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Her, His and Their Children: Childbearing Intentions and Births in Stepfamilies

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Abstract

Analyses of stepfamily fertility have not adequately accounted for the separate and shared parities of each partner. We develop a parity specification that takes into account the fact that stepfamily couples make higher-order parity progressions when having a first or second shared child than do couples without stepchildren. We find no differences in birth intentions or the birth risk among couples with one child, whether the child is shared, the man's or the woman's. Among couples with a combined parity of two or more, however, we find stronger intentions and higher birth risks among those who have no shared children, particularly when the woman is not a biological parent. We also find stronger intentions and birth risks when couples have only one shared child compared to couples with two or more shared children, among those with two or more children in combination. These results are consistent with unique values of first and second shared births to couples and they demonstrate the importance of parity specification for understanding the increasing stepfamily component of births in low-fertility societies.

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Parity is the cornerstone of fertility research (Namboodiri 1983; Ní Bhrolcháin 1987; Bongaarts and Feeney 1998). Because each child brings different benefits as well as increasing costs (Bulatao 1981; Fawcett 1983), models of individual or couple childbearing decisions and explanations for variation and change in aggregate fertility must be parity-specific.

Parity specification has, however, become much more complex as a result of the increasing proportion of married and cohabiting couples with step-children (Bumpass, Sweet and Raley 1995). When stepfamily couples consider having children together, the woman may be contemplating her second child, the man his third. In this example, it is not clear whether we should model childbearing as a transition from parity one to parity two (hers), from parity two to parity three (his), or from parity three to parity four (hers+his).

The complexity of stepfamily parity presents not only a puzzle but also an opportunity for new forms of fertility analysis. Because stepfamily couples make at least three different types of parity progressions -- hers, his, and theirs -- whenever they have a shared birth, we can design models to shed light on the underlying values and costs associated with first, second and higher-order births.

Values of Children and Stepfamily Childbearing

In wealthy societies, children provide few economic benefits to their parents while requiring high expenditures of time and financial resources. First and second children, however, provide unique social and psychological benefits that for most people outweigh the childrearing costs (Bulatao 1981; Fawcett 1983). Through first-time parenthood, individuals acquire adult status and close ties to kin, community and society. The first child is also viewed as a symbol of the couple's relationship, expressing their commitment to each other. The second child is valued primarily to provide a sibling for the first.[1] These unique benefits of first and second children are reflected in very high rates of first and second births. Among U.S. married couples, for example, about 90 percent have a first child together; among those, 90 percent go on to have their second child. By contrast, only half of couples with two children have a third, 40 percent of those with three children have a fourth (Bumpass 2002).

Because stepfamily childbearing can be defined in terms of the woman's, the man's or some combination of the partners' parities, stepfamilies comprise a quasi-experimental group for estimating the value of first and second shared births (cf. Griffith, Koo & Suchindran 1985). When couples without children have a first child, they simultaneously express their commitment to each other and acquire parental status and role. Stepfamily couples also express commitment by having a first shared child, but at most one of the partners simultaneously becomes a biological parent. We can therefore imagine at least three levels of value for couples contemplating a first shared child: commitment and parental status/role for both partners; commitment and parental status/role for one partner; commitment only. In the middle group, we can also consider the potentially greater value of maternal than paternal status and role (Fawcett 1983).

The problem with this comparison is that the three levels of value are balanced against different potential childrearing costs. The couple without children is weighing value against the cost of rearing one child while stepfamily couples weigh values against the cost of rearing at least two children and when both partners have children, the cost of rearing at least three. Similar issues arise for the decision to have a second shared child. In stepfamilies, the first shared child has at least one half-sibling at birth. In order to produce a full sibling for the first shared child, couples must incur the costs of having at least three children, rather than the two for whom couples without stepchildren are responsible.

Table 1 makes these points clearer by identifying hypothetical values of a prospective birth for couples with different combined numbers of children and different configurations of step- and shared children. If we are willing to assume that the couple's combined parity is directly associated with childrearing costs, it is possible to generate hypotheses about differential birth intentions and risks for couples with different combined parities and stepfamily configurations. First, we can see that couples with no children at all provide limited comparative information. Differences between these couples and stepfamily couples without children could arise from (1) the lower value of parental status/role to stepfamily couples; or (2) the higher costs in stepfamilies of rearing two or more children. Second, among couples with one child (hers, his or theirs), couples without stepchildren acquire sibling value with a (second) shared birth while stepfamily couples acquire commitment value as well as the values of either paternal or maternal status and role. By comparing the two types of stepfamily couples, however, we are able to consider the relative importance to women and men of parental status and role.

Table 1 about here

When we move to combined parity two or three or more, we are comparing couples for whom all the unique child values associated with first and second births have been achieved (two or more shared children) to those for whom the commitment value of a first shared child remains (no shared children). Again, within the stepfamily couples, we can distinguish the unique value associated with parental status, separately for women (only his children) and men (only her children). And we can test the value of a full sibling by distinguishing couples with one shared and one stepchild from those with two shared children. Note that at combined parity three, stepfamily couples may also have achieved the unique values associated with first and second shared births.

Research on Stepfamily Childbearing

Research on stepfamily fertility has not attended very carefully to partners' differing parities and their potential influence on stepfamily childbearing. Early studies of stepfamily childbearing were concerned with the extent to which divorce – by reducing periods of exposure to the risk of childbearing – lowered a woman's completed family size. Women who had married at least twice were found to have about the same or slightly higher number of children than women whose first marriages remained intact (Levin & O'Hara 1978; Thornton 1978; Kalwat 1983; Kucera 1984; see also Clarke et al. 1993). These results suggest either no additional value or only slightly added value of births in remarriages, balanced against the costs of additional children.[2]

The most common approach to stepfamily fertility is to estimate effects of stepchildren on the risk of a first shared birth. Couples with no children, shared or separate, are compared to couples with no shared children and one or more separate children. Analyses with data only on women's children generally find a lower risk of childbearing when the woman has two or more children, and sometimes when she has only one, compared to childless women (Bumpass 1984; O'Keeffe 1988; Wineberg 1990; Haurin 1992; Loomis & Landale 1994). Several scholars have hypothesized that men's children will not influence stepfamily childbearing, in large part because they usually do not live with the couple. Studies in the U.S. (Haurin 1992), Austria (Buber & Prskawetz 2000) and Hungary (Olah 2001) demonstrate to the contrary that men's children also reduce the risk of a first shared birth, especially when they number two or more. All of these results are consistent with a simple model in which combined parity drives childbearing decisions: birth risks are lower, the more children, separate or shared, a couple has to raise, with the greatest decline after a couple has two children, hers, his or theirs.

Three notable exceptions to this pattern are analyses by Griffith and her colleagues (1985) based on U.S. women who had not been sterilized; by Vikat and colleagues (1999) in Sweden; and by Toulemon (1997) in France. In all three cases, first birth risks were similar for couples with and without stepchildren, regardless of the number. The results support rather strongly the unique value of a first shared birth, pursued by stepfamily couples even when they already have several children to raise. Of course, we must keep in mind that the U.S. sample of non-sterilized women is likely to be selected for high desired family size. And that in Sweden and France public supports for childrearing lower the costs to parents of rearing larger numbers of children. The French and Swedish studies did find negative effects of stepchildren on the risk of a second shared birth.

An alternative specification of stepfamily fertility is found in two studies of Swedish fertility (Hoem 1995; Vikat et al. 1999). Lifetime parity progressions in unions are specified as a function of the number of children born in the union. This model in effect specifies an interaction between shared parity and the respondent's parity. Both studies reported that the risk of women's and men's second and third births were significantly greater if the couple had no shared children, i.e., the birth was the first in the union. Vikat et al. (1999) reported further that the risk of a third birth was higher if the third birth was only the second in the union, i.e., if it was the couple's second rather than third shared birth. Although these results provide some support for the commitment value of a first shared birth and mixed results relevant to the value of full siblings, they do not completely account for the couple's combined parity because the data did not include complete information about the partner's separate children.

A third specification of stepfamily fertility pools all birth intervals in unions, estimating effects of shared and stepchildren on partners' birth intentions or the couple's risk of a subsequent birth. As we would expect, given increasing costs of larger families, these studies find that birth intentions and risks decline with the couple's number of shared children, most dramatically after the birth of the second shared child. And most find an additional negative effect of stepchildren, whether those of the woman or the man (Lillard & Waite 1993; Toulemon & LaPierre-Adamcyk 1995; Toulemon 1997; Stewart 2002).

With the full complement of birth intervals, it is possible to specify theoretically interesting interactions between partners' separate and shared parities. Thomson (1997a) began with 27 possible combinations of her (0,1,2+), his (0,1,2+) and their (0,1,2+) parities, reduced through model-fitting to 9 combinations. She found that partners' birth intentions and the couple's birth risk were equally high when the couple had no children at all, one shared child, or one stepchild (regardless of which partner was the child's parent). Couples in which each partner had a separate child but no shared children had even higher birth risks than the couples with no children or one shared or step-child, even though their combined parity was greater. When the woman was not a parent, birth intentions and risks remained high even if the man had two or more children; but when the man was not a parent and the woman had two or more children, birth intentions and risks were reduced. When both partners were parents and the couple had at least three children altogether, those without a shared child had stronger intentions and higher birth risks than those with one or more shared children. These results support the commitment value of a first shared child and the value of maternal status and role to women; they are not consistent with extra value provided by a full sibling in stepfamilies.

Stewart's (2002) parity specification interacts the couple's having any shared children with one or both partners having at least one separate child.[3] She finds that intentions (but not birth risks) are lower when both partners have a separate child than when only one has a separate child, net of shared parity (0, 1, 2+) effects. Similarly, intentions are weakened by the combination of one or more shared children and each partner's having separate children. Men's intentions were weakened by their partners' separate children, not by their own; women's intentions were weakened by their own and their partner's having at least one separate child. Either partner's having a separate child decreased the couple's birth risk, net of their shared children, with no interactions. Results for intentions are generally consistent with the higher costs of rearing more children, rather than any unique effects of stepchildren. But her analyses of the birth risk suggest that the negative effect of stepchildren is weaker than that of shared children, consistent with added value provided by first and second shared births in stepfamilies.

Thomson and her colleagues (2002) developed a parity specification to explicitly test hypotheses derived from the unique values of first and second shared births. They control not for shared parity, but for the couple's combined parity, as a way of adjusting for greater childrearing costs in stepfamilies. Because all stepfamilies have at least one child, shared or separate, they exclude couples with no children at all from the analysis (see argument for this approach above). Analyzing data from Austria, Finland, France and West Germany, they found that stepfamily couples with no shared child or only one shared child had a higher birth risk than would be expected given their combined parity, consistent with the commitment and sibling values of first and second shared births. They did not, however, find higher birth risks for couples in which one of the partners had no biological children. The authors speculate that non-parents entering stepfamilies may be disproportionately selected from a population of individuals who would not have had biological children, whether or not they entered a stepfamily.

A potential problem with this model is that there is a structural relationship between stepfamily type and the couple's combined parity. When both partners are parents but the couple has no shared children, or when the stepfamily couple has one shared child, combined parity must be at least two. Stepfamily couples with two or more shared children must have at least three children altogether. Thus, a refinement of this model would specify an interaction between combined parity and stepfamily type. As described further below, we follow the logic of controlling for combined parity, but do so by estimating effects of different numbers of shared children and of each partner's childlessness separately for couples with combined parity one, two, and three or more.

We recognize that the link between parity-specific values and costs depends on the assumption that all births are intended or, at least, that couples with different combinations of shared and stepfamily parity do not differ in their ability and willingness to avoid unwanted births. To deal with this issue, we first consider effects of step-parity combinations on partners' birth intentions. We also compare models of step-parity effects on the birth risk with and without partners' birth intentions.[4]

Samples and Measures

The U.S. National Survey of Families and Households (Sweet, Bumpass and Call 1988) provides data on cohabiting and married partners' childbearing intentions (NSFH1, 1987-88) and on subsequent births, adoptions and separations (NSFH2, 1992-94). The survey is based on a national probability sample of households, with double sampling of several ethnic minority groups, single-parent families and step-families, cohabiting and recently married couples. Primary respondents were randomly selected from each household, were interviewed in person and asked to complete supplementary self-administered questionnaires. Partners of married or cohabiting respondents were asked a subset of the interview questions, in a self-administered questionnaire. The response rate for primary respondents was 74%, for spouses or partners, 83%.

The analytic sample for this study includes married and cohabiting couples in which the woman was under 40 and not pregnant[5] at the NSFH1 survey, both partners participated in that survey, and at least one of the partners responded to the follow-up survey and provided information about births or adoptions and separation since the first survey. For analyses of births, we also require that both partners provided information on birth intentions at the first interview. Note that we include couples in which one or the other partner had been surgically sterilized at the time of the first interview. We regard sterilization – or forming a partnership with a sterilized person – as one of the ways in which individuals decide to have no more children. Were we to exclude sterilized couples, we would be selecting in some ways on the dependent variable. And we would lose comparability to analyses of stepfamily childbearing based on event histories where information on prior partners' sterilization is not available.

As noted above, tests of hypotheses about the value of a first or second shared birth require us to compare couples making the same combined parity (hers+his+theirs) progression but who have different numbers of shared children. Because all stepfamilies have at least one child in total, couples with combined parity zero are irrelevant to the hypothesis tests and were therefore eliminated from our analysis for an analytic sample size of 2,168.

The analysis of childbearing decisions includes two components of the decision process -- each partner's childbearing intentions, and the couple's subsequent births. Childbearing intentions were measured for the primary respondent in the personal interview, for the spouse or partner in the self-administered questionnaire: "Do you intend to have a(nother) child sometime?" If no: "How sure are you that you will not have (more) children: very, moderately, not at all sure?" If yes: "How sure are you that you will have (more) children: very, moderately, not at all sure?" These responses were scored from 1 (very sure do not intend to have a child) to 7 (very sure intend to have a child). This scoring intentionally leaves a larger distance (3 to 5) between those who intended and did not intend to have a child, but were not sure about their intentions, than between intentions in the same direction but with varying levels of certainty.[6] If either partner was sterilized at the first interview, partners were not (of course) asked their intentions to have another child. We assign these couples a score of 1 representing "very sure" intentions to have no more children.

In the analysis of births, we combine partners' childbearing intentions to reflect not only the direction and certainty for each partner, but also their degree of disagreement. Thomson (1997b) reported that the best predictor of births included ten categories, and we use that specification. First, we distinguish couples who are both very sure they intend a child, and those who are both very sure they do not (including sterilized couples). We also distinguish couples on both sides of the intention scale in which the woman is very sure and the man is less (moderately, not at all) sure, those in which the man is very sure and the woman less sure, and those in which both are less sure – six additional categories, two on each side of the scale. Finally, we include two categories representing disagreement in the direction of intention: the man intends to have a child and the woman does not or the woman intends a child and the man does not.

Childbearing/Adoption. Each respondent at NSFH2 (woman, man or both) reported births or adoptions between surveys, including the birth/adoption month and year. Respondents also reported pregnancies at the NSFH2 interview. To estimate the risk of conception leading to a live birth, we subtract 9 months from the date of each child's birth to determine whether the child was conceived in the NSFH1 union. Observations are censored when the NSFH1 relationship ends. We also censor at 9 months prior to the later interview, ignoring information on pregnancies reported at the interview.

As might be expected, many of the couples who were fecund at the first survey were sterile by the time of the second survey. For most of these couples, it is possible to determine when a sterilization occurred and to truncate their exposure to pregnancy risk at the date of sterilization (or a few months later, if the husband was sterilized). We have not done so for three reasons. First, information on sterilization is available for couples who separated between surveys only if both former partners participated in the follow-up survey or if a responding partner was the one sterilized prior to separation. Second, sterilized couples may adopt children; several couples in which one partner was sterilized at the time of the first interview did, in fact, adopt a child between surveys. Third, as we argued above, the choice of sterilization is but one of several behaviors that may effectively prevent pregnancy and that therefore mediate effects of couple characteristics on partners' births.

Her, His and Their Children. At several points in the interview, primary respondents were asked to identify children living in the household (full-time or part-time) and children living elsewhere. Children living in the household were identified in terms of their relationship to each partner, and the partner's children living elsewhere were identified separately from the respondent's children living elsewhere. Unfortunately, no direct information was obtained about the relationship between the current partner and the respondent's children living elsewhere, unless the children were living with their other original parent. In ambiguous cases, children were assigned to the respondent or to the couple by comparing the child's age to the time couples had lived together. From these data, we determined the couple's combined parity (one, two, three or more) and their shared parity (none, one, two or more). Among couples with no shared children, we further distinguish those in which the man or the woman is not a parent.

Our models also include the age of the couple's youngest shared or step-child specified as a linear spline with node at two years. The fact that birth intentions and the birth risk declined linearly after two years is driven by birth-spacing preferences and the fact that most of the birth intervals we observe begin after the birth of a shared child.[7]

Control Variables. Several socioeconomic characteristics that might be associated with desires for large families, fecundity, or contraceptive effectiveness could create a spurious relationship between children from previous relationships and the couple's childbearing intentions or births. Our models therefore include the woman's age (linear splines with nodes at age 25 and 35); the man's relative age (two or more years younger, five or more years older, or in between); the woman's education (not a high school graduate, high school graduate, some college, college graduate); the man's relative education (less, same, more); partners' employment (woman -- not employed, 1-34 hours per week, 35 hours or more; man -- 40 hours or less, 41 hours or more); whether either partner is Catholic or Mormon, and whether either partner is Hispanic or nonwhite. Note that we do not control for the couple's marital status (cohabiting or married) at the time of the initial interview or during the course of the observation period. We believe that marriage is endogenous to decisions to have a shared child, and therefore would inappropriately mask effects of combined parity and step-parities on childbearing intentions and births.

Analyses and Results

Table 2 presents the distribution of couples with various combinations of her, his and their children. While the number of cases in each combination is unweighted, the percentages are weighted to account for sampling methods and response rates. Almost three quarters of the couples have only shared children, with between 4 and 7 percent of couples in each of the stepfamily types. Note that we find an approximately equal distribution of couples in which only the man is a parent and in which only the woman is a parent, suggesting that under-reporting of pre-union children is not a serious problem among these partnered men (Rendall et al. 1999). These couples are also similar in the number of separate children. Couples without shared children have, on average, older youngest children, consistent with the length of time it takes for a child's parent to separate from the child's other parent and find a new partner. Couples with a shared child, whether in a stepfamily or not, have younger children on average. The relative higher parities of stepfamily couples in which the woman has children is reflected in relatively higher prevalence of sterilization. As noted earlier, we view sterilization as a method by which couples carry out their strong intentions to have no more children and therefore do not exclude sterilized couples from our analysis.

[Table 2 about here]

First we will consider effects of combined and shared parity on partners' birth intentions. Table 3 presents coefficients and standard errors for models of women's and men's intentions to have another child, separately for couples with a combination of one, two, and three or more children. All models are estimated with seemingly-unrelated regression, allowing the residuals of partners' predicted intentions to be correlated (Greene 2000).

[Table 3 about here]

Among couples with one child (separate or shared), intentions to have another are stronger when the woman is not the child's mother; this difference is not significant for men's intentions but is in the same direction as for women's intentions. When the man is not the child's father, however, intentions are similar to those for couples with one shared child.

The middle two columns in Table 3 present results for couples with two children altogether; the omitted category is couples with two shared children. We first include a dummy variable to indicate the couple has no shared children, adding two contrast-coded dummy variables to indicate that one or the other partner has no biological children. Because coefficients for 'woman childless' and 'man childless' represent contrasts between these couples and those in which both partners are parents but have no shared children, the coefficient for 'none shared' is in effect the difference between the couples with two separate children who are step-siblings and couples with two shared children. All three coefficients are positive and with one exception significantly different from zero for both men's and women's birth intentions. That is, couples with two step-children and no shared children have much stronger intentions to have a child than do couples with two shared children. When one of the partners has no children of her/his own, especially if it is the woman, intentions are further strengthened. Couples with one shared child and a step-child do not, on the other hand express stronger childbearing intentions than do couples with two shared children.

Stronger birth intentions are also found for couples without shared children among couples who have three or more children altogether. Effects are particularly strong when the woman has no biological children, three to four times as strong as when she has at least one separate child. In contrast to results for couples at combined parity two, women's intentions are stronger when the couple has only one shared child among their total of three or more.

Analyses of partners' childbearing intentions suggest that childbearing in stepfamilies is stimulated by the commitment value of a first shared child, by the value of maternal status and role to childless women, and, perhaps for women, by the value of full siblings. We now turn to an analysis of the couple's subsequent births.

Table 4 presents effects of stepfamily parity on the birth risk.[8] At each combined parity, Model 1 includes only control variables, Model 2 adds the couple's birth intentions. Among couples with one child, the birth risk does not depend on whether the child is shared or not, regardless of whether partners' intentions are included in the model. At combined parity two, the birth risk is significantly higher when the couple has no shared child, compared to couples with two shared children. As was the case for intentions, the birth risk appears to be increased by the woman's but not by the man's childlessness. The interpretation of these effects in terms of unique values associated with first and second shared births is bolstered by the effect that they are accounted for by partners' intentions (Model 2).

We also find that couples with only one shared child and one step-child have a significantly higher birth risk than couples with two shared children, almost as high as for couples in which each partner has a child but no shared child. The difference is not, however, accounted for by partners' childbearing intentions, casting doubt on the value of a full sibling as the underlying motivation for the birth.

At combined parity three, couples without shared children but each having her/his own separate child(ren) do not have a significantly higher birth risk than couples with three shared children. When one of the partners is not a parent, however, the birth risk is significantly higher and does not depend on whether the childless partner is the man or the women. Again, couples with only one shared child among their three or more have a higher birth risk, while couples with two shared children and one or more step-children are similar to couples with three shared children. Contrary to the results for couples at combined parity two, in all cases step-parity effects are accounted for by the partners' birth intentions.

Taken together, effects of combined and shared parities on intentions and differences between models of the birth risk that do and do not control partners' intention support the hypothesis of extra value gained from a first shared birth. They are also consistent with the hypothesis that the value of a full sibling for the first shared child outweighs costs of rearing three or more children in stepfamilies. Both sets of results suggest further that maternal status has a higher value than paternal status, because intentions and the birth risk are especially high when only the man has children.

Discussion

We have introduced a new parity specification for the study of stepfamily fertility, one that accounts for the fact that stepfamily couples having a first or second shared birth end up with a greater combined parity than do couples without stepchildren. Our specification is designed to explicitly test hypotheses about the unique values associated with first and second shared births and we show that stepfamilies produce a quasi-experiment to identify two different values associated with first-time parenthood as well as to distinguish the value of full and half- or step-siblings.

Our results are consistent with the hypothesis offered by Griffith and her colleagues (1985) that a first shared birth is sought by stepfamilies to demonstrate their commitment to the relationship, outweighing the costs of rearing larger numbers of children. The greater risk of a first shared birth is accounted for by stronger birth intentions, supporting our interpretation of the effect in terms of the commitment value of the birth. We also found evidence for the greater value to women than to men of biological parenthood. Couples in which the woman was childless had, if anything, stronger birth intentions and the same birth risks as couples in which both partners had children but no shared children. In some cases, we found similar results for men's childlessness. Finally, we found that couples with one shared child had stronger intentions and higher birth risks than those with two or more. The fact that this difference was not always accounted for by the partners' birth intentions, however, makes the inference of full-sibling value less certain than it would otherwise be.

Our inferences from these analyses about the unique values of first and second shared births rest on a very strong assumption – that the couple's combined number of children is a good proxy for their childrearing costs. In very few stepfamilies do all of the partners' children reside full-time with the couple. Thus, as suggested by Stewart's analysis, stepchildren may not count fully in the couple's cost calculations. This is particularly likely in the case of men's children, at least in the United States where high proportions of men do not provide substantial economic support or spend much time with their children after separation or divorce.

The potential effects of children's coresidence – or other indicators of childrearing responsibility such as child support or frequency of contact – on stepfamily childbearing raise additional questions about the way in which we specify parity progressions in stepfamilies. For example, if we use combined parity as a proxy for the costs of rearing children, we might want to subtract from the total count children who do not live with the couple and with whom the biological parent has little or no contact. Or we might want to construct a weighted average of coresident and nonresident children as the critical determinant of subsequent births. Either approach would result in fewer men's than women's children included in the count, in the direction of the traditional demographic analysis in which only women's children are counted.

On the other hand, we must consider –as we have here – that different types of children have different values. Not only the child's birth order, but also her/his biological relationship with each parent is important to consider. And the counting could be complicated further by the potential differences in values of male and female children, or a balance of children's sex (Fawcett 1983).

The most important message of our results is that the parity classification for one out of four U.S. parents is ambiguous, and that the ambiguity has implications for understanding individual and couple childbearing decisions, as well as for explaining variation and change in aggregate fertility.

NOTES

1. Each of these values of first and second children – commitment, parental status/role, and sibling values – could be incorporated under the rubric of social capital. Children create new social relationships for their parents and strengthen the relationships they already have, and those relationships offer potential resources such as time, information, money and emotional support (Schoen et al. 1997). Because stepchildren provide weaker ties to kin than do biological children (e.g., Rossi and Rossi 1990), couples in stepfamilies may acquire more social capital by having children together (Stewart 2002).

The problem with social capital as an organizing principle for childbearing is that it has not been developed in the parity-specific terms that are essential for understanding aggregate fertility and individual or couple childbearing decisions. Schoen and his colleagues (1997), for example, did not differentiate values associated with first, second, and higher-order births in their measure of social resources associated with having another child. Neither did they find a clear pattern of differential influence of social resources on intentions for first, second or higher-order births.

2. These results might not hold under a high-fertility regime where a woman's exposure to the risk of pregnancy is a stronger determinant of her lifetime births.

3. Stewart does not include children 18 and older in her count of shared or step-children and she counts stepchildren adopted by the stepparent as shared children. Because the sample is limited to couples in which the wife is under 40 and because few stepchildren are adopted, these differences from other analyses are not likely to contribute to differences in results. Because sterilized couples are excluded, however, the analytic sample is selected for positive intentions to

have children.

4. Stewart (2002) found that partners' birth intentions accounted for negative effects of partners' separate children, consistent with our argument that such children represent increased costs that underlie the couple's intentions and avoidance of a subsequent birth.

5. According to the survey documentation, couples who were expecting a child at the first interview may have expressed intentions in reference to the current pregnancy rather than in reference to a subsequent birth.

6. No respondents in our sample volunteered that they did not know whether they intended to have another child.

7. We also tested models interacting age of youngest child with having at least one shared child, i.e., capturing potentially different effects of children's age at the time of stepfamily formation than after the child's birth. Overall, such interactions did not significantly improve model fit.

8. The birth risk at time t is specified as follows:

$$h(t) = q(t) \exp(\mathbf{BX}),$$

where $q(t)$ captures the baseline duration dependency using a set of piecewise-linear Gompertz functions and the covariates $\mathbf{X}$ are assumed to yield proportional effects on the baseline hazards. We estimated these models using the software developed by Lillard and Panis (2000), which allows specification of the duration dependency with "multiple clocks" (Lillard 1993). In addition to the real duration of exposure (see the description in Samples and Measures), the clocks include a linear spline of woman's age with a node at 35 years old and another spline of age of the youngest child with a node at 2 years old.

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Table 1. Hypothesized Values of Next Birth by Stepfamily Parities

Parity Combinations	Combined (Her + His + Their) Parity			
	zero	one	two	three or more
No Stepchildren	commitment parenthood	sibling		
Only her child(ren)	n.a.	commitment fatherhood	commitment fatherhood	commitment fatherhood
Only his child(ren)	n.a.	commitment motherhood	commitment motherhood	commitment motherhood
Hers, his, no shared	n.a.	n.a.	commitment	commitment
Stepchild(ren) and one shared	n.a.	n.a.	(full) sibling	(full) sibling
Stepchild(ren) and two or more shared	n.a.	n.a.	n.a.	

Table 2. Family Characteristics by Stepfamily Status

	Only shared children	Stepfamilies: both parents, none shared	woman childless	man childless	one shared	two plus shared
Combined parity (%)						
One	29	–	49	51	–	–
Two	45	25	33	34	46	–
Three or more	26	75	19	14	54	100
Age youngest child						
Mean	4.8	8.9	13.7	9.5	4.6	4.3
Std. Dev.	4.3	4.0	7.7	5.4	3.6	3.6
% Sterilized	38.2	51.9	22.8	40.9	40.9	50
# Couples (unwgtd)	1411	117	124	152	204	160
Percent of couples	73	4	5	5	7	7

Source: U.S. National Survey of Families and Households. Married or cohabiting couples, woman under 40 and not pregnant at first interview (1987-88), at least one shared child or step-child, both partners responded to first interview, at least one partner responded to follow-up interview (1992-94). N=2168.

Table 3. Partners' Childbearing Intentions by Stepfamily Parities and Age of Youngest Child

	Combined Parity One				Combined Parity Two				Combined Parity Three or More			
	Women		Men		Women		Men		Women		Men	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
Only shared children	–	–	–	–	–	–	–	–	–	–	--	–
Stepfamily												
None shared	–	–	–	–	1.67**	0.42	1.40**	0.43	0.52*	0.23	0.47*	0.23
Woman childless	0.86*	0.34	0.38	0.35	1.85**	0.37	1.69**	0.38	2.77**	0.41	2.89**	0.40
Man childless	0.30	0.28	0.04	0.29	1.03**	0.33	0.66	0.34	0.87	0.40	0.63	0.40
One shared	–	–	–	–	0.14	0.23	0.22	0.23	0.53**	0.19	0.20	0.19
Two or more shared	–	–	–	–	–	–	–	–	-0.02	0.15	-0.02	0.15
Age youngest child												
Spline: 0-2 years	-0.10	0.13	-0.13	0.14	-0.65**	0.13	-0.67**	0.13	-0.30**	0.11	-0.33**	0.11
Spline: 2+ years	-0.19**	0.03	-0.19**	0.03	-0.07**	0.02	-0.06**	0.02	-0.08**	0.02	-0.08**	0.02
Constant	8.03**	0.62	7.67**	0.65	8.09**	0.66	7.58**	0.67	4.34**	0.62	3.75**	0.61
R-squared (est)		.43		.46		.29		.32		.16		.19
Valid cases	565				757				717			
Residual correlation	0.67***				0.76***				0.70***			

Source: U.S. National Survey of Families and Households. Married or cohabiting couples, woman under 40 and not pregnant at first interview (1987-88), at least one shared child or step-child, both partners responded to first interview, at least one partner responded to follow-up interview (1992-94).
Note: Seemingly unrelated regression estimates *p<.05, two-tailed, **p < .01, two-tailed

Table 4. Couple's Birth Risk by Stepfamily Parities and Age of Youngest Child

	Combined (Her+His+Their) Parity					
	One		Two		Three or more	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Only shared children	1.00	1.00	1.00	1.00	1.00	1.00
Stepfamily						
None shared	–	–	2.41**	0.63	2.11	1.38
Woman childless	1.67	1.36	3.33**	1.11	5.85***	1.43
Man childless	1.17	1.25	1.51	1.12	5.34**	3.09
One shared	–	–	1.89**	2.07**	2.06**	1.36
Two or more shared	–	–	–	–	1.30	1.34
Age youngest child						
Spline: 0-2 years	2.03***	1.93***	0.99	1.14	1.04	1.28
Spline: 2+ years	0.80***	0.84***	0.87***	0.97	0.79***	0.86**
Birth intentions						
Both yes						
Both very sure	–	1.00	–	1.00	–	1.00
Woman sure, man not	–	0.97	–	0.42**	–	0.97
Man sure, woman not	–	0.61**	–	0.29**	–	2.58
Both not sure	–	0.74*	–	0.68	–	0.91
Disagree						
Woman yes, man no	–	0.46***	–	0.25***	–	0.89
Woman no, man yes	–	0.59	–	0.27***	–	0.81
Both no						
Both not sure	–	0.23***	–	0.24***	–	0.35**
Man sure, woman not	–	0.21**	–	0.11***	–	0.79
Woman sure, man not	–	0.25*	–	0.09***	–	0.08**
Both very sure	–	0.10***	–	0.02***	–	0.06***
Unknown	–	0.35***	–	0.10***	–	0.74
Log-likelihood	-1581.4	-1551.2	-895.6	-824.2	-677.8	-623.9
Valid cases	598		805		765	

Source: U.S. National Survey of Families and Households. Married or cohabiting couples, woman under 40 and not pregnant at first interview (1987-88), at least one shared child or step-child, both partners responded to first interview, at least one partner responded to follow-up interview (1992-94), valid responses on all control variables and intentions.
Note: Relative risk of birth *p < .10, two-tailed, **p<.05, two-tailed, ***p<.01, two-tailed.

Appendix

Supplement to Table 3: coefficients and standard errors (in parentheses), including control variables

	Combined parity 1 women	Combined parity 1 Men	Combined parity 2 women	Combined parity 2 men	Combined parity 3 women	Combined parity 3 men
youngest 0-2	-0.100	-0.127	-0.647	-0.671	-0.304	-0.331
	(0.129)	(0.135)	(0.131)**	(0.132)**	(0.107)**	(0.106)**
youngest 2+	-0.194	-0.190	-0.067	-0.062	-0.078	-0.078
	(0.027)**	(0.028)**	(0.020)**	(0.020)**	(0.020)**	(0.020)**
woman age < 35	-0.112	-0.096	-0.153	-0.132	-0.066	-0.045
	(0.025)**	(0.026)**	(0.024)**	(0.024)**	(0.021)**	(0.021)*
woman age 35+	-0.440	-0.452	0.039	0.005	-0.044	-0.007
	(0.101)**	(0.105)**	(0.058)	(0.059)	(0.049)	(0.048)
none shared			1.672	1.400	0.521	0.472
			(0.421)**	(0.426)**	(0.228)*	(0.226)*
woman childless	0.855	0.375	1.852	1.687	2.770	2.894
	(0.337)*	(0.352)	(0.374)**	(0.378)**	(0.408)**	(0.404)**
man childless	0.298	0.037	1.031	0.655	0.866	0.633
	(0.278)	(0.290)	(0.333)**	(0.337)	(0.403)*	(0.399)
one shared			0.140	0.223	0.534	0.200
			(0.230)	(0.233)	(0.189)**	(0.187)
two+ shared					-0.019	-0.019
					(0.152)	(0.151)
man younger	0.822	0.341	-0.133	0.006	-0.077	0.126
	(0.267)**	(0.278)	(0.240)	(0.243)	(0.221)	(0.219)
man older	-0.021	0.160	-0.118	-0.084	-0.150	-0.139
	(0.201)	(0.210)	(0.163)	(0.165)	(0.136)	(0.135)
woman h.s. grad	0.246	0.391	-0.089	-0.200	0.172	0.010
	(0.311)	(0.325)	(0.236)	(0.238)	(0.171)	(0.169)
woman some coll	0.963	1.130	0.123	-0.015	0.432	0.325
	(0.345)**	(0.360)**	(0.265)	(0.268)	(0.201)*	(0.200)
woman coll grad	1.603	1.496	0.342	0.351	0.290	0.116
	(0.394)**	(0.412)**	(0.299)	(0.302)	(0.241)	(0.239)
man less educ	0.068	-0.194	-0.342	-0.413	-0.176	-0.034
	(0.212)	(0.221)	(0.173)*	(0.175)*	(0.149)	(0.148)
man more educ	0.286	0.085	0.024	0.060	0.101	0.092
	(0.196)	(0.205)	(0.151)	(0.153)	(0.132)	(0.131)
nonwhite	-0.085	0.357	0.484	0.570	0.126	0.184
	(0.225)	(0.235)	(0.178)**	(0.180)**	(0.137)	(0.136)
Catholic/Mormon	0.213	0.211	0.519	0.437	0.254	0.213
	(0.163)	(0.170)	(0.131)**	(0.133)**	(0.113)*	(0.112)
man 41+ hrs	-0.023	-0.119	0.229	0.201	-0.155	-0.137
	(0.155)	(0.161)	(0.125)	(0.126)	(0.114)	(0.113)
woman hrs 1-34	-0.103	-0.336	-0.274	-0.236	-0.196	-0.154
	(0.219)	(0.229)	(0.168)	(0.170)	(0.142)	(0.141)
woman hrs 35+	-0.411	-0.400	-0.211	-0.222	-0.053	-0.015
	(0.188)*	(0.196)*	(0.150)	(0.152)	(0.132)	(0.131)
Constant	8.031	7.665	8.093	7.576	4.342	3.750
	(0.621)**	(0.648)**	(0.662)**	(0.669)**	(0.617)**	(0.611)**
correlation	0.672 ***		0.763 ***		0.704 ***	
Observations	565		757		717	

* p < .05 **p < .01

Supplement to Table 4: coefficients and standard errors (in parentheses), including control variables

	Combined parity 1		Combined parity 2		Combined parity 3	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
constant	-2.0463 ***	-2.1240 ***	-0.5846	-0.5789	-0.9829	-0.7148
	(0.5362)	(0.5313)	(0.9142)	(0.9756)	(1.2373)	(1.3929)
youngest 0-2	0.7092 ***	0.6554 ***	-0.0058	0.1305	0.0346	0.2443
	(0.1686)	(0.1721)	(0.2586)	(0.2673)	(0.3202)	(0.3227)
youngest 2+	-0.2241 ***	-0.1746 ***	-0.1450 ***	-0.0336	-0.2346 ***	-0.1457 **
	(0.0280)	(0.0296)	(0.0448)	(0.0468)	(0.0536)	(0.0570)
none shared			0.8794 **	-0.4623	0.7465	0.3212
			(0.4144)	(0.4308)	(0.5670)	(0.6007)
woman childless	0.5102	0.3086	1.2034 **	0.1018	1.7670 ***	0.3561
	(0.3476)	(0.3435)	(0.5870)	(0.5722)	(0.6854)	(0.7713)
man childless	0.1598	0.2243	0.4115	0.1119	1.6762 **	1.1281
	(0.2554)	(0.2811)	(0.5249)	(0.4932)	(0.8269)	(0.9381)
share one (of 2+)			0.6391 **	0.7255 **	0.7236 **	0.3110
			(0.2725)	(0.2918)	(0.3570)	(0.3571)
share two (of 3+)					0.2656	0.2918
					(0.2866)	(0.2902)
woman age <35	-0.0033	0.0179	-0.0744 **	-0.0342	-0.0683 *	-0.0392
	(0.0214)	(0.0217)	(0.0326)	(0.0361)	(0.0413)	(0.0424)
woman age 35+	-0.2078 ***	-0.0644	-0.3120 ***	-0.2537 ***	-0.1417 *	-0.1496 *
	(0.0693)	(0.0759)	(0.0953)	(0.0951)	(0.0783)	(0.0824)
man younger	0.0063	-0.2395	0.3366	0.2350	-1.1518 *	-1.2501 *
	(0.2205)	(0.2275)	(0.3606)	(0.3569)	(0.6251)	(0.6562)
man older	-0.2643	-0.2430	-0.0406	0.0644	-0.6064 **	-0.7167 **
	(0.1629)	(0.1620)	(0.2313)	(0.2378)	(0.2672)	(0.2855)
woman h.s. grad	0.0548	-0.0147	-0.0297	0.0001	0.2039	-0.0157
	(0.2523)	(0.2439)	(0.2866)	(0.2994)	(0.3516)	(0.3437)
woman some coll	0.3351	0.0985	0.3776	0.3965	0.5625	-0.0419
	(0.2785)	(0.2743)	(0.3520)	(0.3807)	(0.4180)	(0.4128)
woman coll grad	0.5957 *	0.1996	0.6300	0.6266	0.6908	0.2788
	(0.3234)	(0.3263)	(0.4045)	(0.4305)	(0.4681)	(0.4671)
man less educ	-0.2635	-0.2865 *	-0.7553 ***	-0.7124 **	-0.0941	0.0943
	(0.1701)	(0.1714)	(0.2875)	(0.2997)	(0.3232)	(0.3280)
man more educ	-0.1401	-0.2319	0.2358	0.3535	0.3675	0.0945

	(0.1618)	(0.1609)	(0.2241)	(0.2257)	(0.2581)	(0.2840)
Nonwhite	-0.0166	-0.0137	0.6786 ***	0.3892 *	0.3137	0.3075
	(0.1951)	(0.1976)	(0.2236)	(0.2328)	(0.2771)	(0.2832)
Catholic/Mormon	0.2315 *	0.1582	0.5845 ***	0.2996	0.5510 **	0.3263
	(0.1272)	(0.1276)	(0.1839)	(0.1825)	(0.2289)	(0.2387)
man 41+ hrs	-0.0415	0.0539	0.3152 *	0.1003	-0.0535	0.1248
	(0.1230)	(0.1236)	(0.1869)	(0.1843)	(0.2287)	(0.2325)
woman hrs 1-34	-0.0051	0.1166	-0.2237	-0.1017	-0.2293	-0.2362
	(0.1725)	(0.1694)	(0.2480)	(0.2550)	(0.2876)	(0.2896)
woman hrs 35+	-0.3118 **	-0.1572	-0.2617	-0.1822	0.0150	0.0081
	(0.1561)	(0.1522)	(0.2189)	(0.2302)	(0.2535)	(0.2667)
Both yes						
Woman sure, man not		-0.0343		-0.8706 **		-0.0273
		(0.2019)		(0.4206)		(0.6466)
Man sure, woman not		-0.5020 **		-1.2308 **		0.9462
		(0.2136)		(0.4831)		(0.7554)
Both not sure		-0.2999 *		-0.3844		-0.0896
		(0.1547)		(0.2921)		(0.5337)
Disagree						
Woman yes, man no		-0.7691 ***		-1.3736 ***		-0.1160
		(0.2794)		(0.4059)		(0.4949)
Woman no, man yes		-0.5287		-1.3201 ***		-0.2082
		(0.4338)		(0.4560)		(0.5406)
Both no						
Both not sure		-1.4786 ***		-1.4261 ***		-1.0404 **
		(0.3678)		(0.3181)		(0.4796)
Man sure, woman not		-1.5838 **		-2.1953 ***		-0.2347
		(0.6325)		(0.5812)		(0.5253)
Woman sure, man not		-1.3737 *		-2.3669 ***		-2.5699 **
		(0.7229)		(0.6356)		(1.0979)
Both very sure		-2.3019 ***		-3.9990 ***		-2.8079 ***
		(0.5391)		(0.4784)		(0.4967)
Unknown		-1.0508 ***		-2.2935 ***		-0.2953
		(0.3366)		(0.5646)		(0.5128)
ln-L	-1581.45	-1551.16	-895.58	-824.17	-677.82	-623.94

NOTE: Asymptotic standard errors in parentheses; *p < .10, **p < .05, ***, p< .01

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