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# A Better Deal for Cohabiting Fathers? Union Status Differences in Father Involvement 

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#### Abstract

We use the "package deal" framework to study the trajectory of father involvement over time as a function of union status, while also examining reporting differences in father involvement by parent gender. Data on 4,224 mother-father pairs are from the Fragile Families and Child Wellbeing Study. Average father involvement at the child's first birthday is 3.25 days per week and declines at a rate of .17 days per year. Mothers, on average, report father involvement to be .57 days less than fathers report. Parents who remain in a continuous coresidential union, who transition from cohabitation to marriage, or who transition from a noncoresidential state to a coresidential union experience the highest levels of father involvement and the lowest levels of discrepancy between mothers and fathers' reports. Cohabiting fathers exhibit higher average levels of father involvement than married fathers. We discuss the place of cohabiting families in light of our findings.


The study of father involvement has grown rapidly since the 1980s. This literature has shown that father involvement is associated with a number of positive outcomes for children (see Lamb, 2004; Marsiglio, Amato, Day, \& Lamb, 2000), for men (Eggebeen \& Knoester, 2001; Knoester \& Eggebeen, 2006), and for relationships between parents (e.g., Abidin, 1992; Bonney, Kelley, \& Levant, 1999; Levy-Shiff, 1994). However, most research on father involvement is based on mothers' reports (e.g., Bonney et al., 1999; Bronte-Tinkew, Ryan, Carrano, \& Moore, 2007; Gaertner, Spinrad, Eisenberg, \& Greving, 2007; Knoester, Petts, \& Eggebeen, 2007), leading some scholars to argue that research on family processes lacks a male voice (Goldsheider \& Kaufmann, 1996). At the same time that scholars have developed a strong focus on fathers, the number of births to unmarried parents has dramatically increased to $41 \%$ of all births in the U.S. (Hamilton, Martin, \& Ventura, 2010), and a large proportion of those births are to cohabiting parents (Bumpass and Lu, 2000; Carlson, McLanahan, \& Brooks-Gunn, 2008). Children in these families typically fare worse than those in married parent families (Brown, 2004; Manning \& Brown, 2006; Marsiglio et al., 2000; McLanahan \& Sandefur, 1994; McLanahan, 2000), thus father involvement may be particularly beneficial.

An issue that has so far received very little attention is how father involvement is related to union status and how changes in union status impact father involvement. Father involvement has been conceptualized as part of the "package deal" in which fathers are involved with children insofar as they are in a good relationship with the mother (Furstenberg \& Cherlin, 1991; Townsend, 2002). Thus fathers who are married to or cohabiting with mothers may be more involved than fathers who are not in coresidential relationships with mothers. Similarly, once a coresidential relationship ends, and the package deal is "unpacked," fathers may be less involved. On the other hand, fathers who solidify their union with mothers by marrying or
cohabiting may increase their involvement as the package becomes more tightly wrapped. Given the dearth of research on these issues, this study provides an in-depth investigation of the relationship between parents' union status, on the one hand, and the level of father involvement, as well as the mother-father reporting discrepancy in same, on the other hand, as they unfold over time.

## The "Package Deal" and Union Status

The union status of parents dictates the economic and parental resources available to children and thus is associated with child outcomes (Brown, 2004). The differences in economic resources by union status have been well documented (e.g., Manning \& Brown, 2006; McLanahan \& Sandefur, 1994), in that children typically have the most financial resources when their parents are married, especially for Whites, and the least when living with a single mother, with stepfamilies and cohabiting families in between. Lesser known, however, are the union status differences in parental resources, namely father involvement. It is well known that father absence has negative effects on children's physical and emotional health and educational outcomes (e.g., Amato, 2000; McLanahan \& Sandefur, 1994; Wu \& Thomson, 2001). Fathers are more likely to be absent when the parents are not romantically involved. The same has been said to be true of father involvement in general.

The idea that fathers' roles as parents are contingent on their status as partners is known as the "package deal" (Furstenberg \& Cherlin, 1991; Townsend, 2002). The "package deal" notion has been used primarily to describe father involvement in married parent families. Married men are husbands, fathers, providers, and protectors (Townsend). When parents divorce, and the package unravels, father involvement declines (Furstenberg \& Cherlin, 1991). Families today are more complex, making a comparison between married and divorced fathers
rather simplistic. For example, more than half of unmarried births are to cohabiting mothers (Brown, 2010). While cohabiting fathers are romantically involved and living with the child, we might expect their involvement to be high since they are living the "package deal" without the ribbon of legal marriage. Similarly, cohabitors are typically less traditional and more egalitarian than marrieds (DeMaris \& McDonald, 1993), so they may be more involved than married men. However, research has shown that cohabiting men are less committed to their family than are marrieds (Nock, 1995). Furthermore, cohabitation is an incomplete institution with unclear family roles (Brown, 2004); therefore, men may not know how involved they should be with their children. Given these various scenarios, it is unclear how the "package deal" theory may work for cohabiting men.

What about men who are unmarried and nonresident? We might expect them to have low levels of involvement because they do not have the package deal. Among nonresident children after a nonmarital birth, $37 \%$ had no contact with their father in the past year or two, $43 \%$ had regular continuous contact, and $20 \%$ fell in between (Carlson, McLanahan, \& Brooks-Gunn, 2008). Nonresident fathers do in fact maintain relatively high levels of involvement with their children in the absence of the "package deal" (Tach, Mincy, \& Edin, 2010),

Given the fragility of low-income, unmarried families, the question of father involvement after a separation is of interest here. There is only one study comparing father involvement following either a divorce or the separation of a cohabiting relationship. Formerly cohabiting fathers actually have higher levels of involvement than formerly married fathers according to mothers (Laughlin, Farrie, \& Fagan, 2009). On the other hand, no study that we are aware of has examined fathers who are nonresident at the child's birth but become resident over time. With few exceptions, research using the "package deal" framework has not been able to adequately
dissect the complex nature of father involvement and union transitions, which is a goal of this research.

## Father involvement over time

In the first few months of a child's life, research shows a decline in most types of father involvement (Belsky \& Volling, 1987). However, the same is true of mothers' involvement; children require less supervision and attention as they develop. For example, frequency of care of newborns declines for both parents over the child's first year, with the decline being greater for mothers than fathers (DeMaris, Mahoney, and Pargament, 2011). The absolute level of father involvement decreases as children age (Yueng, Sandberg, Davis-Kean, and Hofferth, 2001), however, fathers spend more time with older rather than younger children (Lamb, 2000). Bruce \& Fox (1999) conclude that the relationship between father involvement and child age is curvilinear, in that fathers spend the most time with children when they are in their preschool years. It is possible that inconsistencies in these results are due to differences in research designs and measurement strategies, operationalization of father involvement, and observation periods at differing points in children's lives. Also, many studies on involvement over time do not take into account union status over time by either only considering union status at the beginning of the observation period or by only examining stable unions. Furthermore, for nonresident fathers in particular, multipartner fertility (having a child with a new partner), is associated with lower levels of involvement with children from previous unions (Carlson, Furstenberg, \& McLanahan, 2009; Manning \& Smock, 1999), therefore, we control for that in our analyses.

## Issues in Reporting of Father Involvement by Mothers and Fathers

Collecting large-scale survey data is often expensive and time consuming. Many national surveys gather information from one respondent who answers questions about members of the
household or family. Surveys about fertility or children typically target women only. While there are good reasons for this strategy (e.g., women bear children and are usually their primary caregivers), when asking about the attitudes or behavior of another person, measurement error is plausible, as the respondent may truly not know the correct response, or their response may be conditioned by some other factor, such as relationship status with the person of interest. In terms of father involvement, mothers and fathers are reporting on the same phenomenon, namely the father's behavior. The father is asked about his own behavior while the mother is asked about her perception of the father's behavior. In that they are both being asked to report on the same behavior, their responses presumably should be the same. Research is needed to closely examine when and under what conditions it is appropriate to use mother's reports about the father's behavior. Furthermore, researchers have begun to realize that not having a male voice may bias results and yield an inaccurate picture of their side of the story (Goldsheider \& Kaufmann, 1996).

Two studies have directly compared mother and father reports of father involvement. Coley and Morris (2002), using data from Welfare, Children, and Families: A Three Cities Study, employ paired hierarchical linear modeling to find the true dyadic mean and the true discrepancy score between parents' reports. This is the first and only paper to utilize this technique to compare mother and father reports of father involvement. Mikelson (2008) conducts a similar study using cross-sectional data from wave three of the Fragile Families and simply creates a difference score by subtracting father's reported involvement from mother's reported level of father involvement and uses OLS regression to determine factors associated with the difference. Although these studies use different data and different statistical
techniques, they both find that there is a significant difference in reporting on father involvement between mothers and fathers.

While both of these studies greatly contribute to our understanding of reporting on father involvement, there are a few limitations that we would like to address with the current study. Our study is the first to examine the discrepancy in reporting of father involvement over time, until the child is five years old. Second, we examine the extent to which union type/transition is associated with the discrepancy between reporters. The association between father residency and involvement is not consistent between the two prior studies, perhaps due to their cross-sectional nature. The current investigation may shed light on the discrepant findings by accounting for change over time.

## THE CURRENT STUDY

The current investigation focuses on the level of father involvement among families with a new child over time, the similarities and differences in reporting of father involvement between mothers and fathers in the Fragile Families data, and the factors associated with those similarities and differences, particularly union status and union transitions.

There are a number of questions to be addressed by this research. First, what is the level of father involvement as reported by mothers and fathers, and how much discrepancy exists between their reports? Based on the work of Coley and Morris (2002), we expect there to be a moderate level of father involvement (i.e., about 3-4 days per week) and mothers to report slightly less involvement by fathers than fathers report (H1).

Second, how does the level of father involvement and the discrepancy between reporters change over time? Although there is some discrepancy in the literature discussed above, most of the research over the observation period under study here shows a decline in the trajectory of
father involvement, therefore, we expect to find this pattern as well (H2). This study is the first to look at discrepancy in reports over time. Theory does not provide a guiding hypothesis, therefore, we are not specifying a priori whether or how it will change.

Third, is there a higher level of father involvement and a higher level of agreement among couples who are married or cohabiting (i.e., resident) than among couples who are visiting or not romantically involved (i.e., nonresident)? The "package deal" framework leads us to hypothesize that when fathers are visiting or not romantically involved with the mother, there will be lower levels of involvement than among married and cohabiting fathers (H3) but more agreement between mother and father reports (H4; Mikelson, 2008). It is also of interest to compare father involvement between married and cohabiting couples. As there is reason to believe that cohabiting fathers could be more, less, or equally involved with children as married fathers, as discussed above, we are not specifying a hypothesis. We are also not specifying a hypothesis about the change in involvement over time by union status or transition.

Father education and age, mother education, child gender, low birth weight, and health, parents' race, other children, and labor force participation, and the time difference between mother and father interviews will be included as controls. These types of variables have been used in prior studies of father involvement (Carlson \& McLanahan, 2010), union stability and transitions (e.g., Brown, 2000, 2004; Carlson, McLanahan, \& England, 2004; Harknett \& McLanahan, 2004), and discrepancy in reporting (Coley \& Morris, 2002; Mikelson, 2008).

## DATA

This research uses data from the Fragile Families, which are representative of births in 2000 in cities with populations over 200,000 (when weighted). The baseline survey was collected between 1998 and 2000. Mothers were interviewed in the hospital within 48 hours after giving
birth. The father was interviewed in the hospital or as soon after the birth as possible. Mothers and fathers were interviewed at the child's first, third, and fifth birthdays. (For additional sampling and data information for the first three waves of data, see Reichman et al., 2001.) Fragile Families data are based on 4,898 births. We only include parents among whom the father is known and each member of the dyad is interviewed at least one time. This limitation yields 4,224 mother-father pairs. As one goal of this analysis is to compare mother and father reports of father involvement, each measure discussed below, unless otherwise specified, is created for mothers and fathers separately.

## Dependent Variable: Father Involvement

Mothers and fathers are asked to report the number of days per week the father performs a number of activities at times 1, 3, and 5. Fragile Families changes and adds new activities at each wave that are developmentally specific. However, of central importance in this study is how father involvement changes over time; hence, analogous measures are needed across waves. Only four items are the same at each interview including: "(parent) sings songs or nursery rhymes to child," "reads stories," "tells stories," and "plays inside with toys such as blocks or Lego's." We use measures of father involvement from times 1,3 , and 5 as the measures are consistent between waves. Time 0 measures refer to the father's involvement with the mother during pregnancy, and these are not the same as measures of his involvement with the child in the follow-up waves, making this strategy the most appropriate.

To use dyadic growth curve analysis, it is necessary to create parallel scales of father involvement measures for mothers and fathers at each survey wave (see, e.g., Lyons \& Sayer, 2005 for the rationale). Parallel scales are two separate scales (Scale A and Scale B) created by splitting the items that measure a given concept so that the scales have equal variance and equal
reliability (Raudenbush, Brennan, \& Barnett, 1995; Sayer \& Klute, 2005). This is done for each parent as follows: four measures are ordered from lowest to highest standard deviation. Then, two by two, one measure is randomly selected for Scale A and the other for Scale B until all four measures have been used to create two separate parallel scales. This is repeated for each parent at each wave. Thus each dyad contributes a total of 12 scales, ranging from 0 to 7 days per week (alphas range from 0.50-0.83 for mothers' scales and from 0.54-0.83 for fathers' scales).

## Independent Variables

To measure the level of discrepancy between mother's and father's reports of father involvement, gender gap is coded as 0.5 for mothers and -0.5 for fathers. This is analogous to dummy coding in that it captures the average gender difference in the report of father's involvement. However, in that the sum of gender gap is zero across parents, the equation intercept and the coefficients of all other regressors are interpreted as effects on average father involvement, as reported by both parents.

Time is coded in years since the initial interview (birth of child); 1,3 , and 5 years.
Union Status and Transitions: Central to the hypotheses about agreement or disagreement in mother's and father's reports of father involvement is the relationship status of the parents. Between-subjects union status/transition dummies tell us the relationship trajectory over the observation period.

Using a series of questions about the parents' current relationship status and living arrangements from mothers' reports (unless the mother's report is missing, then the father's report is used if available), Fragile Families constructs the parents' union status at the beginning of each wave. The constructed variable is recoded into a categorical variable: (1) married, (2) cohabiting, (3) visiting, and (4) nonromantic at each wave. From this we created a set of
between-subjects dummies to indicate stability or transition over the five-year observation period. The dummied categories are as follows: continuously married (reference), continuously cohabiting, continuously visiting or continuously nonromantic (combined into one category), cohabiting to married, cohabiting to not cohabiting (visiting or nonromantic), married to not married, visiting/nonromantic to cohabiting, visiting/nonromantic to married, between visiting and nonromantic (either direction), two or three transitions.

Father and Mother Characteristics: Mother's and father's education are both taken from self-reports. Each parent reports their highest level of education at baseline. Constructed dummy variables are created indicating whether the father (mother) has less than a high school degree, a high school diploma or equivalent (reference), some college or technical training, or a college degree or above. The constructed variable of father's age measured in years at baseline is included. As mother's age and father's age are highly correlated (.95), only father's age is included.

Child Characteristics: Gender of child is taken from the mother's baseline survey: boy (1), girl (0). Fragile Families constructs a variable indicating whether the focal child was considered low birth weight. Original coding of this variable is maintained: (1) low-birth weight, (0) normal weight. At each wave, fathers are asked about their child's overall health, ranging from (1) very poor to (5) excellent. Due to the skewed distribution, a time-varying dummy is created indicating father reports child's health as excellent (1) or less than excellent (0). Fathers' reports are used instead of mothers' reports because fathers' own perspectives of their child's health may be more important to his level of involvement than the mother's.

Dyad Characteristics: Based on questions about racial and ethnic background, Fragile Families constructs a race variable from which dummies are created to indicate the parents are
both non-Hispanic White (reference), non-Hispanic Black, Hispanic, of another racial/ethnic background, or from different racial/ethnic backgrounds.

Mothers and fathers are asked at each wave how many children they have together and how many children they have by other partners. Using these questions to determine whether multipartner fertility exists, it is determined whether the dyad has only the focal child (reference), only biological children together, the mother has children who are not biologically related to the father, the father has children who are not biologically related to the mother, or both parents have other biological children. These variables are time varying. Note that other children, if present, are not necessarily living in the same household as the focal child and/or the father.

At each interview, mothers and fathers are asked to report the number of hours worked per week at their current or most recent job. Dummy variables are created for fathers (mothers) at each wave indicating father (mother) does not work or works part-time (0) or works full-time (1). Then a set of time-varying labor force participation dummies is created to indicate both mother and father work full-time (reference), father only works full-time, mother only works fulltime, neither mother nor father works full-time. There is a constructed measure at each wave that indicates the time difference between the mother and father interviews. It has been recoded in days, with negative numbers indicating that the father was interviewed first, positive numbers indicating that the mother was interviewed first, and 0 indicting they were interviewed on the same day. We also ran models using the absolute value of this indicator, however, there were no differences. This is necessary to include because differences in reporting may be simply due to the fact that mothers and fathers are reporting on different time periods in the child's life, even though questions are not asked about a specific time period. Furthermore, efforts were made to interview parents as close to each other as possible (Reichman et al., 2001). A long time period
between interviews may indicate that the mother did not know how to contact the father or other issues that may signify problems between parents.

## Missing Data

Fragile Families is more representative of fathers than other datasets collected in recent years in that obtaining information from fathers, particularly unwed fathers, was a central goal and guided much of the research protocol. However, missing data for fathers is an important issue when using the Fragile Families data, particularly for the later waves. Based on the number of completed mother interviews at Time $0,79 \%$ of fathers were interviewed at Time $0,70 \%$ at Time 1, 67\% at Time 3, and 65\% at Time 5. Fathers' participation in the Fragile Families study is related to their involvement with the mother (Carlson et. al., 2004), in that married (89\%) and cohabiting (90\%) fathers are most likely to participate, followed by visiting (romantically involved but not living together (73\%) fathers. Fathers who are friends with the mother (53\%) or who are no longer romantically involved with the mother at the time of birth (28\%) are least likely to be in the sample (figures at Time 0). (Father response rates by relationship status at each wave are available upon request.) It is clear from the foregoing that missing data for fathers are not missing completely at random, but rather a function of their relationship with mothers. However, they can be classified as missing at random, or MAR, because their missingness is a function of observed variables that are included as regressors in the model (Fitzmaurice, Laird, \& Ware, 2004). When missing data are MAR, maximum and restricted-maximum likelihood estimation based on the entire joint distribution of the responses yields valid coefficient estimates, provided that the model for the within-subject association is also correctly specified (Fitzmaurice et al.) We follow this approach here. Additionally, we have replaced any remaining missing data using multiple imputation with five replications of the dataset. Tabled coefficients
and standard errors are weighted averages of coefficients and standard errors from all replicates (Allison, 2002).

## Analytic Strategy

As our focus in this paper is on both the level of father involvement and the discrepancy in reports of same on the part of mothers vs. fathers, we employ the multilevel dyadic-discrepancy model used by Barnett and colleagues (Barnett, Raudenbush, Brennan, Pleck, \& Marshall, 1995). This approach provides for the modeling of both level and discrepancy in an outcome across pairs of related respondents. The interdependence of mothers and fathers' reports is accounted for in the equation disturbance, which allows for both heteroscedasticity and serial correlation. Parameters are estimated using restricted maximum likelihood, an approach that incurs less bias in smaller samples than maximum likelihood (Fitzmaurice, et al., 2004). Coefficients are interpreted the same as in any regression model. Effects on the mother-father discrepancy in reporting are represented by interaction terms involving gender gap and the relevant regressor.

## RESULTS

## Descriptive Statistics

Descriptive statistics for the current investigations are shown in Table 1. For time-varying variables, the mean is the average over the observation period.
[Table 1 About Here]

## Father Involvement

The average level of father involvement, both within and between sets of parents, is 3.38 days per week. Table 2 shows the average level of father involvement at each wave by reporter. At each time point, fathers report a higher level of involvement than mothers report. Fathers
report a linear decline in involvement over time, whereas mothers report slightly higher levels of involvement at time 3 than at time 1 and then report a decline by time 5 . The pattern is shown graphically in Figure 1.
[Table 2 and Figure 1 About Here]

## Union Status/Transitions

Twenty two percent of the sample remains married for the five years under observation, $7 \%$ continuously cohabit and $7 \%$ remain either continuously visiting or continuously nonromantic over time. Therefore, only $36 \%$ of this sample remains in a stable family form over the first five years of a child's life. The remaining 64\% experience at least one transition; $16 \%$ experience two transitions, and $6 \%$ experience three transitions (not shown). Of the $42 \%$ who experience one transition, there are six possible transitions captured here. Of those who are married at birth, $81 \%$ remain married over the observation period, $16 \%$ divorce, and $3 \%$ experience two or three transitions with the other biological parent. Not surprisingly, parents who are married at birth have the most stable unions. Among those cohabiting at the child's birth, $19 \%$ remain in long-term cohabiting unions, $22 \%$ transition to marriage, $34 \%$ separate, and $25 \%$ experience two or three transitions. Forty one percent of parents who are cohabiting at the child's birth actually remain in stable unions over the five years of observation. Parents who are in visiting relationships or who are not romantically involved at the child's birth are the most unstable. Nineteen percent remain visiting or nonromantic over five years. Four percent transition to marriage, and $8 \%$ move in together but do not marry. Thirty seven percent transition between visiting and being nonromantic (in either direction) one time. Thirty two percent make two or three transitions. Clearly these parents experience the most transitions,
which may or may not include movements of the father in and out of the household, and spend the most time at separate residences.

## Father Involvement by Union Status

Figure 2 shows average father involvement by union or transition status over time. Differences are assessed using ANOVA (table available upon request). At Time 1, parents who transition from cohabitation to marriage exhibit the highest levels of father involvement, followed closely by those who continuously cohabit, are continuously married, or those who are visiting/nonromantic at birth but transition into marriage (differences not significant). By Time 3 and at Time 5, those who transition from visiting/nonromantic to either cohabitation or marriage have levels of involvement, which are statistically the same as the three continuously resident groups. The three groups that experience the sharpest decline in involvement are parents who experience a divorce, parents who experience two or three transitions, and parents who were cohabiting and then break up. By Time 5, it appears that cohabiting parents who separate report slightly higher levels of involvement than married parents who divorce, however, this difference is not significant. Clearly, visiting parents and parents who are nonromantic have the lowest levels of involvement. Whether these states are continuous or there is a transition between the two, fathers who are continuously nonresident exhibit the lowest levels of involvement at all time points. By Time 5, fathers who are nonresident spend, on average, about two days per week with their children.
[Figure 2 About Here]

## Dyadic Univariate Hierarchical Linear Models

The unconditional means model is shown in Table 3A Model 1. The intercept, or the true couple mean level of father involvement, is 3.25 , which indicates, on average, couples report that
fathers are involved with their children about half of the week (recall the father involvement scale ranges from 0 to 7 days). There is significant variability in couple average father involvement across couples (not shown).
[Table 3 About Here]
The variable for gender gap is added in the unconditional gender gap model. Average mean father involvement is 3.25 , and mothers, on average, report father involvement to be 0.57 days less than fathers report. Thus parents report a moderate level of father involvement, with mothers reporting lower levels of father involvement than fathers report.

Model 3 adds the effect of time, and its coefficient indicates that the average level of father involvement declines over time. This is consistent with Figure 1. Although the graph does not suggest that there is an interaction between gender and time, this possibility is tested nonetheless as shown in Model 4. It does not appear that the gender gap in reporting changes over time.

The between-subjects dummy variables that measure union stability or transitions over the observation period are entered in Model 5 in Table 3B. All father, mother, child, and dyadic controls are included in this model (and subsequent models) but are not shown in the table. This model explains $12 \%$ of the variance in father involvement. Continuously married is the reference category. The intercept has increased, which indicates, among continuously married parents, true initial (i.e., at Time 1) mean level of father involvement is 4.39 days per week. Gender gap and time are relatively unchanged from prior models (gender gap of -0.52 and a 0.17 unit decline in father involvement per year). Continuously cohabiting parents and parents who transition from cohabitation to marriage report average levels of father involvement that are higher than those of continuously married parents. Visiting/nonromantic parents who transition
to marriage or cohabitation exhibit levels of involvement that are the same as (i.e., not statistically different from) those of continuously married parents.

Parents whose coresidential union (marriage or cohabitation) ends have lower levels of involvement, on average, than continuously married parents; about a half of a day less. Fathers who are continuously nonresident (visiting or nonromantic) have the lowest level of involvement--1.55 days less than continuously married parents. Parents who transition between visiting relationships and not being romantically involved report average father involvement as 1.26 days less than continuously married parents. Couples that make two or three transitions report lower average father involvement than continuously married parents but only by less than a third of a day. Recall that these transitions may include periods of residency (marriage or cohabitation) in which father involvement is higher, thus the difference between involvement among these fathers and continuously married fathers is small.

In further analyses (results not shown), the contrast category was changed to understand the associations between other union status and union transition groups. When continuously cohabiting parents are the reference group, there is no significant difference between them and cohabiting parents who marry and visiting/nonromantic parents who form cohabiting or marital unions. Furthermore, compared to the continuously visiting or nonromantic parents, all other groups exhibit higher levels of father involvement (statistically significant) of one to two days more per week. There is no statistically significant difference in involvement between married fathers who experience a divorce and cohabiting fathers who experience a separation.

Model 6 shows the between-subjects union transition dummies and their interactions with time. The slope for continuously married parents is -0.18 , which indicates that father involvement declines by 0.18 units per year, on average. There are few statistically significant
differences in father involvement over time by union status or transition. Married fathers who separate or divorce experience a decline in involvement over time (-.27). Those who are nonresident at the child's birth but become resident over time increase their involvement more than continuously married fathers, however, they are merely "catching up" given their lower level of initial involvement. The decline in involvement over time is statistically the same among cohabitors who separate and marrieds who divorce (not shown).

Union status and transitions are interacted with gender gap in Model 7. This model shows that continuously married mothers report father involvement to be about a third of a day less than fathers report. Couples who are continuously in a romantic, coresidential union or who enter a coresidential union during the observation period have about the same level of discrepancy. However, those who are continuously visiting/nonromantic or transition between those states, those who separate over time, and those who experience multiple transitions exhibit a larger discrepancy between reporters, about two-thirds of a day difference on average.

The effects of control variables in Model 5 (not shown) are as follows: fathers who have some college education or a college degree spend more time with their children than fathers with less education ( 0.13 and 0.39 days, respectively), and the difference between fathers with some college and those who have completed their college degree $(+0.26)$ is statistically significant. Father's age is negatively associated with level of involvement but the impact is minimal. Mother's education does not influence the level of father involvement.

It appears that child gender is not significantly associated with father involvement. There is also no difference in average level of involvement between fathers of low birth weight babies and fathers of average weight babies. On the other hand, fathers are more involved with children whose health they rate as excellent than with children whose health is less than excellent. If
child health is removed from the model, low birth weight still is not significantly associated with father involvement.

Black and Hispanic parents report lower levels of father involvement than White parents (-0.16, -0.36, days, respectively). Hispanic parents report father involvement to be 0.19 days less than Black parents and 0.23 days less than interracial parents (results not shown). No other racial/ethnic contrasts were significant. Compared to parents for whom the focal child is their only child, father involvement is lower when both parents have children with other partners. Compared to families among whom the mother has a child(ren) by another father(s), fathers are less involved with focal children when older biological children are present, when fathers have children by other partners, and when both partners have children with other partners. Labor force participation was not a significant predictor of involvement. The full model explains $12 \%$ of the total variance in father involvement.

## DISCUSSION

This research utilizes data from four waves of the Fragile Families and Child Wellbeing Study to determine (1) the trajectory of father involvement over the first five years of the child's life, (2) by union status and union transitions, and (3) the extent to which mothers report lower levels of involvement than fathers report by union status and union transitions over the same time period. Research is increasingly highlighting the importance of father's involvement with their children for a range of child outcomes as well as for father's overall well-being. Given the growing number of children being born to unmarried and cohabiting parents, and the instability of those unions, examining how father involvement changes over time within various family structures is important.

The results show that there is a moderate level of father involvement, on average, and involvement declines over time. Consistent with prior work (Coley \& Morris, 2002; Mikelson, 2008), we have shown that mothers routinely report lower levels of father involvement than fathers themselves report, particularly among continuously nonresident parents and parents who dissolve their union at some point after the birth of a child. This raises concerns about the advisability of overreliance on mothers' reports of father involvement, particularly when fathers' reports are available.

Beyond supporting previous findings, however, this study adds two major contributions. First, this investigation is the first to examine the level and trajectory of father involvement by union statuses and transitions over time. Fragile families are characterized by high levels of instability, yet many studies of father involvement either focus on residency or marital status (married or not). Few studies attempt to fully examine the range of continuous union statuses as well as the various transitions in status that couples experience to determine the association with father involvement. We have shown that union stability and transitions are associated with differing levels of father involvement, although patterns do exist by residency. Continuously married or cohabiting fathers and fathers who transition from cohabitation to marriage are more involved by about two days each week than fathers in other family structure groups. The package deal hypothesis would lead us to believe that married fathers have the highest levels of involvement, however, we find that cohabiting fathers who live together for five years or who transition to marriage over that time are actually more involved with their children than continuously married fathers. This is perhaps evidence that cohabiting fathers are less gendertraditional when it comes to their children than married fathers, although attitudes were not examined here. Additionally, there is an advantage to forming a union after a nonmarital,
nonresident birth, whether it is a marriage or cohabitation, in that average level of father involvement is the same as when couples are in continuous residential unions. This supports the notion that as long as parents are romantically involved, are in a coresidential union at some point, and remain in that union, children can expect to spend over four days a week playing, singing songs, and reading or telling stories with their fathers.

Taken together, these results show that the "package deal" theory can be extended to cohabiting couples. This is good news for cohabiting couples and for policymakers. In the current social climate, we tend to view cohabitation as "less than" marriage (Waite \& Gallagher, 2000), given that it is not a legal institution and that research typically finds that the well-being (financially, relationally, physically) of marrieds is often better than that of cohabitors in general (Brown, 2005). As such, policymakers have allocated money to support marriage promotion programing and other such campaigns to strengthen families, particularly for low-income couples. As Fragile Families is a low-income, urban sample, this research calls those decisions into question. An argument can be made that cohabitation is more similar to marriage among low income couples than typically expected, particularly among those with children. Qualitative research has shown that low-income cohabiting couples say that "everything's there except money," meaning that the love, commitment, trust, and children are there, but they do not have the financial resources in place to transition to marriage (Smock, Manning, \& Porter, 2005). We show that cohabiting and married fathers, whether continuously so or transitioned to over five years, have the same level of involvement with their children. This involvement could imply a higher level of commitment to the family (Levy-Shiff, 1994) and reduce the odds of separation. What this research cannot show is how these processes unfold among more advantaged groups. It is possible that cohabitation is more similar to marriage among disadvantaged groups who
consider marriage to be a capstone. Perhaps for those in more advantaged groups, who do have the luxury of getting married, cohabitation still operates as a lesser status. This may also be the case for cohabitors without children. Perhaps cohabitors with children feel more like a family and therefore have a higher level of commitment than cohabitors without children. Future research is needed to tease out the role of cohabitation among various groups in modern day society.

The package deal has typically been used to discuss married fathers, however, when the argument is turned on its head, it would follow that fathers who separate from mothers or who were never involved romantically with mothers since the child's birth would be minimally involved, if at all. They do not have the package deal as they are not romantically tied to mothers, not the full-time protectors, nor the main financial providers. While father involvement does decline after a separation (i.e., after the package has dissolved), fathers are involved about three days per week, on average. Continuously nonresident fathers spend just over two days per week with their children, on average, although this may be inflated due to sample selection issues. For many nonresident men, the package is not needed to be involved with their children. Futhermore, the level of father involvement among those who experience a separation (unmarried, cohabiting couples) is no lower than among those who experience a divorce. It has been assumed that divorced fathers, who have legal benefits and obligations to their children following a divorce, may be more involved with nonresident children than cohabiting fathers who do not have legal arrangements after separation (Tach et al., 2010). This research challenges that assumption and supports work by Laughlin, Farrie, and Fagan (2009). Once again, this is perhaps evidence that the role and obligations of being a father do not differ much
between married and cohabiting men, resulting in similar levels of involvement after a separation.

The second contribution is the examination of levels of discrepancy between mothers' and fathers' reports of father involvement. Prior work on this subject only uses cross-sectional data and has not considered how such discrepancies might vary by union status or transitions across statuses (Coley \& Morris, 2002; Mikelson, 2008). We find that parents who are married or cohabiting or who transition to a marital or cohabiting union over time have more similarity in reporting, although mothers report slightly lower levels than fathers, than nonresident parents. Although it cannot be determined here whose report is more accurate, when mothers and fathers' reports are similar to each other, it may not matter much whose report is used in analyses. However, among nonresident couples who report differences in father involvement of about a day, whose report is used is more consequential. Future studies that utilize reports of father involvement only from the mother should acknowledge that their reports are likely to be lower than fathers would report, particularly if the father is nonresident. Time diary data should be collected in future studies to determine whose report of father involvement is more accurate.

While much has been learned from this study, there are a few limitations that must be addressed. Our results may be more representative of fathers who are married to or cohabiting with the mother than less involved fathers and fathers who are in visiting relationships or not romantically involved with the mother. Furthermore, fathers who participate in this study are likely to be more involved than fathers who do not, regardless of their relationship with the mother.

Second, although this study uses rigorous and sophisticated statistical techniques to account for the dependency between reporters and measurement error, the goal is to examine
change over time. These necessities require the same items to be measured across time. Unfortunately, there are only four measures that are the same at all three waves of data collection: singing songs or nursery rhymes, reading stories, telling stories, and playing inside with toys. These measures could be considered playful involvement. We would have liked to include measures of caretaking as well, but this is not possible as those measures change over time. Nonetheless, playtime between fathers and their children is an important component in children's development.

Third, we are not able to examine how father involvement changes from before, to after, a transition. There are three continuous states and six types of transitions that could be made between each of the four waves for a total of 36 combinations. An attempt to model the effects of all of these changes would have rendered too unwieldy a model.

This study provides guidance for future work in that examinations of nonresident father involvement measured from the mother may be significantly lower than fathers would report, particularly for nonresident fathers. We would argue, as social psychologists often do, that what is real to the individual is real in its consequences (Thomas, 1931). Researchers should consider the nature of their research questions and who their questions are about when deciding whose report to use. When focusing on the association between mothers' outcomes and father involvement, perhaps using mothers' reports would be most appropriate; a similar argument can be made for fathers. When available and age appropriate, using children's or adolescent's reports of father involvement may be most important when studying their outcomes. This is an area for future investigation, as unreleased waves of Fragile Families include data from schoolaged children.

This study opens a door for future research. Future work should examine these questions with other types of father involvement (care, accessibility, responsibility) and perhaps should be focused on residency status rather than union type per se. Additionally, an examination of father involvement before and after a transition and the effect of multiple union transitions on involvement would be fruitful as well. More research is needed to determine if the patterns found here exist among more advantaged populations. As cohabitation continues its rapid growth in the U.S. and it becomes an increasingly prevalent location for childbearing, we may continue to see cohabiting families with children becoming more and more indistinguishable from that of their married counterparts.

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| Table 1: Means and SD for All Variables ( $\mathrm{n}=4,224$; Obs. $=50,688$ ) |  |  |
| :---: | :---: | :---: |
| Variables | Mean | SD |
| Dependent Variable |  |  |
| Father Involvement ${ }^{\wedge}$ | 3.38 | 2.17 |
| Independent Variables |  |  |
| Union Status/Transitions |  |  |
| Between Subjects Union Status/Transitions |  |  |
| Continuously Married | 0.22 | 0.41 |
| Continuously Cohabiting | 0.07 | 0.26 |
| Continuously Visiting or Continuously Nonromantic | 0.07 | 0.25 |
| Cohabiting to Married | 0.08 | 0.27 |
| Cohabiting to Not Cohabiting | 0.13 | 0.34 |
| Married to Not Married | 0.04 | 0.20 |
| Visiting/Nonromantic to Married | 0.01 | 0.11 |
| Visiting/Nonromantic to Cohabiting | 0.03 | 0.17 |
| Visiting to Visiting/Nonromantic to Nonromantic | 0.13 | 0.33 |
| Two or Three Transitions | 0.22 | 0.41 |
| Father Characteristics |  |  |
| Father Less than High School | 0.31 | 0.46 |
| Father High School | 0.37 | 0.48 |
| Father Some College | 0.21 | 0.41 |
| Father College | 0.11 | 0.31 |
| Father Age | 27.97 | 6.59 |
| Mother Characteristics |  |  |
| Mother Less than High School | 0.33 | 0.47 |
| Mother High School | 0.30 | 0.46 |
| Mother Some College | 0.25 | 0.43 |
| Mother College | 0.12 | 0.32 |
| Mother Age | 25.35 | 6.07 |
| Child Characteristics |  |  |
| Gender of Child | 0.52 | 0.50 |
| Child Low Birth Weight | 0.09 | 0.29 |
| Child Health ${ }^{\wedge}$ | 0.67 | 0.47 |
| Dyad Characteristics |  |  |
| Race |  |  |
| Both White | 0.17 | 0.37 |
| Both Black | 0.44 | 0.50 |
| Both Hispanic | 0.22 | 0.42 |
| Both Other Race | 0.02 | 0.14 |
| Interracial Couple | 0.15 | 0.35 |


| Table 2: Average Father Involvement (SD) by Time and |  |  |  |
| :--- | :---: | :---: | :---: |
| Reporter |  |  |  |
|  | Time 1 | Time 3 | Time 5 |
| Father Involvement | $\mathrm{n}=4868$ | $\mathrm{n}=4774$ | $\mathrm{n}=4318$ |
| Father Reported | 4.013 | 3.955 | 3.381 |
|  | $(2.122)$ | $(2.044)$ | $(1.944)$ |
| Mother Reported | 3.412 | 3.433 | 2.833 |
|  | $(2.135)$ | $(2.184)$ | $(2.020)$ |

## Figure 1: Average Father Involvement Over Time By Reporter



## Figure 2: Average Father Involvement By Union Status/Transition



| Independent Variables | Unconditional <br> Means Model | Unconditional Gender Gap Model | Unconditional Gender \& Growth Model | Interaction Model |
| :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 |
| Intercept | 3.25 *** | 3.25 *** | 3.76 *** | 3.76 *** |
| Gender Gap |  | -0.57 *** | -0.57 *** | 0.52 *** |
| Time |  |  | -0.17 *** | 0.17 *** |
| Gender Gap*Time |  |  |  | 0.02 |
| $\mathbf{R}^{2}$ |  | 0.02 | 0.03 | 0.03 |


| Table 3B: Dyadic HLM Including Between-Subjects Union Transition Dummies Between T0 and T5 ( $\mathrm{n}=$ 4,224 ; Obs. $=50,688$ ) |  |  |  |
| :---: | :---: | :---: | :---: |
| Inde pendent Variables | Model 5 | Model 6 | Model 7 |
| Intercept | 4.39 *** | 4.43 *** | 4.39 *** |
| Gender Gap | -0.52 *** | -0.52 *** | -0.34 *** |
| Time | -0.17 *** | -0.18 *** | -0.17 *** |
| Gender Gap X Time | -0.02 | -0.02 | -0.02 |
| Between-Subjects Union Transition Dummies |  |  |  |
| Continuously Married | - | - | - |
| Continuously Cohabiting | 0.20 ** | -0.08 | 0.20 ** |
| Continuously Visiting / Continuously Nonromantic | -1.55 *** | -1.74 *** | -1.56* |
| Cohabiting to Married | 0.22 ** | 0.09 | 0.22 ** |
| Cohabiting to Not Cohabiting | -0.53 *** | -0.43 *** | -0.53 * |
| Married to Not Married | -0.51 *** | -0.24 | -0.51 ** |
| Visiting/Nonromantic to Married | 0.16 | -0.30 | 0.15 |
| Visiting/Nonromantic to Cohabiting | -0.10 | -0.37 * | -0.10 |
| Visiting to Nonromantic or Nonromantic to Visiting | -1.26 *** | -1.36 *** | -1.26 *** |
| Two or Three Transitions | -0.29 *** | -0.33 *** | -0.30 *** |
| Interactions with Time |  |  |  |
| Continuously Married X Time |  | - |  |
| Continuously Cohabiting X Time |  | 0.04 |  |
| Continuously Visiting / Continuously Nonromantic X Time |  | 0.06 |  |
| Cohabiting to Married X Time |  | 0.04 |  |
| Cohabiting to Not Cohabiting X Time |  | -0.03 |  |
| Married to Not Married X Time |  | -0.09 * |  |
| Visiting/Nonromantic to Married X Time |  | 0.15 ** |  |
| Visiting/Nonromantic to Cohabiting X Time |  | 0.09 * |  |
| Visiting to Nonromantic or Nonromantic to Visiting X Time |  | 0.03 |  |
| Two or Three Transitions X Time |  | 0.01 |  |
| Interactions with Gender Gap |  |  |  |
| Continuously Married X Gender Gap |  |  | - |
| Continuously Cohabiting X Gender Gap |  |  | -0.08 |
| Continuously Visiting / Continuously Nonromantic X Gender Gap |  |  | -0.36 *** |
| Cohabiting to Married X Gender Gap |  |  | -0.08 |
| Cohabiting to Not Cohabiting X Gender Gap |  |  | -0.26 |
| Married to Not Married |  |  | -0.43 *** |
| Visiting/Nonromantic to Married |  |  | -0.25 |
| Visiting/Nonromantic to Cohabiting |  |  | 0.02 |
| Visiting to Nonromantic or Nonromantic to Visiting |  |  | -0.31 ** |
| Two or Three Transitions |  |  | -0.19 ** |
| $\mathrm{R}^{2}$ | 0.12 | 0.12 | 0.12 |

Note: Controls included but not shown - Father education and age, mother education, child gender, low birth weight, child health excellent, race, multipartner fertility indicators, labor force participation indicators, and time difference between mother \& father interviews. * p $<.05 ; * * \mathrm{p}<.01 ; * * * \mathrm{p}<.001$


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