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IS STEPFAMILY STATUS ASSOCIATED WITH COHABITING AND MARRIED WOMEN'S FERTILITY BEHAVIORS?

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Is Stepfamily Status Associated with Cohabiting and Married

Women's Fertility Behaviors?

Abstract

Children from prior relationships potentially complicate fertility decision-making in new cohabitations and marriages. On the one hand, the "value of children" perspective suggests that unions with and without stepchildren have similar - and deliberate - reasons for shared childbearing. On the other hand, multipartnered fertility (MPF) research suggests childbearing across partnerships is often unintended. Using the 2006-2010 National Survey of Family Growth, I examine the role of stepfamily status on cohabiting and married women's fertility and birth intendedness using event history models, with attention to union type and stepfamily configuration. Adjusting for covariates, women in stepfamily unions are more likely to have a first shared birth in a union than women in unions in which neither partner has children from past relationships, but stepfamily births are less likely to be intended than unintended. Further, this association varies by union type – married women have similar birth risks across stepfamily status, but births are less likely to be intended in marital stepfamilies. For cohabitors, women in a stepfamily are more likely to have a birth than women in non-stepfamily unions, with no differences in intendedness. Configuration (whose children and how many) also matters; for instance, women with one child from a past relationship are more likely to have a birth and to have an intended than unintended birth than women with other stepfamily configurations. It appears that children from either partner's prior relationships influences subsequent fertility decision-making, undermining the utility of the "value of children" perspective for explaining childbearing behaviors in complex families.

Keywords: stepfamily, multipartnered fertility, unintended fertility

Stepfamilies – cohabiting and married couples in which at least one partner has a child from a previous relationship, regardless of where children live – are now a common family type in the United States (Sweeney, 2010). Many new stepfamilies go on to have at least one shared child (Stewart, 2002; Thomson & Li, 2002), even if the individuals in the union are at parities that are generally at low risk for further childbearing (Thomson, Winkler-Dworak, Spielauer, & Prskawetz, 2012). To explain this phenomenon, researchers have argued that shared children serve a unique purpose, drawing from the "value of children" perspective (Griffith, Koo, & Suchindran, 1985; Holland & Thomson, 2011). This implies that having a birth with a new partner is a deliberate behavior and thus that births in new unions – regardless of stepfamily status – are likely to be intended births. The value of children perspective applies to all unions, but stepfamilies may be more motivated to have a shared child, in order to publicly demonstrate commitment and create social capital, than their counterparts in other unions (Stewart, 2002). However, though stepfamily fertility has been well-studied in Europe (e.g., Holland & Thomson, 2011: Lappegård & Rønsen, 2013: Vanassche, Coriin, Matthiis, & Swicegood, 2015), only two studies have explicitly examined U.S. stepfamily fertility (Li, 2006; Stewart, 2002), a major limitation given differences in family and fertility behaviors across countries.

In addition to the lack of stepfamily fertility research in the U.S., there is also another notable limitation to past work: are births in stepfamilies actually intended, as suggested by the value of children perspective? There is reason to think this is not necessarily the case in light of the emerging U.S. research on multipartnered fertility (MPF), defined as individuals who have children with more than one partner (Carlson & Furstenberg, 2006; Guzzo & Furstenberg, 2007; Guzzo, 2014; Manlove, Logan, Ikramullah, & Holcombe, 2008). Despite the conceptual overlap, the MPF literature has largely developed with little attention to stepfamily research, perhaps because MPF is a characteristic of the individual (does a person have children with two

different partners?) whereas stepfamily fertility is a characteristic of the union (does this union include children from either partner's prior relationships, regardless of coresidence, and is there also a shared child between the current partners?). Although some MPF occurs entirely outside coresidential unions and so cannot be formally classified as stepfamily fertility, the most common pattern is a nonmarital birth followed by marriage with a different partner and a subsequent birth (Dorius, 2011) – that is, stepfamily fertility. While not all stepfamilies have a shared child together (and thus no stepfamily fertility nor MPF), viewing stepfamily fertility through the lens of MPF paints a very different story than that suggested by the value of children perspective. The MPF literature has largely characterized childbearing as part of a pattern of disadvantage and instability (Carlson & Furstenberg, 2006; Klerman, 2007; Turney & Carlson, 2011) in which unintended fertility is common (Guzzo, 2014; Guzzo & Furstenberg, 2007).

Drawing from the stepfamily, multipartnered, and unintended fertility literatures, this research examines fertility behaviors among cohabiting and married women by stepfamily status. Specifically, using birth and union data from the 2006-2010 National Survey of Family Growth (NSFG), I examine differences in the transition to a first shared birth, and the intendedness of that birth, between women in unions in which either partner has a child from a past relationship and women in unions in which both partners are childless at the start. I examine stepfamily status overall before considering different union types and stepfamily configurations.

This research fills an important gap in understanding both stepfamily fertility and multipartnered fertility. Much, though not all, of MPF research has stemmed from the Fragile Families and Child Well-Being data, which is a fairly disadvantaged sample disproportionately comprised of individuals with nonmarital fertility. As such, it is unclear how generalizable those findings are to stepfamilies more broadly. Still, if stepfamily fertility is not necessarily the result of deliberate plans to have a shared child, then unintended fertility's negative association with

family stability and function (Boden, Fergusson, & Horwood, 2015; Guzzo & Hayford, 2012, 2014) may exacerbate other issues stepfamilies face (Cherlin, 1978; Cherlin & Furstenberg, 1994). Unintended fertility, regardless of union status, also has implications for maternal, child, and family behaviors and well-being, though the evidence is more correlational than causal (Gipson, Koenig, & Hindig, 2008). For instance, research suggests unintended fertility increases the risk for poorer mental health outcomes among women (Herd, Higgins, Sicinski, & Merkurieva, 2016; McCrory & McNally, 2012) and lowers the rate of early prenatal care and breastfeeding (Kost & Lindberg, 2015; Lindberg, Maddow-Zimet, Kost, & Lincoln, 2015).

Childbearing across Partnerships

As noted by Thomson and colleagues (2014), childbearing across partnerships (i.e., MPF) has become common in industrialized societies. In recent decades, the underlying mechanisms of MPF differ from the past in that it is now driven primarily by union instability rather than the death of a parent and partner. In the modern context, then, parents experience relationship dissolution (including nonresidential relationships as well as cohabitations and marriages), repartner, and have children with their new partner. High rates of instability among parents also increase the chances that a childless individual forms a union with someone who has already has children, as the pool of potential mates increasingly includes parents. New unions, in turn, represent new opportunities for childbearing for both childless couples and those in which one or both partners has a child already, and many stepfamily couples do indeed go on to have at least one shared child together (Stewart, 2002; Holland & Thomson, 2011).

What is interesting is that the general association between a given parity and subsequent childbearing seems to be weaker in stepfamilies than in other unions. Most individuals and couples desire to have children (Hagewan & Morgan, 2005), with the ideal number in the U.S. hovering around 2.5 children since the 1980s (Newport & Wilke, 2013). The majority of women

have at least one child; the proportion of childless women aged 40-44 has not exceeded 20% over the past four decades (Livingston, 2015). Of those with children, the majority (around 80%) have more two or more children, with the modal category being two children since the mid-1990s (Livingston, 2015). After two children, however, parity progression declines sharply (Frejka & Sardon, 2007), as does intended fertility. Even among married couples, who are most likely to intend births, over a third of third births are unintended (Mosher, Jones, & Abma, 2012). In a stepfamily, though, childbearing by individual parity seems to differ, as both intentions to have another child and actual fertility is higher than for women at the same parity in an intact family (Ivanova, Kalmijn, & Uunk 2013; Holland & Thomson, 2011). Put differently, women with two children are more likely to have a third birth if they have a new partner than if they remain in the same partnership as their first two births.

The "value of children" perspective offers the primary explanation for fertility in unions with and without children from past relationships: shared children serve a unique purpose (Griffith, Koo, & Suchindran, 1985), specific to the new relationship (Friedman, Hechter, & Kanazawa, 1994). One purpose is that a shared child signals a couple's commitment to each other and solidifies their status as a family unit (Vikat, Thomson, & Hoem, 1999; Thomson & Li, 2002). Stepfamilies may be particularly motivated by this signaling function if they feel greater pressure to symbolize their commitment. Stewart (2002) suggests that stepfamilies have to worker harder to create social capital for themselves than families without stepchildren, and the creation of social capital and the desire to express their commitment can be met by a shared birth (Coleman, 1988; Astone, Nathanson, Schoen, & Kim, 1999). Stepfamilies might also have a higher risk of having a first birth, or at least having a first birth sooner, than couples in which both partners are childless because one partner (or both partners) has already entered a family-building stage; preferences to have siblings close in age is likely a factor as well.

To date, the research on stepfamily fertility has relied almost entirely on European data, with two exceptions (Li, 2006; Stewart, 2002), yet family behaviors in the U.S. and Europe are quite different. The percentage of nonmarital births in the U.S. (41% in 2011) is considerably higher than some European countries, such as Italy (28%) and Greece (8%), but considerably lower than others, such as Norway (55%) and Iceland (67%) (Livingston & Brown, 2014). The union context of these births also differs; generally, the proportion of nonmarital births to cohabiting women is higher in Europe than the U.S. (Thomson et al., 2014). The cohabiting unions in which children are born, moreover, are much more stable in Europe than in the U.S. (Heuveline & Timberlake, 2004). The limited research on stepfamily behaviors in the U.S., where union instability is particularly high (Cherlin, 2009; Lundberg, Pollak, & Stearns, 2016; Kennedy & Ruggles, 2014), uses data from the early 1990s and thus is unable to speak to the current family environment, with substantially higher levels of nonmarital fertility and cohabitation. Further, the two studies that have examined stepfamily fertility in the U.S. have produced mixed findings – Stewart (2002) finds that stepchildren have a weak negative effect on shared childbearing relative to those with no stepchildren whereas Li (2006) finds no differences in women's first births between marriages in which at least one partner already has children and marriages involving two childless individuals. Despite these mixed findings in the U.S., the theoretical arguments about the value of children lead to the following hypothesis:

Hypothesis 1: Women in unions in which either partner already has a child (i.e., in a stepfamily) are more likely have a shared first birth than women in unions in which neither partner has children (i.e., in a non-stepfamily union).

Fertility intendedness

The value of children perspective not only provides a compelling reason why couples have a child together, regardless of stepfamily status; it is also implies that births, especially in

stepfamilies, would be the result of deliberate behavior (Thomson, 2003). This notion, however, has not been empirically tested. Instead, most work on fertility intentions in stepfamilies looks at prospective intentions for future childbearing (e.g., Hohmann-Marriott, 2015; Stewart, 2002; Thomson, 2003). In general, it seems that couples with no shared births (that is, have a couplelevel parity of 0) tend to both plan, and have, a first birth regardless of their individual parities, though second births in a particular union do seem to be more strongly and negatively affected by prior fertility (Stewart, 2002; Thomson & Li, 2002; Vikat, Thomson, & Prskawetz, 2004). These studies suggest that stepfamily fertility (for at least the first shared birth) is both common and intended, though it is worth noting two things. First, no studies have matched prospective intentions (i.e., future fertility plans) with the actual intendedness of subsequent births in stepfamilies. Second, most studies do not actually compare stepfamily fertility with fertility in other unions but only look at fertility behaviors within a stepfamily (e.g., Thomson, 2003; Hohmann-Marriott, 2015; Holland & Thomson, 2011). Still, if stepfamilies are deliberately having children to symbolize their commitment, and more strongly feel a need to do so than unions that do not include children from prior relationships (Stewart, 2002), this suggests the following hypothesis:

Hypothesis 2A: Women's first shared birth in a stepfamily union is more likely to be intended than unintended compared to women's first shared birth in a non-stepfamily union.

However, the growing body of literature on multipartnered fertility – of which stepfamily fertility is a subtype – presents an alternative possibility, largely situated in the notion of MPF as characteristic of disadvantaged individuals and families (Klerman, 2007). As Guzzo (2014) noted, women with MPF are much more likely than their counterparts whose children are all with the same partner to have started childbearing with an unintended birth. In fact, having an unintended first birth increases the risk of union instability and thus exposure to forming a new

relationship and having a birth with a new partner (Guzzo & Hayford, 2012). Having an unintended birth of any parity, in turn, carries an elevated risk that subsequent births are also unintended (Guzzo & Hayford, 2011). In general, MPF is linked to economic disadvantage and poor relationship quality (Carlson & Furstenberg, 2006; 2007), as is ineffective contraceptive use and unintended childbearing (Manlove, Welti, Wildsmith, & Barry, 2014; Musick, England, Edgington, & Kangas, 2010). Together, this suggests the following competing hypothesis:

Hypothesis 2B: Women's first shared birth in a stepfamily union is less likely to be intended than unintended compared to women's first shared birth in a non-stepfamily union.

Union type, fertility, and intendedness

Yet another wrinkle emerges when we think about the formation and stability of stepfamily unions, as well as changes in union formation overall. For the past two decades, the modal union after the demise of a cohabitation or marriage has been a new cohabitation (Coleman, Ganong, & Fine, 2004; Wu & Schimmele, 2005). This mirrors rising overall levels of cohabitation, which is now the modal first coresidential union and precedes the majority of marriages (Rose-Greenland & Smock, 2013). Rates of remarriage have declined substantially since 1990 (Brown & Lin, 2012), as have first marriages after a nonmarital birth (Gibson-Davis, 2011). Higher-order unions and marriages involving stepchildren have a higher risk of dissolution than first unions and unions without stepchildren (Sweeney, 2010), but cohabitations are generally unstable.

With marriage the preferred setting for childbearing and childrearing (Thornton & Young-DeMarco, 2001; Pew Research Center, 2010), marriages are more likely to involve shared childbearing than cohabitations, regardless of stepfamily status. If the value of children perspective is true and stepfamilies feel a stronger need to establish themselves as a family, marital stepfamilies may be more likely to have a first shared birth – and to intend that birth – than marital unions involving two childless individuals. Most married women have children

(Wu, Brown, & Payne, 2016), though, so the differences by stepfamily status may not be large, especially since the majority of all marriages have to remain intact (and perhaps transition from a cohabitation) long enough to have a child, thus creating a select pool of married couples (Lillard & Waite, 1993).

Despite the fact that Americans believe marital childbearing is ideal, cohabitation has increasingly become the site of childbearing (Manning, Brown, Lamidi, & Payne, 2014), especially as non-union conceptions are more often followed by pre-birth cohabitation (Lichter, Sassler, & Turner, 2014). Cohabiting stepfamilies may be more likely to have a birth because at least one member of the couple is already in a family-building stage, whereas cohabitations involving non-parents may be more transitory and involve those at earlier stages in the family life course. Births in cohabiting unions are less likely to be intended than births in marriages (Mosher, Jones, & Abma, 2012), but this may be more so the case for cohabiting unions in which neither partner has children from past relationships than cohabiting unions in which at least one partner has a child from a past relationship. In sum, I propose the following hypothesis:

Hypothesis 3: Women's risk of having a first shared birth, and intending that birth, is highest among marital stepfamily unions, followed by marital non-stepfamily unions, cohabiting stepfamily unions, and cohabiting non-stepfamily unions.

Stepfamily configuration, fertility, and intendedness

Stepfamilies, of course, can take many forms depending on the number of children from past relationships and whether one or both partners has children, and these aspects of configuration seem to influence childbearing decisions. Stepfamilies in which one partner is childless are more likely to have a shared child than when both partners already have children (Stewart, 2002), perhaps stemming from desires for biological parenthood among the childless partner. Conversely, births to couples in which both partners already have children would elevate the

couple's overall childrearing responsibilities to a greater degree in a stepfamily than in a union in which only one partner has prior children because combined parity is higher, so I would expect these births are less likely to be intended. Combined and individual parity are important in general, as intendedness is lower for third and later births (Mosher, Abma, & Jones, 2012), and the greater obligations and costs of larger families suggests that additional births might also be unintended. Of course, it is not only whether partners have children from prior relationships that influence childbearing decisions in new unions; factors such as child coresidence, involvement, and financial support are also relevant because they tap into the intensity of the parent and stepparent roles (Hohmann-Marriott, 2015; Vikat, Thomson, & Prskawetz, 2004). Unfortunately, the current research is unable to account for these factors. Focusing on the configuration of stepfamilies as potentially influential for fertility behaviors leads to the following hypothesis:

Hypothesis 4: Fertility differences between unions with and without prior children depend on the configuration of the stepfamily, with women's risk of a birth, and the intendedness of the birth, declining across a rough continuum of complexity from the simplest (those in which only one partner has children) to the most complex (those in which both partners have children, particularly if the female partner already has two or more children).

Data and methods

The analyses use the 2006-2010 National Survey of Family Growth (NSFG). The NSFG is a nationally representative cross-sectional survey of 22,682 men and women. The data contain a detailed birth history as well as the start and end dates of all different-sex coresidential unions; however, the NSFG only collected birth intendedness among men's births in the three years preceding the survey. As such, the analysis is restricted to women (n = 12,279) and further restricted to women who had at least one different-sex cohabiting or marital union (n = 8,304) with valid dates on union starts and ends (n = 8,248).

The primary independent variables are stepfamily status (i.e., whether the union is a stepfamily), configuration (which partner has how many children), and union type (cohabitation or marriage). The latter is straightforward to measure, but the first two variables are more challenging. An advantage of the NSFG is that for each cohabitation or marriage, the respondent is asked whether their partner had any children from prior unions (though the number, age, and coresidence of each partner's children is not available). Partner's children information is missing for nine women, reducing the sample size to 8,239. For women's own prior fertility, I draw from the birth history. As with prior work on fertility and unions (Thomson et al., 2014), births occurring more than six months prior to the start of a union are considered to be with a different partner, and births occurring within the six-month period are considered to be with the cohabiting or marital partner. This widespread assumption and practice is supported by recent work demonstrating that the odds of union formation following a non-union birth are quite low in the first six months and that the odds of forming a union with a new partner, rather than the child's other biological parent, increase over time (Guzzo, 2016). Those women who had a birth prior to coresidence but within the six months preceding union start (and thus with their cohabiting or marital partner) (n = 162) are excluded because the analytical strategy (discussed below) models the risk of a birth beginning with the start of coresidence since information on the start of dating is unavailable. This reduces the sample size to 8,077 women. Results, available upon request, are virtually identical when using more or less restrictive assumptions: no births prior to union start are considered to be with that partner and thus are all children from prior unions vs. births up to a year prior to union start are considered to be with that partner and only births more than a year earlier are children from prior unions. Only 288 women in total (out of over 8000) had a birth in the year prior to coresidence, so changing assumptions recategorizes births and changes sample sizes for a very small proportion of the analytical sample.

For each union, I created two sets of variables. The first is a dichotomous indicator of whether the union was a stepfamily. The second is a categorical measure with six categories for stepfamily configuration: neither partner has children from a past relationship (non-stepfamily union); respondent has 1 child, partner has no children; respondent has 2 or more children, partner has no children; respondent has 1 child, partner has no children but partner has children; respondent has 1 child, partner has no children but partner has children; respondent has 1 child, partner has no children but partner has children.

The analyses uses event history models to examine the outcomes of women's unions, treating a first birth as an outcome; these models are discussed below in more detail. These outcomes are categorized in two different ways, both of which are time-varying. The first combines information from the birth histories and the union histories to create a three-category variable: the union was intact, with no birth; had a birth; or dissolved. The second dependent variable disaggregates births by intendedness. Intendedness is based on responses to a series of questions asked for every birth. Respondents are first asked "Right before you became pregnant, did you yourself want to have a(nother) baby at any time in the future?" Negative answers are characterized as unwanted births. If a woman responds affirmatively, she is asked about the timing of the pregnancy: "So would you say you became pregnant too soon, at about the right time, or later than you wanted?" Births that are identified as too late or at about the right time are also considered wanted. Births that are identified as occurring too soon are asked a follow-up question: "How much sooner than you wanted did you become pregnant?" As has become standard with NSFG and other research on unintended births (Chandra, Martinez, Mosher, Jones, & Abma, 2012; Lindberg, Maddow-Zimet, Kost, & Lincoln, 2015), I used two years as a cutoff point to define the extent of mistiming, with less than two years considered only moderately mistimed and births two or more years too soon as seriously mistimed. Further, research has shown that births that are less than two years early strongly resemble wanted births in terms of

maternal behaviors and child outcomes, whereas births that are two years or more too early strongly resemble unwanted births (Lindberg, Finer, & Stokes-Prindle 2008; Pulley, Klerman, Tang, & Baker 2002). As such, I dichotomize intendedness into wanted or moderately mistimed (intended) vs. seriously mistimed or unwanted (unintended), an approach that has become increasingly common in unintended fertility research (e.g., Guzzo & Hayford, 2011, 2012, 2014). Analyses keeping the categories separate revealed essentially no differences between wanted and moderately mistimed or between seriously mistimed and unwanted but showed differences between these two groupings (not shown). Intendedness here relies entirely upon the woman's report; her partner's categorization may differ but is unavailable in the data. Incorporating intendedness resulted in the second dependent variable, with four categories: intact, with no birth; an intended birth; an unintended birth; or dissolved. Intendedness was missing for all births for 13 women, leaving a final sample size of 8,064 women.

In order to examine fertility differences across stepfamily status while accounting for the differences in union type and stability, I first created a file for each of women's cohabitations and marriages – every new union represents another opportunity to have a first shared birth with a new partner. That is, all unions have a *shared* parity of zero at the start of coresidence, but the woman (or her partner) may not have an individual parity of zero because a first shared birth with a particular partner is not necessarily the woman's or her partner's first birth as an individual. Women with more than one union thus contribute more than one record; this approach restructures the data from wide to long format (with an indicator of union number), and cohabitations that transition to marriage are counted as one union. Put differently, this approach reconfigures the data so that instead of one record per woman with all her union information listed as separate variables, the data now contained one record per union per woman – each of a woman's unions becomes a unique data point for analysis. This created a file of 11,378 unions

(6,612 unions in which both the respondent and her partner were childless and 4,716 unions in which either the respondent or her partner had a child from a past relationship). Next, I created a person-month file consisting of a separate observation for each month a woman was at risk of a first birth with their partner in a specific union. A risk spell began the month the coresidential union start and ended when a birth occurred or the union dissolved, with women censored at the time of survey if they neither had a birth nor experienced dissolution. Thus, the final analytical sample consists 11,378 risk spells (i.e., cohabitations and marriage) and 378,552 person-months to 8,064 women. Union duration is included as a time-varying piecewise non-linear spline (<7 months, 8-18 months, 19-36 months, 37-48 months, and 40 or more months).

In addition to union characteristics, the analyses also take into consideration factors linked in prior research to both stepfamilies and birth intentions. Primary among these are union type, and so a time-varying dichotomous indicator of cohabitation vs. marital status is included, along with age at union start and a categorical indicator of union number (1st, 2nd, 3rd, or 4th or higher). Socioeconomic disadvantage is linked to unintended fertility (Mosher, Jones, & Abma, 2012; Musick, England, Edgington, & Kangas, 2009), and the analyses include time-invariant measures of race-ethnicity-nativity, family structure at age 14, and mother's education. High school degree is included as a time-varying characteristic; the date was missing for 10 respondents, and these cases were assigned the average graduation month for others their age (other approaches for imputation did not change the results). There is no other missing data for the control variables. Finally, prior unintended fertility is associated with higher-order unintended fertility (Guzzo & Hayford, 2011), so prior unintended fertility is included as a dichotomous indicator; this is time-invariant within unions but can vary across unions.

Analytical strategy

I begin by presenting the weighted descriptive characteristics of the analytical sample of women's unions at risk of experiencing a first shared birth. Next, I show the weighted bivariate association between a) stepfamily status, b) stepfamily status by union type, and c) stepfamily configuration and the dependent variable, looking at the first outcome variable (no birth, birth, dissolution) and differences between intendedness among those with a birth. I then turn to multivariate analyses. I begin by testing whether women in stepfamilies have a higher risk of a first shared birth than women in unions in which neither partner has children (Hypothesis 1), showing the relative risk ratios (RRRs) from multinomial logistic regression event history models. I then test whether births to women in stepfamilies are more or less likely to be intended than births to women in non-stepfamily unions (competing Hypotheses 2A and 2B). Next, I test whether the risk of fertility and intendedness varies across both stepfamily status and union type (Hypothesis 3). Finally, I examine whether stepfamily configuration is associated with overall fertility and intendedness (Hypothesis 4). In the multivariate analyses, fertility and dissolution are competing risks, but the discussion of the results will focus primarily on fertility. All analyses were conducted in Stata 14.1 using the 'svy' commands to account for the complex sample design of the NSFG and the multiple observations contributed by some respondents.

Results

Descriptive results

Table 1 shows the weighted descriptives for the analytical sample, disaggregating by the dichotomous indicator of stepfamily status. Overall, more a third of the unions of women of childbearing age are stepfamilies; of those, the modal category is for a childless woman to be partnered with a father (34%). Nearly as common, though, is for mothers to be partnered with a father – 33% of stepfamilies involve women with one child and a father with children from a

prior union (15%) or women with two or more children and a father (17%). The majority of all unions are cohabitations at the start of coresidence, though there is variation, at 65% of non-stepfamily unions and 84% of stepfamilies; by the last month of observation, only 39% of non-stepfamily unions are still cohabitations compared to 57% of stepfamily unions (not shown).

- Table 1 here -

In general, women in stepfamily unions are less advantaged than those in unions in which neither partner has children from a prior relationship. A higher percentage of women's stepfamily unions involve those who are non-white, whose mothers have lower levels of education, and who did not grow up living with both biological parents. Fewer women in stepfamily unions are high school graduates at the start of coresidence than their peers in nonstepfamily unions (63% vs. 76%, respectively). Women in stepfamily unions are significantly older, by about $3\frac{1}{2}$ years, than their counterparts as well, likely due to the time spent in prior relationships. The vast majority of women in non-stepfamily unions are living with a partner for the first time (85%); for women in a stepfamily union, more than half (56%) are in a second or higher union. It is also worth noting that while 77% of first unions involve two childless individuals, this is far less likely the case for higher-order unions: only 34% of second unions involve two individuals with no children from prior relationships, declining to 22% for third unions and 18% for fourth and higher unions (not shown). Finally, just under half of women's stepfamily unions involve women who had a past unintended birth with a different partner; by definition, none of the non-stepfamily unions include a history of prior unintended fertility.

Table 2 shows the outcome of the unions by stepfamily type. Recall that births and dissolution are competing risks, such that some of the unions that experience a birth may later go on to dissolve but none of the dissolutions in this analysis involved a birth prior to dissolution (and, of course, any union still intact at the time of survey may experience either a birth and/or

dissolution that is not observed). Looking at the first set of figures, which does not disaggregate by intendedness, we see that just over half (52%) of the full analytical sample of unions exited the analysis via a first birth with their partner. Less than 30% dissolved before the survey without having a birth, and 18% were still intact and had no shared children. These percentages varied by stepfamily status – 56% of those in non-stepfamily unions had a birth and 27% dissolved whereas fewer stepfamily unions had a birth (46%) and more dissolved (34%). Outcomes also varied by stepfamily status and union type – the percentage with a shared first birth was considerable higher among marital unions in which neither partner had prior children (70%) than other groups, and dissolution was highest among cohabiting unions in which neither partner had prior children. Having a child also differed by stepfamily configuration. Stepfamily unions in which only the female respondent had a single child and her partner had no previous children had the highest proportion having a shared birth, at 56%. At the other end of the spectrum, only 27% of stepfamily unions in which the respondent already had two children and her partner also had children experienced a first shared birth.

- Table 2 here -

The latter two columns of Table 2 examine the distribution of intendedness among those with a first shared birth. Of births within all unions, 75% are intended, but this varies considerably by the categories considered here. The majority of births in both non-stepfamily and stepfamily marriages were intended, at 86% and 83%, respectively. For births in cohabiting stepfamilies, about 59% were intended, higher than for births to cohabiting non-stepfamily unions (50%). There is also variation in intendedness by stepfamily configuration among those who had a birth. For stepfamily unions in which women have only one child, regardless of whether her partner also has children, about 75% of births are intended. However, the proportion of births that are intended falls substantially for other stepfamily types, ranging from 69%

(respondent has two or more children but her partner has no children) to 59% (respondent has two or more children and her partner also has children).

These results do indeed support the overall hypothesis that fertility behaviors differ between stepfamily and non-stepfamily unions in addition to the hypotheses that stepfamily union type and configuration matters. However, socioeconomic and demographic factors as well as union-specific factors and prior fertility differ by stepfamily status, as shown in Table 1, and these differences may play into differences in fertility behaviors (and stability). To disentangle these relationships, I turn to multivariate analyses.

Multivariate Results

Fertility by stepfamily status

Results from multinomial logistic regression using event history models are presented in Table 3. This table presents two sets of relative risk ratios (RRRs). Model 1 examines whether there are differences in the risk of a first birth (and dissolution) relative to remaining intact with no birth across stepfamily status. Model 2 disaggregates fertility by intendedness. Both models include the full set of control variables. Looking at Model 1, we see support for Hypothesis 1: women in stepfamily unions are 15% more likely to have a first shared birth with their partner than women in non-stepfamily unions. There are no differences in stability between stepfamily unions and non-stepfamily unions; this may seem counterintuitive, but this is largely a function of having fertility as a competing risk in which individuals leave the risk set after a birth. In analyses which follow unions through to dissolution or the survey date and treating fertility as a time-varying covariate (not shown), stepfamily unions do have a significantly higher risk of dissolution than non-stepfamily unions, by about 15%.

- Table 3 here -

First birth risks are higher among nonwhites, those whose mother had less than a high school degree, and those who grew up in a stepfamily themselves. The risk of having a first birth relative to remaining intact and having no birth is twice as high (RRR = 1.91) among women in marriages than in cohabiting unions and is highest 8-18 months after the start of coresidence (RRR = 1.17) but lower in very early durations or durations longer than 36 months. Relative to women whose mother had only a high school degree, women whose mother had a college degree or more are less likely to have a birth (RRR = 0.86), as are women with at least a high school degree themselves relative to those with less than a high school degree (RRR = 0.87). *Intendedness by stepfamily status*

Model 2 of Table 3 tests Hypotheses 2A and 2B. Here, the omitted category is an unintended birth to demonstrate whether first births are more or less likely to be intended; the first column is the key column of interest. In support of Hypothesis 2B, births in stepfamily unions are significantly less likely to be intended than unintended, by 27%, relative to births in unions in which neither partner had a child from a past relationship; switching the omitted category to 'intact, no birth' (not shown), stepfamily unions are 42% more likely to have an unintended birth than have no birth, with no differences between an intended birth relative to no birth across stepfamily status. Stepfamily unions are also less likely to remain intact or dissolve relative to having an unintended birth. In this model, the association between the covariates and the outcome categories also varies from Model 1, but this is partially due to the shift in the reference category from 'intact, no birth' to 'unintended birth.' In this model, blacks are marginally less likely (RRR = 0.81) to have an intended birth than an unintended birth relative to whites, whereas foreign-born Hispanics are about 60% more likely. Having lived in an 'other' family type during adolescence or a prior unintended birth decrease the risk that a birth is intended rather than unintended, and births occurring in the first 18 months of coresidence are

less likely to be intended relative to births occurring later in the union. Births in marital unions are over twice as likely to be intended than unintended compared to cohabiting unions (RRR = 2.44), and age is positively associated with intended fertility.

Fertility and intendedness by stepfamily status and union type

Models testing Hypothesis 3 are presented in Table 4. These models parallel those seen in Table 3 but use a variable combining stepfamily status and union type and vary the omitted category of this new variable. The reference group for each model is indicated in the table sub-headings as "contrasts." These models are full models with all covariates, but only the RRRs for the stepfamily-union type variable are displayed in this table because the RRRs for the other covariates are virtually identical to those in Table 3. Since the interest lies in how union type may be differentially related to both the risk of a birth overall and the intendedness of any births, only the contrasts showing a birth vs. remaining intact (corresponding to the first column in Model 1, Table 3) and showing an intended birth vs. an unintended birth (corresponding to the first column in Model 2. Table 3) are presented. These results only partially support Hypothesis 3. Compared to cohabiting non-stepfamily unions (shown in the columns labeled "Contrast 1" in Table 4), cohabiting stepfamily unions are 60% more likely to have a birth, though there is no difference in intendedness. However, cohabiting stepfamily unions (labeled "Contrast 2") are less likely to have a birth, and to intend a birth if they do have one, than marital stepfamily unions. Marital stepfamilies (labeled "Contrast 3") do not differ in their risk of having a birth relative to marital unions in which neither partner had a child from a previous relationship, but any births that do occur are less likely to be intended than unintended (RRR = 0.59).

- Table 4 here -

Fertility and intendedness by stepfamily configuration

Finally, models testing Hypothesis 4 regarding stepfamily configuration are shown in Table 5. As with Table 4, these are the results from a series of full models replicating Models 1 and 2 in Table 3 but only showing the contrast between birth vs. remaining intact and intended vs. unintended, varying the omitted category to explore differences in stepfamily configuration. The reference group is indicated in the table subheadings as "contrasts." The results in this table provide partial support for Hypothesis 4 – there are differences in the risk of having a first birth overall and whether births are intended between non-stepfamily unions and different types of stepfamilies. In the first column, we see that only stepfamily unions in which the woman has one child have an elevated risk of a birth relative to non-stepfamily unions (labeled "Contrast 1" in Table 5), regardless of whether her partner has children (RRR = 1.37) or not (RRR = 1.48). Further, as seen in the next column, there are no differences in the intendedness of a birth between stepfamily unions in which the woman has only one child (again regardless of whether their partner has children) and non-stepfamily unions. Births that occur in any other type of stepfamily are significantly less likely to be intended than unintended relative to births in a union in which neither partner had children from prior relationships. Moving across the table, which shows models with different omitted categories for stepfamily configuration, we see that the general story is that fertility behaviors vary across these groups. For instance, stepfamily unions in which the female partner has only one child and is partnered with a childless man (shown in the columns labeled "Contrast 2") are more likely to have a birth, and to intend that birth, than stepfamily unions involving childless women partnered with a father or those involving women with two or more children of their own. When the respondent has two or more children and her partner has at least one child (shown in the columns labeled "Contrast 5"), the risk of having a

birth, and intending a birth, is significantly lower than when the respondent only has one child and her partner has at least one child.

- Table 5 here -

Discussion

The past few decades have witnessed remarkable changes in fertility behaviors as well as union formation and stability. These shifts, in turn, mean that many parents are in the relationship market, and many childless individuals will form unions with parents. When either (or both) partner(s) has a child from a past relationship, a stepfamily is formed, and when parents form new unions or childless individuals partner with parents, these individuals are at risk of having a birth with their new partner – childbearing across partnerships.

Of course, any union is potentially at risk of having a shared birth; couples have children for many reasons (Morgan & King, 2001), but stepfamilies present a unique situation since the family, if not both individuals, already have children, and higher parities are generally associated with lower fertility risks. Stepfamilies seem to have a different orientation toward childbearing than unions in which both partners are childless at the start. Because of the growth in stepfamily formation over the past few decades, and spurred by potential theoretical differences, stepfamily fertility has become a focused area of research in recent years, though the bulk of this work has used European data (e.g., Henz & Thomson, 2005; Holland & Thomson, 2011; Thomson, 2003, 2014; Vikat, Thomson, & Hoem, 1999; Vikat, Thomson, & Prskawetz, 2004).

Two lines of research have examined childbearing across partnerships. The first line explicitly focuses on stepfamilies, looking at planned and actual fertility. Stepfamilies often report that they plan to have children in the future in their new union (Hohmann-Marriott, 2015; Stewart, 2002; Thomson, 2003). And in fact, childbearing in stepfamilies is common, with about half of stepfamilies having a shared child (Holland & Thomson, 2011), even at individual

parities that are usually at low risk for subsequent childbearing (Thomson, Winkler-Dworak, Spielauer, & Prskawetz, 2012). The primary explanation for both planned and actual stepfamily fertility is that, like fertility in other unions, having a shared child serves a purpose by linking a couple together, expressing their commitment, and creating social capital (Astone et al., 1999; Coleman, 1988; Friedman, Hechter, & Kanazawa, 1994; Ganong & Coleman, 1988). However, stepfamilies could be especially motivated to have a shared child – the need to establish themselves as family unit and create shared capital may be high (Stewart, 2002). If this is true, stepfamilies would not only more likely to have a shared birth but to have an intended rather than unintended first birth, yet research has not yet explicitly examined the intendedness of births in stepfamily unions relative to births in other unions. The second line of research looks at the newly recognized (but not actually new) phenomenon of multipartnered fertility, of which stepfamily fertility is a subtype; this literature has largely developed separately from work on stepfamilies. MPF is generally considered to be a deleterious behavior (Klerman, 2007), stemming from problematic fertility and relationship behaviors. In this perspective, MPF does not result necessarily result from decisions to have a child to create social capital or express commitment but is more commonly associated with social and economic disadvantage, with unintended fertility playing a large role (Guzzo, 2014). Putting these two frameworks together – and in light of the fact that a third of all births unintended (Finer & Zolna, 2014) – unintended fertility could play a role in stepfamily fertility, but to date, the intendedness of births in stepfamily unions has yet to be explored.

Drawing from these two literatures and unintended fertility research, the current research examined four sets of hypotheses to compare the risk of a first birth, and its intendedness, across stepfamily status. The first tested the value of children perspective – that stepfamilies are more likely to have a shared child than unions in which neither partner had children from a prior

relationship (i.e., a non-stepfamily union). The second hypothesis examined whether births in stepfamily unions are more or less likely to be intended than births to non-stepfamily unions. Prior research, at least in Europe, has interpreted high levels of fertility in stepfamilies as consistent with the value of children perspective, but I suggest that without determining whether such births are actually intended, any such conclusion is premature. The third hypothesis tested whether the risk of having a shared birth together and its intendedness varies by marital status. Much of the existing European work does not distinguish between cohabiting and marital unions (e.g., Henz & Thomson, 2005; Holland & Thomson, 2011), but these unions are far more similar in the Europe than the U.S.; cohabiting unions in the U.S. are considerably more unstable and disadvantaged. Finally, the fourth hypothesis examined whether the risk of a first shared birth and its intendedness varies by stepfamily configuration – which partner had a child and how many children the female respondent had.

The results here support Hypothesis 1: compared to unions in which neither partner had children from a prior relationship, stepfamily unions are more 15% likely to have a shared birth together. At first glance, then, this supports the value of children perspective. However, the models testing Hypothesis 2A and 2B challenge this interpretation – births in stepfamily unions are significantly less likely, by about a quarter, to be intended than unintended relative to births in non-stepfamily unions. Further, and in contrast to Hypothesis 3, birth intendedness varies in unexpected ways across stepfamily status and union type. Though first birth risks do not differ across marital unions, first births in marital stepfamily unions are 40% less likely to be intended than unintended relative to the first shared birth in marital unions in which neither partner had children from a prior relationship. It is unclear why women in marital stepfamilies have an elevated risk of an unintended birth compared to other married women – it may be the case that these women have more reservations about their unions (given either their own and/or their

partner's prior relationship failures), which could affect contraceptive behavior. Alternatively, married women in stepfamilies may view and characterize their births differently, perhaps with less certainty or more concern over the practical implications of additional children. Certainly, though, it does not appear that marital stepfamilies are more likely and deliberately to engage in shared childbearing as a way of legitimizing their family unit compared to other married couples as suggested in other work (Stewart, 2002).

As expected, however, marital stepfamilies are more likely to have a first shared birth, and to intend that birth, than cohabiting stepfamilies, suggesting that even among stepfamilies, marriage is a more acceptable site for childbearing and childrearing. Cohabiting stepfamilies are more likely to have a birth than cohabiting non-stepfamilies, with no differences in intendedness. The higher fertility in cohabiting stepfamilies could be due to countervailing fertility behaviors. On the one hand, they may experience more unintended fertility due to the same processes occurring in marital stepfamilies and with MPF in general. On the other hand, cohabiting stepfamilies could also be more likely to have an intended first birth because at least one member is already in a family-building stage. It is also possible that cohabitors with children from prior relationships may view cohabitation as a more acceptable site for childbearing than their childless counterparts, given prior failed relationships. Fertility and intendedness also differs by configuration (Hypothesis 4) – when the female partner has only one child, stepfamily unions are more likely than other unions to have a first shared child, perhaps due to the strong two-child norm in the U.S. Though intendedness does not differ when the female partner has only one child (regardless of whether her partner has any children), any births that do occur for other types of stepfamily unions – women with two or more children or childless women partnered with a father – are significantly less likely to be intended than unintended relative to births in nonstepfamily unions.

In sum, then, the results here align more strongly with the perspective that childbearing across partnerships in the U.S. is part of a story of economic and relational disadvantage, as suggested by the growing body of work on MPF. There is no evidence to support the notion that fertility is higher in stepfamilies than non-stepfamily unions because stepfamilies are deliberately engaging in shared childbearing to establish themselves as a family unit, make symbolic statements about their union, or create shared social capital. Instead, while stepfamily unions often do involve a shared birth together, these births are often unintended and thus may represent an additional source of strain in these more complicated family situations.

Limitations

There are several limitations in this work. A primary problem is that the information gathered comes exclusively from the female partner, who was reporting about her partner's prior childbearing information. In the NSFG, for women's partner's children, the number of children (Ivanova, Kalmijn, & Uunk, 2013) and whether they lived with the respondent and her partner (Vikat, Thomson, & Hoem, 1999; Vikat, Thomson, & Prskawetz, 2004) was available only for married stepfamilies at the time of the interview and was thus not included in the analysis, nor was I able to include information about visitation and financial support. Residence information for women's own children is also not included due to the lack of time-varying data, and evidence suggests that coresident children may influence fertility decisions more strongly than nonresident children (Hohmann-Marriott, 2015). Coresident biological children may provide more 'returns' to the parental role (in the form of love and affection), but they may also entail more financial and time obligations; stepparents may also experience these costs and benefits to a greater extent when stepchildren are coresident. There is also no information on whether the partner had a past unintended birth, nor is there information about the partner's characterization of the focal birth as intended. It is possible that one partner may characterize the birth as intended while the other

partner does not, and this could be higher in stepfamilies than unions in which neither partner had children from a prior relationship since the partners do not necessarily share the same individual-level parity. If this is true, than unintendedness is conservatively estimated for stepfamilies.

As is the case for most research on unintended fertility, the analyses use retrospective reports of pregnancy wantedness, which are potentially subject to social desirability bias or retrospective rationalization (Trussell, Vaughan, & Stanford, 1999; Williams, Abma, & Piccinino, 1999; Musick, 2002). In general, though, birth intendedness reports have high face validity (Bachrach & Newcomer, 1999; Joyce, Kaestner, & Korenman, 2000. There is little reason to suspect that social desirability bias differs by stepfamily status. If anything, stepfamilies might be more motivated to categorize a birth as intended if they have concerns over how their current behaviors are interpreted in light of their past relationship instability and fertility behaviors; if true, this also suggests that these are conservative estimates of unintended fertility in stepfamilies. Because the data are not longitudinal, the analysis could not match prospective fertility plans with actual fertility behavior and birth intendedness; most prior work has focused only on prospective fertility plans or did not match fertility plans with actual intendedness of subsequent births. These analyses excluded pregnancies that did not end in a live birth because abortions are under-reported in survey data (Jones & Kost, 2006), and this likely underestimates unintended pregnancies in both stepfamilies and cohabitations overall to a greater extent than married families in which neither partner had children from a prior relationship. Finally, women who never cohabit or marry but who have children are not included in this analysis; this applies to only 2.5% of the full NSFG sample, and the majority (73%) of these women had at least one unintended birth.

Conclusion

The conditions driving childbearing across partnerships – nonmarital and unintended childbearing, along with parental union instability and repartnering – show little sign of abating. As such, families will likely become even more complicated in the future, warranting attention to the conditions in which complex families occur. And as shown in this research, when stepfamilies have a shared child together, these births are often unintended, indicating that family processes work differently in stepfamilies than in more traditional families. To the extent that unintended births can strain relationships (Boden, Fergusson, & Horwood, 2015; Guzzo & Hayford, 2012; 2014), this may be an additional source of stress and a potential cause of instability among stepfamilies, which already face issues of navigating complex and unclear family roles and expectations (Cherlin, 1978; Cherlin & Furstenberg, 1994).

These findings also present a picture of diverging destinies (McLanahan, 2004). Couples with no prior children tend to plan their births and have their children in more stable and normative conditions, such as marriage. Stepfamilies with shared children, conversely, are often in less stable unions, and many of the births are unintended. Cohabiting unions with children are less stable than marriages with children (Manning, Smock, & Majumdar, 2004), and unions with an unintended birth are more unstable than those with only intended births (Guzzo & Hayford, 2011). Thus, children in stepfamilies face an elevated risk of experiencing the dissolution of this union, and this could be especially problematic for non-shared children, who have already experienced their biological parents' relationship dissolution. Children who are deliberately planned and wanted in committed relationships, who experience stable childhoods, are becoming an increasingly select – and advantaged – group. Their counterparts who grow up in less stable circumstances will likely face more challenges with less familial resources, making it a challenge for society to identify ways to provide more support.

References

- Astone, Nan Marie, Constance A. Nathanson, Robert Schoen, and Young J. Kim. 1999. Family demography, social theory, and investment in social capital. *Population and Development Review* 25 (1): 1-31.
- Bachrach, Christine A., and Susan Newcomer. 1999. Forum: Intended pregnancies and unintended pregnancies: Distinct categories or opposite ends of a continuum." *Family Planning Perspectives* 31: 251-252.
- Boden, Joseph M., David M. Fergusson, and L. John Horwood. 2015. Outcomes for children and families following unplanned pregnancy: Findings from a longitudinal birth cohort." *Child Indicators Research* 8: 389-402.
- Brown, Susan L. and I-Fen Lin. 2013. Age variation in the remarriage rate, 1990-2011. National Center for Family and Marriage Research FP-13-17. Bowling Green, OH: Bowling Green State University.
- Carlson, Marcia J., and Frank F. Furstenberg. 2006. The prevalence and correlates of multipartnered fertility among urban US parents. *Journal of Marriage and Family* 68 (3): 718-32.
- Carlson, Marcia J., and Frank F. Furstenberg. 2007. The consequences of multipartnered fertility for parental involvement and relationships. Center for Research on Child Wellbeing.
 Working Paper 2006-28-FF. Princeton University.
- Chandra, Anjani, Gladys M. Martinez, William D. Mosher, Joyce C. Abma, and Jo Jones. 2005.
 Fertility, family planning, and reproductive health of U.S. women: Data from the 2002
 National Survey of Family Growth. *Vital Health Statistics* 23 (25). Hyattsville, MD:
 National Center for Health Statistics.
- Cherlin, Andrew. 1978. Remarriage as an incomplete institution. *American Journal of Sociology* 84: 634-650.
- Cherlin, Andrew. 2009. *The Marriage-Go-Round: The State of Marriage and the Family in America Today*. New York: Knopf.
- Cherlin, Andrew J., and Frank F. Furstenberg Jr. 1994. Stepfamilies in the United States: A reconsideration." *Annual Review of Sociology* 20: 359-381.
- Coleman, James. 1988. Social capital in the creation of human capital. *American Journal of Sociology* 94 (Supplement): S95–S120.

- Coleman, Marilyn, Lawrence Ganong, and Mark Fine. 2000. Reinvestigating remarriage: Another decade of progress. *Journal of Marriage and Family* 62 (4): 1288-307.
- Dorius, Cassandra. 2011. Multipartnered fertility at midlife. Paper presented at the National Center for Family and Marriage Research Counting Couples, Counting Families Conference, July 19–20, Bethesda, MD.
- Finer, Lawrence B., and Mia R. Zolna. 2014. Shifts in intended and unintended pregnancies in the United States, 2001–2008. *American Journal of Public Health* 104 (S1): S43-8.
- Frejka, Tomas, and Jean-Paul Sardon. 2007. Cohort birth order, parity progression ratio and parity distribution trends in developed countries. *Demographic Research* 16 (11): 315-74.
- Friedman, Debra, Michael Hechter, and Satoshi Kanazawa. 1994. A theory of the value of children. *Demography* 31 (3): 375-401.
- Ganong, Lawrence H., and Marilyn Coleman. 1988. Do mutual children cement bonds in stepfamilies? *Journal of Marriage and Family* 50 (3): 687-698.
- Gibson-Davis, Christina. 2011. Mothers but not wives: The increasing lag between nonmarital births and marriage. *Journal of Marriage and Family* 73 (1): 264-78.
- Gipson, Jessica D., Michael A. Koenig, and Michelle J. Hindin. 2008. The effects of unintended pregnancy on infant, child, and parental health: a review of the literature. *Studies in Family Planning* 39: 18-38.
- Griffith, Janet D., Helen P. Koo, and Chirayath M. Suchindran. 1985. Childbearing and family in remarriage. *Demography* 22 (1): 73-88.
- Guzzo, Karen Benjamin. 2014. New Partners, More Kids: Multiple-Partner Fertility in the United States. *The ANNALS of the American Academy of Political and Social Sciences* 654 (1): 66-86.
- Guzzo, Karen Benjamin. 2016. Union formation and stability among non-cohabiting, unmarried parents: Incorporating unions with their child's parent. Paper presented at the annual meeting of the Population Association of America, Washington, DC, March 31st-April 2nd.
- Guzzo, Karen Benjamin, and Frank F. Furstenberg. 2007. Multipartnered fertility among American men. *Demography* 44 (3): 583-601.
- Guzzo, Karen Benjamin, and Sarah Hayford. 2011. Fertility following an unintended first birth. *Demography* 48 (4): 1493-516.

- Guzzo, Karen Benjamin, and Sarah Hayford. 2012. Unintended fertility and the stability of coresidential relationships. *Social Science Research* 41 (5): 1138-51.
- Guzzo, Karen Benjamin, and Sarah Hayford. 2014. Fertility and the stability of cohabiting unions: Variation by intendedness. *Journal of Family Issues* 35 (4): 547-76.
- Hagewen, Kellie J., and S. Philip Morgan. 2005. Intended and ideal family size in the United States, 1970–2002. *Population and Development Review* 31 (3): 507-27.
- Henz, Ursula, and Elizabeth Thomson. 2005. Union stability and stepfamily fertility in Austria,Finland, France & West Germany. *European Journal of Population* 21 (1): 3-29.
- Herd, Pamela, Jenny Higgins, Kamil Sicinski, and Irina Merkurieva. 2016. The implications of unintended pregnancies for mental health in later life. *American Journal of Public Health* 106: 421-429.
- Heuveline, Patrick, and Jeffrey M. Timberlake. 2004. The role of cohabitation in family formation: The United States in comparative perspective." *Journal of Marriage and Family* 66: 1214-1230.
- Hohmann-Marriott, Bryndl. 2015. Involvement with past-union children and couple childbearing intentions. *Journal of Marriage and Family* 77(2): 510-522.
- Holland, Jennifer A., and Elizabeth Thomson. 2011. Stepfamily childbearing in Sweden: Quantum and tempo effects, 1950–99. *Population Studies* 65 (1): 115-28.
- Ivanova, Katya, Matthijs Kalmijn, and Wilfred Uunk. 2013. Fertility after repartnering in the Netherlands: Parenthood or commitment? *Advances in Life Course Research*. In press.
- Jones, Rachel K. and Kathryn Kost. 2006. Reporting of induced and spontaneous abortion in the 2002 National Survey of Family Growth. Presented at the National Center for Health Statistics National Survey of Family Growth Research Conference, Bethesda, MD. October 19th-20th.
- Joyce, Ted, Robert Kaestner, and Sanders Korenman. 2000. The stability of pregnancy intentions and pregnancy-related maternal behaviors." *Maternal and Child Health Journal* 4: 171-178.
- Kennedy, Sheela, and Steven Ruggles. 2014. Breaking up is hard to count: The rise of divorce in the United States, 1980–2010. *Demography* 51: 587-598.
- Klerman, Lorraine V. 2007. Multipartnered fertility: Can it be reduced? *Perspectives on Sexual* and Reproductive Health 39 (1): 56-9.

- Kost, Kathryn, and Laura Lindberg. 2015. Pregnancy intentions, maternal behaviors, and infant health: investigating relationships with new measures and propensity score analysis. *Demography* 52: 83-111.
- Lappegård, Trude, and Marit Rønsen. 2013. Socioeconomic differences in multipartner fertility among Norwegian men. *Demography* 50: 1135-1153.
- Li, Jui-Chung Allen. 2006. The institutionalization and pace of fertility in American stepfamilies. *Demographic Research* 14: 237-266.
- Lichter, Daniel T., Sharon Sassler, and Richard N. Turner. 2014. Cohabitation, post-conception unions, and the rise in nonmarital fertility. *Social Science Research* 47: 134-47.
- Lillard, Lee A., and Linda J. Waite. 1993. A joint model of marital childbearing and marital disruption. *Demography* 30: 653-681.
- Lindberg, Laura, Lawrence B. Finer, and Cecily Stokes-Prindle. 2008. New estimates of US unintended pregnancy: Taking timing into account. Paper presented at the annual meeting of the Population Association of America, New Orleans, LA, April 17th-19th.
- Lindberg, Laura, Isaac Maddow-Zimet, Kathryn Kost, and Alicia Lincoln. 2015. Pregnancy intentions and maternal and child health: An analysis of longitudinal trends in Oklahoma. *Maternal and Child Health Journal* 19: 1087-1096.
- Livingston, Gretchen. 2015. Childlessness falls, family size grows among highly educated mothers. Pew Research Center Report. Washington, DC: Pew Research Center. <u>http://www.pewsocialtrends.org/files/2015/05/2015-05-07_children-ever-</u> born_FINAL.pdf Accessed 2/8/16.
- Livingston, Gretchen and Anna Brown. 2014. Birth rate for unmarried women declining for first time in decades. Pew Research Center Report. Washington, DC: Pew Research Center. http://www.pewresearch.org/fact-tank/2014/08/13/birth-rate-for-unmarried-women-declining-for-first-time-in-decades/ Accessed 2/8/16.
- Lundberg, Shelly, Robert A. Pollak, and Jenna Stearns. 2016. Family inequality: Diverging patterns in marriage, cohabitation, and childbearing." *The Journal of Economic Perspectives* 30: 79-101.
- Manlove, Jennifer, Cassandra Logan, Erum Ikramullah, and Emily Holcombe. 2008. Factors associated with multiple-partner fertility among fathers." *Journal of Marriage and Family* 70: 536-548.

- Manlove, Jennifer, Kate Welti, Elizabeth Wildsmith, and Megan Barry. 2014. Relationship types and contraceptive use within young adult dating relationships. *Perspectives on Sexual and Reproductive Health* 46 (1): 41-50.
- Manning, Wendy D., Pamela J. Smock, and Debarun Majumdar. 2004. The relative stability of cohabiting and marital unions for children. *Population Research and Policy Review* 23 (2): 135-59.
- Manning, Wendy D., Susan L. Brown, Esther Lamidi, and Krista K. Payne. 2014. Trends in births to single and cohabiting mothers, 1980-2009. National Center for Family and Marriage Research. FP-14-05. Bowling Green, OH: Bowling Green State University.
- McCrory, Cathal, and Sinead McNally. 2013. The effect of pregnancy intention on maternal prenatal behaviours and parent and child health: results of an Irish cohort study. *Paediatric and Perinatal Epidemiology* 27: 208-215.
- McLanahan, Sara. 2004. Diverging destinies: How children are faring under the second demographic transition. *Demography* 41 (4): 607-27.
- Morgan, S. Philip, and Rosalind Berkowitz King. 2001. Why have children in the 21st century?
 Biological predisposition, social coercion, rational choice." *European Journal of Population/Revue européenne de Démographie* 17: 3-20.
- Mosher, William D., Jo Jones, and Joyce C. Abma. 2012. Intended and unintended births in the United States: 1982–2010. National Health Statistics Reports No. 55. Hyattsville, MD: National Center for Health Statistics.
- Musick, Kelly. 2002. Planned and unplanned childbearing among unmarried women. *Journal of Marriage and Family* 64: 915-929.
- Musick, Kelly, Paula England, Sarah Edgington, and Nicole Kangas. 2009. Education differences in intended and unintended fertility. *Social Forces* 88 (2): 543-72.
- Newport, Frank and Joy Wilke. 2013. Desire for children still norm in U.S.: U.S. birthrate down but attitudes toward having children unchanged. Gallup Politics: http://www.gallup.com/poll/164618/desire-children-norm.aspx Accessed 6/13/14.
- Pew Research Center. 2010. *The decline of marriage and rise of new families*. Washington, DC: Pew Research Center.
- Pulley, LeaVonne V., Lorraine Klerman, Hao Tang, and Beth A. Baker. 2002. The extent of pregnancy mistiming and its association with maternal characteristics and behaviors and pregnancy outcomes. *Perspectives on Sexual and Reproductive Health* 34 (4): 206-11.

- Rose-Greenland, Fiona, and Pamela J. Smock. 2013. Living Together Unmarried: What Do We Know About Cohabiting Families? Ch. 12 (pp. 255-273) in Peterson, Gary W., and Kevin R. Bush (Eds.) *Handbook of Marriage and the Family* New York: Springer.
- Stewart, Susan D. 2002. The effect of stepchildren on childbearing intentions and births. *Demography* 39 (1): 181-97.
- Sweeney, Megan M. 2010. Remarriage and stepfamilies: Strategic sites for family scholarship in the 21st century. *Journal of Marriage and Family* 72: 667-684.
- Thomson, Elizabeth. 2003. Stepfamilies and childbearing desires in Europe. *Demographic Research* Special Collection 3, article 5, 117-134.
- Thomson, Elizabeth, and Jui-Chung Allen Li. 2002. *Her, his and their children: Childbearing intentions and births in stepfamilies* University of Wisconsin, Center for Demography and Ecology.
- Thomson, Elizabeth, Maria Winkler-Dworak, Martin Spielauer, and Alexia Prskawetz. 2012. Union instability as an engine of fertility? A microsimulation model for France. *Demography* 49 (1): 175-95.
- Thomson, Elizabeth, Trude Lappegård, Marcia Carlson, Ann Evans, and Edith Gray. 2014. Childbearing across partnerships in Australia, the United States, Norway, and Sweden. *Demography*: 1-24.
- Thorton, Arland, and Linda Young-DeMarco. 2001. Four decades of trends in attitudes toward family issues in the United States: The 1960s through the 1990s. *Journal of Marriage and Family* 63 (4): 1009-1037.
- Trussell, James, Barbara Vaughan, and Joseph Stanford. 1999. Are all contraceptive failures unintended pregnancies? Evidence from the 1995 National Survey of Family Growth. *Family Planning Perspectives* 31: 246-260.
- Turney, Kristin, and Marcia J. Carlson. 2011. Multipartnered fertility and depression among fragile families. *Journal of Marriage and Family* 73 (3): 570-2011.
- Vanassche, Sofie, Martine Corijn, Koen Matthijs, and Gray Swicegood. 2015. Repartnering and childbearing after divorce: differences according to parental status and custodial arrangements. *Population Research and Policy Review* 34: 761-784.
- Vikat, Andres, Elizabeth Thomson, and Jan M. Hoem. 1999. Stepfamily fertility in contemporary sweden: The impact of childbearing before the current union. *Population Studies* 53 (2): 211-25.

- Vikat, Andres, Elizabeth Thomson, and Alexia Prskawetz. 2004. Childrearing responsibility and stepfamily fertility in Finland and Austria. *European Journal of Population* 20 (1): 1-21.
- Williams, Lindy, Joyce Abma, and Linda J. Piccinino. 1999. The correspondence between intention to avoid childbearing and subsequent fertility: A prospective analysis. *Family Planning Perspe ctives* 31: 220-227.
- Wu, Zheng, and Christoph M. Schimmele. 2005. Repartnering after first union disruption. Journal of Marriage and Family 67 (1): 27-36.
- Wu, Huijing, Susan L. Brown, and Krista K. Payne. 2016. Childlessness and marital status among middle-aged U.S. adults, 1992-2012. National Center for Family and Marriage Research. FP-16-02. Bowling Green, OH: Bowling Green State University.

or ((one) = 0,004)	Neither par has childr (non- stepfamil	ren partner has children
Overall distribution	63.0%	6 37.0%
Union type at start of coresidence***		
Cohabit	ing 65.1	% 83.9%
Marr	ied 34.9	% 16.1%
Stepfamily type		
Not a stepfam	nily 100.0	% 0.0%
Only respondent has children (1 chi	ild) 0.0	% 20.5%
Only respondent has children (≥2 childre	en) 0.0	% 12.9%
Only partner has child	ren 0.0	% 34.4%
Both respondent & partner have children (respondent 1 chi	ild) 0.0	% 15.2%
Both respondent & partner have children (respondent ≥ 2 children Race-ethnicity-nativity***		% 17.1%
Non-Hispanic wh	nite 70.8	% 57.7%
Non-Hispanic bla		
Native-born Hispa		
Foreign-born Hispa		
	her 7.4	
Respondent's mother's education***		
Less than high sch	ool 22.7	% 31.2%
High school/G		
Some colle		
College or high	•	
Family structure at age 14***		
Both biological pare	ents 66.7	% 54.5%
Stepfam		
*	her 22.6	
Has a high school degree at union start***	76.1	
Age at union start***	22.1 y	
-	(.12	•
Union number***		
	1 st 85.4	% 43.6%
	2 nd 12.0	
	3 rd 2.3	
4 th or high		
Past unintended fertility	0.0	

Table 1. Weighted Descriptives Statistics for Women's Unions with No Shared Children (Number of Women = 8,064)

*p \leq .05 **p \leq .01 ***p \leq .001 May not total 100% due to rounding

	Outcome d	uring last month o	Of unions with a birth (n=5,740)			
	Intact, no birth	Had a birth	Dissolution	Intended birth	Unintended birth	
Overall distribution	18.1%	52.3%	29.6%	74.7%	25.3%	
Stepfamily status						
Neither partner has children (non-stepfamily)	16.7%	56.3%	27.0%	77.3%	22.7%	
At least one partner has children (stepfamily)	20.4%	45.6%	34.0%	69.5%	30.6%	
Stepfamily status by union type						
Cohabiting non-stepfamily	14.2%	34.7%	51.1%	49.6%	50.4%	
Marital non-stepfamily	18.3%	70.3%	11.4%	86.3%	13.7%	
Cohabiting stepfamily	15.6%	43.7%	40.7%	58.7%	41.3%	
Marital stepfamily	26.7%	48.2%	25.1%	82.6%	17.4%	
Stepfamily configuration						
Only respondent has children (1 child)	11.6%	55.6%	32.8%	74.5%	25.5%	
Only respondent has children (≥ 2 children)	27.3%	37.9%	34.8%	69.3%	30.7%	
Only partner has children Both respondent & partner have children (respondent 1	15.1%	51.6%	33.4%	66.8%	33.3%	
Both respondent & partner have children (respondent ≥ 2	22.3%	46.6%	31.2%	74.7%	25.3%	
children)	34.3%	26.8%	38.9%	59.4%	40.6%	

Table 2. Weighted Bivariate Distribution of First Birth, Intendedness, and Stability by Stepfamily Status, Stepfamily Status by Union Type, andStepfamily Configuration (8,064 Women with 11,348 Unions)

May not total 100% due to rounding

	Model 1. Any Birth				Model 2. Birth by Intendedness						
	Birth vs. intact, no birth		Dissolved vs. intact, no birth		Intended birth vs. unintended birth	vs. unintended		Intact, no birth vs. unintended birth		Dissolved vs. unintended birth	
Stepfamily status											
Neither partner has children (non-stepfamily)											
At least one partner has children (stepfamily) Socioeconomic and demographic characteristic	1.15 cs	*	1.11		0.73	*	0.70	**	0.78	+	
Race-ethnicity											
Non-Hispanic white											
Non-Hispanic black	1.23	**	1.13		0.81	+	0.71	***	0.80	+	
Native-born Hispanic	1.46	***	0.92		0.85		0.62	***	0.57	***	
Foreign-born Hispanic	1.76	***	0.59	***	1.59	**	0.80		0.47	***	
Other	1.31	*	0.91		0.84		0.68	*	0.62		
Maternal education											
Less than HS/missing	1.15	+	1.00		1.06		0.90		0.90		
HS/GED											
Some college	1.08		1.22	***	0.97		0.90		1.10		
College or more	0.86	**	1.09		1.26		1.40	*	1.53	**	
Family structure at age 14											
Both biological parents											
Stepfamily	1.14	*	1.20	*	0.88		0.81	+	0.97		
Other	0.99		1.18	**	0.72	**	0.81	*	0.95		
High school degree (time-varying)	0.88	*	0.96		0.97		1.07		1.02		
Union and prior fertility characteristics											
Age at start of union	0.94	***	0.97	***	1.14	***	1.18	***	1.15	***	
Duration of union (time-varying)											
<=7 months	0.57	***	1.00		0.23	***	0.72	**	0.72	*	
8-18 months	1.17	**	1.04		0.56	***	0.56	***	0.58	***	
19-36 months											

 Table 3. Relative Risk Ratios Multinomial Logistic Event History Models Predicting Fertility and Stability in Women's Unions by Stepfamily

 Status

37-48 months	0.72 ***	1.04	2.27 *** 3 35 ***	2.84 ***	2.97 *** 4.63 ***
49 or more months Union type (time-varying)	0.52 ***	0.82 *	3.35 ***	5.68 ***	4.63 ***
Cohabiting					
Married	1.91 ***	0.37 ***	2.44 ***	0.97	0.36 ***
Union number					
1st					
2nd	0.93	1.20 *	1.14	1.16	1.39 *
3rd	0.84	1.41 ***	0.81	0.95	1.34
4th or higher	0.89	1.80 **	1.55	1.55	2.78
Prior unintended birth	1.07	1.11	0.68 *	0.70 **	0.77
Constant	0.05 ***	0.02 ***	0.16 ***	8.72 ***	0.21 ***
Number of women			8,064		
Number of unions			11,378		
Number of person-months + p≤.065 *p≤.05 **p≤.01 ***p≤.001			378,552		

		: Cohabiting non- as reference group		2: Marital non- as reference group	Contrast 3: Cohabiting stepfamily as reference group		
	Birth vs.Intended vs.intactunintended		Birth vs. intact	Intended vs. unintended	Birth vs. intact	Intended vs. unintended	
Stepfamily by union structure							
Cohabiting non-stepfamily			0.42 ***	0.30 ***	0.62 ***	0.79	
Marital non-stepfamily	2.38 ***	3.37 ***			1.47 ***	2.66 ***	
Cohabiting stepfamily	1.61 ***	1.27	0.68 ***	0.38 ***			
Marital stepfamily	2.15 ***	1.99 ***	0.91	0.59 **	1.33 ***	1.57 *	

Table 4. Relative Risk Ratios from Multinomial Logistic Event History Models Predicting a First Shared Birth andIntendedness, with Varying Reference Groups for Stepfamily Union Type

*p≤.05 **p≤.01 ***p≤.001

Note: These models are extensions of Models 1 and 2 in Table 3 but only show the contrasts between a birth vs. staying intact (Model 1) and intendedness vs. unintended (Model 2). All models include the same controls as in Table 3. Full results available upon request.

	Contrast 1: 1	Non-stepfamily	Contrast 2: Only respondent, 1 child, as reference group		Contrast 3: Only respondent, 2 children, as reference group		Contrast 4: Only partner has children as reference group		Contrast 5: Respondent has 1 child, partner has children as reference group	
	as refere	ence group								
	Birth vs. intact	Intended vs. unintended	Birth vs. intact	Intended vs. unintended	Birth vs. intact	Intended vs. unintended	Birth vs. intact	Intended vs. unintended	Birth vs. intact	Intended vs. unintended
Stepfamily configuration										
Not a stepfamily			0.68 ***	0.80	1.07	2.74 **	0.92	1.50 **	0.73 **	1.29
Only respondent has children (1 child)	1.48 ***	1.25			1.58 **	3.42 ***	1.36 *	1.88 *	1.08	1.53
Only respondent has children (≥2 children)	0.93	0.37 **	0.63 **	0.29 ***			0.86	0.55	0.68 *	0.45
Only partner has children	1.09	0.67 **	0.74 *	0.53 *	1.16	1.82			0.79	0.82 *
Both respondent & partner have children (respondent 1 child)	1.37 **	0.81	0.93	0.65	1.47 *	2.32 *	1.27	1.23		
Both respondent & partner have children	1.57	0.01	0.95	0.05	1. 7/	2.32	1.27	1.23		
(respondent ≥ 2 children)	0.81	0.21 ***	0.55 ***	0.16 ***	0.87	0.56	0.75	0.31 ***	0.59 **	0.25 ***

Table 5. Relative Risk Ratios from Multinomial Logistic Event History Models Predicting a First Shared Birth and Intendedness, with Varying Reference Groups for Stepfamily Configuration

*p≤.05 **p≤.01 ***p≤.001

Note: These models are extensions of Models 1 and 2 in Table 3 but only show the contrasts between a birth vs. staying intact (Model 1) and intendedness vs. unintended (Model 2). All models include the same controls as in Table 3. Full results available upon request.