

The Consequences of Couples' Pregnancy Intentions for Early Parental Behaviors and Infant Health: Does It Matter Who Is Asked?*

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October 2007

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CONTEXT: Previous research has found that pregnancy intentions are predictive of some early parental behaviors and infant health outcomes. However, most studies have relied on mothers' reports of pregnancy intentions and have examined only maternal behaviors which may affect children's health.

METHODS: This analysis draws on baseline data from the Fragile Families and Child Wellbeing Study, a 20-city study of unmarried parents and their children, to examine the relationship between pregnancy intentions and early parental and child outcomes. The study takes advantage of data collected from fathers and mothers to look at an alternate measure of pregnancy intention—whether either parent considered abortion at the time they learned of the pregnancy—and whether it is associated with maternal and paternal behaviors during the pregnancy and with infant birth weight.

RESULTS: Results from regression analyses show that mothers are less likely to initiate early prenatal care and fathers are less likely to make cash or in-kind contributions during the pregnancy when one or both parents considered abortion. Which parents' intentions are influential varies by outcome as well as by which parent reported it. Having both parents or the mother only consider abortion is also negatively associated with mothers' reports of all parental behaviors, while having both parents or the father only consider abortion is negatively associated with fathers' reports of their in-kind contributions and both parents' reports of fathers' cash contributions. Parents' considerations are not significantly associated with infant birth weight.

CONCLUSIONS: For early initiation of prenatal care, mothers' reports of having considered abortion are consequential but fathers' reports are not. Fathers' considerations matter for their reports of their own contributions, but these outcomes are even worse when both parents considered abortion. Because findings differ by each parent's intentions and by which parent reported paternal contributions, future research examining the consequences of pregnancy intention should examine measures of pregnancy intention and paternal behaviors reported by both parents.

Introduction

A large literature examines the effect of pregnancy intentions on infant health and development, generally finding that unwanted or mistimed pregnancies lead to delayed prenatal care and other negative outcomes. One limitation of this literature is that it has almost exclusively focused on maternal reports of pregnancy intention. A study by Korenman,

Kaestner, and Joyce (2002) which looks at the effect of fathers' as well as mothers' pregnancy intentions, finds that paternal intentions (as reported by mothers) also matter. In this paper, we take advantage of data collected from fathers and mothers in a representative sample of unmarried parents in large urban areas to look at an alternate measure of pregnancy intention—whether either parent considered terminating the pregnancy when he/she learned of it—and whether it is associated with early parental behaviors and infant health. In addition to considering pregnancy intentions from the perspectives of fathers and mothers, the Fragile Families data also allow us to investigate paternal as well as maternal behaviors during the pregnancy and to assess whether it matters which parent reports these behaviors.

Background

In 2001, almost half of pregnancies to women in the United States were unintended, with rates of unintended pregnancies higher among unmarried women and those who were younger, who had lower incomes and levels of education, and who were members of racial and ethnic minority groups (Finer and Henshaw 2006). Understanding the consequences of an unintended pregnancy is important in light of evidence suggesting that parents' pregnancy intentions are predictive of their children's physical and emotional well-being both in the short and long-term (e.g., Axinn, Barber and Thornton 1998; Brown and Eisenberg 1995). For example, women who report that the pregnancy was unwanted have been found to exhibit some maternal behaviors that are negatively associated with early child health, such as late initiation of prenatal care (Brown and Eisenberg 1995; Joyce, Kaestner, and Korenman 2000; Kost, Landry, and Darroch 1998; Marsiglio and Mott 1988). Previous research has also identified a link between mothers' pregnancy intentions and children's low birth weights (Brown and Eisenberg 1995; Sable and Wilkinson 2000), although results from studies examining this relationship are mixed. Similarly,

several studies have investigated outcomes for children in Europe who were born after their mothers were denied an abortion, treating women's request for an abortion as an indicator of an unwanted pregnancy. Evidence from this research tends to be correlational rather than causal but also points to an increased likelihood of children experiencing social, developmental, and relationship problems when they are born in these circumstances (see Brown and Eisenberg 1995 for a review).

Many surveys do not collect any information about paternal intentions or only have maternal reports of these intentions. Therefore, previous research has typically focused on mothers' pregnancy intentions rather than considering the intentions of both parents, at least in part because of these data constraints. However, a pregnancy that is intended by one partner is not always intended by both partners (Thomson, McDonald, and Bumpass, 1990). Using women's reports, Williams (1994) reports that close to one-third of partners in the 1988 National Survey of Family Growth had different childbearing desires, and that women who were never married, younger, Black, and had less than a high school education were less likely to share a desire to have a child with their partners. Furthermore, studies using couple data have shown that examining the reports of both partners may better predict fertility and family outcomes than relying on data from only one partner (Becker 1996; Thomson, McDonald, and Bumpass, 1990; Thomson 1999). Of particular relevance to this study, Korenman, Kaestner, and Joyce (2002), found that mothers were more likely to report behaviors associated with adverse health outcomes for children, such as delaying prenatal care, if the pregnancy was unintended by both or either parent according to women's reports. Although maternal intentions seemed to matter more than paternal intentions, early outcomes were more favorable when a child was intended by both

parents rather than only the mother, suggesting fathers' views of the pregnancy were also important.

Despite calls for including men in research on fertility and pregnancy resolution decisions (e.g., Goldscheider and Kaufman 1996; Marsiglio 1998; Thomson, McDonald, and Bumpass, 1990), previous studies using couple data have typically relied on women's reports of men's pregnancy intentions, rather than examining the views of male partners directly. Although the use of these proxy reports may not introduce significant measurement error in samples of married couples, unmarried women and those who are more disadvantaged may be unable or unwilling to report their partners' intentions accurately or may be unaware of their partners' preferences (Goldscheider and Kaufman 1996; Williams 1994).

A few studies have examined information reported directly by men to investigate how their pregnancy intentions are related to paternal involvement and to identify factors which may influence men's views of fertility. In particular, a recent study of resident fathers in the Early Child Longitudinal Study-Birth Cohort data found that men who reported they did not want the pregnancy were less likely to exhibit paternal warmth to their 9-month old infants, and those who wanted the pregnancy sooner than it occurred were more likely to display nurturing behaviors (Bronte-Tinkew, Ryan, Carrano, and Moore forthcoming). This is important because children who experience high quality parenting from their fathers have been found to have better outcomes (Amato and Gilbreth 1999). Drawing on a national study of adolescent males, Marsiglio (1993) found that young men who lived in poor neighborhoods indicated they would be less bothered by the news of an unplanned pregnancy than those living in more advantaged contexts. Young men were also less likely to support the idea of an unmarried woman having an abortion if they thought they themselves would accept an unplanned pregnancy or believed that

men should be financially responsible for children born in these situations (Marsiglio and Shehan 1993). However, there is little research examining how fathers' pregnancy intentions are associated with their early support of mothers, particularly when their desires diverged from those of their partner's, and we know very little about the relationship between pregnancy intention and outcomes for fathers who do not live with their children.

Compared to married parents, unmarried parents are not only more likely to have children unintentionally (Brown and Eisenberg 1995) but they also have fewer economic resources. Research suggests that children of unmarried parents are at risk for early health problems (e.g., Reichman et al. 2007). While some of these negative outcomes for children of unmarried parents may reflect selection, it is still important to understand how pregnancy intention is tied to behaviors during the pregnancy now that more than one out of three births in the United States occurs to unmarried parents. In this paper, we use data from the Fragile Families and Child Wellbeing Survey to examine how mothers' and fathers' pregnancy intentions are related to early maternal and paternal behaviors and to their child's health. This analysis extends previous research in several ways. First, we investigate the relationship between parents' views of the pregnancy and early health-related behaviors and outcomes in a representative sample of parents who have recently experienced a non-marital birth, a group of particular interest to researchers and policymakers concerned with children's well-being. Second, we make use of couple data from mothers and fathers of the same child to examine whether it is important if one or both parents intended the pregnancy at a point in time and how partner agreement and disagreement about the pregnancy relate to early outcomes. Third, the rich set of measures in the Fragile Families Study allows us to investigate paternal behaviors during the pregnancy in addition to

maternal behaviors. Finally, we examine direct reports about the pregnancy from fathers in the study, rather than relying on proxy reports from their child's mother.

Hypotheses

There are several reasons we would expect child outcomes to be worse when both or either parent considered abortion as an option for resolving the pregnancy. When a pregnancy is unintended, and particularly when either parent or both parents are unsure as to whether the pregnancy will be carried to term, the mother may not engage in behaviors which promote children's health, such as obtaining early prenatal care. When the mother is uncertain about the pregnancy, she may put off such actions, while fathers who are unsure may not provide support (financial or otherwise) for mothers to engage in these behaviors. It is also possible that unintended pregnancies are discovered or accepted later in gestation (Brown and Eisenberg 1995).

If pregnancies where one or both parents considered abortion do have worse outcomes, it may matter which parent considered abortion. Korenman, Kaestner, and Joyce (2002) put forth several hypotheses about how intendedness could affect these outcomes. The dose-response hypothesis would suggest that having both parents consider terminating the pregnancy would be worse than having either parent consider this option, and having either parent consider abortion would be worse than having neither parent consider this. A second hypothesis suggests that the mothers' intentions may be more consequential for birth outcomes than fathers' intentions, since mothers are more instrumentally involved in the pregnancy, especially when parents are unmarried. However, these and other authors have also recognized an alternative scenario in which men's intentions may be more consequential than women's. In particular, if paternal behavior during pregnancy and toward children is more strongly affected by whether or not the

child was intended than maternal behavior, men's intentions may matter more for birth outcomes.

Data and Methods

This analysis uses baseline data from the Fragile Families and Child Wellbeing Study collected in 1998–1999. The Fragile Families Study follows a new birth cohort of children in 20 U.S. cities to learn more about the circumstances and experiences of unmarried parents and their children in the early years of their child's life. The total sample includes 4,898 births, 3,712 of which occurred to unmarried parents and 1,186 occurred to a comparison sample of married parents. In this study, we use data from the subset of 16 cities where the unmarried sample is nationally representative of non-marital births in cities with populations over 200,000.¹ Sampling was based on hospital of birth, with a goal of representing hospitals with 75% of unmarried births in all cities but the largest two, Chicago and New York. Thus, married parents in the data were those giving birth in hospitals with a large share of unmarried births.

New mothers were initially interviewed in person at the hospital, and the fathers of their children were interviewed either at the hospital or someplace else as soon as possible after the birth. Baseline response rates were high, ranging from 82% - 87% for unmarried and married mothers respectively. Approximately 76% -88% of their partners also participated in the baseline survey. We primarily focus on parents who were unmarried at the time of their child's birth but also present comparisons on some outcomes with parents who were married at the birth. Our sample includes parents of all children in the study, but we investigate the robustness of our findings to restricting the sample to couples in which both partners completed the baseline survey.

¹ See Reichman, Teitler, Garfinkel and McLanahan (2001) for more information about the study's methodology.

We model the effects of one measure of pregnancy intention—whether either parent or both parents considered terminating the pregnancy—on several infant health outcomes and measures of maternal and paternal behavior during the pregnancy. Pregnancy intention is indicated by whether the mother, the father, both parents, or neither parent reported that they considered abortion at the time they discovered she was pregnant. This is an unusual indicator of pregnancy intendedness which is typically measured by whether the parent says the pregnancy was unwanted or mistimed. We use this measure primarily for a practical reason: the Fragile Families survey did not ask the more standard questions about pregnancy intentions. However, we think that the benefits of having a measure reported independently by the father and mother outweigh the possible disadvantages of using this non-standard measure. As with many other surveys measuring pregnancy intentions, parents were asked this question retrospectively. There may be less stigma associated with parents reporting they considered an abortion after having a child than with reporting that an existing birth was unwanted. Another advantage to using this measure is that complicated pregnancies or pregnancies with poor outcomes may lead women or men to retrospectively say that the pregnancy was unwanted, and this could cause researchers to erroneously conclude that unwanted pregnancies had worse outcomes. Our measure should not suffer from this problem. Our measure may also be of intrinsic interest, given how little is known about family outcomes in situations where men and women disagreed about terminating a pregnancy (Marsiglio 1998). This measure also has some disadvantages. In particular, having considered abortion at the time each parent learned of the pregnancy is a point-in-time measure, and may not reflect parents' later views of the pregnancy. The question is asked as of when each parent learned of the pregnancy. Thus, it may also have occurred at different points in the pregnancy for the two partners.²

² While not an issue for our other measures, this could be a problem for our analysis of early receipt prenatal care,

Consistent with previous studies, we focus on infant health outcomes and behavior during the pregnancy for two reasons. First, there is an extensive literature linking infant health with long term outcomes (e.g., Barker 1998). Second, infant health is determined close to the time that our indicator of pregnancy intention was measured (at the time each parent learned of the pregnancy), and thus it is reasonable to expect we might find an effect of one on the other. The infant health outcomes we analyze include the child's birth weight and whether the child was low birth weight (birth weight of 2,500 grams or less). Our measure of maternal behavior is indicated by whether the mother initiated prenatal care during the first trimester. Paternal behaviors are measured by whether the father contributed money or in-kind help to the mother during the pregnancy.³ Questions about paternal support were asked in the sample of unmarried parents only. Birth weight, low birth weight, and early initiation of prenatal care are based on mothers' reports from the baseline survey. We examine both parents' reports about paternal contributions of cash and in-kind support.⁴

Analytic techniques

We predict our child health and parental behavior outcomes as a function of pregnancy intentions at the time the parent learned of the pregnancy, maternal, paternal, and child characteristics, and city fixed effects. For the 0-1 outcomes, we present results of multivariate probit analysis. The underlying latent index y_{is}^* has the basic form:

$$y_{is}^* = \alpha A_{is} + \beta X_{is} + \Gamma S_s + \varepsilon_{is},$$

which is impossible for women who learn of the pregnancy after the first trimester is over. We also consider receipt of prenatal care in the fourth month, and our conclusions are unchanged. In the 2002 National Survey of Family Growth, of 3,012 women reporting a pregnancy during the previous five years, 95% reported that they knew they were pregnant by the 13th week of the pregnancy (NCHS 2006).

³ Fathers' contributions of cash have been shown to have larger positive impacts on child developmental outcomes than other sources of income (Argys, Peters, Brooks-Gunn and Smith 1998; Knox 1996).

⁴ About one-quarter of fathers did not participate in the baseline survey. Thus, the paternal reports for these measures are missing (and set to zero in the regressions, where we also control for the case of not having a father interview).

where ε_{is} is distributed standard normal. The observed outcomes y_{it} are 0 if the latent index y_{is}^* is less than zero and 1 otherwise. The outcome variables (y_{it}) are measures of maternal and paternal behaviors during the pregnancy (early prenatal care, money or in-kind contributions from the father) or infant health (low birth weight) for child i in city s . We also present the results of ordinary least squares regressions predicting birth weight, with the same right hand side variables as in the categorical analysis. A_{is} are our key independent variables, measures of whether both parents, the mother only, or the father only reported having considered abortion, or in some specifications, an indicator for whether either parent considered abortion.⁵

X_{is} are a series of individual level controls for the mother, father, and child and for multi-partner fertility. Maternal controls include education (having less than a high school degree, exactly a high school degree, some college but not four year degree, and maternal education not being reported); age (under 20, 20–24, or 25–29), race/ethnicity (non-Hispanic black, Hispanic, other non-Hispanic, or race or Hispanic ethnicity or race being missing).⁶ Paternal controls are similar but also include a category for fathers' age being unreported. Child controls include dummies for month of birth (July, the most common month, is excluded), for the child being male or the sex being unreported, and for whether the birth was a multiple one. Our measures of multi-partner fertility are indicators for whether the father has biological children with another partner, the mother has biological children with another partner, or it cannot be determined (the omitted category is whether the parents have the same number of biological children). S_s represent city fixed effects for the city in which the birth took place (New York is omitted), and

⁵ We also include indicators for whether either parent refused or did not know the answer to these questions, and for whether the father did not complete the interview.

⁶ Thus, the omitted reference category is a non-Hispanic white women with a four-year college degree aged 30 or older.

ε_{is} represent unobservable determinants. Standard errors are adjusted for possible heteroskedasticity and clustering within city.

Results

Descriptive Analysis

Table 1 presents the distribution of fathers' reports of whether they considered abortion by mothers' reports. The top panel shows the results for married women and the bottom panel presents results for unmarried women. In the top row of each panel, we can see the total sample size and breakdown of fathers' reports (i.e., father considered abortion, father did not consider abortion, father did not answer the question, or father was not interviewed) for all women in the married and unmarried samples. Subsequent columns present this breakdown for each category of mothers' reports. These results show that most parents in the married and unmarried samples did not consider abortion, although unmarried parents were somewhat more likely to consider this option than married parents. In situations where women did not consider abortion, 67% of fathers in unmarried couples and 87% of fathers in married couples also report they did not consider terminating the pregnancy. Parents' initial thoughts about the pregnancy typically are the same, despite possibly arising at different points in time. However, Table 1 also shows that there are often situations in which the mother considered abortion and the father did not and vice versa. For example, among unmarried couples where the mothers did not consider abortion (row 2 of the lower panel), 12% of their male partners did consider abortion. In unmarried couples where the mothers did consider abortion (row 3 of the lower panel), almost half of the fathers reported not having considered abortion.

Means for the outcome measures are presented in Table 2 for unmarried parents (panel A) and for married parents (panel B), for samples where neither parent, both parents, the mother

only, or the father only considered abortion, as well as for samples where these reports were missing or the father was not interviewed. For example, the first value for birth weight reported in column 1 of Panel C is 7.07 lbs, which is the average birth weight among unmarried couples where neither parent considered abortion and the column 2 value of 6.99 lbs is the average birth weight for children of unmarried couples where both parents considered abortion. Panel C presents summary statistics for child, parental, and relationship characteristics from the pooled unmarried and married samples according to parents' reports of whether they considered abortion. In columns 2–6 of the table, values are marked with asterisks if a test shows that the average value for this column differs significantly from that for the column 1 value (couples where neither parent considered abortion).

Results presented in the top two panels show that the birth weight and incidence of low birth weight do not vary by parental reports of having considered abortion in the married or unmarried samples (with the exception of the cases where one or another parent refused to answer, for the sample of married couples). Early initiation of prenatal care is less frequent among unmarried parents if the mother or both parents considered abortion, and is less frequent among married parents if the mother only considered abortion. In the sample of unmarried parents, paternal contributions of money are less common if either parent considered abortion, while in-kind contributions from the father are less common if both parents considered abortion. Taken together the means suggest that parental behaviors during pregnancy are related to our measure of pregnancy intention. Because these simple mean comparisons may merely reflect other differences, however, we turn to multivariate analysis.

Multivariate Analysis

Table 3 presents results from probit regressions of the determinants of early prenatal care initiation, paternal contributions during the pregnancy, and of the incidence of low birth weight. The table shows selected coefficients for the variables measuring whether both parent considered abortion, the father only considered abortion, and the mother only considered abortion from unweighted regressions.⁷ The standard errors are robust to heteroskedasticity and are adjusted for an arbitrary correlation structure within city. Because the sample was clustered, assuming independence might lead to misleading conclusions about inference.

Columns 1 and 2 present results for the unmarried sample, and columns 3 and 4 for the married sample where relevant (whether the father gave money or in-kind help to the mother was not asked for the married parents). Each panel presents the results for a single outcome. We also test some of the hypotheses concerning the importance of which parent reports having considered abortion to see whether including the information about both parents matters for predicting these outcomes. First, we test whether fathers' pregnancy intentions are irrelevant (if they are, it suggests there is little harm to relying on maternal reports of pregnancy intention). This is a joint test of the mother only coefficient being equal to the coefficient for both parents having considered abortion and of the father only having considered abortion coefficient being equal to the coefficient for neither parent having considered abortion (the reference category). Next, we test whether the coefficients for the mother only, the father only, or both parents having considered abortion are equal. The results of these chi-squared tests are presented in the bottom two rows of each panel, along with *p*-values for the significance of the tests in parentheses.

⁷ In sensitivity analyses not presented here, we found that the results were similar qualitatively and in statistical significance when we used nationally representative weights in the regressions (results available upon request).

Among unmarried parents (columns 1 and 2), the regression results suggest that mothers are less likely to initiate early prenatal care and fathers are less likely to contribute cash and in-kind contributions during the pregnancy when both parents considered abortion. In order to get a sense of magnitudes, we will also discuss the marginal effects implied by some of these coefficients. When evaluating the implied marginal effects for couples with data on abortion considerations, having both parents consider abortion is associated with a 12 percentage point decrease in the likelihood of obtaining early prenatal care (significant at the 5% level). This is a large decrease in the probability of obtaining early prenatal care, compared to the baseline for unmarried women which was 71% if both parents considered abortion.⁸ The marginal effects for both parents having considered abortion for fathers' cash contributions are either -7 percentage points (for mothers' reports) or -9 percentage points (for fathers' reports) -- both significant at the 10% level. The analogous marginal effects for the effect of both parents having considered abortion on in-kind contributions are -12 percentage points (mothers' report) or -14 percentage points (father report) -- both significant at the 5% level.

Having the mother only consider abortion is also negatively associated with mothers' reports of all parental behaviors, while having the father only consider abortion is negatively associated with both parents' reports of fathers' cash contributions and fathers' reports of paternal in-kind contributions. None of these variables is significantly associated with low birth weight (or, in least squares regressions not reported here, with actual birth weight). The tests of whether fathers' intentions are irrelevant reject the hypothesis that fathers' intentions do not matter for his contributions of cash support (chi-squared statistic of 13.0 or 8.0, p-value of 0.002

⁸ One might be concerned that we are merely picking up cases where the mother realized she was pregnant after the first trimester was over. As noted above in footnote 3, in the 2002 NSFG, for pregnancies to women 15-44 during the previous 5 years, in 95%, the women said knew they were pregnant by the 13th week. We also have considered the outcome "began prenatal care before the end of the fourth month", and while the implied marginal effects are smaller, they are still a statistically significant 6 percentage points.

or 0.02) or for his reports of in-kind support (chi-squared statistic of 16, p-value of 0.003).

However, the chi-squared tests fail to reject that the father is irrelevant for early prenatal care or for mothers' reports of fathers' in-kind contributions.

It is most interesting to consider whether all three coefficients are equal in cases where the father is not irrelevant (as when the father is irrelevant, either all coefficients are insignificant or the father is). For mothers' reports of fathers' cash contributions, we see that we cannot reject the equality of the coefficients. In fact, somewhat surprisingly for mothers' reports of fathers' cash contributions, it is worse to have the mother and not the father or the father and not the mother report having considered abortion (both have marginal effects of -9 percentage points) than to have both report having considered abortion (marginal effect of -7 percentage points). For fathers' reports of his own cash contributions, and for either parents' reports of in-kind help, we reject that the coefficients are equal.

One of the contributions of this paper is to note the differences between the effects of fathers' and mothers' reports of our measure of pregnancy intention when they learned of the pregnancy. We have seen here that there are some differences. Another contribution is to look at the effects of these variables on mothers' and fathers' reports of paternal contributions. Here, we see that while having both parents report having considered abortion is always associated with fewer paternal contributions during the pregnancy regardless of who reports it, this is not the case for three of four outcomes when only one parent reported having considered abortion. When fathers' reports are considered, the father only having considered abortion is negatively associated with contributions while the mother only having considered abortion is not. Given that often fathers' and mothers' reports about paternal contributions differ, this may not be surprising.

Columns 3 and 4 of Table 3 report coefficients for the sample of married parents. In the results for low birth weight, there is no coefficient for both parents having considered abortion. This is because having both married parents report having considered abortion perfectly predicted low birth weight. Among married parents, (columns 3 and 4), the pattern of the coefficients is similar to what we see for the unmarried parents for early prenatal care, although the coefficients are imprecisely estimated. There are large standard errors for the regression predicting low birth weight for married parents.

We also consider whether having one or both parents consider abortion is associated with receipt of early prenatal care, paternal contributions, birth weight, or low birth weight. Table 4 presents the results of regressions predicting the same outcomes as well as birth weight, with only an indicator for one or both parents' having considered abortion. As Table 3 would lead one to suspect, having one or both parents consider abortion is negatively associated with early prenatal care and paternal contributions of cash or in-kind help. There is no effect on birth weight or low birth weight.

Discussion

Previous studies have found that pregnancy intentions are predictive of infant health and parental behaviors during the pregnancy, and that the intentions of both partners may influence these outcomes. Drawing on information from a study of unmarried parents and their children in large U.S. cities, this analysis builds on this research by investigating whether maternal initiation of prenatal care, paternal support of mothers during the pregnancy, and children's birth weight are adversely affected when either or both parents considered an abortion. The study also extends previous research by including fathers' direct reports in addition to mothers' reports and by examining the impact of parents' intentions on fathers' behaviors during the pregnancy.

Consistent with research by Korenman, Kaestner, and Joyce (2002), we find that some positive parental behaviors among unmarried parents are less common when both or one parent considered terminating the pregnancy, although which parents' intentions matter varies by outcome and who reported it. Having the mother only consider abortion is also negatively associated with mothers' reports of all parental behaviors, while having the father only consider abortion is negatively associated with fathers' reports of their in-kind contributions and both parents' reports of fathers' cash contributions. For early initiation of prenatal care, mothers' reports of having considered abortion are consequential but fathers' reports are not. Fathers' considerations matter for their reports of their own contributions, but these outcomes are even worse when both parents considered abortion.

Mothers' thoughts about terminating their pregnancies may be better predictors of early prenatal care initiation than those of fathers for two possible reasons. Unmarried women have direct control over the outcome of the pregnancy. In situations where men are unsure about the pregnancy, they may take their cues from women when deciding whether to encourage their partners to seek prenatal care. Alternatively, women's reports and men's reports may simply refer to a different point in time if they did not learn of the pregnancy at the same time. The finding that, if parents' thoughts differ, men's considerations about having considered abortion matter more for their decisions about providing monetary and in-kind support seems to be consistent with some evidence from qualitative interviews with fathers in the Fragile Families Study who felt less obligated to provide financial support to the mother when they wanted her to have an abortion (Waller and Bitler 2005).

Although both maternal and paternal behaviors among unmarried parents appear to be influenced by whether either or both parents considered an abortion, we do not find support for

the hypothesis that these considerations negatively affect children's birth weight. These findings parallel those of Korenman, Kaestner, and Joyce (2002) and some other studies (Brown and Eisenberg 1995) in suggesting that pregnancy intentions may be more strongly related to parenting behaviors, such as prenatal care. Because parents in the Fragile Families Study were asked to describe whether they considered terminating the pregnancy at a particular point-in-time, it is possible that parents' initial responses did not reflect their later feelings about the pregnancy. Therefore, parents' immediate reactions to the pregnancy may have been more closely tied to parenting behaviors that occurred around this time than to outcomes measured at the birth.

This study contributes to recent evidence about early parenting behaviors for children in fragile families, a group which is now the focus of considerable attention. Because findings differ by each parent's intentions and by their reports of paternal contributions, future research examining the consequences of pregnancy intention should examine measures of pregnancy intention and paternal behaviors reported by both parents. Recent policy debate has focused on understanding and avoiding unintended pregnancies among young men and women (e.g., Sonenstein et al. 1997); having men's own reports of their pregnancy intentions may inform this discussion. Although a major advantage of the Fragile Families data set is the inclusion of reports from unmarried fathers as well as mothers, an important limitation of the study is that standard questions about pregnancy intention were not asked of parents. Future research investigating the consequences pregnancy intention should also examine measures of pregnancy timing and wantedness which can more easily be compared to those used in previous research.

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TABLE 1: Percentage distribution of births, by whether father considered abortion, according to whether mother considered abortion and marital status, Fragile Families and Child Wellbeing Survey respondents

Mother's report of whether she considered abortion	N	Father's report of whether he considered abortion				Total
		Father did not consider	Father considered	No father answer	No father interview	
Married parents	737	86.4	3.4	0.3	9.9	100.0
Mother did not consider	682	87.4	2.4	0.2	10.1	100.0
Mother considered	53	77.4	15.1	0.0	7.6	100.0
No answer	2	0.0	50.0	50.0	0.0	100.0
Unmarried parents	2,366	59.8	15.9	0.6	23.8	100.0
Mother did not consider	1,628	67.0	12.0	0.3	20.8	100.0
Mother considered	702	46.2	25.4	0.4	28.1	100.0
No answer	36	0.0	5.6	19.4	75.0	100.0

Notes: Marital status is measured as of birth. Fathers' and mothers' self-reports at time of birth/when interview completed of whether they considered abortion when they learned of pregnancy.

TABLE 2: Selected outcomes of behavior during pregnancy, birth outcomes, and child, maternal, and paternal characteristics among Fragile Families and Wellbeing Survey respondents, by parents' reports of whether they considered abortion.

<i>Summary statistics by parents' reports of having considered abortion</i>						
	Neither	Both	Mother Only	Father Only	DK/RF	No father Interview
A. Sample of unmarried parents						
Birth weight (lbs)	7.07	6.99	7.07	6.91	7.04	7.02
Low birth weight (%)	9.7	10.9	9.3	11.1	5.9	8.5
Any prenatal care (%)	97.8	97.2	97.5	99.5	100.0	97.3***
Prenatal care initiated first trimester	81.8	71.0***	70.5***	80.9	62.5*	74.3***
Mother's report						
Father contributed cash (%)	92.1	87.0*	84.7***	83.5***	57.1***	53.0***
Father contributed in-kind (%)	91.2	79.8***	82.4***	86.7	42.9***	47.7***
Father's report						
Father contributed cash (%)	92.3	84.6***	90.4	88.2**	75.0***	--
Father contributed in-kind (%)	92.4	78.1***	88.6*	82.6***	50.0***	--
B. Sample of married parents						
Birth weight (lbs)	7.46	7.02	7.69	7.35	5.27***	7.49
Low birth weight (%)	3.4	0.0	4.9	6.7	66.7***	4.2
Any prenatal care (%)	99.2	100.0	97.6	100.0	100.0	100.0
Prenatal care initiated first trimester	91.2	85.7	80.4**	93.8	100.0	83.3**
C. Background characteristics, births to all parents						
Child is male (%)	54.0	53.2	51.0	54.0	40.0	52.9
Multiple birth (%)	1.9	1.6	1.4	1.0	0.0	2.0
Maternal characteristics						
No high school degree (%)	31.2	31.7*	36.4*	37.9	30.0	40.5***
High school degree, no college	27.6	40.3***	34.8***	25.6	15.0	28.0
Some college, no 4-year degree	24.7	25.3	24.1	26.5	45.0**	25.5
4-year degree	16.4	2.7***	4.1***	10.0***	5.0	6.0***
Age less than 20	15.1	21.5**	23.0***	26.5***	5.0	17.6
Age 20-24	35.2	39.8	41.1**	36.5	40.0	39.4*
Age 25-29	23.1	21.5**	17.0	21.3	15.0	21.9
Age at least 30	26.5	17.2***	18.9***	15.6***	40.0	21.1
Non-Hispanic black	28.0	51.1***	55.1***	53.1***	30.0	43.8***
Hispanic	32.7	28.0	24.4***	21.3***	40.0	33.4
Other non-Hispanic	5.1	2.7	4.1	3.3	10.0	2.8**
Non-Hispanic white	31.6	17.2***	15.3***	20.9***	20.0	17.2***
Paternal characteristics						
No high school degree (%)	32.9	24.7**	38.9**	36.5	25.0	0.0***
High school degree, no college	28.2	38.2***	35.6***	30.8	20.0	0.0***
Some college, no 4-year degree	24.8	33.3***	21.9	27.4	40.0*	0.0***
4-year degree	15.1	4.3***	4.4***	8.5***	15.0	0.0***
Age less than 20	7.3	10.8*	9.9*	15.2***	0.0	0.0***
Age 20-24	27.9	36.0**	42.7***	33.6*	30.0	0.0***
Age 25-29	24.7	28.5	16.2***	27.5	20.0	0.0***
Age at least 30	40.1	24.7***	31.2***	23.7***	50.0	0.0***
Non-Hispanic black	29.4	55.9***	52.1***	53.1***	20.0	0.0***
Hispanic	31.8	24.2**	26.6**	21.3***	30.0	0.0***
Other non-Hispanic	6.0	3.2*	5.5	5.7	10.0	0.0***
Non-Hispanic white	28.2	14.0***	12.3***	14.7***	25.0	0.0***

Relationship at baseline						
Married	35.3	4.3***	11.2***	7.6***	15.0**	11.5***
Cohabiting	43.6	48.4	43.8	49.8*	10.0***	16.9***
Visiting	17.7	33.9***	32.6***	31.3***	45.0***	30.1***
Other	3.4	13.4***	12.3***	11.4***	30.0***	24.6***
Biological kids with other partners						
Mother has some	18.1	31.7***	30.9***	25.6**	30.0	0.0***
Father has some	17.9	24.2**	20.5	23.2**	35.0**	0.0***
None	63.6	44.1***	47.4***	51.7***	35.0***	0.0***

*denotes significantly different from the mean for neither parent considered abortion at $p < 0.10$, ** at $p < 0.05$, and *** at $p < 0.1$.
Notes: Means in top panels for outcomes reported for unmarried (panel A) or married parents (panel B). Means in bottom panel (panel C) for maternal, paternal and child characteristics reported for children of all parents.

TABLE 3. Coefficients from probit analyses indicating the effects of whether parents considered abortion on maternal and paternal behaviors and birth outcomes during the pregnancy, by parents' marital status.

<i>Outcome</i>	Unmarried parents		Married parents	
	<i>Coefficient</i>	<i>Standard Error</i>	<i>Coefficient</i>	<i>Standard Error</i>
Prenatal care initiated, first trimester				
Both considered abortion	-0.41***	0.15	-0.45	0.76
Father only considered abortion	-0.01	0.07	0.19	0.65
Mother only considered abortion	-0.39***	0.08	-0.36*	0.21
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	0.04 (0.98)		0.27 (0.87)	
<i>Equality of effects</i> ††	24.4 (0.000)		2.78 (0.25)	
Mother reports father gave cash in pregnancy				
Both considered abortion	-0.32**	0.15		
Father only considered abortion	-0.40***	0.11		
Mother only considered abortion	-0.41***	0.08		
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	13.0 (0.002)			
<i>Equality of effects</i> ††	0.4 (0.82)			
Father reports he gave cash in pregnancy				
Both considered abortion	-0.48***	0.16		
Father only considered abortion	-0.25*	0.15		
Mother only considered abortion	-0.06	0.11		
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	8.2 (0.02)			
<i>Equality of effects</i> ††	6.8 (0.03)			
Mother reports father gave in-kind help in pregnancy				
Both considered abortion	-0.49***	0.12		
Father only considered abortion	-0.17	0.13		
Mother only considered abortion	-0.42***	0.14		
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	3.7 (0.16)			
<i>Equality of effects</i> ††	4.8 (0.09)			
Fathers reports he gave in-kind help in pregnancy				
Both considered abortion	-0.96**	0.40		
Father only considered abortion	-0.58**	0.29		
Mother only considered abortion	0.13	0.25		
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	16.2 (0.003)			
<i>Equality of effects</i> ††	16.5 (0.003)			
Low birth weight				
Both considered abortion	0.01	0.16	--	
Father only considered abortion	-0.05	0.11	0.73 (0.54)	
Mother only considered abortion	-0.12	0.12	-0.08 (0.58)	
<i>Chi-squared test (p-value)</i>				
<i>Father irrelevant</i> †	0.8 (0.69)		--	
<i>Equality of effects</i> ††	1.0 (0.61)		1.022 (0.27)	

*denotes coefficient is significant at p<.10, ** at p<.05, and,***at p<.01.

* Test of joint hypothesis that the coefficient on the mother only having considered abortion equals the coefficient on both parents having considered abortion and that the coefficient on the father only having considered abortion equals the coefficient for neither parent having consider abortion. ***Test that the three coefficients shown are equal.

Notes: Table presents selected coefficients from probit regressions of determinants of maternal and paternal behaviors during pregnancy and whether birth was low birth weight. Columns 1 and 2 present results for the sample of unmarried women, and columns 3 and 4 for married women. Standard errors adjusted for heteroskedasticity and for clustering of sample within city. Regressions also include controls for whether either parent did not answer the questions about having considered abortion; whether there was no paternal interview; child sex; whether the birth was a multiple; mother's and father's education, race, age, and ethnicity; whether the mother or father had biological children with other partners; and city and month of birth dummies.

TABLE 4. Coefficients from regressions indicating the effects of either parent’s having considered abortion on maternal behaviors, paternal behaviors, and birth weight, by parents’ marital status.

Outcome	Unmarried parents		Married parents	
	Coefficient	Standard Error	Coefficient	Standard Error
Prenatal care initiated, first trimester	-0.29***	0.06	-0.33	0.27
Mother reports father gave cash in pregnancy	-0.39***	0.07		
Father reports he gave cash in pregnancy	-0.32**	0.13		
Mother reports father gave in-kind help in preg.	-0.37***	0.11		
Father reports he gave in-kind help in preg.	-0.49***	0.07		
Low birth weight	-0.06	0.09	0.11	0.45
Birth weight	0.03	0.06	0.17	0.18

denotes coefficient is significant at $p < .10$, ** at $p < .05$, and * at $p < .01$.*

Notes: Table presents coefficient on whether either or both parents reported having considered abortion from regressions of determinants of maternal and paternal behaviors during pregnancy, whether birth was low birth weight, and of birth weight. Regressions for determinants of maternal and paternal behaviors are probits, regression for determinates of birth weight is ordinary least squares. Columns 1 and 2 present results for the sample of unmarried parents, and columns 3 and 4 for married parents. Standard errors adjusted for heteroskedasticity and for clustering of sample within city. Regressions also include controls for whether either parent did not answer the questions about having considered abortion; whether there was no paternal interview; child sex; whether the birth was a multiple; mother’s and father’s education, race, age, and ethnicity; whether the mother or father had biological children with other partners; and city and month of birth dummies.