# Half-full or Half-empty? The Implications of Half-siblings for Children's Well-being 

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In multiple partner fertility families, children share parents, but they do not necessarily share the same relationship to all parents. By definition, multiple partner fertility means that a parent has had children with multiple partners (i.e., Mincy 2002). Therefore, children may have the same father and different mothers, or live in a household with a half-sibling who has the same mother, but with whom they do not share a father; many children even have half-siblings by each of their parents.

Recent estimates suggest that in $20 \%$ of couples with a marital birth, at least one of the parents also has children by a prior partner. Among couples with a non-marital birth, that rate is estimated to be $60 \%$ (Carlson and Furstenberg 2006). These two numbers represent a startling shift away from the married, two-parent nuclear family idealized in America. Many families now include more (and sometimes many more) than two parents, some of whom are never married to each other, and many children are now growing up in this new kind of family, one that is both less stable and less clearly defined than the iconic American family (Cherlin 1978; Monte 2008b).

There is evidence that children who grow up in stepfamilies do not fare as well as their nuclear family counterparts (Brown 2004; McLanahan and Sandefur 1994). Less is known, however, about the implications of multiple partner fertility for children whose only "step" relationship is to a half-sibling. In this paper, I test whether complex blended families have ramifications for children born into intact multiple partner fertility families. Using data from the Fragile Families and Child Wellbeing Study, a large, nationally representative study of an urban
birth cohort, I examine psycho-social and other outcomes for these children at the time of their third birthday dependent on the multiple partner fertility of their parents. Specifically, I assess whether either men's or women's children by prior partners have implications for the well-being of their child together.

## PRIOR LITERATURE

As yet, we know relatively little about multiple partner fertility families, and the research that we do have on multiple partner fertility families is largely descriptive. We know that multiple partner fertility is more prevalent among unmarried and never married parents than it is among the married or remarried (Carlson and Furstenberg 2006). Similarly, we know that multiple partner fertility is more common among low-income couples than it is among higher income parents (Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007; Mincy 2002). However, what we don't yet know is how multiple partner fertility affects the lives of those who experience it.

In fact, we know far more about the correlates of multiple partner fertility than we do about its implications. Multiple partner fertility is correlated with being African-American, having low levels of education, and histories of substance abuse or incarceration, and is three times higher among unmarried than among married parents (Carlson and Furstenberg 2006; Mincy 2002). We also know that multiple partner fertility is strongly correlated with the circumstances of the first birth; parents who were young and/or unmarried at the time of the first birth are at increased risk of subsequent multiple partner fertility (Guzzo and Furstenberg 2007; Morgan and Rindfuss 1999). As such, the hazard of multiple partner fertility is much greater among the otherwise disadvantaged.

Multiple partner fertility families represent a subset of stepfamilies, and we know that children in stepfamilies are generally found to do less well academically, socially and emotionally than do the children of two-parent, biological families (Brown 2004; McLanahan and Sandefur 1994). However, the mechanisms for these effects are likely multiple and are not yet clearly understood. In multiple partner fertility families, the parents not only share a child, but at least one parent also has a child from a prior relationship. Some have suggested that such family complexity may account for some of the worse outcomes experienced by children in stepfamily households (i.e., Ginther and Pollak 2004). Notably, Strow and Strow (2008) find that children living with a stepparent but no half-siblings fare no worse on standard child wellbeing outcomes than do the children of biological two-parent households, and that instead it is children who live with a half-sibling of either parent who fare poorly when compared to children of nuclear families. The authors suggest that it is the complexity of the household that results in these divergent outcomes for children in different types of families.

There are many reasons why living in a household with a half-sibling might have negative ramifications for children's well-being. For example, we know that children with older siblings get sick more often and are more likely to be injured playing with their (older and larger) siblings than are first children, simple due to risk exposure (Shelov and Hannemann 2004). However, it has also been posited that older stepsiblings in blended families may be disproportionately jealous of children of their parent's new union (Berstein 1997), and so may act aggressively toward those children, exacerbating the number of injuries.

Moreover, co-residence with a half-sibling may mean that children in such families reside in more conflictual households. Not only might there be a selection effect, in which more conflict-prone parents are more likely to be in serial relationships, but blended families
themselves present two possible sources for conflict above and beyond that found in a nuclear family: first, conflict over treatment of the stepchild, and second, conflict over interaction with the prior partner (the stepchild's other biological parent). For example, there is evidence that stepparents both invest fewer resources in stepchildren than they do in biological children, and parent those stepchildren differently (Popenoe 1994; Wilson and Daly 2001), both of which may result in conflict between parents to which all children in the household may be exposed. Additionally, conflict with prior partners is a commonly cited problem for remarried individuals (Coleman et al. 2001; Guisinger, Cowan and Schuldberg 1989), and recent qualitative work suggests that conflict with the other parents of children in unmarried blended families is a particularly prevalent problem (Monte 2007). All of this may result in children in multiple partner fertility households being exposed to more conflict than would other children, which may impact both their externalizing and their internalizing behaviors (Amato, Loomis and Booth 1995; Hanson 1999; Jekielek 1998).

The most commonly studied multiple partner fertility families are those in which it is the mother who has children by multiple partners, as mothers are almost always the custodial parent following a break-up (Stewart 2007). However, sharing a household with a half-sibling explains only part of the multiple partner fertility puzzle. Many fathers (likely more so than mothers, given the enforced fertility hiatus that gestation mandates for women) also have children with multiple partners (Bendheim-Thoman Center for Research on Child WellBeing 2002), although they only rarely have custody of those children following a separation (Kreider and Fields 2005). Thus, many children do not live with all of the siblings with whom they share a parent, and there are many reasons to believe that the presence of half-siblings with whom one does not live would also affect children's well-being.

For example, there are financial ramifications to multiple partner fertility, both in terms of formal child support and in terms of in-kind support. As noted, women are usually the custodial parent following a separation or divorce, so the financial ramifications of men’s multiple partner fertility tends to fall within the parameters of child support. The payment of child support, particularly for low-income men, can have severe repercussions for their financial well-being, as their obligations sometimes exceed their ability to pay, and the arrears they accrue can have long-term implications (see Maldonado 2006 for a review). Moreover, their payment of child support to prior partners limits men's financial viability in subsequent relationships (Stewart, Manning and Smock 2003). As such, men with children by prior partners may have fewer resources to invest in the children of a new union, to the detriment of that child's wellbeing.

This is not to say, however, that men are the only ones whose multiple partner fertility has financial repercussions. However, as women are more likely to be the biological parent of all children in the household, they are more likely to be on the receiving end of financial support from men with whom they are no longer partnered, a system that both complicates lives and garners children less than when they live with both biological parents. The problem lies in the fact that prior partners tend to become more inconsistent in their support following the mother's re-partnering (Claessens 2007; Manning and Smock 2000), and current partners may be inclined to invest less in children to whom they are not related (Anderson, Kaplan and Lancaster 1999). Thus, as the biological parent of all children in a household, multiple partner fertility mothers may find that they receive less support from both current and former partners than they would if all of their children were by one man. Therefore, women's multiple partner fertility seems likely
to put them at an economic disadvantage, a relationship that has been demonstrated for lowincome women (Monte 2008a).

From finances to family complexity, from sibling rivalry to inter-parental conflict, the ramifications of parents' multiple partner fertility for children's well-being seem likely to be widespread. However, as yet, relatively little research has sought to tease out the repercussions of men's and women's fertility patterns on their children. In this paper, using a nationallyrepresentative birth cohort sample, I examine the implications of parents’ multiple partner fertility for their children together.

## DATA AND METHODS

I use data from the Fragile Families and Child Well-being Study (henceforth, Fragile Families), a longitudinal study of unmarried mothers and fathers, their relationships and the outcomes for children in these "fragile families." The study centers on a nationally representative, random sample birth cohort of roughly 3,700 births (subsequently referred to as the "focal" children) to unmarried parents, and includes a comparison sample of roughly 1,100 births to married couples.

The Fragile Families 16 -city nationally representative sample was a stratified random sample of cities with at least 200,000 residents. However, the stratification was not geographic; cities were selected based on "policy environments and labor market conditions," (Reichman et al. 2001) to yield a range of contexts in which unwed families live and work. Cities were sampled first, followed by hospitals, and then a sampling of births within hospitals. Births were sampled within hospitals because pretests found that approach to be more successful for obtaining father interviews than other methods (ibid.). When weighted, the Fragile Families data
constitutes a representative sample of all births in U.S. cities with over 200,000 residents (Vu 2003).

Baseline interviews covered a range of topics from health to employment to family dynamics. They were conducted with the mothers in the hospital within 48 hours of the birth of the focal child, and fathers were interviewed as soon as possible afterwards (some in the hospital and some at home), most within a week of the birth. Follow-up surveys were administered at 12 and 36 months after baseline ${ }^{1}$. The response rates were $86 \%$ for the mothers at the baseline survey, and $79 \%$ for fathers. Follow-up response rates were $91 \%$ and $88 \%$ at 12 and 36 months, respectively, for mothers in the nationally representative sample, and 74\% and 72\%, respectively, for fathers in the nationally representative sample (Bendheim-Thoman 2008).

In collaboration with the Fragile Families 36-month survey, The In-Home Longitudinal Study of Pre-School Aged Children (henceforth, the In-Home Module) was also conducted, and it is from these data that I draw my child well-being outcome measures. This survey supplement consists of two components: a parent interview and an activity component. The parent interview gathers a wide range of information focusing on the health, well-being and behavior of the child. The activity component obtains measurements from standard cognitive tests to height and weight measures. More than $79 \%$ of the respondents to the Fragile Families 36 -month survey participated in the 36 -month In-Home Module. ${ }^{2}$

For the analyses presented here, I use the Fragile Families’ nationally representative sample of parents who were "romantically involved" - married, cohabiting or dating without living together - at the birth of the focal child, and who responded to the In-Home Module.

[^0]Following several exclusions described in detail below, this results in a maximum available sample of just over 2,000 couples, nearly $70 \%$ of whom were unmarried at baseline.

I use data from both parents at all three of the Fragile Families surveys over the first 36 months of the focal child's life to create my independent and control variables. The dependent variables of interest are taken from the 36-month In-Home Module. Child well-being for this age group is generally measured using three distinct metrics: behavioral/ psychological measures, cognitive measures, and measures of health or safety. In keeping with this standard, I use multiple measures to capture each of these dimensions of child well-being.

First, to measure behavioral and psychological well-being, I use scales measuring anxiety/depression, withdrawal, and aggression. We know that stepfamily life is associated with negative psycho-social outcomes for older children; there is reason to believe that the complexity and strain of blended family life may influence even young children (Hanson, McLanahan and Thomson 1996; Zill 1988). The measures I use are taken from 8-, 8-, and 19-item scales (Achenbach and Rescorla 2000), respectively, in which parents are asked about the frequency with which the child exhibits certain behaviors (clinging to adults, for example), with response options being never, sometimes and often. Responses are summed across the scales, and then are scored by whether they fall more than one standard deviation above the sample mean for each measure. ${ }^{3}$

We also know that children in stepfamilies do worse academically than do children of intact families (see, for example, Case, Lin and McLanahan 2001), although the mechanism is not clear. Therefore, I model cognitive outcomes using the Peabody Picture Vocabulary Test

[^1]$\left(\mathrm{PPVT}^{4}\right)$. While designed to reflect innate cognitive ability, the PPVT is also environmentally influenced and so may vary according to children's family complexity. Therefore, I use children's cumulative scores on the subset of PPVT/TVIP questions included in the In-Home Module, standardized by the child's age (see Paxson et al. 2008 for a discussion), and here I code children by whether they score more than one standard deviation below the mean for the ageadjusted sample.

I measure health and safety using two different items. There is evidence that children living with a stepparent may be more at risk of both injury (Daly and Wilson 1985) and lower quality diets (Anderson, Kaplan and Lancaster 1999) ${ }^{5}$ than are children living with biological parents; in these analyses, I ask whether the same is also true of biological children in a blended family. First, I use a question as to whether or not the child has been taken to the doctor for an accident or injury within the past year as a proxy for the child's physical safety. Second, I use a series of items asking about the child's food insecurity to measure whether the child has either suffered hunger or a reduced quality diet ever in the past year. These measures are a subset of the household food insecurity scales compiled by the USDA (Andrews et al. 2000; USDA 2008).

My independent variables of interest are dichotomous measures of multiple partner fertility at baseline for each partner, measured as follows: mother has a child or children by a prior partner or partners (yes/no) and father has a child or children by a prior partner or partners (yes/no). However, given that questions about children by previous partners were not asked in the baseline survey, I have elected to prioritize the mothers' responses from the 1-year follow-up to determine each parent's multiple partner fertility status. The mothers' survey asks, for each parent, "do you (alternately: does focal child's father) have children by someone else?" while the

[^2]father's survey asks, "do you have children who don’t live with you?" Of these two, the mothers' survey question was more explicitly appropriate to my research needs. ${ }^{6}$ Further, because stepchildren of whom the step-parent is not aware are unlikely to affect the parental relationship, I use the mother's report both of her own and of the father's other children in the majority of cases. The exceptions are the few cases ( $\mathrm{N}=66$ ) in which the mother either has missing data or reports she does not know the father's status; in those cases I use the father's responses to a series of questions about his overall parity, other children with the mother, and "children who do not live with" him to make a determination of his multiple partner fertility status.

Based on my independent and dependent variables of interest, I use several exclusion criteria which limit my sample. First, because the majority of children are born to romantically involved parents (Carlson, McLanahan and England 2004), I use only those parents from the Fragile Families sample who reported that they were in a romantic relationship at the birth of the focal child. ${ }^{7}$ This resulted in the exclusion of 654 couples. I further exclude any couple in which the mother reports at the third wave that she does not know who the father of the focal child is $(\mathrm{N}=2)$, and couples for whom I am unable to determine either parent's multiple partner fertility status ( $\mathrm{N}=170$ ). Also excluded are families in which the focal child lives with someone other than the focal mother, or focal parents, at the 36-month survey, and any couples in which one of the parents died before the end of the panel or in which the focal child died or was given up for

[^3]adoption. These exclusions remove an additional 54 cases from the sample, but because all of the above listed circumstances are highly unique, both to this sample and to the population at large, they result in a sample that more accurately represents the experience of most American children.

I also make an effort to exclude couples for whom there is a high probability that their Year 1 report of multiple partner fertility does not reflect their true baseline status. That is, because I must use fertility status reported 12 months after the focal birth, the available measures make it possible to erroneously label as multiple partner fertility families those couples who broke up after the focal birth and in which one of the parents had a child with someone else subsequent to the focal couple's separation. Therefore, I exclude any couple in which the parents are no longer together at Year 1, and the mother reports both that she has a child by another partner and has had a child since the focal child. Additionally, I exclude any couple in which the mother both reports that the father has a child by someone else and the father reports a child younger than the focal child with whom he does not live at the 12-month survey. These criteria result in 40 additional couples being excluded from the sample. Thus, my final analysis sample consists of 2,240 couples, 1,835 of whom were romantically involved but unmarried at baseline.

The exclusions from the sample necessitate some caveats. Limiting this analysis to couples who were romantically involved at the birth of the focal child may over-represent the "best case scenario," as couples for whom the relationship is over before the birth, or for whom paternity is unknown, are likely to be fundamentally worse off, and to have more problems, than are partnered parents (Mincy, Garfinkel and Nepomnyaschy 2005). Further, the exclusion of couples for whom, as of the 12-month follow-up, one parent has had a child since the focal child
may also limit the number of "worst case" scenarios in the sample, as these couples exhibit the extreme end of rapid multiple partner fertility. Similarly, the removal of children who do not live with at least their biological mother as of their third birthday likely removes some of the more troubled families from the sample, as prior evidence suggests that it is only in instances of extreme hardship or difficulty that mothers do not raise their own children (Edin and Kefalas 2005). Therefore, these results should be seen as perhaps approximating the results that one could expect for other families with some unknown advantages.

Children by prior partners are measured dichotomously as the presence or absence of stepchildren for each parent. All parents in this sample have at least one biologically shared child (the focal child), but there is significant diversity in unmarried family forms; for $25 \%$ of the sample the focal child is a first birth for both parents, in $41 \%$ of the families the couple has another child together, in $16 \%$ of the sample only the mother has a child or children by a previous partner or partners, in $16 \%$ of the families only the father has a child or children by a previous partner or partners, and in $18 \%$ of families, both parents have children by someone else. I therefore include measures of other shared biological children (siblings of the focal child), one or more stepsiblings whose biological parent is the mother, and one or more stepsiblings whose biological parent is the father. It is important to note the measures of mothers' and fathers' other children presented here are not mutually exclusive. This means that when interpreting the effects of the independent variables of interest, the coefficients for these variables represent results for couples in which the mother (or father, respectively) has children by a previous partner as they are compared to couples in which the mother (or father, respectively) does not have children by a previous partner.

In an effort to disentangle the effects of family structure, father involvement and financial factors related to multiple partner fertility, I also model multiple partner fertility using child support payment (by fathers) and receipt (by mothers) at the 36-month survey. That is, as the receipt of child support by mothers may improve the financial well-being of all children in the home, the payment of child support by fathers may reduce money available to the focal family or focal child. Further, there is evidence that fathers who pay child support are more involved with those children (Ermisch 2008; Teachman 1990), and so the Fragile Families focal children whose fathers pay child support for children not with the focal mother may also be dividing their time between different children's households, and so the focal child may be experiencing lower levels of father involvement. These child support items are measured as follows:

1. mother has children by a prior partner and receives child support from the other father,
2. mother has children by a prior partner but does not receive child support from the other father (the reference group for \#1-2 is women who do not have children with anyone other than the focal father),
3. father has children by a prior partner and pays child support to the other mother, and
4. father has children by a prior partner but does not pay child support (the reference group for \#3-4 is men who do not have children with anyone other than the focal mother).

I do not include the size of child support payments due to extensive missing data, nor am I able to model the impact of in-kind support (the purchase of diapers or school supplies, for example) as parents were not asked about informal forms of assistance either from or for prior partners.

I control for a number of demographic factors such as race and age in all of my models. It should be noted that 307 fathers do not have valid responses for any demographic item, as do between six and nine mothers, depending on the demographic measure in question. For those individuals with missing data, I set their values to either the sample mean or to their partner's value, as described below.

In each model, I control for race (black, white and "other") and Hispanic origin, both of which are known to be correlated with outcomes (Osborne, Manning and Smock 2007). Despite the convention among social scientists, and in official US statistics, to define race and Hispanic origin as separate categories, nearly 50 percent of the individual respondents who identified themselves as Hispanic checked "Other" as their race. These respondents clearly do not see race and Hispanic origin as separate concepts. In keeping with respondents’ definitions, I coded these four categories so as to be mutually exclusive, with Hispanic ethnicity taking precedence over any indicated race. I identified the father's race by constructing a dummy variable for racial heterogamy, indicating whether the father was of a different race from the mother using the full range of racial categories provided by the survey (i.e., before collapsing the mother's race into the four categories above). If a parent does not self-identify their race/ethnicity, I presume them to be the same race as their partner.

Age and education levels of the parents are also controlled for in all models. Age at baseline (Becker, Landes and Michael 1977) is coded in years for mothers. Given the significance of parental age heterogamy for familial outcomes (Bramlett and Mosher 2002), I control for fathers’ ages by measuring whether they are more than five years older or younger than the mother. Fathers with missing age information are presumed to be the same age as the mother. I control for education by measuring whether either parent went to college or either
parent did not graduate from high school (the omitted category is parents who both achieved a high school diploma or GED, but nothing more; Martin and Bumpass 1989). Missing education information on an individual level is set to the sample average, which is a high school diploma or GED for unmarried parents, both mothers and fathers, and at least some college for married parents, both mothers and fathers.

I additionally control for a number of personal and relationship factors that prior research has suggested will have implications for the outcomes in question. I control for couples’ relationship status (married, cohabiting, dating but not living together; Bendheim-Thoman 2008) at both baseline and 36 months, as well as whether the focal birth is the first shared birth for the couple. I also control for income, immigrant status, the gender of the focal child and stepfather presence at 36 months. For example, in light of evidence indicating that child gender matters for numerous outcomes, both familial and personal, (Cox et al. 1999; Hetherington and StanleyHagan 1999; Morgan, Lye and Condran 1988; Ram and Feng 2005), I include a dummy variable indicating whether the focal child is male. Similarly, in light of varying social norms regarding relationship practices, immigrant status is coded as a dichotomous variable set to one if either parent was born outside of the U.S. (Redfield, Linton and Herskovitz 1936); respondents are assumed to be native born if they do not respond otherwise. Additionally, given the correlation between having a stepfather and child abuse (Giles-Sims 1997), as well as the additional income that new partners bring into the house, I also include a measure of whether at the 36-month survey, the mother has a new partner in the house.

Income measures (White and Rogers 2000) are included as a series of dummy variables approximating earnings in the year preceding the In-Home Module: no earnings (reference), earnings more than zero but less than $\$ 10,000$, earnings between $\$ 10,000$ and $\$ 24,999$, and
earnings at or above $\$ 25,000$. Missing values are set to the sample median. I do not include measures of welfare receipt in the prior year as welfare receipt is highly correlated with family size, and therefore also with multiple partner fertility.

I further control for high couple conflict at the 36-month survey, as many of the findings of lower well-being for children in blended families implicate couple conflict as a potential cause (see McLanahan and Sandefur 1994 for a review). This measure is taken from a single question in which the mother was asked how often she argues with the focal father about things that are important to her: never, rarely, sometimes, often or always. The high conflict measure was created by coding all mothers who responded "often" or "always" as demonstrating high conflict, and all others as not demonstrating high couple conflict. Mothers with missing responses are coded as not demonstrating high conflict, as the sample mean was a response of "sometimes." I also test models in which I include an interaction of each parent's multiple partner fertility with this conflict measure.

Unfortunately, the final models still omit some key variables that could potentially affect my outcomes, but that were not measured (or not measured well) in the Fragile Families Surveys. For example, I would have liked to have been able to control for both the age and residence of children by prior partners, both of which would likely moderate their impact on the focal family. A stronger measure of conflict would also be valuable. Future work with other datasets should make sure to include these variables.

My analysis approach uses weighted logistic regression models to predict child wellbeing at 36 months. ${ }^{8}$ Results, which are presented as odds ratios, can be considered nationally representative for children born to romantically-involved couples around the turn of the millennium in U.S. cities with populations larger than 200,000.

[^4]
## RESULTS

In almost half of the families in the sample (46\%), one or both parents have a child by a prior partner (see Table 1). Couples who were married at baseline are much more likely not to have children by prior partners than are couples who were not married. And families in which one or both parents had a child by a prior partner are also more likely to separate by 36 months. Families in which one or both parents have children by prior partners are also generally older, more likely to be black or Hispanic, and to earn less money than are families in which there is no multiple partner fertility.

Generally speaking, it does not appear that parents’ multiple partner fertility is related to children's anxiety or depression at the 36-month survey (see Table 2). The children of mothers who receive child support for their other children demonstrate lower odds of anxiety/depression, although the result is only borderline significant (see Model 2, Table 2). This suggests that the additional income afforded by child support payments into the household may improve the lot of all children, not just those for whom they were intended. In addition, in the model in which couple conflict is interacted with fathers' other children, fathers' children by prior partners are associated with three times the odds of anxiety or depression (see Model 4, Table 2); however, the finding is again only of borderline significance. Put another way, in families in which there is NOT high conflict, fathers' multiple partner fertility may be associated with an increase in the rate of anxiety or depression. Other factors which influence anxiety/depression in children are the couple's relationship status at 36 months (couples who are romantically involved but do not live together have higher odds of having anxious or depressed children), and either parent having a college education, which is consistently associated with a significant reduction in the odds of anxiety or depression.

However, fathers' multiple partner fertility is clearly associated with children's likelihood of being withdrawn (see Table 3). In fact, in families in which the father pays child support to his other children, the focal child is at nearly three times the odds of being withdrawn than are other children (see Model 2, Table 3); the odds ratio is only 2.12 when child support payments are not accounted for (see Model 1, Table 3). Notably, the interaction of couple conflict and fathers’ other children reduces the effect to non-significance. These results suggest that when fathers have children by multiple women, the children of their most recent union may suffer, although it is not clear whether this is due to lower resources because of child support payments, or because of lower levels of father involvement due to fathers' divided attentions. Other factors which are associated with children's withdrawal include whether the focal child is male, which is associated with increased risk of withdrawal, and whether there is a stepfather in the household at 36 months, which is associated with reduced odds of withdrawal.

Similarly, those Fragile Families focal children whose fathers not only have other children, but pay support for those children, experience almost three times the odds of demonstrating externalizing or aggressive behavior (see Model 2, Table 4), although this measure is only significant at the .10 level. Focal children of multiple partner fertility fathers are also at higher odds of being aggressive when conflict is interacted with multiple partner fertility. Notably, the interactions of couple conflict with both parents’ multiple partner fertility are related to reductions in the odds of aggressive behavior, although none of the measures are significant. Either parent not having graduated from high school, however, is consistently associated with reduced odds of aggressive behavior, while focal children who are male are at higher odds of being aggressive.

Parents' multiple partner fertility is unrelated to the odds of injury or accident in the focal child, although it is notable that for all measures of mothers' multiple partner fertility, the coefficients indicate an increase in the odds of injury, while for all measures of fathers' multiple partner fertility, the coefficients indicate the reverse, or a reduction in the odds of injury or accident (see Table 5). The only exception to this is the interaction of fathers' other children and high conflict, which is associated with an increased risk. In light of the fact that the coefficients on older full siblings consistently approximate one across all models, these results suggest some support for the belief that co-residential half-siblings may take out aggression or frustration on children of their parent's new union. However, in light of the significant finding that married parents report much higher rates of doctor visits for accidents/injuries than do unmarried parents, this may also reflect the families' utilization of doctors, which may, in turn, be a reflection of the family's health care status.

Multiple partner fertility is also unrelated to children's scores on the PPVT or TVIP (see Table 6). Factors that are significantly associated with children's PPVT/TVIP scores are whether the mother is Hispanic, which lowers the risk of a small vocabulary, household income, which is associated with the highest risk of a small vocabulary in the range just above the poverty line, and the gender of the focal child, with boys generally having higher odds of small vocabularies than girls.

Table 7 shows findings on food security for children. Analyses indicate that children whose fathers exhibit multiple partner fertility face higher odds of food insecurity, net of other controls. Fathers who have other children by other mothers have children who experience almost three times the odds of having gone hungry or been fed a reduced quality diet in the prior year, an association that rises to almost four times the odds when fathers pay child support to
their other children. In fact, the only model in which fathers' multiple partner fertility is not significant is the one in which conflict is interacted with men's other children. Other factors related to children’s food insecurity are having a younger sibling and high household income, both of which reduce the risk.

## DISCUSSION

These results suggest that fathers' pre-existing multiple partner fertility, in particular, does affect their children's well-being, even when those children would be classified by demographers as living in a two-biological parent family household. This is particularly notable since we know that relatively few men have custody of their children after a separation from the children's mother. These results suggest that in men's navigation of child-rearing obligations across households, not only do the children of first relationships suffer in ways that undermine their development, but that even the children of the most recent relationship struggle.

As of the focal child's third birthday, this is most clear on two dimensions: being withdrawn and food insecurity. That one of these is a social/emotional response, while the other is an environmental circumstance, suggests that fathers' multiple partner fertility is likely broadly important for their children's well-being.

Child support appears to play an important role in these significant outcomes (withdrawn and food insecurity), as well as for aggression. Not only does child support represent net income shifts (with the direction, either into or out of the household, dependent on the multiple partner fertility parent), there is evidence that men who pay child support remain more involved with their children (Ermisch 2008; Teachman 1990). Thus, women's receipt of child support may be indicative of the continued involvement of their former partners, while men's payment of child
support may suggest that those men are parenting children in multiple households. However, the only place where women's receipt of child support appears to affect child well-being is an only barely significant reduction in anxiety/depression. As it seems unlikely that the visitation of another father to the home would reduce anxiety, I am inclined to believe that this is likely a financial effect.

However, father's payment of child support for children born to other mothers is significant, and associated with worse outcomes for the focal child, in several different models. Disentangling the competing effects of loss of resources and higher father absence in these models is difficult. Fathers paying child support to their children from previous relationships is associated with increases in withdrawal, aggression (borderline significant), and food insecurity for the focal child. Given that men who pay child support tend to be involved fathers (Ermisch 2008; Teachman 1990), the effect on food security is the one that is most likely linked to household resources. That is, fathers who pay child support to another household are likely to also be personally and financially invested in the focal household, and as it is unlikely that involved fathers would choose to withhold resources from the focal child in favor of another child, it seems most likely that this simply represents reduced resources within the focal household.

The effects on withdrawal and aggression could go either way. It could be that the net loss of resources represented in the payment of child support to another household makes even young children aware of the tenuous financial well-being of the family, resulting in either withdrawal or aggression; the later is particularly likely if the focal mother is frequently vocally angry with the focal father about his payment of child support. However, it is also possible that the time the father spends away from the household with his other children (or time when he
brings them into the focal household and devotes attention to them) makes the focal children insecure about their position. Existing developmental literature is well aware of the jealousy that older children feel for new younger siblings (see, for example, Shelov and Hannemann 2004), and these emotional responses may reflect a similar response of insecurity and loss in the face of "transient" siblings who come and go, but to whom the focal father pays intense attention. However, since the measures are parent-reported, it is also possible that some children's scores reflect concerns of the mothers transposed onto the child.

A similarly complex mechanism may explain the borderline significant findings about the focal child's anxiety/depression and aggression in the models in which men's other children are interacted with conflict. That is, when couples in which the father both has other children and the mother reports high conflict are controlled for, families exhibiting less frequent couple conflict but still featuring men's children by prior partners are at more than three times the odds of having a child who exhibits high levels of anxiety and/or depression and nearly three times the odds of high aggression. Here, it may be that couples with high conflict and men's other children may be less likely to be romantically involved at 36 -months, and so men's other children may be less significant in implication for those focal children.

That doctor visits for accident or injury are not significantly associated with multiple partner fertility may be a weakness of the measure used. That is, the question does not ask about the incidence of accidents or injury, a negative measure that might be more reflective of either violence or neglect in the focal household. Instead, the measure asks about doctor visits, a positive measure which is likely more indicative of availability or utilization of health care. In keeping with the likely interpretation of this measure, it is unsurprising that couples who are
married (and likely more affluent and more likely to have health insurance) are four times as likely to report having taken their child to the doctor for an accident or injury.

Similarly, the lack of an effect for PPVT/TVIP scores is perhaps not surprising. The PPVT/TVIP is intended to measure cognitive ability, as well as cognitive stimulation, and there is less reason to expect that parents' multiple partner fertility might affect their children's cognitive ability. As expected, once the socio-economic status of the parents is controlled for, there is no correlation between multiple partner fertility and children's cognitive ability.

The finding regarding the focal child's food security, however, is troubling. As a society, we want fathers who do not live with their children to support those children financially. Additionally, there is copious evidence that the receipt of child support is beneficial for the financial and overall well-being of the children of separated parents (Garfinkel, McLanahan and Robins 1994). However, these results suggest that men's payment of child support to children outside the household is detrimental to children within the household. Net of standard controls, fathers who have children by a prior partner are generally at three times the odds of having focal children who are food insecure, although the results are only borderline significant. However, when fathers' multiple partner fertility is measured according to his child support payment, men who pay child support to another mother are nearly four times as likely to have a focal child who is food insecure.

We know that men's child support obligations often represent a significant financial burden for them, and especially for low-income men (Sorensen and Zibman 2001). Further, nonpayment not only disadvantages their children, but can result in large arrears, or penalties (Maldonado 2006). However, if payment of child support to the children of former relationships results in food insecurity for the children of current relationships, this suggests that child support
may be having additional and unintended negative consequences for multiple partner fertility men's children.

How this should be dealt with is a quandary. Americans believe that parents should support their children. Given the already modest size of most child support payments relative to the full cost of raising a child (Maldonado 2006), reducing the payments seems unlikely to help either children or fathers. However, it is also clear that child support payments represent a burden for many men, and these results suggest that that burden is also carried, in part, by any children they have in a new relationship. Whether steps can be taken to assist men who are already multiple partner fertility fathers is unclear but making food assistance more available might be appropriate. In addition, efforts can be taken to reduce the incidence of unintended pregnancy in relationships that are unlikely to last. If men's multiple partner fertility can be reduced at the societal level, it may be to the benefit of children everywhere.

Notably, the inclusion of conflict measures adds little to the models. That is, regardless of the outcome in question, mothers' report of high couple conflict is unrelated to child wellbeing for the focal child. This seems surprising, given other studies finding that a high-conflict household is implicated for negative children's outcomes (i.e., Amato, Loomis and Booth 1995). Ultimately, this may reflect the weakness of the measure used. There is a great deal of evidence suggesting that it is not the frequency of disagreements that matter, but rather the way in which arguments are conducted (Bradbury, Rogge and Lawrence 2001; Gottman 1994). If arguments are loud, vocal, combative or violent, that is likely to have a very different effect on children than if parents have polite, even-toned discussions to resolve inevitable disagreements; the failure of this measure to capture such nuance may explain its non-significance.

However, the weakness of the conflict measure is not the only short-coming of these analyses. Probably the most significant limitation is the measure of multiple partner fertility. That is, the greatest challenge facing these results is that we do not know with certainty either parent's baseline multiple partner fertility status, as neither parent was asked until the 12-month survey. Moreover, men were never asked; a mother’s status can at least be ascertained using her own report of children with a man other than the focal father, but fathers were never questioned about their multiple partner fertility.

Additionally, it was not possible to time the onset of multiple partner fertility for any of these families. Given a lack of information about the ages of the children or detailed information on the fertility histories of the parents, I am unable to discern whether reports of multiple partner fertility indicate adult children born 20 years prior (and thus less likely to impact the current union) or children born within months of the focal child, whose impact would be more sharply felt. The combination of these factors means that not only must I exclude a number of cases for whom I am unable to impute baseline multiple partner fertility status, but my measures of multiple partner fertility are, at best, only a best guess at parents' actual multiple partner fertility status. These limitations may explain why so many of my results are only borderline significant.

This analysis also excludes couples who enter into multiple partner fertility subsequent to the birth of the focal child. Largely due to difficulty disentangling the timing and implications of such rapid multiple partner fertility in this sample, and with the measures available, these families had to be excluded. Future analyses with better information on the predictors of interest should make an effort to consider the effect of subsequent multiple partner fertility for children's well-being.

## CONCLUSION

This analysis is unique in the literature because of its focus on outcomes for children growing up with both biological parents. In most of the stepfamily literature, the focus is on children who reside with one biological parent and one stepparent, and most multiple partner fertility literature looks at outcomes for those children when a new baby is born to the parent and stepparent. In this paper, I instead examine outcomes for children of the new union based on whether or not either of their parents had children by another partner prior to their birth. That is, I ask whether complex family structures affects child well-being for children growing up in what is, in its simplest form, a nuclear family household. These analyses suggest that there are implications of having children from other unions, even for children born to and living with both of their biological parents at age three. Clearly, the literature on the effects of family structure and fertility patterns needs to consider these children as well.

| Unweighted Sample Means for the FragileTable 1: Sample Means <br> Families \& Child Well-Being Study Nationally Representative Sample |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Full Sample | Families in which mothers have children by prior partners | Families in which Fathers have children by prior partners | Families with no children by prior partners |
| Mother has a child by a prior partner | 32\% | 100\% | 53\% | 0\% |
| Father has a child by a prior partner | 30\% | 51\% | 100\% | 0\% |
| Neither parent has a child by a prior partner | 54\% | 0\% | 0\% | 100\% |
| Mother has a child by a prior partner \& receives child support | 10\% | 33\% | 17\% | 0\% |
| Mother has a child by a prior partner \& DOESN'T receive child support | 21\% | 67\% | 36\% | 0\% |
| Father has a child by a prior partner for whom he pays child support | 19\% | 31\% | 62\% | 0\% |
| Father has a child by a prior partner for whom he DOES'T pay child support | 11\% | 19\% | 38\% | 0\% |
| Mother reports high couple conflict at W3 | 27\% | 30\% | 32\% | 24\% |
| Child has older full siblings | 41\% | 31\% | 35\% | 46\% |
| Child lives with a younger sibling (either full or half) at 36 months | 28\% | 28\% | 27\% | 29\% |
| Married at baseline | 32\% | 14\% | 17\% | 46\% |
| Living together at baseline | 41\% | 52\% | 46\% | 35\% |
| Dating but not living together at baseline | 27\% | 34\% | 36\% | 19\% |
| Married at 36 months | 42\% | 26\% | 26\% | 54\% |
| Living together at 36 months | 23\% | 29\% | 26\% | 19\% |
| Dating but not living together at 36 months | 6\% | 8\% | 7\% | 4\% |
| No longer in relationship at 36 months | 30\% | 38\% | 41\% | 22\% |
| Stepfather living in HH at 36 months | 6\% | 8\% | 8\% | 4\% |
| Mother is white | 26\% | 16\% | 16\% | 35\% |
| Mother is black | 42\% | 58\% | 58\% | 30\% |
| Mother is Hispanic | 28\% | 24\% | 23\% | 30\% |
| Mother is not white, black or Hispanic | 4\% | 2\% | 2\% | 5\% |
| Father is a different race/ethnicity from Mother | 14\% | 13\% | 16\% | 13\% |
| Mother is less than 20 years old at baseline | 17\% | 7\% | 11\% | 22\% |
| Mother is 20-29 years old at baseline | 59\% | 66\% | 63\% | 54\% |
| Mother is 30-39 years old at baseline | 22\% | 25\% | 23\% | 22\% |
| Mother is 40 or more years old at baseline | 2\% | 3\% | 2\% | 2\% |
| Father is less than 20 years old at baseline | 7\% | 5\% | 2\% | 9\% |
| Father is 20-29 years old at baseline | 57\% | 57\% | 55\% | 56\% |
| Father is 30-39 years old at baseline | 30\% | 30\% | 32\% | 30\% |
| Father is 40 or more years old at baseline | 6\% | 8\% | 11\% | 4\% |
| Mother has less than a HS diploma/GED | 30\% | 35\% | 31\% | 28\% |
| Mother has a HS diploma or GED | 29\% | 36\% | 36\% | 24\% |
| Mother went to college | 41\% | 28\% | 33\% | 49\% |
| Father has less than a HS diploma/GED | 28\% | 32\% | 28\% | 26\% |
| Father has a HS diploma or GED | 36\% | 44\% | 47\% | 28\% |
| Father went to college | 36\% | 23\% | 25\% | 46\% |
| HH income below \$10K between 24-36 months | 18\% | 23\% | 20\% | 14\% |
| HH income \$10-25K between $24-36$ months | 30\% | 35\% | 34\% | 27\% |
| HH income more than $\$ 25 \mathrm{~K}$ between $24-36$ months | 52\% | 42\% | 46\% | 58\% |
| Child is male | 51\% | 48\% | 51\% | 52\% |
| One or both parents not born in US | 21\% | 16\% | 14\% | 25\% |
| Sample size | 2240 | 706 | 678 | 1213 |


| Table 2: Anxiety/Depression <br> Logistic Regression Models predicting Odds that a child will demonstrate Anxiety/Depression depending on the Multiple Partner Fertility of their Parents Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey <br> (Anxiety/Depression measured using Achenbach \& Rescorla 2000 8-item scale; Child is determined anxious/depressed if they score more than 1 SD above the sample average) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ |
| Mother has a child by a prior partner | 0.60 | 0.29 | 0.31 |  |  |  | 0.52 | 0.22 | 0.14 | 0.66 | 0.30 | 0.36 |
| Father has a child by a prior partner | 2.23 | 1.26 | 0.17 |  |  |  | 2.19 | 1.28 | 0.19 | 3.32 | 2.23 | 0.08 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 0.21 | 0.18 | 0.07 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 0.55 | 0.36 | 0.37 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 2.09 | 1.63 | 0.35 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 2.82 | 1.85 | 0.13 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 1.11 | 0.51 | 0.81 | 0.83 | 0.49 | 0.76 | 0.97 | 0.54 | 0.96 | 1.85 | 1.03 | 0.28 |
| Interaction: High Conflict * Mother's Other Children |  |  |  |  |  |  | 1.55 | 1.39 | 0.63 |  |  |  |
| Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  |  |  |  | 0.25 | 0.28 | 0.22 |
| Child has older full siblings | 1.40 | 0.48 | 0.33 | 1.46 | 0.53 | 0.30 | 1.40 | 0.48 | 0.34 | 1.39 | 0.48 | 0.35 |
| Child lives with a younger sibling (either full or half) at 36 months | 1.44 | 0.66 | 0.43 | 1.44 | 0.62 | 0.40 | 1.47 | 0.68 | 0.41 | 1.44 | 0.66 | 0.43 |
| Married at baseline | 0.45 | 0.38 | 0.35 | 0.50 | 0.44 | 0.44 | 0.43 | 0.37 | 0.34 | 0.47 | 0.39 | 0.37 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 1.03 | 0.51 | 0.95 | 0.86 | 0.51 | 0.80 | 1.01 | 0.49 | 0.98 | 1.12 | 0.51 | 0.81 |
| Married at 36 months | 0.97 | 0.44 | 0.95 | 0.92 | 0.46 | 0.88 | 0.97 | 0.42 | 0.94 | 0.97 | 0.46 | 0.96 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 3.32 | 2.34 | 0.10 | 3.86 | 2.73 | 0.07 | 3.36 | 2.41 | 0.10 | 3.32 | 2.21 | 0.08 |
| No longer in relationship at 36 months | 1.39 | 0.79 | 0.56 | 1.30 | 0.91 | 0.71 | 1.39 | 0.80 | 0.57 | 1.41 | 0.80 | 0.55 |
| Stepfather living in HH at 36 months | 0.95 | 0.96 | 0.96 | 2.11 | 2.44 | 0.52 | 0.92 | 0.96 | 0.94 | 1.07 | 1.13 | 0.95 |
| Mother is white | 0.50 | 0.51 | 0.50 | 0.59 | 0.61 | 0.61 | 0.49 | 0.50 | 0.49 | 0.52 | 0.53 | 0.53 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 1.73 | 0.81 | 0.25 | 2.12 | 1.11 | 0.16 | 1.72 | 0.80 | 0.25 | 1.78 | 0.82 | 0.22 |
| Mother is not white, black or Hispanic | 1.92 | 1.50 | 0.41 | 2.65 | 2.36 | 0.28 | 1.91 | 1.50 | 0.42 | 1.97 | 1.50 | 0.38 |
| Father is a different race/ethnicity from Mother | 1.40 | 0.86 | 0.58 | 1.51 | 1.00 | 0.54 | 1.41 | 0.87 | 0.58 | 1.29 | 0.79 | 0.68 |
| Mother's age in years at baseline | 1.00 | 0.05 | 0.99 | 1.00 | 0.05 | 0.95 | 1.00 | 0.05 | 0.95 | 1.00 | 0.05 | 0.95 |
| Father's age is more than 5 years different from mother's | 0.71 | 0.31 | 0.44 | 0.78 | 0.36 | 0.59 | 0.69 | 0.31 | 0.41 | 0.76 | 0.32 | 0.51 |
| Either parent has less than a HS diploma/GED | 0.75 | 0.50 | 0.67 | 0.69 | 0.51 | 0.62 | 0.76 | 0.51 | 0.68 | 0.76 | 0.53 | 0.70 |
| Both parents have HS diplomas or GEDs (REF) Either parent went to college | 0.22 | 0.15 | 0.04 | 0.14 | 0.10 | 0.01 | 0.22 | 0.15 | 0.04 | 0.25 | 0.18 | 0.06 |
| HH income below \$10K between 24-36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| HH income \$10-25K between 24-36 months | 0.54 | 0.33 | 0.32 | 0.56 | 0.41 | 0.44 | 0.56 | 0.35 | 0.36 | 0.55 | 0.31 | 0.29 |
| HH income more than \$25K between 24-36 months | 0.59 | 0.35 | 0.38 | 0.65 | 0.46 | 0.55 | 0.61 | 0.37 | 0.43 | 0.56 | 0.31 | 0.30 |
| Child is male | 0.86 | 0.41 | 0.75 | 0.75 | 0.37 | 0.57 | 0.84 | 0.39 | 0.72 | 0.85 | 0.43 | 0.75 |
| One or both parents not born in US | 1.26 | 0.80 | 0.72 | 1.07 | 0.76 | 0.92 | 1.26 | 0.82 | 0.72 | 1.30 | 0.83 | 0.68 |


| Table 3: Withdrawl <br> Logistic Regression Models predicting Odds that a child will be Withdrawn depending on the Multiple Partner Fertility of their Parents Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey <br> (Withdrawl measured using Achenbach \& Rescorla 2000 8-item scale; <br> Child is determined withdrawn if they score more than 1 SD above the sample average) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ |
| Mother has a child by a prior partner | 1.61 | 0.89 | 0.39 |  |  |  | 1.27 | 0.96 | 0.76 | 1.52 | 0.87 | 0.47 |
| Father has a child by a prior partner | 2.12 | 0.78 | 0.05 |  |  |  | 2.08 | 0.73 | 0.04 | 1.44 | 0.76 | 0.49 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 0.66 | 0.51 | 0.60 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 1.93 | 1.61 | 0.43 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 2.91 | 1.44 | 0.04 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 0.83 | 0.54 | 0.78 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 0.98 | 0.74 | 0.98 | 0.92 | 0.83 | 0.93 | 0.74 | 0.44 | 0.62 | 0.57 | 0.37 | 0.40 |
| Interaction: High Conflict * Mother's Other Children |  |  |  |  |  |  | 2.13 | 2.62 | 0.54 |  |  |  |
| Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  |  |  |  | 3.99 | 4.47 | 0.22 |
| Child has older full siblings | 1.31 | 0.83 | 0.67 | 1.47 | 0.95 | 0.56 | 1.29 | 0.83 | 0.69 | 1.34 | 0.85 | 0.65 |
| Child lives with a younger sibling (either full or half) at 36 months | 0.90 | 0.49 | 0.85 | 0.89 | 0.48 | 0.83 | 0.94 | 0.51 | 0.90 | 0.89 | 0.50 | 0.84 |
| Married at baseline | 1.09 | 0.69 | 0.90 | 1.06 | 0.68 | 0.93 | 1.03 | 0.64 | 0.97 | 1.08 | 0.67 | 0.91 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 1.00 | 0.45 | 1.00 | 0.77 | 0.43 | 0.65 | 0.96 | 0.45 | 0.93 | 0.96 | 0.45 | 0.93 |
| Married at 36 months | 1.59 | 0.97 | 0.45 | 1.63 | 1.17 | 0.50 | 1.55 | 0.93 | 0.47 | 1.50 | 0.92 | 0.51 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 2.46 | 1.65 | 0.19 | 2.41 | 1.67 | 0.22 | 2.42 | 1.66 | 0.21 | 2.38 | 1.74 | 0.24 |
| No longer in relationship at 36 months | 0.93 | 0.63 | 0.91 | 0.80 | 0.62 | 0.77 | 0.92 | 0.64 | 0.90 | 0.86 | 0.60 | 0.84 |
| Stepfather living in HH at 36 months | 0.10 | 0.08 | 0.00 | 0.22 | 0.17 | 0.06 | 0.10 | 0.07 | 0.00 | 0.10 | 0.07 | 0.00 |
| Mother is white | 1.77 | 1.65 | 0.55 | 1.51 | 1.44 | 0.67 | 1.69 | 1.57 | 0.58 | 1.64 | 1.54 | 0.61 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 2.42 | 2.21 | 0.34 | 1.98 | 2.08 | 0.52 | 2.36 | 2.15 | 0.35 | 2.35 | 2.17 | 0.36 |
| Mother is not white, black or Hispanic | 5.05 | 12.21 | 0.51 | 4.52 | 11.03 | 0.54 | 4.73 | 11.78 | 0.54 | 5.19 | 12.33 | 0.49 |
| Father is a different race/ethnicity from Mother | 0.25 | 0.23 | 0.14 | 0.26 | 0.25 | 0.17 | 0.26 | 0.24 | 0.16 | 0.28 | 0.25 | 0.17 |
| Mother's age in years at baseline | 0.93 | 0.06 | 0.27 | 0.93 | 0.06 | 0.29 | 0.94 | 0.06 | 0.31 | 0.93 | 0.06 | 0.30 |
| Father's age is more than 5 years different from mother's | 0.83 | 0.38 | 0.70 | 0.88 | 0.46 | 0.80 | 0.80 | 0.39 | 0.66 | 0.81 | 0.37 | 0.64 |
| Either parent has less than a HS diploma/GED | 0.92 | 0.50 | 0.88 | 0.88 | 0.52 | 0.83 | 0.97 | 0.49 | 0.96 | 0.93 | 0.52 | 0.90 |
| Either parent went to college | 0.90 | 0.65 | 0.88 | 0.82 | 0.64 | 0.80 | 0.89 | 0.66 | 0.88 | 0.83 | 0.61 | 0.80 |
| HH income below \$10K between 24-36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| HH income \$10-25K between 24-36 months | 0.63 | 0.46 | 0.53 | 0.75 | 0.60 | 0.72 | 0.65 | 0.47 | 0.55 | 0.64 | 0.47 | 0.55 |
| HH income more than $\$ 25 \mathrm{~K}$ between 24-36 months | 0.27 | 0.21 | 0.11 | 0.29 | 0.25 | 0.17 | 0.28 | 0.22 | 0.12 | 0.29 | 0.23 | 0.12 |
| Child is male | 3.21 | 1.73 | 0.04 | 3.20 | 1.82 | 0.05 | 3.11 | 1.64 | 0.04 | 3.14 | 1.63 | 0.04 |
| One or both parents not born in US | 0.98 | 0.73 | 0.98 | 0.91 | 0.72 | 0.90 | 0.99 | 0.72 | 0.99 | 0.92 | 0.69 | 0.91 |


| Table 4: Aggression |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Logistic Regression Models predicting Odds that a child will demonstrate Aggression depending on the Multiple Partner Fertility of Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey <br> (Aggression measured using Achenbach \& Rescorla 2000 19-item scale; <br> Child is determined aggressive if they score more than 1 SD above the sample average) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | p>t | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ |
| Mother has a child by a prior partner | 0.88 | 0.28 | 0.67 |  |  |  | 1.28 | 0.47 | 0.52 | 0.95 | 0.29 | 0.88 |
| Father has a child by a prior partner | 1.89 | 0.76 | 0.12 |  |  |  | 1.98 | 0.80 | 0.10 | 2.76 | 1.51 | 0.07 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 0.55 | 0.41 | 0.43 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 0.71 | 0.30 | 0.42 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 2.67 | 1.43 | 0.08 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 0.80 | 0.59 | 0.76 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 1.20 | 0.67 | 0.75 | 1.09 | 0.72 | 0.90 | 1.69 | 1.18 | 0.45 | 1.92 | 1.47 | 0.40 |
| Interaction: High Conflict * Mother's Other Children |  |  |  |  |  |  | 0.32 | 0.28 | 0.21 |  |  |  |
| Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  |  |  |  | 0.26 | 0.27 | 0.20 |
| Child has older full siblings | 1.12 | 0.44 | 0.77 | 1.25 | 0.52 | 0.60 | 1.17 | 0.47 | 0.69 | 1.12 | 0.45 | 0.78 |
| Child lives with a younger sibling (either full or half) at 36 months | 1.52 | 0.50 | 0.21 | 1.52 | 0.50 | 0.22 | 1.46 | 0.47 | 0.25 | 1.52 | 0.50 | 0.21 |
| Married at baseline | 1.06 | 0.49 | 0.89 | 0.97 | 0.45 | 0.96 | 1.15 | 0.55 | 0.77 | 1.04 | 0.48 | 0.94 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 1.01 | 0.43 | 0.98 | 0.82 | 0.42 | 0.71 | 1.07 | 0.48 | 0.88 | 1.07 | 0.47 | 0.89 |
| Married at 36 months | 0.75 | 0.38 | 0.57 | 0.80 | 0.40 | 0.67 | 0.75 | 0.39 | 0.58 | 0.77 | 0.39 | 0.61 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 1.99 | 1.46 | 0.36 | 2.10 | 1.57 | 0.33 | 1.97 | 1.45 | 0.37 | 1.97 | 1.44 | 0.36 |
| No longer in relationship at 36 months | 0.88 | 0.55 | 0.84 | 0.79 | 0.53 | 0.73 | 0.86 | 0.56 | 0.82 | 0.88 | 0.56 | 0.85 |
| Stepfather living in HH at 36 months | 0.90 | 0.86 | 0.91 | 1.98 | 1.86 | 0.47 | 0.94 | 0.93 | 0.95 | 1.00 | 1.01 | 1.00 |
| Mother is white | 0.51 | 0.39 | 0.39 | 0.45 | 0.37 | 0.34 | 0.54 | 0.43 | 0.44 | 0.54 | 0.42 | 0.44 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 1.79 | 1.40 | 0.46 | 1.57 | 1.44 | 0.62 | 1.90 | 1.50 | 0.42 | 1.89 | 1.48 | 0.42 |
| Mother is not white, black or Hispanic | 0.86 | 1.00 | 0.90 | 0.82 | 0.95 | 0.87 | 0.98 | 1.11 | 0.98 | 0.81 | 0.91 | 0.86 |
| Father is a different race/ethnicity from Mother | 1.68 | 0.80 | 0.29 | 1.76 | 0.88 | 0.27 | 1.59 | 0.75 | 0.34 | 1.53 | 0.73 | 0.39 |
| Mother's age in years at baseline | 1.00 | 0.05 | 0.96 | 1.01 | 0.05 | 0.86 | 0.99 | 0.05 | 0.87 | 1.00 | 0.05 | 0.94 |
| Father's age is more than 5 years different from mother's | 0.84 | 0.28 | 0.61 | 0.90 | 0.35 | 0.78 | 0.90 | 0.31 | 0.76 | 0.86 | 0.32 | 0.69 |
| Either parent has less than a HS diploma/GED | 0.34 | 0.17 | 0.04 | 0.33 | 0.18 | 0.05 | 0.32 | 0.15 | 0.02 | 0.34 | 0.17 | 0.04 |
| Both parents have HS diplomas or GEDs (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Either parent went to college | 0.36 | 0.23 | 0.12 | 0.31 | 0.21 | 0.10 | 0.37 | 0.23 | 0.12 | 0.39 | 0.24 | 0.14 |
| HH income below \$10K between 24-36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| HH income \$10-25K between 24-36 months | 0.98 | 0.41 | 0.96 | 1.00 | 0.49 | 1.00 | 0.91 | 0.34 | 0.79 | 0.97 | 0.39 | 0.94 |
| HH income more than \$25K between 24-36 months | 0.59 | 0.22 | 0.17 | 0.58 | 0.22 | 0.16 | 0.53 | 0.20 | 0.10 | 0.55 | 0.22 | 0.15 |
| Child is male | 1.97 | 0.76 | 0.09 | 1.90 | 0.77 | 0.13 | 2.04 | 0.79 | 0.07 | 1.96 | 0.76 | 0.09 |
| One or both parents not born in US | 0.40 | 0.37 | 0.33 | 0.37 | 0.38 | 0.35 | 0.39 | 0.38 | 0.34 | 0.41 | 0.39 | 0.36 |


| Table 5: Doctor Visits for Accident or Injury <br> Logistic Regression Models predicting Odds that a child has gone to the doctor for an accident or injury in the past year depending on the Multiple Partner Fertility of their Parents <br> Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | p>t | Odds <br> Ratio | SE | p>t | Odds <br> Ratio | SE | p>t | Odds <br> Ratio | SE | $p>t$ |
| Mother has a child by a prior partner | 3.24 | 2.89 | 0.20 |  |  |  | 1.80 | 0.92 | 0.26 | 3.17 | 2.83 | 0.21 |
| Father has a child by a prior partner | 0.68 | 0.49 | 0.60 |  |  |  | 0.63 | 0.43 | 0.51 | 0.27 | 0.23 | 0.13 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 2.22 | 2.42 | 0.47 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 4.52 | 4.29 | 0.12 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 0.76 | 0.78 | 0.79 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 0.45 | 0.35 | 0.31 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 2.21 | 1.25 | 0.17 | 2.22 | 1.33 | 0.19 | 1.40 | 1.07 | 0.67 | 1.41 | 0.79 | 0.54 |
| Interaction: High Conflict * Mother's Other Children Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  | 4.30 | 7.45 | 0.41 | 6.92 | 15.10 | 0.38 |
| Child has older full siblings | 0.89 | 0.54 | 0.85 | 0.92 | 0.57 | 0.90 | 0.84 | 0.51 | 0.77 | 0.91 | 0.55 | 0.88 |
| Child lives with a younger sibling (either full or half) at 36 months | 1.30 | 0.78 | 0.66 | 1.29 | 0.78 | 0.67 | 1.37 | 0.79 | 0.59 | 1.34 | 0.78 | 0.62 |
| Married at baseline | 1.17 | 0.90 | 0.84 | 1.11 | 0.79 | 0.89 | 0.97 | 0.61 | 0.96 | 1.20 | 1.01 | 0.83 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 1.84 | 1.56 | 0.48 | 1.72 | 1.57 | 0.56 | 1.60 | 1.49 | 0.62 | 1.69 | 1.59 | 0.58 |
| Married at 36 months | 4.21 | 3.01 | 0.05 | 4.60 | 3.50 | 0.05 | 4.35 | 3.31 | 0.06 | 4.00 | 2.85 | 0.06 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 0.56 | 0.44 | 0.47 | 0.58 | 0.50 | 0.53 | 0.53 | 0.46 | 0.47 | 0.45 | 0.42 | 0.40 |
| No longer in relationship at 36 months | 0.63 | 0.51 | 0.57 | 0.69 | 0.53 | 0.63 | 0.54 | 0.52 | 0.53 | 0.56 | 0.50 | 0.52 |
| Stepfather living in HH at 36 months | 2.17 | 2.45 | 0.50 | 2.30 | 2.82 | 0.50 | 2.22 | 2.84 | 0.54 | 2.04 | 2.34 | 0.54 |
| Mother is white | 2.57 | 2.17 | 0.27 | 2.35 | 1.85 | 0.28 | 2.28 | 1.92 | 0.33 | 2.23 | 1.90 | 0.36 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 2.47 | 2.57 | 0.39 | 2.39 | 2.81 | 0.46 | 2.30 | 2.27 | 0.41 | 2.34 | 2.36 | 0.41 |
| Mother is not white, black or Hispanic | 6.77 | 9.08 | 0.16 | 6.88 | 10.40 | 0.21 | 5.49 | 7.48 | 0.22 | 7.55 | 10.57 | 0.16 |
| Father is a different race/ethnicity from Mother | 0.86 | 0.93 | 0.89 | 0.87 | 0.97 | 0.90 | 0.94 | 1.09 | 0.96 | 0.94 | 1.01 | 0.95 |
| Mother's age in years at baseline | 1.04 | 0.06 | 0.44 | 1.04 | 0.06 | 0.49 | 1.05 | 0.05 | 0.32 | 1.05 | 0.06 | 0.44 |
| Father's age is more than 5 years different from mother's | 0.89 | 0.55 | 0.85 | 0.91 | 0.59 | 0.89 | 0.82 | 0.46 | 0.72 | 0.84 | 0.54 | 0.79 |
| Either parent has less than a HS diploma/GED | 0.97 | 0.52 | 0.95 | 0.93 | 0.56 | 0.90 | 1.02 | 0.58 | 0.98 | 0.92 | 0.49 | 0.87 |
| Either parent went to college | 0.72 | 0.38 | 0.53 | 0.79 | 0.43 | 0.67 | 0.66 | 0.35 | 0.44 | 0.63 | 0.35 | 0.41 |
| HH income below $\$ 10 \mathrm{~K}$ between 24-36 months (REF) HH income $\$ 10-25 \mathrm{~K}$ between 24 - 36 months | 0.32 | 0.49 | 0.47 | 0.33 | 0.53 | 0.49 | 0.36 | 0.52 | 0.49 | 0.33 | 0.50 | 0.47 |
| HH income more than \$25K between 24-36 months | 0.36 | 0.52 | 0.49 | 0.39 | 0.58 | 0.53 | 0.42 | 0.56 | 0.52 | 0.39 | 0.54 | 0.50 |
| Child is male | 1.96 | 0.98 | 0.19 | 1.94 | 1.04 | 0.23 | 1.87 | 0.89 | 0.20 | 1.89 | 0.93 | 0.20 |
| One or both parents not born in US | 0.21 | 0.31 | 0.30 | 0.18 | 0.27 | 0.26 | 0.21 | 0.31 | 0.29 | 0.17 | 0.24 | 0.22 |


| Table 6: Vocabulary <br> Logistic Regression Models predicting Odds that a child will score poorly on the PPVT depending on the Multiple Partner Fertility of their Parents Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey (Verbal competance measured using PPVT/TVIP; Child is determined to have small vocabulary if they score more than 1 SD below the sample average) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ |
| Mother has a child by a prior partner | 0.55 | 0.31 | 0.30 |  |  |  | 0.45 | 0.28 | 0.21 | 0.53 | 0.30 | 0.27 |
| Father has a child by a prior partner | 1.01 | 0.61 | 0.99 |  |  |  | 1.01 | 0.66 | 0.99 | 0.76 | 0.49 | 0.67 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 0.56 | 0.71 | 0.65 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 0.43 | 0.27 | 0.18 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 1.05 | 0.99 | 0.96 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 0.89 | 0.94 | 0.91 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 1.28 | 0.59 | 0.60 | 1.18 | 0.59 | 0.75 | 1.12 | 0.69 | 0.85 | 0.98 | 0.63 | 0.98 |
| Interaction: High Conflict * Mother's Other Children |  |  |  |  |  |  | 1.64 | 2.38 | 0.74 |  |  |  |
| Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  |  |  |  | 2.34 | 3.13 | 0.53 |
| Child has older full siblings | 2.30 | 1.65 | 0.26 | 2.36 | 1.86 | 0.28 | 2.25 | 1.64 | 0.27 | 2.35 | 1.72 | 0.25 |
| Child lives with a younger sibling (either full or half) at 36 months | 0.68 | 0.31 | 0.40 | 0.66 | 0.31 | 0.39 | 0.69 | 0.32 | 0.43 | 0.68 | 0.32 | 0.41 |
| Married at baseline | 0.91 | 0.83 | 0.92 | 1.06 | 1.09 | 0.96 | 0.89 | 0.83 | 0.90 | 0.95 | 0.87 | 0.96 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 0.55 | 0.31 | 0.30 | 0.49 | 0.32 | 0.28 | 0.54 | 0.29 | 0.26 | 0.55 | 0.31 | 0.30 |
| Married at 36 months | 0.83 | 0.84 | 0.86 | 0.69 | 0.82 | 0.76 | 0.83 | 0.87 | 0.86 | 0.79 | 0.77 | 0.81 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 1.75 | 2.06 | 0.64 | 1.74 | 2.04 | 0.64 | 1.80 | 2.11 | 0.62 | 1.79 | 2.12 | 0.63 |
| No longer in relationship at 36 months | 0.85 | 0.60 | 0.82 | 0.67 | 0.52 | 0.61 | 0.88 | 0.62 | 0.86 | 0.82 | 0.60 | 0.79 |
| Stepfather living in HH at 36 months | 1.93 | 1.91 | 0.51 | 2.64 | 3.15 | 0.42 | 1.87 | 1.80 | 0.52 | 1.83 | 1.78 | 0.54 |
| Mother is white | 0.47 | 0.48 | 0.47 | 0.47 | 0.55 | 0.52 | 0.46 | 0.49 | 0.47 | 0.44 | 0.44 | 0.42 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 0.30 | 0.20 | 0.08 | 0.29 | 0.22 | 0.12 | 0.29 | 0.20 | 0.08 | 0.28 | 0.20 | 0.08 |
| Mother is not white, black or Hispanic | 1.19 | 4.40 | 0.96 | 1.27 | 5.05 | 0.95 | 1.13 | 4.37 | 0.97 | 1.20 | 4.39 | 0.96 |
| Father is a different race/ethnicity from Mother | 0.74 | 1.03 | 0.83 | 0.75 | 1.14 | 0.85 | 0.75 | 1.07 | 0.84 | 0.77 | 1.09 | 0.85 |
| Mother's age in years at baseline | 0.93 | 0.07 | 0.34 | 0.93 | 0.08 | 0.38 | 0.93 | 0.07 | 0.38 | 0.93 | 0.07 | 0.34 |
| Father's age is more than 5 years different from mother's | 1.66 | 0.79 | 0.30 | 1.83 | 0.95 | 0.25 | 1.63 | 0.78 | 0.32 | 1.68 | 0.78 | 0.27 |
| Either parent has less than a HS diploma/GED | 1.08 | 0.57 | 0.89 | 1.12 | 0.61 | 0.84 | 1.10 | 0.61 | 0.86 | 1.09 | 0.61 | 0.88 |
| Both parents have HS diplomas or GEDs (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Either parent went to college | 0.79 | 0.66 | 0.78 | 0.65 | 0.58 | 0.64 | 0.77 | 0.68 | 0.77 | 0.75 | 0.61 | 0.73 |
| HH income below \$10K between 24-36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| HH income \$10-25K between 24-36 months | 3.17 | 2.10 | 0.09 | 3.81 | 2.48 | 0.05 | 3.29 | 2.08 | 0.07 | 3.23 | 2.22 | 0.10 |
| HH income more than \$25K between 24-36 months | 1.49 | 1.22 | 0.63 | 1.69 | 1.27 | 0.49 | 1.55 | 1.30 | 0.60 | 1.58 | 1.24 | 0.57 |
| Child is male | 3.04 | 1.60 | 0.04 | 3.04 | 1.60 | 0.04 | 3.01 | 1.60 | 0.05 | 3.11 | 1.69 | 0.04 |
| One or both parents not born in US | 1.24 | 0.77 | 0.74 | 1.18 | 0.83 | 0.82 | 1.24 | 0.80 | 0.74 | 1.18 | 0.71 | 0.79 |


| Table 7: Food Security |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Logistic Regression Models predicting Odds that a child will demonstrate either hunger or poor diet depending on the Multiple Partner Fertility of their Parents Fragile Families Nationally Representative Sample, 36-month Child-Wellbeing survey (Child Food Insecurity measured using 8-item USDA child-specific food insecurity scale) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  |
|  | Odds <br> Ratio | SE | $\mathrm{p}>\mathrm{t}$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ | Odds <br> Ratio | SE | $p>t$ |
| Mother has a child by a prior partner | 0.80 | 0.50 | 0.72 |  |  |  | 0.50 | 0.30 | 0.26 | 0.77 | 0.47 | 0.68 |
| Father has a child by a prior partner | 2.91 | 1.62 | 0.06 |  |  |  | 2.88 | 1.63 | 0.07 | 2.10 | 1.62 | 0.34 |
| Mother has a child by a prior partner \& receives child support |  |  |  | 0.43 | 0.33 | 0.29 |  |  |  |  |  |  |
| Mother has a child by a prior partner \& DOESN'T receive child support |  |  |  | 1.00 | 0.85 | 1.00 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he pays child support |  |  |  | 3.67 | 2.38 | 0.05 |  |  |  |  |  |  |
| Father has a child by a prior partner for whom he DOES'T pay child support |  |  |  | 1.01 | 0.82 | 0.99 |  |  |  |  |  |  |
| Mother reports high couple conflict at W3 | 1.90 | 0.97 | 0.22 | 2.09 | 1.07 | 0.16 | 1.32 | 0.93 | 0.70 | 1.23 | 0.87 | 0.77 |
| Interaction: High Conflict * Mother's Other Children |  |  |  |  |  |  | 3.07 | 3.27 | 0.30 |  |  |  |
| Interaction: High Conflict * Father's Other Children |  |  |  |  |  |  |  |  |  | 2.61 | 2.94 | 0.40 |
| Child has older full siblings | 0.93 | 0.48 | 0.89 | 0.94 | 0.51 | 0.91 | 0.90 | 0.45 | 0.84 | 0.96 | 0.49 | 0.94 |
| Child lives with a younger sibling (either full or half) at 36 months | 0.32 | 0.15 | 0.02 | 0.29 | 0.14 | 0.02 | 0.34 | 0.15 | 0.02 | 0.32 | 0.15 | 0.02 |
| Married at baseline | 0.87 | 0.70 | 0.87 | 0.77 | 0.57 | 0.73 | 0.80 | 0.60 | 0.77 | 0.86 | 0.70 | 0.86 |
| Living together at baseline (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at baseline | 0.70 | 0.40 | 0.54 | 0.60 | 0.38 | 0.42 | 0.65 | 0.35 | 0.44 | 0.67 | 0.38 | 0.49 |
| Married at 36 months | 1.16 | 0.82 | 0.83 | 1.25 | 0.88 | 0.76 | 1.14 | 0.81 | 0.85 | 1.12 | 0.81 | 0.88 |
| Living together at 36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Dating but not living together at 36 months | 0.72 | 0.56 | 0.68 | 0.59 | 0.48 | 0.52 | 0.75 | 0.61 | 0.73 | 0.72 | 0.56 | 0.68 |
| No longer in relationship at 36 months | 0.48 | 0.31 | 0.27 | 0.44 | 0.30 | 0.24 | 0.47 | 0.30 | 0.25 | 0.46 | 0.30 | 0.24 |
| Stepfather living in HH at 36 months | 1.32 | 1.31 | 0.78 | 0.95 | 1.07 | 0.97 | 1.26 | 1.35 | 0.83 | 1.19 | 1.32 | 0.87 |
| Mother is white | 0.60 | 0.42 | 0.47 | 0.43 | 0.26 | 0.18 | 0.57 | 0.40 | 0.43 | 0.57 | 0.39 | 0.42 |
| Mother is black (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| Mother is Hispanic | 0.58 | 0.31 | 0.31 | 0.42 | 0.23 | 0.12 | 0.56 | 0.31 | 0.31 | 0.56 | 0.30 | 0.29 |
| Mother is not white, black or Hispanic | 0.23 | 0.28 | 0.23 | 0.18 | 0.18 | 0.11 | 0.22 | 0.27 | 0.22 | 0.23 | 0.29 | 0.25 |
| Father is a different race/ethnicity from Mother | 1.55 | 1.03 | 0.52 | 1.73 | 1.06 | 0.38 | 1.62 | 1.09 | 0.48 | 1.61 | 1.15 | 0.51 |
| Mother's age in years at baseline | 0.95 | 0.05 | 0.29 | 0.95 | 0.05 | 0.37 | 0.96 | 0.05 | 0.36 | 0.95 | 0.05 | 0.30 |
| Father's age is more than 5 years different from mother's | 1.96 | 0.81 | 0.11 | 2.29 | 0.99 | 0.06 | 1.86 | 0.73 | 0.13 | 1.95 | 0.81 | 0.12 |
| Either parent has less than a HS diploma/GED Both parents have HS diplomas or GEDs (REF) | 0.78 | 0.43 | 0.66 | 1.09 | 0.65 | 0.89 | 0.84 | 0.48 | 0.76 | 0.76 | 0.42 | 0.62 |
| Either parent went to college | 0.82 | 0.45 | 0.72 | 1.01 | 0.53 | 0.99 | 0.80 | 0.45 | 0.70 | 0.76 | 0.44 | 0.64 |
| HH income below \$10K between 24-36 months (REF) |  |  |  |  |  |  |  |  |  |  |  |  |
| HH income \$10-25K between 24-36 months | 0.94 | 0.50 | 0.91 | 1.12 | 0.66 | 0.85 | 1.02 | 0.56 | 0.97 | 0.93 | 0.49 | 0.90 |
| HH income more than \$25K between 24-36 months | 0.15 | 0.10 | 0.01 | 0.18 | 0.13 | 0.02 | 0.17 | 0.11 | 0.01 | 0.16 | 0.10 | 0.01 |
| Child is male | 0.75 | 0.33 | 0.52 | 0.59 | 0.24 | 0.21 | 0.74 | 0.31 | 0.48 | 0.77 | 0.35 | 0.56 |
| One or both parents not born in US | 1.44 | 0.78 | 0.51 | 1.19 | 0.79 | 0.80 | 1.43 | 0.76 | 0.51 | 1.39 | 0.74 | 0.54 |

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[^0]:    ${ }^{1}$ A 60-month survey was also administered, but I do not use those data in this analysis.
    ${ }^{2}$ A 60-month In-Home Module has also been administered, but those data are not publicly available as of this writing

[^1]:    ${ }^{3}$ Missing items were replaced with the respondent's mean for the other items in that scale. However, respondents with more than two missing items for the anxiety and withdrawal scales ( $\mathrm{N}=42$ and 41 , respectively; less than $2 \%$ of the sample), or four missing items for the aggression scale ( $\mathrm{N}=64$; again less than $2 \%$ of the sample), were excluded entirely.

[^2]:    ${ }^{4}$ Or, in Spanish, the Test de Vocabulario en Imagenes Peabody or TVIP.
    ${ }^{5}$ CONFIRM THIS CITE

[^3]:    ${ }^{6}$ Ultimately, although many have used this item to approximate men's multiple partner fertility, the question is a poor measure of men's fertility as fathers who have multiple children with the focal mother, but do not co-reside with her, would answer in the affirmative even though they may not be multiple partner fertility fathers.
    ${ }^{7}$ The couple's relationship status is taken from constructed variables provided by the Center for Research on Child Well-being at Princeton. The construction of these variables was dependent on information reported by mothers about their marital status, cohabitation status and, for unmarried mothers, how they describe their current relationship with the baby's father (choices at baseline for this final item included, "romantically involved on a steady basis," "involved in an on-again and off-again relationship," "just friends," "hardly ever talk to each other," and "never talk to each other"). See Bendheim-Thoman, 2008, for additional details.

[^4]:    ${ }^{8}$ For information on the weights used and their construction, please see Carlson (2008).

