Nonresident Father Involvement with Children and Divorced Women's Likelihood of

Remarriage

Catherine B. McNamee, Paul Amato and Valarie King

Although remarriage is a relatively common transition, we know little about how nonresident fathers affect divorced mothers' entry into remarriage. Using the 1979-2010 rounds of the National Longitudinal Study of Youth 1979, we examined the likelihood of remarriage for divorced mothers (n=882) by nonresident father contact with children and payment of child support. The findings suggest that maternal remarriage is positively associated with nonresident father contact but not related to receiving child support.

Although remarriage rates declined in the 1980s and 1990s, the majority of people continue to remarry following marital dissolution (Bramlett & Mosher, 2002; Cruz, 2012). Most divorced men and women remarry fairly quickly, with the average duration between divorce and remarriage being about four years (Kreider & Ellis, 2011, table 8). As Cherlin (2009) pointed out, American culture places a high value on marriage, and despite personal setbacks and disappointments, many Americans marry multiple times during their lives. Indeed, about one third of all marriages in 2010 involved a remarriage for one or both partners (Cruz, 2012).

Although not studied as frequently as first marriages, studies have identified several consistent predictors of remarriage for divorced women (Bramlet & Mosher, 2002; Folk, Beller, & Graham, 1992; Goldscheider & Sassler, 2006; McNamee & Raley, 2011; Shafer & James, 2013; Stewart, 2010). These predictors include being young at the time of divorce, having some college education, being employed, and living in the southern region of the US. In addition, remarriage following divorce is less common for African Americans, the poor, and mothers who conceived or gave birth prior to marrying. It is not clear whether having children affects the likelihood of remarriage, with some studies showing positive associations, some showing negative associations, and others showing that the association is contingent on other factors. This disagreement in research findings may reflect conflicting effects of children on remarriage. On the one hand, some custodial mothers may be motivated to find new husbands because they wish to improve their financial wellbeing and that of their children (Smock, Manning, & Gupta, 1999; Morrison & Ritualo, 2000). On the other hand, some men may be reluctant to take on the economic and social responsibilities of the stepfather role, thus decreasing the attractiveness of mothers on the marriage market.

Although rarely considered in previous studies, the biological father's relationship with his children following divorce may be an additional factor that affects the custodial mother's likelihood of marriage. As we argue below, one can hypothesize either positive or negative influences of father involvement on maternal remarriage. After developing our hypotheses, we draw on multiple waves from the National Longitudinal Study of Youth 1979 (NLSY79) to assess these ideas. Despite increases in joint physical custody, mothers continue to be the main residential parent in 82% of cases (Grall, 2011). For this reason, we focus on remarriages among divorced mothers (rather than fathers) with dependent children.

Paternal Involvement and Maternal Remarriage

Because few social norms exist to guide the behavior of stepfathers, the stepfather-stepchild relationship is complex and variable (Cherlin, 1978). Despite some ambiguity in role expectations, however, most stepfathers contribute significant amounts of time and money to their stepchildren (Marsiglio, 2004; Morrison & Ritualo, 2000). The extent to which men are willing to take on these responsibilities and, correspondingly, the extent to which mothers wish to share the parental role with new husbands, is likely to be affected by a variety of factors, above and beyond the feelings that partners may have for one another.

We argue that many divorced mothers and their new romantic partners consider the relationship between the nonresident biological father and his children when contemplating marriage. Because almost no research has addressed this topic, it remains under-theorized. Nevertheless, we believe the current topic can be viewed from the perspective of family systems theory. A family systems perspective focuses on the interconnectedness of family members and the mutual influences among them (Kantor & Lehr, 1975; Minuchin, 1974). The complexity of divorced families provides an intriguing context to think about families as connected systems.

Divorce creates separate households, and parents may no longer view their former spouses as family members. Nevertheless, shared children provide a continuing familial connection between divorced parents. And when minor children are involved, paternal involvement (as reflected in frequency of contact with children and payment of child support) has direct consequences for many aspects of the custodial mother's life. Additionally we draw on exchange theory, which assumes that individuals routinely evaluate the perceived costs and rewards of entering social relationships—especially relationships like marriage that require major commitments over long periods of time (Homans, 1974; Thibaut & Kelly, 1959; Sabatelli & Shehan, 1993).

Consider a case in which the nonresident biological father is completely uninvolved in his children's lives. Under these circumstances, the mother's new partners is likely to realize that, should they marry, he will be the main (probably sole) father figure in his stepchildren's lives. As such, he will be responsible for a great deal of everyday childcare, supervision, and guidance. And if the nonresident father pays little or no child support, the potential stepfather also will be responsible for much of the economic support of his stepchildren. In contrast, if the nonresident father is highly involved in his children's lives (for example, if he spends a substantial amount of time with them during the year), this removes some of the burdens of childcare, supervision, and guidance from the new partner's shoulders. And if the nonresident father pays child support regularly, the potential stepfather will view the mothers' children as less of an economic burden. In addition, if children spend a great deal of time with their nonresident biological father, the potential stepfather has more time to share enjoyable activities with the mother *without* the children being present. In other words, a high level of involvement on the part of the nonresident father should decrease the perceived costs and increase the perceived rewards of marriage from the perspective of the mother's new partner.

From the mother's perspective, the time that nonresident biological fathers spend with their children reduces the mother's burden of childcare and makes it easier for her to have a social life without her children. When the biological father is supervising the children, the mother is able to venture into the world as a single woman, meet potential partners, and develop romantic relationships. If the nonresident father also pays child support regularly, she may have more disposable cash (as well as time) to go out, attend social events, and meet new people. In addition, if the mother has an amicable co-parental relationship with her ex-husband following divorce, she may be more open to the idea of remarriage. Based on these considerations, we form our first hypothesis:

>*H1: A divorced custodial mother's likelihood of remarriage is positively associated with*
>
>*the father's (a) frequency of contact with children and (b) payment of child support.*

Although good reasons exist for assuming that paternal involvement facilitates maternal remarriage, good reasons also exist for assuming that fathers can create obstacles to maternal remarriage. Some men, for example, may be unhappy to discover that the father of their new partner's children is around a lot of the time. They may feel uncomfortable, for example, interacting with the mother's ex-husband when he telephones, picks up the children, and returns the children to the household every week. Indeed, the potential stepfather may discover that he must occasionally attend events at which the biological father is present (such as children's birthday parties and school events) and even sit at the same table with him. If the mother and her former husband have a positive and cooperative co-parenting relationship, the mother's new partner may become jealous of their relationship and see the ex-husband as a threat. And if the

children remain strongly attached to their biological father, the potential stepfather may sense that it will be difficult to establish authority over the children or become emotionally close to them. Some men may prefer the ex-husband to be completely out of the picture rather than constantly underfoot. In these cases, a high level of father involvement (especially with respect to contact) increases the costs and lowers the rewards of marriage from the perspective of the mother's new partner.

From the mother's perspective, a high level of father involvement may weaken her motivation for remarrying. If a father is only minimally involved with his children, the mother may worry that her children do not have an active father figure. Moreover, if the father pays no child support, the mother may see remarriage as a necessary route to economic stability. These concerns may lead her to enter the marriage market relatively quickly. In contrast, if the father is highly involved with his children and pays child support regularly, the mother may feel little need to rush into a second marriage. Instead, she may prefer to have a break from committed relationships, focus on her own needs, and take time to develop her social and human capital. Because a high level of paternal involvement makes remarriage less necessary, it can slow down the mother's entry into a new committed union. Based on these considerations, we form our second, alternative hypothesis:

> *H2: A divorced custodial mother's likelihood of remarriage is negative associated with the father's (a) frequency of contact with children and (b) payment of child support.*

In short, a focus on perceived costs and benefits leads to contradictory hypotheses about how nonresident fathers may affect maternal remarriage. Can existing data help to adjudicate

between these clashing hypotheses? Some cross-sectional studies have shown that maternal remarriage (or repartnering in more recent studies) is negatively associated with nonresident father contact (Amato, Myers, & Emery, 2009; Furstenberg, Nord, Peterson, & Zill, 1983; Seltzer & Bianchi, 1988). When interpreting these data, most researchers have assumed that maternal remarriage weakens some fathers' motivations to visit their children, presumably because these men feel "replaced" by stepfathers. Nevertheless, it also is possible to interpret these cross-sectional associations as evidence that divorced mothers are more likely to remarry when fathers are minimally involved. With only cross-sectional data, of course, it is impossible to know the direction of causation. Moreover, a number of studies have found no influence of maternal remarriage on father contact (Cheadle, Amato, & King, 2010; King, 2009; Sobolewski & King, 2005).

Prior studies that have investigated the influence of child support on remarriage have reported mixed findings. Folk, Graham, and Beller (1992) and Yun (1992) found that receiving child support was negatively associated with remarriage following divorce. In contrast, using more recent data from Wisconsin, Cancian and Meyer (2007) found that mothers who received child support were less likely to be cohabiting with a new partner but no more (or less) likely to be remarried. Taken together, existing studies of visitation and child support provide relatively little evidence to evaluate our hypotheses.

During the last few decades, the amount of contact between nonresident fathers and their children has increased (Amato, Myers, & Emery, 2009). Nonresident fathers also are more likely to pay child support today than they did several decades ago, although this increase has not been consistently monotonic (Amato, Myers, & Emery, 2009; Beller & Graham, 1993; Grall, 2011). If our reasoning is correct, these changes may have affected mothers' propensity to remarry

following divorce, although the nature of this influence is unclear. To address this gap in our knowledge, we use multiple waves of data from the NLSY79 to estimate the effects of nonresident father contact and child support payment on the odds that divorced mothers remarry.

Method

Sample

We used data from the National Longitudinal Survey of Youth 1979 (NLSY79). The NLSY79 provides rich longitudinal data on a nationally represented cohort of men and women 14-22 years old in 1979 who were 45-53 years old in 2010, the most recently available survey year. The NLSY79 currently consists of 24 rounds of surveys collected annually from 1979 to 1994 and biannually from 1996 onwards.

The analytic sample consisted of mothers whose first marriages ended in separation or divorce during the study and were at risk of a second marriage. We limited the sample to women with children under the age of 18 in the household to focus on cases in which father involvement was most likely to be influential. One of the primary independent variable of interests, non-residential father contact, was introduced in the 1984 survey; therefore, our sample excluded women who separated or divorced before this year. We also excluded women who had minor children with fathers other than ex-husbands to avoid complications associated with having multiple nonresident fathers. (We included a few cases of women who had children with multiple fathers when the involvement of the non-marital nonresident father was inconsequential, such as when the child was no longer a minor or was deceased. In such cases we only considered the characteristics of ex-husbands and their shared children.) We determined the mother's marital relationship to biological fathers using detailed marital and fertility history data. The final research sample consisted of 882 divorced mothers with minor children living in the household.

Measures

Mother's remarriage

Maternal remarriage was the major dependent variable and was measured with a time varying, binary indicator (0 = no, 1 = yes).

Nonresident Father Characteristics

Four non-resident father characteristics were measured: (1) contact frequency (2) payment of child support (3) geographical distance between children and fathers, and (4) whether some (but not all) of the mother's children lived with the biological father. All of the non-resident father characteristics were time-varying and based on mothers' reports. The NLSY79 measured nonresident father contact in 1984, 1985, and biannually from 1986 onwards. The response options were slightly modified after the 1984 survey to include one additional category; therefore we collapsed two response options into one category to have consistent ranges across surveys. The recoded variable for contact frequency ranged from 0 to 6, with higher numbers reflecting more frequent contact (0 = never, 1 = once in past 12 months, 2 = 2-11 times in the past 12 months, 3 = 1-3 times a month, 4 = about once a week, 5 = 2-5 times a week, 6 = almost every day). We calculated nonresident father contact as the average frequency of contact for all the minor children living with the mother. (Inspection of the data revealed few instances in which father contact varied across different children within the same household in the same year.)

Child support was coded to indicate whether the mother received any money from the father for child support during the previous year (0 = no, 1 = yes). Although mothers also answered a question on the total amount of child support received, we did not use this information in the main analysis because the initial years of the NLSY79 combined child support with alimony. This variable also produced a large amount of missing data, presumably because

many mothers had difficulty recalling the specific amount received. Moreover, some previous research has shown the amount of child support received is less important than whether mothers receive any child support at all in predicting maternal remarriage (e.g., Beller & Graham, 1993). We incorporate information on the amount received, however, in the discussion section.

Distance from the father referred to how far the father lived from the mother's (and children's) household. Response options ranged from 1 to 4 with higher numbers indicating greater distances (1 = within a mile, 2 = 1-10 miles, 3 = 11-100 miles, 4 = more than 100 miles). The fourth variable captured whether any of the mother's children currently lived with the father (0 = no, 1 = yes). Specifically, this variable identified cases in which some children lived with the mother and other children lived with the father in the same year. (A small number of cases [n = 45] in which all of the mother's biological children always resided with the father were omitted from the analysis.)

Controls

Because women entered the sample in the year in which they separated from their spouses, duration was measured as the number of years since the date of separation. We also include a quadratic term (duration squared) to account for possible curvilinearity in the association between time and remarriage. We started with the year of separation (rather than divorce) for several reasons. First, some groups, such as African Americans, tend to remain separated for extended durations (Bumpass, Martin, & Sweet, 1991; McCarthy, 1978; Morgan, 1988). For women with long separations, divorces may occur only when a remarriage is imminent. Second, compared with the date of divorce, the date of separation is usually a better marker of when people enter the dating (and remarriage) pool (South & Lloyd, 1995). We excluded cases from the sample in which women separated but later reconciled with their husbands, as well as women

with separations of less than 12 months at the time of last interview to account for the possibility of reconciliation (Binstock & Thornton, 2003).

We also included a series of maternal variables that have been identified previously as predictors of remarriage: age, employment status, educational attainment, premarital births, race-ethnicity, and living in the South. Age of the mother was time varying and measured in years. Employment also was time varying and measured the number of hours worked in the week prior to the survey interview. Hours were collapsed into three groups: not employed (0 hours), part-time employment (1 to 35 hours), and full-time employment (over 35 hours). Educational attainment was measured at the time of marital dissolution and has three categories: not a high school graduate, high school graduate, and any postsecondary education. A variable reflecting premarital births was derived from a constructed NLSY79 dummy variable (0 = no, 1 = yes). This variable reflected whether the woman had a child before marrying, either with her ex-husband or, in some cases, with an earlier partner. Living in the South was available only in the initial interview (0 = no, 1 = yes). Race-ethnicity involved four categories: non-Hispanic White, non-Hispanic Black, Hispanic, and other non-Hispanic race.

Because our hypotheses framed children as continuing links between divorced parents, we also included two variables that referred to the divorced couples' children. Gender was a time-varying variable that focused on minor children living in the mother's household and was coded into three categories: all girls, all boys, and a combination of girls and boys. (An alternative version of this variable involved all minor children living in either the mother's or the father's household. This more inclusive variable produced identical results and is not discussed further.) The total number of children referred to all the children ever-born to the mother and her ex-husband. We relied on mother's marital and fertility histories to construct these variables.

Analysis

Our analytical strategy involved discrete time-event history analysis, which is ideal for models that include both fixed and time-varying covariates (Allison, 1984). Person-years represented each year that the mother was single, starting with the year of separation. Cases were censured in the year (a) of maternal remarriage, (b) when the youngest child in the household reached the age of 18, (c) of the last interview, or (d) of attrition from the panel, depending on which occurred first. The 882 mothers in the sample generated a total of 6,683 person-years. Some children moved from the mother's to the father's household (and sometimes back again) prior to the mother's remarriage. To account for these changing circumstances, we removed person-years in which all children lived with the father, which reduced the number of observations for analysis to 6420. (Omitting or including these person-years had no implications for the main findings, however, as we note below.)

To situate our measures within prior research on father involvement, we conducted a preliminary analysis in which the nonresident father contact and payment of child support served as dependent variables, using ordinary least squares and logistic analysis, respectively. The main analysis modeled the influence of nonresidential father involvement (contact and child support) on the likelihood of maternal remarriage, using an additive logistic regression approach. The initial model predicted remarriage from the maternal and child characteristics (control variables). Next, we added the four father variables: frequency of father contact, receiving child support, distance the father lived from the children, and whether some of the children lived with the father. To assess curvilinearity in the association between paternal contact and maternal remarriage, we adopted two strategies: (a) including a quadratic term for contact and (b) representing contact as a series of dummy variables. To illustrate the results more directly, we

used the logistic regression equation to show how the predicted annual probability of remarriage varied with the frequency of nonresidential father involvement. Finally, for purely exploratory purposes, we examined models that included multiplicative interaction terms between all of the control variables and (a) father contact and (b) child support payment. This analysis would tell us, for example, if the estimated effect of child support payments depended on the mother's employment status.

Data were missing in some years because respondents failed to provide information. In addition, after 1994, data were collected every other year rather than every year. To provide annual estimates of variables like contact (and other time-varying variables) for the years without surveys, we relied on two strategies. First, we used data on the most recent level of contact to fill in the missing values. We then relied on multiple imputation with the ICE command in STATA to fill in all other missing values. Second, we relied on multiple imputation to fill in all missing data, including the biannual gaps. Preliminary analysis revealed that results based on the two procedures were essentially the same, so we present the results using the first procedure only. Because the amount of missing data was large for some time-varying variables (up to half of the observations for the father variables), we generated and combined 40 multiply imputed files, a number recommended by Graham, Olchowski, & Gilreath (2007) to stabilize standard errors and produce accurate significance tests.

Results

Table 1 shows descriptive statistics for all variables used in the analysis. The first two columns show variable means and standard deviations for 876 mothers at t_1 (the year in which the separation or divorce occurred), and the second two columns show the corresponding statistics for the person-year file. The t_1 means include all mothers in the sample, whereas the person-year

means exclude observations for years in which all children lived with fathers rather than mothers. The table (column 1) shows that three percent of mothers remarried within the first year of the divorce. The corresponding mean in the person-year file is .056, which reflects the fact that the probability of maternal remarriage increased after the first year. The average age of mothers in the first year following divorce was about 30 years. (Although not shown, the average age of children was about five years.) Mothers had two children, on average. The mean frequency of contact in the first year was 3.33, which falls between "1-3 times in the past month" and "about once a week." The corresponding mean was lower (2.84) in the person-year file, due to a tendency for contact to decline with time. Only 27% of fathers paid child support in the first year following divorce. This figure rose to 54% in the person-year file, which indicates that the frequency of child support increased after the first year. This figure is roughly comparable to other national estimates of child support compliance during the 1980s and 1990s (Amato, Myers, & Emery, 2009; Beller & Graham, 1993; Grall, 2011; Meyer, 1999).

(Table 1 about here)

Table 2 shows the results of preliminary regression analyses in which contact frequency and child support payments served as dependent variables. The first model (based on ordinary least squares regression) indicates that the frequency of contact declined with duration (years since divorce), and the squared term indicates that the rate of decline gradually decreased. Contact was more frequent when mothers were older, white rather than black, and employed. Contact also was positively associated with paying child support. In addition, contact was more common when fathers were geographically close to their children and when some (but not all) children lived with their fathers. All of these findings are consistent with earlier research on the predictors of contact (Amato, Meyers, & Emery, 2009; Cheadle, Amato, & King, 2010; Stewart,

2010).

(Table 2 about here)

The second model in Table 2 (based on logistic regression) indicates that the log odds of receiving child support was positively associated with the number of years following divorce, although the rate of increase slowed over time. Mothers were more likely to receive child support when they were older, lived in the south, did not have a premarital birth, had a high school degree or some postsecondary education, were non-Hispanic white rather than members of others racial-ethnic groups, and were employed full-time. In addition, mothers were more likely to receive child support when fathers visited frequently and less likely to receive child support when some children lived with the fathers. These findings are generally consistent with previous research on the predictors of child support (Beller & Graham, 1993; Grall, 2011; Meyer, 1999; Stewart, 2010). Overall, the results shown in Table 2 indicate that our measures of contact and child support yielded findings that were congruent with most previous studies.

Table 3 shows the results of a logistic regression analysis with maternal remarriage serving as the dependent variable. Model 1 includes all of the covariates but not the father characteristics. This model shows that maternal remarriage increased with time since divorce (duration), although the squared term indicates that this trend slowed over time. Remarriage was associated with being younger (rather than older), living in the south, being non-Hispanic white (rather than black), and being employed full time. In general, these findings are consistent with the previous studies of remarriage reviewed earlier (Bramlet & Mosher, 2002; Folk, Beller, & Graham, 1992; Goldscheider & Sassler, 2006; McNamee & Raley, 2011; Shafer & James, 2013; Stewart, 2010).

(Table 3 about here)

Model 2 adds the father involvement variables to the equation. The frequency of father contact was positively associated with remarriage ($p = .028$). The coefficient for child support, in contrast, was not statistically significant. These results suggest that frequent paternal contact, but not the payment of child support, enhanced mothers' chances of remarriage. The coefficients for geographical distance from fathers and having some children living with the father were marginally significant and had positive associations with remarriage. Overall, father contact appeared to be the most important fatherhood variable in predicting maternal remarriage.

In a subsequent model (not shown), we included a squared contact term to check for nonlinearity. The squared term was negative and marginally significant ($b = -.04$, $p = .098$), which suggested a tendency for the estimated effect of contact frequency to decline at higher levels. Based on this regression equation (with the quadratic term), we calculated predicted probabilities for various frequencies of contact, with all covariates set at their means. Table 4 shows these predicted probabilities. The probability of remarriage doubled from .033 when there was no contact to .066 when contact occurred about once a week. There was no further increase if fathers visited more frequently than this. In an alternative specification, we created dummy variables for each level of contact and entered these in an equation with all covariates. The results of this procedure were essentially identical to those shown in Table 4. The probability of remarriage rose as contact increased from 0 to 3 and then formed a plateau as contact increased from 3 to 6.

<center>(Table 4 about here)</center>

In a further series of models (not shown), we included interaction terms between all covariates and (a) contact and (b) child support. Although exploratory, this analysis revealed no fully significant or marginally significant interaction terms (all $p > .10$). Neither the positive

association between contact and maternal remarriage, nor the absence of an association between child support and maternal remarriage, was contingent on the values of other variables in the analysis.

In a subsequent model (not shown), we included an additional 263 observations (person-years) for years in which all of the mother's children lived in the father's household. (These data were from cases in which children moved back and forth between their parents' households during the study years.) Contact was coded 6 (the maximum value) for these years. In this model, the coefficient for contact remained the same ($b = .12$), but the standard error declined slightly, resulting in a lower probability value ($p = .009$). All of the other coefficients in the model were similar to those shown in Table 3.

Discussion

This study expands our knowledge of factors that influence divorced mothers' entry into remarriage. Although prior studies have pointed to custodial children as both a motivation and barrier for maternal remarriage, little is known about the influence of biological nonresident husbands. We found evidence to support our first hypothesis (maternal remarriage is positively associated with nonresidential father involvement) with respect to frequency of contact with children. At the same time, we found no association between the payment of child support and maternal remarriage. Two additional characteristics of nonresidential fathers were marginally but positively related to maternal remarriage: the geographical distance of the father from the divorced mother's household and whether some (but not all) minor children lived with the father. Even though divorce severs the relationship of husband and wife, these findings highlight how divorced parents remain connected through a complex family system via their shared children—a finding consistent with one of the basic assumptions of family systems theory.

Our findings also are consistent with the notion that frequent paternal contact with children lowers the barriers and increases the rewards of remarriage—concepts frequently used in exchange theory. Paternal contact creates leisure time for mothers and opportunities to develop new relationships, and new partners may be especially interested in having relationships with mothers who can provide private time (without children) on some regular basis. Moreover, men may be more willing to adopt the stepfather role when biological fathers remain physically present in their children's lives, because this signals fewer parenting responsibilities for the stepfather. Although marginally significant, the finding that mothers were more likely to remarry when some children lived with the father also may reflect the perceived benefits of reduced child rearing responsibilities for both the divorced mother and the new stepfather.

Our analysis also indicated that the likelihood of maternal remarriage was higher when the father lived farther away (at a marginally significant level). Close geographical proximity increases the father's access to the mother's household, and easy access may encourage short but frequent visits—perhaps unannounced. Not surprisingly, potential suitors might be put-off when ex-husbands drop in with little warning and seem to be constantly underfoot. Taken together, our findings suggest that a mother's chances of remarriage are highest when fathers visit their children frequently but do not live nearby. Under these circumstances, contact arrangements are likely to be formal and scheduled (because informal dropping in is impractical), and children's time with fathers is likely to involve longer overnight visits rather than shorter, same-day outings. This interpretation is reflected in our results showing that the benefits of nonresidential father contact on maternal remarriage plateau at higher frequencies (starting at 1-3 times in the past month). There may be diminishing returns to the amount of nonresidential father contact, as

very frequent contact (multiple times per week) introduces a different set of problems that can outweigh the overall benefits of nonresidential father contact for maternal remarriage.

The positive association between contact frequency and remarriage may partly reflect the quality of relationships between ex-spouses, given that mothers are more willing to foster contact when they get along well with fathers (Amato & Dorius, 2010). Having a harmonious and cooperative relationship with the ex-spouse may make the idea of entering a remarriage more appealing to the divorced mother as well as to potential suitors. Another possibility is that some mothers are especially adept at maintaining amicable relationships, which could lead to positive co-parenting with the nonresident father as well as attracting new partners. Although outside the scope of this study, examining the quality of relationships between divorced parents could shed more light on these mechanisms.

In contrast to our results for contact, we found no evidence that the receipt of child support increased the probability of remarriage. These findings clash with two early studies (Folk, Graham, & Beller, 1992; Yun, 1992) but are consistent with a more recent study by Cancian and Meyer (2007). We suspect that the lack of an association between child support and maternal remarriage reflects the modest value of many child support payments. Despite a large amount of missing data, we coded the amount reported by NLSY79 mothers in each year and adjusted these values to 2012 dollars. Child support payments increased in value between 1980 and 2010 in constant dollars, with the mean being $5,161 per mother per year, or about $2,530 per child. Although this is not a trivial amount of money for a single mother, it is substantially less than the annual cost of raising a child, which was estimated to be between $12,500 and $14,700 in 2012 (Lino, 2012). Moreover, our study showed that receiving child support was positively associated with maternal education and full-time employment. In other words, the

mothers most likely to receive child support are those who need it the least—a finding consistent with several other studies (Beller & Graham, 1993; Grall, 2011; Meyer, 1999; Stewart, 2010). Financial contributions from new spouses far exceed the value of child support payments (Bellar & Graham, 1993), and remarriage provides the surest path for improving financial wellbeing and reducing poverty for divorced women and their children (Morrison & Ritualo, 2000; Smock, Manning, & Gupta, 1999). These considerations suggest that child support payments may have had no consequences for maternal marriage in the present study because the amounts involved were not large enough to influence such an important decision.

Another possibility is that our contrary hypotheses about child support could both be true. That is, income from child support may make it easier for a mother to hire a babysitter, go out more often, and make herself more desirable to potential suitors. At the same time, it may improve a mother's financial independence and either make her less motivated to seek out a new partner or give her the flexibility to extend her search for a longer period to find a suitable match. These two trends might "cancel" one another, leaving no net association between child support and remarriage.

Consistent with family systems theory (Minuchin 1974), our findings suggest the need for a broad definition of family when studying post-divorce romantic relationships. Even if divorced mothers no longer consider their former husbands to be family members, the two parents continue to be connected through their children. Because they are part of a larger system, fathers can influence many aspects of their ex-wives' lives, including, apparently, their likelihood of remarrying.

A limitation of our research was the inability to address entry into post-divorce cohabitation due to incomplete cohabitation histories. Prior to the 2002 survey, the NLSY79

captured cohabitations only occurring at the time of the survey through the household roster. Because cohabitating relationships tend to be short-term, many of these unions were missed in the annual or biannual NLSY79 measurements. Consequently, the level of detail necessary for an adequate time-series analysis was not available. Nevertheless, one can theorize that father involvement is related differently to cohabitation and remarriage. Compared with remarriage, cohabiting relationships involve lower levels of commitment and greater instability—factors that are likely to alter the cost-benefit considerations of both the divorcee and the potential partner. In particular, frequent father contact may be less consequential for cohabitation than for remarriage, given that cohabiting partners (unlike married stepfathers) have few obligations to the mother's children. At the same time, a low level of child support may lead mothers to seek cohabiting partners (but not husbands) for short-term economic assistance—a finding consistent with Cancian & Meyer (2007). Although we could not address them in the current study, these ideas have the potential to provide a broader picture of post-divorce union formation and would make interesting starting points for new research.

Another limitation of the current study is the inability to measure the role of contact and child support on paternal remarriage, although this is a topic that future research could explore. A final limitation is that our analysis does not allow causal claims about the effect of nonresidential father involvement on maternal remarriage. Although we included most of the control variables used in previous studies of remarriage, unmeasured variables may influence father involvement as well as mothers' propensity to remarry. The present analysis provides suggestive evidence of a causal relationship, but future studies may be able to use methods (such as fixed effects regression models or instrumental variables) that better account for unmeasured heterogeneity.

Conclusion

The current study furthers our understanding of factors that influence the likelihood of maternal remarriage following divorce and highlights the continuing connections between divorced parents. Our main finding is that the behavior of nonresident biological fathers appears to affect divorced mothers' likelihood of remarriage. Because our study is the first to report this finding, it needs to be treated cautiously until it can be replicated. If true, however, then some interesting implications follow. During the last several decades, changes in the legal system and in the boarder culture have made it easier for fathers to spend significant amounts of time with their children following divorce (Amato & Dorius, 2010; Amato, Meyers, & Emery, 2009). These changes also may have made it easier for divorced mothers to remarry, thus elevating the remarriage rate for mothers. In fact, the percentage of women who remarry following divorce declined modestly between 1970 and 1995 (Schoen & Standish, 2001). This decline might have been steeper, however, if contact between nonresident fathers and children had not increased during this time. The present study also shows that receiving child support does not appear to affect the likelihood of maternal remarriage. If true, then social policies can continue to improve the child support enforcement system without the risk of undermining the economic benefits of maternal remarriage.

References

Allison, P. D. (Ed.). (1984). *Event history analysis: Regression for longitudinal event data* (No. 46). Sage.

Amato, P. R., & Dorius, C. (2010). Fathers, children, and divorce. Pp. 177-200 in *the Role of the Father in Child Development* (5th edition). Edited by M. Lamb. Hillsdale, NJ: Erlbaum.

Amato, P. R., Meyers, C. E., & Emery, R. E. (2009). Changes in nonresident father-child contact from 1976 to 2002. *Family Relations,* 58, 41- 53.

Beller, A.H. & Graham J.H. (1993). *Small change, the economics of child support*. New Haven, Conn.: Yale University Press.

Binstock, G. & Thornton, A. (2003). Separations, reconciliations, and living apart in cohabiting and marital unions. *Journal of Marriage and Family* 65(2): 432-443.

Bramlett, Matthew D. & William D. Mosher. (2002). Cohabitation, marriage, divorce, and remarriage in the United States. *Vital Health Statistics, Series 23, Number 22*. Washington DC: National Center for Health Statistics.

Bumpass, L. L., Martin, T. C., & Sweet, J. A., (1991). The impact of family background and early marital factors on marital disruption. *Journal of Family Issues*, 12, 22-42.

Cancian M., & D. R. Meyer. (2007). The effect of child support ton subsequent marriage and cohabitation. Presented at the annual meeting of the Population Association of America, New York.

Cheadle, J., Amato, P. R., & King, V. (2010). Patterns of nonresident father contact. *Demography,* 47, 205- 225.

Cherlin, A. (1978). Remarriage as an incomplete institution. *American Journal of Sociology,* 84,

634-650.

Cherlin, A. (2009). *The marriage-go-round: The state of marriage and the family in America today.* New York: Alfred A. Knopf.

Cruz, J. (2012). Remarriage Rate in the U.S., 2010 (FP-12-14). Bowling Green, Ohio: National Center for Family & Marriage Research

Retrieved from http://ncfmr. bgsu.edu/pdf/ family_profiles/ file114853.pdf

Folk, K. F., Graham, J. W., & Beller, A. H. (1992). Child support and remarriage: Implications for the economic well-being of children. *Journal of Family Issues*, 13, 142-157.

Furstenberg, F.F., Nord, C. W., Peterson, J. L., & Zill, N. (1983). The life course of children of divorce: Marital disruption and parental contact." *American Sociological Review,* 48, 656–68.

Goldscheider, F., & Sassler, S. (2006). Children and stepfamily formation. *Journal of Marriage and Family, 68,* 275-291.

Grall, T. S. (2011). Custodial mothers and fathers and their child support: 2009. *Current Population Reports P60-240*. Washington, DC: US Census Bureau.

Graham, J. W., Olchowski, A. E., & Gilreath, T. D. (2007). How many imputations are really needed? Some practical clarifications of multiple imputation theory. *Prevention Science*, 8, 206-213.

Homans, G. C. (1974). *Human behavior: Its elementary forms*. New York: Harcourt Brace

Kantor, D., & Lehr, W. (1975). *Inside the family*. San Francisco: Jossey-Bass.

King, V. (2009). Stepfamily formation: Implications for adolescent ties to mothers, nonresident fathers, and stepfathers. *Journal of Marriage and Family*, 71, 954-968.

Kreider, R. M., & Ellis, R. (2011). Number, timing, and duration of marriages and divorces: 2009. *Current Population Reports, P70-125*. Washington DC: U.S. Census Bureau.

Lino, M. (2012). *Expenditures on Children by Families, 2012*. US Department of Agriculture, Nutrition Policy and Promotion, Miscellaneous Publication Number 1528- 2012

Marsiglio, W. (2004). *Stepdads: Stories of love, hope, and repair*. Lanham, MD: Towman & Littlefield.

McCarthy, J. (1978). A comparison of the probability of the dissolution of first and second marriages. Demography 15(3): 345-359.

McNamee, C. B., & Raley, R. K. (2011). A note on race, ethnicity and nativity differentials in remarriage in the United States. *Demographic Research, 24*(13), 293-312.

Meyer, D. (1999). Compliance with child support orders in paternity and custody cases. Pp. 127- 157 in R. A. Thompson & P. R. Amato (Eds.), *The postdivorce family: Children, parenting, and child development.* Thousand Oaks, CA: Sage.

Minuchin Salvador. (1974). *Families and family therapy*. Harvard University Press.

Morgan, L.A. (1988). Outcomes of marital separation: A longitudinal test of predictors. Journal of Marriage and the Family 50(2): 493- 498.

Morrison, D. R., & Ritualo, A. (2000). Routes to children's economic recovery after divorce: Are cohabitation and remarriage equivalent? *American Sociological Review*, 65, 560-580.

Sabatelli, R. M., & Shehan, C. L. (1993). Exchange and resource theories. Pp. 385-411 in P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds). *Sourcebook of family theories and methods: A contextual approach*. New York: Springer.

Schoen, R., & Standish, N. (2001). The retrenchment of marriage: Results from marital status life tables for the United States, 1995. *Population and Development Review, 27,* 553-563.

Seltzer, J. A., & Bianchi, S. M. (1988). Children's contact with absent fathers. *Journal of Marriage and the Family,* 50, 663-677.

Shafer, K. & James, S.L. (2013). Gender and Socioeconomic Status Differences in First and Second Marriage Formation. *Journal of Marriage and Family*, 75 (3), p. 544

Smock, P.J., Manning, W.D., & Gupta, S. (1999). The effect of marriage and divorce on women's economic well-being. *American Sociological Review* 64(6): 794- 812.

Sobolewski, J. M., & King, V. (2005). The importance of the coparental relationship for nonresident fathers' ties to children. *Journal of Marriage and Family*, 67, 1196-1212.

South, S. J., & Lloyd, K. M. (1995). Spousal alternatives and marital dissolution. *American Sociological Review*, 21-35.

Stewart, S. D. (2010). Children with nonresident parents: Living arrangements, contact, and child support. *Journal of Marriage and Family*, 72, 1078-1091.

Thibaut, J. & Kelley, H. (1959). *The social psychology of groups*. New York: Wiley.

Yun, K.R. (1992). Effects of child support on remarriage of single mothers. In *Child Support Assurance: Design Issues, Expected Impacts, and Political Barriers as Seen from Wisconsin,* ed. I. Garfinkel, S. S. McLanahan, and P.K. Robins 315-38. Washington, D.C.: The Urban Institute Press

Table 1. Descriptive statistics for all variables

Variable	Time 1 case file		Person-year file	
	Mean	(SD)	Mean	(SD)
Remarried	0.03	-----	0.06	-----
Duration	0.00	-----	4.74	(4.00)
Age mother	30.43	(6.97)	34.52	(7.08)
South	0.37	-----	0.36	-----
Premarital birth	0.21	-----	0.22	-----
Not a high school graduate	0.18	-----	0.18	-----
High school graduate	0.47	-----	0.47	-----
Postsecondary education	0.35	-----	0.35	-----
Non-Hispanic white	0.53	-----	0.49	-----
Non-Hispanic Black	0.22	-----	0.27	-----
Hispanic	0.18	-----	0.19	-----
Other non-Hispanic race	0.07	-----	0.05	-----
Not employed	0.28	-----	0.24	-----
Part-time employment	0.13	-----	0.12	-----
Full-time employment	0.59	-----	0.64	-----
All girls	0.32	-----	0.36	-----
All boys	0.31	-----	0.33	-----
Boys and girls	0.37	-----	0.31	-----
Total children	2.01	(1.02)	2.04	(1.07)
Contact frequency	3.33	(1.66)	2.84	(1.71)
Child support	0.27	-----	0.54	-----
Distance from father	2.54	(0.90)	2.78	(0.95)
Some children live with father	0.03	-----	0.03	-----
N	876		6,420	

Note: N refers to the maximum number of cases. This number varies across variables due to missing data. Time 1 variables were drawn from the first year in which cases entered the analysis. Person-year means exclude years in which all children lived with fathers. Standard deviations are not shown from binary variables.

Table 2. Regression of contact and child support on covariates and father involvement variables

.

Variable	Contact		Child support	
	b	(SE)	b	(SE)
Duration	-0.13***	(0.02)	0.26***	(0.03)
Duration squared	0.003*	(0.001)	-0.02***	(0.002)
Age mother	0.04***	(0.003)	0.06***	(0.01)
South	-0.09[a]	(0.04)	0.18*	(0.08)
Premarital birth	0.08	(0.05)	-0.23*	(0.09)
Not a high school graduate	-----	-----	-----	-----
High school graduate	0.03	(0.06)	0.55***	(0.10)
Postsecondary education	0.11[a]	(0.07)	0.70***	(0.12)
Non-Hispanic white	-----	-----	-----	-----
Non-Hispanic black	-0.15**	(0.05)	-0.40***	(0.10)
Hispanic	-0.08	(0.06)	-0.24*	(0.10)
Other non-Hispanic race	0.08	(0.09)	-0.32*	(0.15)
Not employed	-----	-----	-----	-----
Part-time employment	0.17**	(0.06)	0.14	(0.11)
Full-time employment	0.23***	(0.05)	0.22*	(0.09)
All girls	-----	-----	-----	-----
All boys	0.05	(0.05)	-0.01	(0.08)
Boys and girls	0.01	(0.06)	-0.14	(0.10)
Total children	-0.01	(0.03)	0.03	(0.05)
Contact frequency	------	------	0.24***	(0.03)
Child support	0.42***	(0.05)	------	------
Distance from father	-0.92***	(0.02)	-0.04	(0.07)
Some children live with father	0.26*	(0.12)	-0.89***	(0.24)
Constant	4.28***	(0.14)	-3.26***	(0.32)
N cases	876		876	
N person years	6,420		6,420	

Note: Table values are unstandardized ordinary least squares regression coefficients for contact and logistic regression coefficients for child support. Models are based on multiple imputation with 40 data sets. Significance tests are two-tailed.

[a] $p < .10$. * $p < .05$.   ** $p < .01$.   *** $p < .001$.

Table 3. Regression of maternal remarriage on father involvement variables and covariates

Variable	Model 1		Model 2	
	b	(SE)	b	(SE)
Duration	0.28***	(0.05)	0.29***	(0.05)
Duration squared	-0.02***	(0.004)	-0.02***	(0.004)
Age mother	-0.07***	(0.01)	-0.08***	(0.01)
South	0.45***	(0.12)	0.46***	(0.12)
Premarital birth	-0.27	(0.17)	-0.27	(0.17)
Not a high school graduate	-----	-----	-----	-----
High school graduate	0.24	(0.17)	0.24	(0.17)
Postsecondary education	0.36	(0.19)	0.35	(0.20)
Non-Hispanic white	-----	-----	-----	-----
Non-Hispanic Black	-1.09***	(0.18)	-1.06***	(0.18)
Hispanic	-0.15	(0.15)	-0.13	(0.15)
Other non-Hispanic race	-0.35	(0.24)	-0.34	(0.24)
Not employed	-----	-----	-----	-----
Part-time employment	0.18	(0.21)	0.17	(0.21)
Full-time employment	0.34*	(0.15)	0.31*	(0.15)
All girls	-----	-----	-----	-----
All boys	0.02	(0.15)	-0.01	(0.15)
Boys and girls	0.21	(0.18)	0.18	(0.18)
Total children	-0.03	(0.08)	-0.04	(0.08)
Contact frequency	------	------	0.12*	(0.05)
Child support	------	------	0.006	(0.16)
Distance from father	------	------	0.20[a]	(0.11)
Some children live with father	------	------	0.58[a]	(0.34)
Constant	-1.37***	(0.32)	-2.13***	(0.52)
N cases	876		876	
N person years	6,420		6,420	

Note: Table values are logistic regression coefficients. Models are based on multiple imputation with 40 data sets. Significance tests are two-tailed.

[a] p < .10. * p < .05.   ** p < .01.   *** p < .001.

Table 4. Predicted annual probability of maternal remarriage by frequency of paternal contact with children

Contact	Label	Probability
0	Never	.033
1	Once in the past 12 months	.042
2	2-11 times in the past 12 months	.054
3	1-3 times in the past month	.062
4	About once a week	.066
5	2-5 times a week	.066
6	Almost every day	.062

Note: Probabilities are based on a logistic regression equation with all covariates set at their means.