

Magic Moment? Maternal Marriage for Children Born Out of Wedlock

Christina Gibson-Davis

Published online: 3 July 2014
© Population Association of America 2014

Abstract To test the existence of the “magic moment” for parental marriage immediately post-birth and to inform policies that preferentially encourage biological over stepparent marriage, this study estimates the incidence and stability of maternal marriage for children born out of wedlock. Data came from the National Survey of Family Growth on 5,255 children born nonmaritally. By age 15, 29 % of children born nonmaritally experienced a biological-father marriage, and 36 % experienced a stepfather marriage. Stepfather marriages occurred much later in a child’s life—one-half occurred after the child turned age 7—and had one-third higher odds of dissolution. Children born to black mothers had qualitatively different maternal marriage experiences than children born to white or Hispanic mothers, with less biological-parent marriage and higher incidences of divorce. Findings support the existence of the magic moment and demonstrate that biological marriages were more enduring than stepfather marriages. Yet relatively few children born out of wedlock experienced stable, biological-parent marriages as envisioned by marriage promotion programs.

Keywords Marriage · Divorce · Nonmarital childbearing · Race and ethnicity

Introduction

Policies that have promoted marriage for parents with an out-of-wedlock birth have rested on two tacit assumptions. The first is that the likelihood a child experiences a marriage between his or her biological parents is highest immediately after birth (the so-called magic moment) but declines rapidly as the child ages. The second is that post-birth marriages between a child’s biological parents (termed here, “biological marriages”) will be longer lasting, and hence better for child well-being, than marriages between a biological mother and a stepfather (“stepfather marriages”).

Although these assumptions seem intuitively plausible, the empirical evidence for either is thin. First, the existence of the magic moment has heretofore not been tested.

C. Gibson-Davis (✉)
Sanford School of Public Policy, Duke University, PO Box 90245, Durham, NC 27708, USA
e-mail: cgibson@duke.edu

Second, although studies have compared incidences of divorce between marriages formed pre-birth with those formed post-birth (Teachman 2002), no study to date has analyzed the relative incidence of divorce among post-birth biological and stepfather unions.

In the first study testing these assumptions, I analyzed the type and duration of maternal marriage experienced by children born nonmaritally. I also compared the relative incidence of divorce between biological and stepfather marriages. I divided all analyses by maternal race and ethnicity to allow for racial and ethnic heterogeneity in maternal marriage patterns. These results directly inform marriage promotion policies by identifying who was involved in maternal marriages, when marriage occurred relative to the child's birth, and how long these marriages lasted.

This study focuses on post-birth marriages rather than post-birth cohabitations. I focus on marriage because it is the union type that has been the end goal of specific policies, such as the Building Strong Families initiative in the United States. Debate also exists as to whether cohabitation is associated with the same benefits for children as is marriage, with some research suggesting that cohabitation is less advantageous for child development (Brown 2010). The timing of marriage also lends itself to hypothesis testing, insofar as it has been assumed that marriage will be most likely to occur immediately after a child's birth (conditional on a nonmarital birth). For all of these reasons, I concentrate on biological and stepfather marriages to the exclusion of other unions.

Background

Between 60 % and 80 % of women with a nonmarital birth have married by the age of 40 (Graefe and Lichter 2002). White mothers, compared with mothers of color, are more likely to marry (Gibson-Davis 2011; Smock and Greenland 2010); maternal age and educational attainment also positively predict post-birth marriage (Lichter and Graefe 2007). These post-birth marriages have higher odds of dissolving than do marriages formed pre-birth, and black mothers have a higher incidence of divorce than white mothers (Amato 2010; Teachman 2002).

Few studies have considered whether post-birth marriages involve the biological father. Blau and Van der Klaauw's (2008) study examined biological ties in the context of relationship churning, finding that children who experienced stepfather marriage spent a smaller fraction of their childhood living with their stepfather than children who experienced biological marriage spent living with their biological father. Other work using Fragile Families and Child Wellbeing Study data found that 10 % of mothers married the biological father within a year (Carlson et al. 2004), and 40 % of mothers remained romantically involved with him after five years (Bzostek et al. 2012). No study, however, has provided life table estimates on the cumulative likelihood of biological versus stepfather marriages or their relative incidences of divorce.

Conditional on marriage, though, whom and when the mother marries likely have ramifications for the children involved.¹ Some evidence suggests that stepfathers have

¹ Although beyond the scope of this study, it is worth noting that mixed findings exist as to whether a cohabiting biological relationship offers more advantages to child well-being than a stepfather married relationship (Berger et al. 2008; Hofferth and Anderson 2003).

similar levels of parental engagement and cooperation as do married fathers (Berger et al. 2008), but other evidence has found that stepfather households have lower incomes and higher levels of familial conflict (Anderson 2011; Hofferth and Anderson 2003). Stepfather marriages also dissolve at higher rates than biological marriages (Bramlett and Mosher 2002; Teachman 2002), and divorce has been a consistently negative predictor of child well-being (Amato 2010). The incidence of divorce may be higher for stepfather marriages in part because of the timing of such unions. Marriages that occur later in the child's life may make it harder for both the parent and the child to adapt to new roles and responsibilities, leading to increases in family stress and dysfunction (Stewart 2007). In addition to the risk of divorce, marriages that begin when the child is several years old may be less advantageous for development; duration of maternal marriage has been positively correlated with child well-being (Hill et al. 2001).

The positive correlations between marriage and child outcomes have inspired policies to encourage marriage (Dion 2005). The most prominent of these policies, the Building Strong Families (BSF) program, has encouraged marriage among unmarried adults, particularly parents. The BSF emphasized the importance of high-quality biological marriages that occurred shortly after the child was born (Wood et al. 2012). An evaluation of the program indicated that BSF had no significant impacts on couples' likelihood of marriage or on relationship quality (Wood et al. 2012).

Notably, the BSF made two tacit assumptions. First, the BSF assumed that children born out of wedlock would be better off if they experienced a biological, rather than stepfather, marriage. Second, the BSF assumed that the birth of a child represented a so-called magic moment, when a couple might be particularly receptive to formalizing their union (McLanahan et al. 2001; Mincy and Dupree 2001). Policy-makers hypothesized that parents were most likely to marry around the time of their child's birth and that the likelihood of marriage diminished quickly after the child was born.

Although both of these assumptions seem likely, neither of them has actually been tested. This study provides the first estimates of the incidence and relative timing of marriage among parents with a shared birth.

Data and Method

The National Survey of Family Growth (NSFG) is a nationally representative survey of U.S. adults ages 15–44 that collects information on demographic and health behaviors.² The sample used here consists of children born to unmarried mothers. These mothers participated in the 2007–2010 cycles of the NSFG, when matching children to fathers first became possible. Of the 5,740 children born out of wedlock, I excluded cases where the mother had divorced or separated from the child's biological father by the time of the birth ($n = 90$)³; the biological relationship of a mother's husband to her child was unclear ($n = 32$); or the child was adopted at birth ($n = 93$). The final sample size was 5,525.

² The NSFG is the best source for this study because in contrast to the NLSY-79, it permits analysis of Hispanics and pertains to contemporary patterns of marriage.

³ These children were excluded because they could experience only a maternal-stepfather marriage (they had already experienced a maternal-biological marriage), and so they only had one failure state.

Each child was classified into one of three mutually exclusive categories, reflecting the month of first marriage (if one occurred) for the mother after the child was born. The three categories were a biological marriage, a stepfather marriage, or no marriage. Given that the unit of analysis was the child, the marital category could theoretically vary within households, but such variation occurred in only 6 % of households. As a robustness check, all models were run using only firstborn children; results were virtually identical to those presented herein.

Divorce measured a mother's report of the first month that she stopped living with her husband from whom she eventually divorced. This definition, which captured separated couples whose divorce may not have been finalized, is likely more meaningful for a child's experience than is a measure of legal divorce alone.

Covariates included maternal educational status (no high school (omitted category), high school diploma or GED, some college, or bachelor's degree or more), birth order, child gender, and child age (measured by birth year in the marriage models, and in months in the divorce models). Marriage models also included an indicator for maternal cohabitation at birth and mother's age at birth. Divorce models included an indicator for maternal age at marriage, maternal cohabitation prior to the marriage, and a continuous measure of year at marriage. Additionally, the divorce models controlled for husband characteristics (age at marriage, if married before, if had children prior to marriage, and whether his race or ethnicity differed from the mother's). Models that were not stratified by maternal race and ethnicity included race and ethnicity (non-Hispanic white (omitted category), non-Hispanic black, Hispanic, or other race or ethnicity).⁴ Missing data occurred in less than 3 % of cases. Note that maternal education was collected at the time of the survey and was likely endogenous to marriage and divorce behavior.

Descriptive statistics indicated that 54 % of children were born into cohabiting households and 46 % were born into noncohabiting households. Children born to black mothers constituted the dominant racial and ethnic group (38 %) with roughly equal proportions of children born to white or Hispanic mothers (30 %). Most mothers in the sample had a high school diploma or less. Children of white and Hispanic mothers were more likely to be born into cohabiting households (~63 %) than children of black mothers (33 %). Average year of the child's birth was 1999 (with a standard deviation of 6.6). Among children whose mother married, the median year of marriage was 2002.

I used competing risk and Cox regression models to estimate the incidence and determinants of marriage and divorce. All models were weighted and corrected for the complex survey design employed by the NSFG. Standard errors in regression models for marriage and divorce were clustered on the mother's ID to adjust for the nonindependence of observations.

I calculated the cumulative incidence of biological and stepfather marriages, treating the other type of marriage as a competing risk. Data were organized in month-year format, and the risk of marriage began with the month of birth and ended either the month the mother married or the month of the interview. I then used competing-risk regression models to estimate the determinants of first maternal marriage.

Divorce was estimated using hazard models. A marriage was considered at risk of divorce from the month it began until the month that the mother divorced or the month of the interview. The hazard of divorce was calculated separately for post-birth

⁴ The NSFG did not collect racial and ethnic data on children.

biological and stepfather marriages. Cox regression models were used to estimate the association between divorce and marriage type (biological marriage was the omitted category) and sociodemographic characteristics.

Two types of bias may have affected results. The first is truncation bias, in which retrospective data collection produces a sample of births that was skewed toward younger mothers at earlier time periods (e.g., the only births observed from 1976 would be for mothers who were age 15 or younger when they gave birth). The second is recall bias, in which women inaccurately report on the date of births or marriages that happened several years before the survey. To address these concerns, I reran the models, restricting the sample to births to women who were ages 15–34 at the time of the birth, or to births that occurred within 10 years of the interview data. Results from both sets of models were substantially the same as results reported here.

Results

The cumulative incidence of marriage within 15 years of the birth (Table 1) indicates that 64 % of children born out of wedlock experienced a post-birth marriage by age 15. Stepfather marriages (35.5 %) were more prevalent than biological marriages (28.5 %). Biological marriages occurred relatively early in a child's life, with 71 % of all observed biological marriages occurring within the five years of the child's birth. In contrast, stepfather marriages were relatively rare in the first few years: the cumulative incidence of stepfather marriage by five years was only 12 %, and one-half of children who experienced a stepfather marriage were age 7 or older. After age 10, children were more likely to experience a stepfather than a biological marriage.

Children's experiences of marriage displayed heterogeneity by maternal race and ethnicity. Children born to black mothers had the lowest incidence of marriage within the first five years of life (19.6 %), the lowest cumulative incidence of marriage by age 15 (50.5 %), and the lowest incidence of biological marriage by age 15 (18.9 %). Children born to white mothers had the highest cumulative incidence of marriage (75.5 %) and the highest cumulative incidence of stepfather marriage (44.5 %). Additionally, children of white mothers had relatively high incidences of early biological marriage. By age 5, 80 % of ever-observed biological marriages for children born to white mothers had already occurred. In contrast to other children, children born to Hispanic mothers were more likely to experience a biological marriage than a stepfather marriage at any age and had the highest cumulative incidence of biological marriage (34.6 %).

Evidence for the magic moment was most apparent for children born to white or Hispanic mothers (Figs. 1a–c), with relatively high hazards of maternal marriage in the first few years post-birth. Children born to black mothers had substantially flatter hazard curves than other children. Children born to white and Hispanic mothers had similar maternal marriage hazard curves, except that the magic moment lasted slightly longer for children born to Hispanic children (as evidenced by the wideness of the first curve). Moreover, children born to Hispanic children were substantially older when the hazard of biological marriage was outweighed by the hazard of stepfather marriage.

Children whose mothers were cohabiting at the birth were more likely to experience a biological marriage but less likely to experience a stepfather marriage than those whose mother was single (Table 2). This pattern of results held for each maternal racial

Table 1 Cumulative incidence of marriage, by maternal race and ethnicity

	Years Since Birth						
	1	3	5	7	10	12	15
Full Sample ($N = 5,525$)							
Any marriage	8.9	21.1	32.2	41.8	51.1	56.8	63.9
Biological	7.3	15.2	20.2	23.4	25.9	27.2	28.5
Stepfather	1.7	5.8	11.9	18.4	25.2	29.6	35.5
As percentage of marriages observed by:							
Biological	25.5	53.5	71.2	82.3	91.1	95.5	100
Stepfather	4.7	16.4	33.6	51.9	71.0	83.5	100
Black ($n = 2,119$)							
Any marriage	5.7	12.8	19.6	28.1	38.2	42.3	50.5
Biological	4.4	9.1	11.5	14.2	17.2	18.0	18.9
Stepfather	1.3	3.7	8.1	13.9	21.0	24.3	31.7
As percentage of marriages observed by:							
Biological	23.5	48.3	61.1	75.1	91.2	95.5	100
Stepfather	4.1	11.7	25.5	43.9	66.2	76.8	100
White ($n = 1,595$)							
Any marriage	12.3	27.7	42.0	52.9	62.2	68.1	75.5
Biological	10.0	19.3	24.7	26.9	28.4	30.0	31.0
Stepfather	2.2	8.4	17.3	26.0	33.8	38.1	44.5
As percentage of marriages observed by:							
Biological	32.4	62.1	79.5	86.8	91.6	96.7	100
Stepfather	5.0	18.8	39.0	58.4	76.0	85.7	100
Hispanic ($n = 1,637$)							
Any marriage	7.8	20.9	31.5	40.8	49.4	56.4	62.6
Biological	6.5	16.6	22.7	27.4	30.9	32.5	34.6
Stepfather	1.3	4.4	8.8	13.4	18.5	23.9	28.0
As percentage of marriages observed by:							
Biological	18.8	47.9	65.6	79.0	89.2	93.9	100
Stepfather	4.8	15.6	31.4	48.0	66.1	85.4	100

Note: Full sample size does not equal the sum of the sample size for children born to white, black, and Hispanic mothers because full sample size includes children born to mothers of other races or ethnicities.

and ethnic group. Children born to black mothers, relative to children born to white mothers, were less likely to experience either a biological or stepfather marriage. Among other covariates, only maternal education was consistently and significantly related to marriage likelihood, but only for biological marriage.

Stepfather marriages were more fragile than biological-father marriages (Tables 3 and 4). Stepfather marriages dissolved quite quickly; within one year, 11.5 % had already ended (Table 3). After 10 years, 54 % of stepfather marriages were dissolved, relative to 38 % of biological marriages. After covariates are controlled for, mothers who married the biological father, relative to marrying a stepfather, had approximately

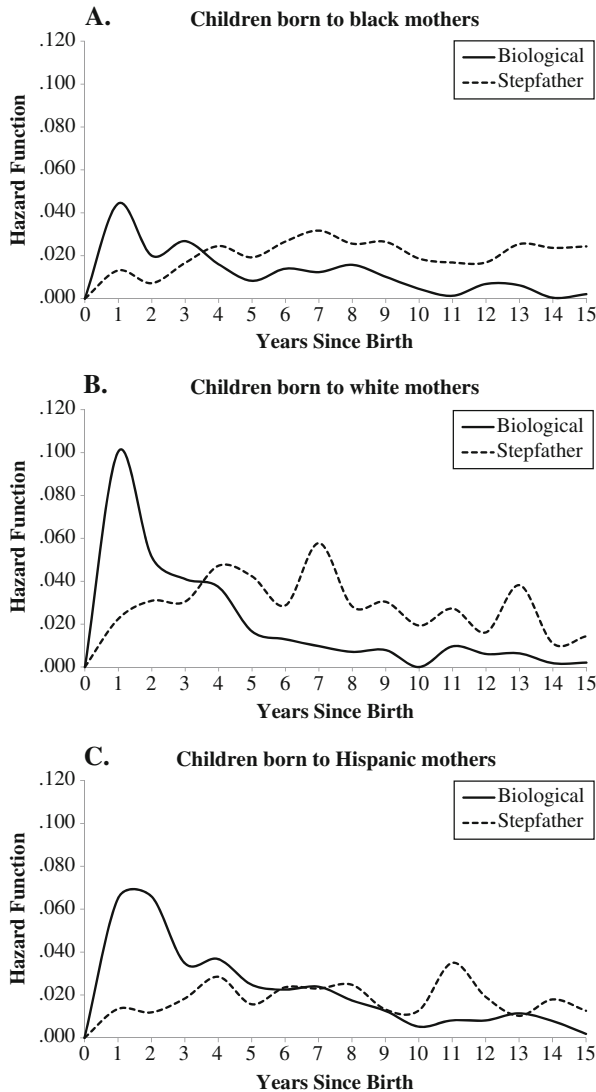


Fig. 1 Hazard of marriage, by type of marriage, for children born to black (panel a), white (panel b), and Hispanic mothers (panel c)

two-thirds lower hazard of divorce (Table 4). Lower divorce risk for biological marriages was found within each maternal racial and ethnic category.

The timing and incidence of maternal divorce varied considerably by a child’s mother’s race and ethnicity. Notably, children born to black mothers, relative to children born to whites or Hispanics, experienced quite fragile maternal marriages. Among marriages that involved a black mother and a biological father, 20 % had dissolved within five years, and 47 % had dissolved within 10 years (Table 3). Marriages that involved a black mother and a stepfather were even more unstable, with nearly one-half ending within five years. When compared with children born to white mothers, children born to black mothers had nearly twice the hazard of experiencing a

Table 2 Competing risk regression, marriage, by maternal race and ethnicity

	Full Sample		Black		White		Hispanic	
	Biological	Stepfather	Biological	Stepfather	Biological	Stepfather	Biological	Stepfather
Mother Was Single at Birth	0.20***	2.22***	0.27***	1.80**	0.16***	2.12***	0.24***	2.38***
Mother's Race and Ethnicity								
Non-Hispanic black	0.72**	0.46***	—	—	—	—	—	—
Hispanic	1.09	0.53***	—	—	—	—	—	—
Other race or ethnicity	0.96	0.63	—	—	—	—	—	—
Mother's Education								
High school diploma	1.50***	1.00	1.74*	1.14	1.43	0.91	1.39	1.34
Some college	1.66***	0.95	2.25***	1.22	1.42	0.72	1.52*	1.64
Bachelor's degree or more	2.08***	1.03	2.79*	1.06	1.49	1.00	3.24***	0.56
Mother's Age at Birth	0.99	0.98	1.02	0.98	0.99	0.96	0.97	0.92***
Child Characteristics								
Has older siblings	0.98	1.05	0.82	1.17	0.86	1.04	1.14	1.15
Female child	1.05	0.96	0.97	1.13	1.03	0.90	1.01	1.03
Calendar year of birth	0.99	0.97***	0.98	0.99	0.99	0.96***	1.01	0.97
Sample Size	5,525		2,119		1,595		1,637	

Notes: Coefficients represent subhazard ratios. Full sample size does not equal the sum of the sample size for children born to white, black, and Hispanic mothers because full sample size includes children born to mothers of other races or ethnicities.

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3 Cumulative incidence of divorce since year of marriage, by type of marriage and maternal race and ethnicity

	Years Since Marriage Began									
	1	2	3	4	5	6	7	8	9	10
All Children (<i>N</i> = 1,907)										
Biological	4.6	7.5	12.6	16.1	20.1	23.4	27.5	33.3	36.1	37.9
Stepfather	11.5	18.6	23.7	30.2	35.4	39.8	42.6	47.1	51.2	54.0
Black (<i>n</i> = 535)										
Biological	2.7	5.0	10.4	12.8	20.0	22.4	31.6	42.0	44.3	46.8
Stepfather	21.3	28.6	33.8	39.4	44.7	46.1	48.6	57.5	62.7	63.7
White (<i>n</i> = 742)										
Biological	6.7	9.4	9.5	17.2	20.5	24.2	28.0	33.0	36.5	38.6
Stepfather	9.5	16.5	20.2	25.1	30.7	37.7	40.8	44.1	46.3	49.5
Hispanic (<i>n</i> = 557)										
Biological	3.6	8.0	14.7	20.0	23.0	26.7	28.6	29.8	30.9	32.5
Stepfather	3.5	7.8	16.4	27.4	30.2	31.2	33.7	34.9	42.3	47.0

maternal divorce (Table 4). Children born to white and Hispanic children had similar experiences of maternal divorce. The most enduring type of union involved a Hispanic mother who married the biological father. Even among this type of marriage, however, one-third of those marriages had dissolved by 10 years.⁵

Discussion

This study addresses a gap in our understanding of maternal marriage experiences for children born out of wedlock. Within 15 years of their birth, 64 % of children born nonmaritally experienced their mother's marriage. Nearly 36 % of children born out of wedlock experienced a stepfather marriage, and 28 % of children experienced a biological marriage. Marriages were fairly unstable regardless of whom the mother married. Within 10 years of being formed, 38 % of biological and 54 % of stepfather marriages had dissolved. Children born to black mothers, relative to children of white and Hispanic mothers, had significantly lower risks of experiencing their mother's biological marriage and had significantly higher risks of experiencing a maternal divorce.

⁵ In a supplementary analysis, I analyzed the incidence of divorce of biological marriages formed pre-birth. Relative to marriages formed post-birth, biological marriages formed pre-birth lasted significantly longer. After 10 years, the cumulative incidence of failure was 38 % for post-birth biological marriages, 54 % for post-birth stepfather marriages, and 19 % for pre-birth biological marriages. Cox regression models indicated that the odds of divorce were 80 % and 220 % higher for post-birth biological and stepfather marriages, respectively, compared with pre-birth biological marriages. Divorce estimates for pre-birth marriages should be interpreted cautiously, however, because such marriages are at risk for a divorce at a relatively later time point than post-birth marriages (e.g., pre-birth marriages are not at risk for divorce until the child's birth, at which point the marriages are already *X* months old, whereas post-birth marriages are at risk for divorce from the first month they are formed).

Table 4 Cox regression, hazard of divorce, by maternal race and ethnicity

	All	Maternal Race and Ethnicity		
		Black	White	Hispanic
Biological Marriage	0.60***	0.51**	0.59*	0.86
Couple Cohabited Before Marriage	0.67*	0.51*	0.74	0.61
Mother's Race and Ethnicity				
Non-Hispanic Black	1.49*	—	—	—
Hispanic	0.84	—	—	—
Other race or ethnicity	0.95	—	—	—
Mother's Education				
High school diploma	1.23	0.87	1.63	1.03
Some college	0.83	0.80	0.82	1.82
Bachelor's degree or more	0.69	0.35	0.50	2.47
Mother's Age at Marriage	0.99	1.02	0.99	0.91*
Child Characteristics				
Has older siblings	1.05	1.22	1.09	1.12
Female	0.80*	0.89	0.85	0.93
Age at marriage	0.98	0.97	0.96	0.98
Husband's Characteristics				
Married before	1.10	0.84	1.01	1.54
Had children prior to marriage	1.22	1.51	1.18	0.97
Different race/ethnicity than mother	1.46	1.54	0.94	0.83
Age at marriage	0.97	0.96*	0.97*	1.03
Year of Marriage	1.05**	1.10**	1.00	1.09**
Sample Size	1,907	535	742	557

Note: Coefficients represent hazard ratios.

* $p < .05$; ** $p < .01$; *** $p < .001$

These results provide mixed support for the existence of the magic moment (McLanahan et al. 2001; Mincy and Dupree 2001). The magic moment premise informed marriage promotion efforts: policies directed their resources toward parents with newborns (Dion 2005). Consistent with the existence of the magic moment, I found that most biological marriages occurred relatively early in the child's life, given that 25 % of all observed marriages happened within the first year of a child's birth and 53 % occurred within the first three years. Nevertheless, a sizable fraction (18 %) occurred when the child was age 7 or older. The magic moment also may be a less apt assumption for children born to black mothers. Black mothers transitioned into biological marriage at a slower pace, with the majority of all observed biological marriages occurring after the child turned age 3 and roughly one-quarter occurring after the child turned age 7. Thus, although the pace of biological marriage slowed as the child aged, transitions into biological marriages continued well into middle childhood. For select groups, the magic moment may not fade as quickly as has been assumed.

The timing and duration of biological and stepfather marriages varied significantly. Biological marriages occurred when the child was relatively young, and they were more enduring than stepfather marriages. Insofar as the characteristics of a biological marriage—which, in addition to involving a biological father, included early transition and relative stability—have been positively correlated with child well-being (Amato 2010; Hill et al. 2001; Hofferth 2006), these results suggest that biological marriage may be more advantageous for child well-being than stepfather marriage. This study cannot test this hypothesis, but results are consistent with a policy emphasis on a biological, rather than stepfather, marriage.

This study found significant racial and ethnic heterogeneity in post-birth marriages. Relative to other children, children born to black mothers had a lower cumulative experience of either type of marriage, a later age at entry into maternal marriage, and a higher likelihood of maternal divorce. In contrast, children born to white mothers had relatively fast transitions into maternal-biological marriage, and children born to Hispanic mothers had lower incidences of maternal marriage that involved a stepfather.

Limitations of this study include that the results are correlational, not causal, and results cannot be interpreted to mean that stepfather marriages are causally related to divorce. Also, the NSFG did not collect information on child outcomes, so it is not possible to correlate children's experience of maternal marriage with their well-being.

This study has provided encouraging evidence to those who champion marriage promotion programs: the magic moment exists, particularly for children born to white mothers, and biological marriages endure longer than stepfather marriages. Nevertheless, enduring biological marriages were relatively rare, particularly for children born to black mothers, and many children will either not experience a maternal marriage or will experience one that ends in divorce. Much work remains for those who seek to encourage marriage for children born out of wedlock.

Acknowledgment The author thanks Elizabeth Ananat, Paula England, and Anna Gassman-Pines for valuable feedback.

References

- Amato, P. R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, 72, 650–666.
- Anderson, K. G. (2011). Stepparenting, divorce, and investment in children. In C. Salmon & T. K. Shackelford (Eds.), *The Oxford handbook of evolutionary family psychology* (pp. 97–112). New York, NY: Oxford University Press.
- Berger, L. M., Carlson, M. J., Bzostek, S. H., & Osborne, C. (2008). Parenting practices of resident fathers: The role of marital and biological ties. *Journal of Marriage and Family*, 70, 625–639.
- Blau, D. M., & Van der Klaauw, W. (2008). A demographic analysis of the family structure experiences of children in the United States. *Review of Economics of the Household*, 6, 193–221.
- Bramlett, M. D., & Mosher, W. D. (2002). *Cohabitation, marriage, divorce, and remarriage in the United States* (Vital Health Statistics 23(22)). Hyattsville, MD: National Center for Health Statistics.
- Brown, S. L. (2010). Marriage and child well-being: Research and policy perspectives. *Journal of Marriage and Family*, 72, 1059–1077.
- Bzostek, S., Carlson, M. J., & McLanahan, S. (2012). Mothers' repartnering after a nonmarital birth. *Social Forces*, 90, 817–841.
- Carlson, M. J., McLanahan, S., & England, P. (2004). Union formation in fragile families. *Demography*, 41, 237–261.

- Dion, M. R. (2005). Healthy marriage programs: Learning what works. *The Future of Children*, 15(2), 139–156.
- Gibson-Davis, C. M. (2011). Mothers but not wives: The increasing lag between nonmarital births and marriage. *Journal of Marriage and Family*, 73, 1–15.
- Graefe, D. R., & Lichter, D. T. (2002). Marriage among unwed mothers: Whites, blacks and Hispanics compared. *Perspectives on Sexual and Reproductive Health*, 34, 286–294.
- Hill, M. S., Yeung, W.-J. J., & Duncan, G. J. (2001). Childhood family structure and young adult behaviors. *Journal of Population Economics*, 14, 271–299.
- Hofferth, S. L. (2006). Residential father family type and child well-being: Investment versus selection. *Demography*, 43, 53–77.
- Hofferth, S. L., & Anderson, K. G. (2003). Are all dads equal? Biology versus marriage as a basis for paternal investment. *Journal of Marriage and Family*, 65, 213–232.
- Lichter, D. T., & Graefe, D. R. (2007). Men and marriage promotion: Who marries unwed mothers? *Social Service Review*, 81, 397–421.
- McLanahan, S., Garfinkel, I., & Mincy, R. B. (2001). *Welfare reform and beyond: Fragile families, welfare reform, and marriage* (CCF Policy Brief No. 10). Washington, DC: Brookings Institution.
- Mincy, R. B., & Dupree, A. T. (2001). Welfare, child support and family formation. *Children and Youth Services Review*, 23, 577–601.
- Smock, P. J., & Greenland, F. R. (2010). Diversity in pathways to parenthood: Patterns, implications, and emerging research directions. *Journal of Marriage and Family*, 72, 576–593.
- Stewart, S. D. (2007). *Brave new stepfamilies*. Thousand Oaks, CA: Sage Publications.
- Teachman, J. D. (2002). Stability across cohorts in divorce risk factors. *Demography*, 39, 331–351.
- Wood, R. G., McConnell, S., Moore, Q., Clarkwest, A., & Hsueh, J. (2012). The effects of building strong families: A healthy marriage and relationship skills education program for unmarried parents. *Journal of Policy Analysis and Management*, 31, 228–252.