26</b> (5.36)		<b>0.26</b> (2.17)		0.57 (1.12)
Mom HS Grad		0.82 (1.57)		<b>0.68</b> (1.80)		<b>0.51</b> (2.72)
Mom Some College		<b>0.75</b> (1.98)		0.86 (0.68)		0.68 (1.44)
Mom College Grad		0.84 (0.47)		0.68 (0.74)		0.31 (1.56)

**Table 4b: Twelve Month Outcomes—Relationship Status and Child Contact  
Marital Births<sup>a</sup>  
Logit Odds-ratios (absolute values of z-scores)**

	All	All	Mother's First	Mother's First	Father's First	Father's First
<b>Mother Lives with Father</b>						
Boy	<b>1.60</b> (1.72)	1.51 (1.46)	1.99 (1.41)	1.77 (1.13)	2.16 (1.35)	1.92 (1.11)
Mom White		<b>1.95</b> (1.73)		1.55 (0.77)		0.96 (0.06)
Mom Minority		1.01 (0.03)		0.66 (0.67)		0.65 (0.59)
Mom above 25		<b>1.93</b> (2.30)		1.38 (0.59)		<b>3.71</b> (1.83)
Mom Some College		1.09 (0.31)		1.75 (1.05)		1.54 (0.49)
Mom College Grad		<b>5.64</b> (3.05)		<b>7.32</b> (2.30)		<b>6.82</b> (1.66)
<b>Father has Seen Child within Last 30 Days</b>						
Boy	<b>2.51</b> (1.85)	2.29 (1.64)	3.46 (1.50)	2.75 (1.19)	4.76 (1.39)	4.22 (1.27)
Mom White		1.72 (0.80)		1.84 (0.64)		0.75 (0.27)
Mom Minority		0.25 (1.57)		0.22 (1.22)		0.20 (1.19)
Mom above 25		<b>3.03</b> (2.23)		2.92 (1.17)		5.87 (1.38)
Mom Some College		0.67 (0.82)		0.83 (0.23)		0.85 (0.16)
Mom College Grad		3.06 (1.02)		1.92 (0.49)		0.89 (0.08)

<sup>a</sup> Education and age categories have been aggregated to avoid very small cell sizes.

**Table 5: Twelve Month Outcomes—Paternity, Child Support, Financial Support  
Non-marital Births  
Logit Odds-ratios on ‘Boy’ (absolute values of z-scores)**

	All	All <sup>a</sup>	Mother’s First	Mother’s First <sup>a</sup>	Father’s First	Father’s First <sup>a</sup>
Mother has Legal Child Support Agreement <sup>b</sup>	1.09 (0.67)	1.08 (0.64)	1.35 (1.47)	1.34 (1.41)	1.22 (0.86)	1.16 (0.66)
Amount of Legal Child Support per month <sup>c</sup>	10.84 (0.49)	18.61 (0.87)	-4.58 (0.16)	4.76 (0.17)	6.43 (0.21)	-13.25 (0.49)
Amount of Informal Child Support per month <sup>c</sup>	-21.02 (0.87)	-15.88 (0.65)	-2.48 (0.09)	10.22 (0.36)	19.78 (0.54)	20.20 (0.53)
Paternity has been Formally Established	0.96 (0.52)	0.96 (0.45)	1.03 (0.20)	1.02 (0.15)	0.96 (0.29)	0.96 (0.28)
Father took Initiative to Establish Paternity <sup>d</sup>	0.90 (0.77)	0.90 (0.77)	1.27 (1.06)	1.30 (1.12)	0.86 (0.64)	0.83 (0.79)
Mother Receives Financial Support from: Her Parents	0.90 (1.26)	0.88 (1.62)	0.90 (0.95)	0.90 (0.81)	<b>0.76</b> (2.14)	<b>0.73</b> (2.40)
Relatives other than her Parents	0.90 (1.02)	0.87 (1.33)	0.79 (1.57)	0.79 (1.57)	0.94 (0.35)	0.91 (0.53)
Any Relatives (her Parents, or Others)	0.89 (1.57)	<b>0.86</b> (1.96)	<b>0.82</b> (1.71)	0.83 (1.58)	<b>0.79</b> (1.85)	<b>0.76</b> (2.13)
Non-Relatives	0.85 (1.21)	0.84 (1.36)	0.78 (1.28)	0.79 (1.18)	0.98 (0.10)	0.94 (0.25)
Child’s Father’s Parents	0.94 (0.50)	0.93 (0.64)	1.09 (0.52)	1.11 (0.60)	1.12 (0.67)	1.09 (0.58)
Child’s Father’s Relatives other than his Parents	1.13 (0.76)	1.11 (0.66)	1.14 (0.58)	1.16 (0.64)	0.83 (0.82)	0.79 (1.02)
Child’s Father’s Relatives (his Parents, or Others)	0.99 (0.14)	0.97 (0.32)	1.12 (0.75)	1.14 (0.84)	0.99 (0.07)	0.96 (0.23)
Mother Receives Any Financial Support	0.91 (1.14)	0.90 (1.49)	<b>0.80</b> (1.88)	<b>0.81</b> (1.74)	0.83 (1.59)	<b>0.79</b> (1.84)

<sup>a</sup> Specifications also include dummy variables indicating whether mother is Black, White or Hispanic, age 20-29, age 30+, and whether she is a high school graduate, has some college or is a college graduate.

<sup>b</sup> Conditional on not cohabiting.

<sup>c</sup> OLS regression. Conditional on legal child support agreement.

<sup>d</sup> Conditional on paternity establishment.