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Cohabitation, Post-Conception Unions, and the Rise in Nonmarital Fertility

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Abstract

The majority of U.S. nonmarital births today are to cohabiting couples. This study focuses on *transitions* to cohabitation or marriage among pregnant unmarried women during the period between conception and birth. Results using the newly-released 2006–2010 *National Survey of Family Growth* show that nonmarital pregnancy is a significant precursor to cohabitation before childbirth (18 percent), exceeding transitions to marriage (5 percent) by factor of over three. For pregnant women, the boundaries between singlehood, cohabitation, and marriage are highly fluid. The results also reveal substantial variation in post-conception cohabiting and marital unions; e.g., disproportionately low percentages of black single and cohabiting women transitioned into marriage, even when conventional social and economic risk factors are controlled. The multivariate analyses also point to persistent class differences in patterns of family formation, including patterns of cohabitation and marriage following conception. Poorly educated women, in particular, are much more likely to become pregnant as singles living alone or as partners in cohabiting unions. But compared with college-educated women, pregnancies are less likely to lead to either cohabitation or marriage. This paper highlights the conceptual and technical challenges involved in making unambiguous interpretations of nonmarital fertility during a period of rising nonmarital cohabitation.

1. Introduction

A recently released report by the National Center for Health Statistics showed that nearly one-half of all premarital first births during the late 2000s were to cohabiting women (Martinez, Daniel, and Chandra, 2012). Moreover, 22 percent of *all* first U.S. births – more than one in five – occurred within cohabiting unions, up from 12.4 percent in 2002 (see also

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Copen, Daniels, and Mosher, 2013). Cohabitation clearly has become an increasingly important context for childbearing and childrearing in America (Edin and Tach, 2012; Sassler, Miller, and Favinger 2009; Rose-Greenland and Smock, 2013). Antiquated stereotypes of single mothers – raising children on their own – are inconsistent with new evidence that nonmarital births increasingly involve two co-residential parents who presumably share expenses and parental obligations.

The overriding goal here is to better understand the extent and etiology of relationship transitions associated with nonmarital conceptions. Few if any nationally-representative studies have examined recent shifts into and out of cohabiting unions among *pregnant* women (for an exception, see Gibson-Davis and Rackin, 2014). In the past, studies of this genre typically tracked whether a nonmarital pregnancy led to marriage (Bachrach, 1987; Cooksey, 1990). To "legitimize" a pregnancy meant to marry the father before the birth of the child (i.e., so-called "shotgun marriages"). Today, however, "shotgun cohabitations" rather than marriages are on the rise. They seemingly represent a new kind of legitimation based on co-residential partnership and shared parenting rather than on legal marriage (Reed, 2006; Rackin and Gibson-Davis, 2012; Holland, 2013). As Surra and Boelter (2013) rightly note, relationships start well before partners move in together, yet our understanding of the "properties of relationships" (226) that lead to cohabitation or marriage are rarely examined. Here we focus on a key relationship property – nonmarital pregnancy – which can either reinforce or disrupt the trajectory of nonmarital relationships. Previous studies typically measure childbearing of cohabiting couples at the time of birth (Martinez et al., 2012), but usually ignore shifts in living arrangements during the period between conception and childbearing.

This paper has two primary objectives. *First*, we build on previous studies of childbearing within cohabiting and marital unions (Copen et al., 2013; Martinez et al., 2012) by estimating the probabilities of various relationship transitions for a nationally-representative sample of pregnant women of reproductive age. Specifically, we provide evidence on how nonmarital pregnancies segue into cohabitation or marriage – or, instead, lead to union dissolution. This goal is accomplished using newly-released data from the 2006–2010 *National Survey of Family Growth* (NSFG). We show that so-called "shotgun cohabitations," or post-conception cohabitations (to use a more accurate and less value-laden term), have supplanted "shotgun marriages" (post-conception marriages) as the modal union transition associated with nonmarital pregnancies.

Second, we fit various multivariate models that identify the family and sociodemographic background characteristics associated with transitions to cohabitation or marriage among pregnant women. Specifically, we ask: What accounts for variation in post-conception union transitions (i.e., either post-conception marriages or post-conception cohabitations)? Our results highlight the implications of nonmarital pregnancy for entering and exiting cohabiting and marital unions, which are expressed unevenly across racial and ethnic groups, family backgrounds, and educational levels. The results also provide additional evidence on the growing gap in union formation and partnered childbearing between more and less economically advantaged couples (i.e., fragile families), which places America's children on divergent paths to adulthood (McLanahan, 2004).

2. Background

2.1. Nonmarital fertility in cohabiting unions

Childbearing among cohabiting couples has upended conventional interpretations of out-of-wedlock childbearing and its economic and developmental consequences for children (Bumpass, Raley, and Sweet, 1995; Raley, 2001). Recently updated estimates from the National Center for Health Statistics indicate that the share of all U.S. births to unmarried women exceeded 40 percent each year between 2008 and 2011, even as the rate of nonmarital childbearing declined slightly (Martin, et al., 2013). But, unlike the past, most nonmarital births today involve two co-residential biological parents (Kennedy and Bumpass, 2008; Lichter, 2012). For the early 1990s, Kennedy and Bumpass (2008) reported that 39 percent of all nonmarital births occurred within cohabiting unions. This figure increased to roughly one-half by the 1997-to-2001 period. And, more recently, Lichter (2012) showed using data from the 2006–2008 NSFG that 58 percent of all nonmarital births were to cohabiting couples. Among first premarital cohabiting unions, the probability of a pregnancy increased from 15 to 19 percent between 1995 and 2006–2010 (based on NSFG), even as premarital pregnancies declined overall (Copen et al., 2012).

The boundaries of cohabitation and marriage clearly have blurred. In the past, an important distinction between cohabiting and married couples was the presence of children or the desire to have children (Bachrach, 1987). Children were best reserved for traditional marriage. In fact, Rindfuss and VandenHeuvel (1990) showed that fertility intentions (over the subsequent 2-year period) were much more similar between cohabiters and singles than between cohabiters and married persons, and this pattern persists among recent cohorts (Mosher, Jones, and Abma, 2012). Of course, intentions are not always predictive of actual childbearing, especially among cohabitating and unmarried couples who are at a higher risk of unplanned pregnancy than married couples (Musick, 2002). If measured in terms of childrearing rather than childbearing, cohabiting couples are more like married couples than singles. Roughly 40 percent of cohabiters have co-residential children, split roughly 50–50 between current and past relationships (Kennedy and Bumpass, 2008; Rose-Greenland and Smock, 2013).

Scholars often conceptualize cohabitation – and childbearing – as a precursor or stepping stone to marriage (Smock, 2000). For example, a nonmarital conception, whether planned or unplanned, may trigger entrance into shared living – in this case a post-conception or shotgun cohabitation (Reed, 2006). Other unmarried couples – whether cohabiting or not – may decide to get married at the same time they make the decision to have children or to start a family. In this case, a post-conception marriage suggests that decisions about cohabitation, childbearing, and marriage are highly interrelated; they are not made in isolation of each other (Steele et al., 2005; Wu and Musick, 2008). This pattern of joint decision-making, however, seems to be less evident in Northern Europe, where fertility is especially common in cohabiting unions and less closely tied to marriage or union transitions (Holland, 2013).[1] Fertility in cohabiting unions, in fact, is so commonplace that recent European studies of parenthood typically use the date of entry into coresidential unions – either cohabitation or marriage – as the starting point for charting subsequent

fertility (see Perelli-Harris et al., 2012; Potarca, Mills, Lesnard, 2013). Much less emphasis is given to whether cohabiting unions end in marriage, placing the emphasis instead on whether these relationships last (in any form). The U.S. case is marked instead by union instability (Cherlin, 2010).

2.2. Post-conception unions

Previous studies of post-conception unions – those occurring between conception and birth – have mostly focused on marriage, not cohabitation (England, Wu, and Shafer, 2013). This is understandable from a demographic standpoint. Recent declines in post-conception marriage have placed enormous upward pressure on the nonmarital fertility ratio (i.e., the share of all births that are nonmarital). For example, England, Shafer, and Wu (2012) recently showed that the share of post-conception marriages declined rapidly from the 1925–1929 birth cohort to the 1955–1959 birth cohort (cf., England, Wu, and Shafer, 2013; Gibson-Davis and Rackin, 2014). Observed declines were especially large among high school dropouts, a trend that has contributed to the rise of so-called fragile families (Edin and Tach, 2012). Among pregnant black high school dropouts, for example, the share that got married prior to birth declined from 28 to 2 percent between these two cohorts, an empirical fact that is responsible for the large share of non-marital births in the African American population (i.e., over 70 percent).

England et al. (2012) did not estimate transitions from cohabitation to marriage during the period between conception and birth, nor did they identify post-conception cohabitations. One such study, by Manning (2001), utilized data from the 1995 NSFG to examine childbearing among women who began cohabiting after 1980 and who were younger than 30. She found that roughly one-third of pregnant cohabiting women married before the child was born (i.e., so-called “shotgun marriages”). More recently, Lichter (2012) showed, using the 2006–2008 NSFG, that only 16 percent of all pregnant cohabiting women now marry by the birth of the child.[2] In contrast, among unmarried (non-cohabiting) pregnant women, over 20 percent entered cohabiting unions between conception and birth. This figure compares with just 7 percent that married. Rackey and Gibson-Davis (2012) similarly showed that more than 10 percent of first births to a cohort of women (who were 12–16 year olds in 1997) could be identified as post-conception cohabitations over the 1997-to-2009 period, a percentage that exceeded post-conception marriages. A more recent study showed that the share of all first births – those to post-conception cohabiting women – increased from 2.2 percent in 1985–90 to 5.3 percent in 2005–10 (Gibson-Davis and Rackin, 2014)

The apparent rise in post-conception cohabitation poses conceptual and measurement challenges that make interpretations of the meaning and implications of nonmarital fertility ambiguous. Union status at birth may be different from union status at conception. One

[1]The pattern, stability, and educational gradient of cohabitation (and childbearing within cohabitation) in Europe generally differ from patterns in the United States, but Europe is no monolith (Kalmijn 2013). For example, post-conception marriages are more common in Eastern European countries than elsewhere (Perelli-Harris and Gerber 2011).

[2]Recent studies of fertility patterns in various European countries in fact typically focus analyses on births to women in coresidential unions, whether they are marriages or cohabitations (Perelli-Harris et al., 2012). This approach, albeit informative in the European case (where marriage and cohabitation are less distinctive), seemingly overlooks conceptions that occur to romantically-involved couples living apart, as well as some union transitions (e.g. the end of the relationship) that occur after conception but before childbirth.

reason for this is that pregnancies may cause unmarried couples to rethink their futures together, leading either to cohabitation or marriage, or even to dissolution. For cohabiting couples, the intention to have children also can provide the motivation or impetus to get married. That is, the decision to marry occurs after the decision to have children. On the other hand, hastily arranged cohabiting unions – especially those precipitated by an unintended pregnant – may be poorly-matched, of low quality, and at greatest risk of dissolution (Guzzo and Hayford, 2012). The meaning of a post-conception union also may depend on normative pressures (e.g., to do the "right thing" for religious or cultural reasons) or on economic exigencies (e.g., when an unintended pregnancy creates economic pressures to formalize the relationship for the benefit of the child).[3]

The conceptual challenges to drawing clear distinctions between fertility in marriage or in cohabitation are further compounded by technical ones: cohabitation on average is short-lived (Copen et al., 2013) and the boundaries of cohabitation are often ambiguous, i.e., when such unions actually start and end (Brown and Manning, 2009). The instability of cohabiting unions raises the likelihood that cohabitation status will be different at the time of pregnancy, at birth, or at the date of the survey (i.e., post-birth). In one study, only 44 percent of first cohabitations (1997–2001) remained intact two years later (Kennedy and Bumpass, 2008). And, more importantly, the large majority of poor cohabiting couples with children do not become married-couple families (Lichter, Qian, and Mellott, 2006; Edin and Tach, 2012). The window for childbearing in cohabitation is short, even if the relationship itself (and the risk of pregnancy and childbearing) is long running. Many cohabiting women who become pregnant are no longer cohabiting at the birth of the child.

2.3. Differentials in post-conception unions

Post-conception cohabitation is clearly on the rise, yet our understanding of the correlates of shotgun cohabitation (vis-à-vis shotgun marriages or other post-conception union transitions, including dissolution) remains limited. Current and past childbearing has typically held a prominent place in studies of transitions from singlehood or cohabitation into marriage (Smock and Greenland, 2010). But comparatively little empirical attention has been paid to the period between conception and birth. Instead, the usual approach in previous studies is to include current or prior fertility (as measured by co-residential children) in models of union transitions of all sorts (singlehood to cohabitation or marriage; cohabitation to marriage or dissolution, etc.) (e.g., Osborne, 2005; Musick, 2007; Manlove et al., 2010). Previous studies show that unmarried mothers typically have lower rates of marriage than women without children from current or prior relationships (Lichter, Graefe, and Brown, 2003; Williams, Sassler, and Nicholson, 2008). Among cohabiters, however, conception or the birth of a child out-of-wedlock may accelerate transitions into marriage in the short-term (suggesting a hasty marriage to the child's father) but depress rates of marriage in the longer term. In fact, children from a previous relationship may inhibit marriage to a current partner (e.g., Lichter, Graefe, and Brown, 2003; Goldscheider and Sassler, 2006).[4] Studies of union transitions between pregnancy and birth, however, are rare.

[3]Whether post-conception cohabiting couples ultimately marry or not, some scholars now claim that cohabitation may reinforce fathers' attachment to their children, build co-parenting skills, and promote long-term financial investments in children (Waller and Dwyer, 2012).

An important exception is the recent study by Rackin and Gibson-Davis (2012), which modeled union transitions, both pre- and post-conception. They focused entirely, however, on a young cohort, aged 12-to-16, in 1996 and examined transitions through 2009 when they were aged 24 to 28. The average age at first birth in this sample was very young – 21.3 years – a figure well below the national average for all women. The results may not be representative of the diverse experiences of recent post-conception cohabitations among all women of reproductive age. Rackin and Gibson-Davis (2012) nevertheless provide a useful theoretical and empirical baseline for our approach using a nationally-representative sample of women of reproductive age.[5]

For example, Rackin and Gibson-Davis (2012) identified several key differentials in post-conception cohabitation and post-conception marriage (both those that began with cohabitation and those that moved from singlehood directly into marriage). Like previous studies of union transitions more generally, their study emphasized the large role of ethnoracial and socioeconomic background (see reviews by Raley and Sweeney, 2009; Rose-Greenland and Smock, 2013; Surra and Boelter, 2013; for a recent review of the educational gradient of childbearing within cohabiting unions in Europe, see Perelli-Harris et al., 2010).[6] The past decade or two has been marked by diverging patterns of marriage and family formation between historically disadvantaged minorities and middle-class and affluent whites. Stagnating wages and job dislocation, especially at the bottom of the income distribution, have fundamentally altered the economic basis for marriage and cohabitation, especially among minority couples (Lichter et al. 2006; Osborne, Manning, and Smock, 2007; Edin and Tach, 2012).

Indeed, Rackin and Gibson-Davis (2012) reported that young black and Hispanic new parents were significantly more likely than white couples to be in a post-conception cohabitation than in a pre-conception marriage (defined by conceptions after marriage). Blacks, for example, were 4.5 times more likely to be in post-conception cohabiting unions than in traditional marriages; the relative risk ratio was 1.6 for Hispanics. These large estimates were not due to racial and ethnic differences in age at first birth, religious attendance, school enrollment, or education at first birth, which were controlled in the multinominal logistic regression model. Interestingly enough, new parents who were college graduates (a very small percentage [3.7] in this young age cohort) were significantly more likely to have entered into a post-conception cohabitation than into a traditional pre-conception marriage. Stated differently, cohabitation was the result of a pregnancy rather

[4]It is also the case that women with children from more than one partner – multi-partnered fertility – are less likely to form stable and trusting relationships that lead to marriage (see Roberts, 2008; England and Edin 2009).

[5]For example, Rackin and Gibson-Davis (2012) show that only about 10 percent of first births could be classified as post-conception cohabitations. This compares with 22 percent among first births for all women of reproductive age (Copen et al., 2013) and 21.1 percent of all births during 2001–2008 (Lichter, 2012). As Rackin and Gibson-Davis (2012:538) note, the "generalizability of the findings is limited because of the narrow age range observed," when first births are mostly nonmarital rather than marital. In fact, they show that over 40 percent of first births to this age cohort were nonunion births (i.e., to single, non-cohabiting teens and young women). Only 31 percent of these first birth occurred within marriage, compared with 59 percent nationally (Martin et al., 2013).

[6]A recent study by Manlove et al. (2012) is illustrative of this genre. Based on the 2002 *National Survey of Family Growth*, the authors found that 42 percent of cohabiting mothers married within 5 years of the birth, while 32 percent of the relationships dissolved. Rates of transition into marriage were highest among whites (49%) and lowest among blacks and Hispanics (33%). These findings persisted after controlling for socioeconomic measures and prior family and fertility history in the multivariate analysis. However, a comparative analysis of single (non-cohabiting) mothers was not provided. Post-birth marriages of cohabiting mothers may or may not have been with the baby's father (and therefore cannot by most definitions be considered post-conception marriages).

than the more typical pattern of conception following cohabitation. But, perhaps surprisingly, the unions of the most educated group (i.e., college-educated) unexpectedly were significantly less likely than other education groups to be classified as shot-gun marriages, regardless of whether the marriage was preceded by cohabitation or not.

Such results are difficult to interpret, especially if conception and parenthood lead to high rates of union dissolution among minorities and disadvantaged socioeconomic groups. For example, estimates from the disproportionately poor and minority sample included in the *Fragile Families and Child Well-being* Study show very low rates of marriage over the subsequent 5-year period among unmarried new mothers (e.g., Carlson, McLanahan, and England, 2004; Osborne, 2005; Edin and Tach, 2012); in fact, most of these relationships dissolved. In Rankin and Gibson-Davis' (2012) analysis of young mothers, the births of Blacks and the least educated were far more likely than for other groups to be classified as non-union births, irrespective of union status at conception. For blacks, the relative risk ratio (vis-à-vis whites) was 15.7 or, interpreted differently, the odds of being in a nonunion were nearly 16 times greater for blacks than whites (see Table 3; Rankin and Gibson-Davis, 2012). Rankin and Gibson-Davis (2012) later show that only 44.6 percent of post-conception cohabitations among blacks lasted 3 years or longer compared with 57 percent overall. One implication of such patterns is that the growth of disadvantaged fragile families (and other unmarried couples with children) is driven, at least in part, by union transitions that occur between pregnancy and childbirth.

2.4. Current study

Pregnancy and childbearing within cohabiting unions are on the rise (Lichter, 2012; Martinez et al., 2012; Copen et al. 2013). This paper provides new nationally-representative estimates of the incidence of relationship transitions among *pregnant* women, i.e., evidence on how nonmarital pregnancies segue (or not) into either cohabitation or marriage. This is now possible using the fertility and union histories data from the *National Survey of Family Growth*. Most previous research has emphasized the *prospective* transitions between singlehood, cohabitation, and marriage over successive survey waves (Lichter et al., 2006). Our paper focuses instead on union transitions – and key socioeconomic and racial differentials in them – during the critical period between conception and birth. As we show here, the past decade has brought significant growth in "shot-gun cohabitations" – the so-called fragile families – but a continuing movement away from "shot-gun marriages." The results also highlight large racial and economic differences in partnered and unpartnered fertility, patterns that are reinforced by union transitions between conception and birth.

3. Data and Methods

3.1. National Survey of Family Growth, 2006–2010

The data for this paper were obtained from the 2006–2010 National Survey of Family Growth, which collected data on a nationally-representative sample of 22,682 men and women 15–44 years of age in the United States. The interviews were completed continuously (48 weeks each year) over a period of 4 years—from June, 2006 through June,

2010. Our analyses are limited to over 12,000 females, who provided detailed information on their relationship and reproductive histories.

For our purposes, we identify union transitions associated with the *most recent* live birth occurring after June 1998 (i.e., 10 years prior to the midway point of the survey period). A 10-year window of observation maximizes the number of births for analysis. Focusing on the most recent births reduces problems of recall, and avoids problems of clustering associated with multiple births (especially if they represented differently across racial or economic groups). Previous research has sometimes focused on first births (e.g., Martinez et al., 2012; Rankin and Davis-Gibson, 2012) but in the case of older women in the sample (e.g., aged 35–44) this means that first births could have occurred two or more decades ago. The lag between first birth and survey date may also create problems of recall, and makes ambiguous the accounting period during which post-conception first births apply. Also, unlike latest births, first births are overrepresented among nonmarital births (Gibson-Davis and Rackin, 2014).

For each pregnancy in our sample, the NSFG identifies the mother's union status at both the date of conception and date of birth, allowing us to identify transitions between singlehood, cohabitation, and marriage during the period between conception and birth. Following convention, we focus on pregnancies that end in live births (e.g., Raley, 2001; Rankin and Gibson-Davis, 2012); pregnancies that end in miscarriage or abortion are not considered. Our analysis is limited to 2,516 married women, 1,438 cohabiting women, and 1,375 single women (identified at the date of conception).

3.2. Measurement and analysis strategy

In the NSFG, "living together" is defined as "having a sexual relationship while sharing the same usual address." Currently married women were asked whether they had "live[d] together" with him [her husband] before marriage. In addition, the question was posed as to whether she had "lived with (any other/a) man." Inquiries were also made to determine whether unmarried respondents had a co-residential "male partner" at the time of the interview. Cases in which an affirmative answer was given are treated as cohabitation episodes. For our purposes, we use the "informal marital status" recode variables provided by the NSFG to determine whether the respondent was "cohabiting" at both conception and birth.

A limitation of the NSFG is that few variables are measured at the date of conception (or earlier); most variables are measured at the survey date. Consequently, we are able to include only a small number of strictly exogenous variables in our multinomial logistic regression models of transitions (among pregnant women) between singlehood and cohabitation or marriage, and between cohabitation and dissolution or marriage. For example, our models include a binary variable that is coded 1 if the mother was at least 25 years old at the time of conception (to distinguish "early conceptions" from later ones).[7] We expect older women to be more likely than young women to enter into post-conception

[7]We do not include age as a continuous variable because its relationship with a post-conception union is not expected to be linear, nor is it expected to have similar implications for transitions to cohabitation, marriage, or dissolution.

unions. We also identify women by a dummy variable indicating whether conceptions resulted in their *first* child (yes = 1) rather than a higher parity child. We expect that pregnant single mothers (those with previous births but without a current partner) will be less likely than non-mothers to transition into a union, either cohabitation or marriage, before the birth of the child. Graduation from high school prior to conception serves as the measure of educational attainment.[8] Based on previous studies (Gibson-Davis and Rackin, 2014; Lichter, 2012), we expect an educational gradient in our results; highly educated women are expected to be more likely to enter partnered fertility (through post-conception unions). Immigrant status is captured with two dummy variables distinguishing foreign-born women by their age at arrival in the United States (12 or under and 13+); the native-born are the omitted category. Race/ethnicity is represented with Hispanic, non-Hispanic black, and "other" indicator variables; non-Hispanic whites serve as the reference group. Based on existing differentials in nonmarital fertility rates, we hypothesize that minorities will be less likely to transition to a union between conception and birth. Finally, we identify births occurring before and after 2003 (coded 1) to pick up any time trends in post-conception unions (e.g., the upward tick in post-conception cohabitation).

We also consider the family socioeconomic background of each NSFG respondent. Economic status while growing up is measured by whether the respondent's mother or mother figure had ever attended college. Family disruption is captured by a dummy variable identifying women who were raised by either biological or adoptive parents from birth until age 18, until the interview, or until they began living on their own (if before age 18). We also control for reported Catholic upbringing (i.e., "In what religion were you raised, if any?"). Here we expect that less disadvantaged groups and Catholics will be more likely to experience a post-union transition, especially one that results in marriage (rather than cohabitation). Descriptive statistics are provided in Table 1.

4. Results

4.1. Births among single and cohabiting women

We begin by providing estimates of the share of nonmarital births to cohabiting women, both at conception and birth (cf., Martinez et al., 2012). As shown in Table 2 (panel 1, column 1), our updated analyses of the 2006–2010 NSFG indicate that 56 percent of all nonmarital births were to cohabiting couples.[9] Childbearing among unmarried cohabiting couples is also a major component of U.S. fertility overall. Of all U.S. births, 21.2% were born to cohabiting parents. As shown in Table 2 (panel 1, column 3), this is slightly lower than the percentage (22.6 percent) of all U.S. births that began with conception as a cohabiting union. As we document later, these rather similar percentages hide important shifts between singlehood, cohabitation, and marriage between conception and birth.

[8]Unfortunately, we are restricted in our ability to make finer educational distinction because of the very large racial and ethnic differences in completed education (e.g., the very low attainment of Hispanics compared with whites), and because of sample size limitations. The NSFG also did not collect complete information on age at school completion, though they did collect data on month of high school graduation.

[9]Our estimates are about 2 percentage points lower than Lichter (2012), who focused on most-recent births during the five years previous to the 2006–2008 wave of the NSFG. The small difference is probably due to the longer accounting period in the current study (back to 1998), when post-conception cohabitations was less common.

The results also reveal substantial variation across demographic groups in childbearing among cohabiting couples. As shown in Table 2 (panel 3, column 2), among young adults (under age 25), for example, 37.8 percent of *all* births – marital and nonmarital – were to cohabiting women during the 2000s. This compares with 22 percent of all first births among all couples (Copen et al., 2013). Our higher estimates undoubtedly reflect, at least in part, the low rates of marriage (and marital fertility) among younger woman. The percentage is much lower among older mothers (13.9%), for whom marital fertility dominates. Still, births to cohabiters occur in roughly similar percentages among younger and older unmarried couples (55.4 vs. 57.5%). The modal context of nonmarital childbearing in the United States is now within a cohabiting union.

These data also show that ethnoracial differences in fertility among cohabiting couples are exceptionally large (Table 2, panel 3). Compared with Hispanics and blacks, non-Hispanic white cohabiters accounted for a comparatively small fraction of all white births −18.1 percent. Yet, births to cohabiting women accounted for nearly two-thirds of all non-marital births among white women – 65%. These data also suggest that Hispanics may be the new "fragile families"; cohabiters accounted for nearly 30 percent of all Hispanic births (a figure well above that of whites) and 64.4 percent of all nonmarital births.

For blacks, the relationship context of fertility is considerably different from that of whites and Hispanics. Black cohabiters accounted for a minority share (36.9%) rather than a majority share of all nonmarital births (as was the case for whites and Hispanics). Nonmarital childbearing among black women is far less likely to occur with both parents living together. This potentially has important implications for black children's developmental trajectories and economic wellbeing (Waller and Dwyer, 2012).

Finally, the 2006–2010 NSFG data reveal substantial disparities by socioeconomic status, at least as measured by completed schooling. Among high school dropouts, for example, one-third of all births were to cohabiting couples. Even among the moderately educated (those who had graduated high school or completed some post-secondary education but without achieving a four-year degree), the proportion of all births to cohabiting couples was substantial, 25.1 percent. This figure contrasts sharply with the tiny fraction (3.8 percent) of births to college graduates that occurred in cohabiting unions, even though a slight majority of college-educated nonmarital births were to cohabiting women (54.3 percent). Clearly, among the highly-educated, most fertility is "partnered co-residential fertility" – either in marriage or in cohabitation (if not married). The large education differences in unpartnered fertility arguably reinforce inequality and amplify the prospect of "diverging destinies" among America's children (McLanahan, 2004).

4.2 Nonmarital pregnancy and post-conception cohabitation

A primary objective here focuses on union transitions between conception and childbirth, which was not considered in recent reports by the National Center for Health Statistics (e.g., Martinez et al., 2012; Copen et al., 2013). To be sure, some new mothers in the NSFG were single and living alone both at the time of conception and childbirth, while others cohabited throughout the pregnancy. Other new mothers experienced changes in living arrangements after conception. Some may have been living alone at the time of conception but moved in

with the father by the time of the birth (i.e., post-conception cohabitation). Other single and cohabiting pregnant women may have gotten married before the birth of their children; these are the so-called “shotgun weddings” (Manning, 2001; Raley, 2001). Another possibility was that women were cohabiting upon becoming pregnant, but broke up with their partner before the birth. Whether fertility is classified as marital or nonmarital is a function of whether pregnant women transition between different union types between conception and childbirth.

The data in Table 3 show that the large majority of single (76.5 percent) and cohabiting (79.1 percent) pregnant women did not change their union statuses between conception and birth. The period of pregnancy was marked by union stability. Most births to cohabiting couples were conceived after they began cohabiting, not before (cf., Gibson-Davis and Rankin, 2014). Still, 18.1 percent of all single women, at conception, were cohabiting at the time of childbirth (Table 3, Row 2, column 3). For them, cohabitation seemingly was a response to a pregnancy, a conclusion that reinforces the qualitative study by Reed (2006).

Perhaps more significantly, the percentages of post-conception cohabitations exceeded those of post-conception marriages (5.3 percent) by a factor of 3. As expected, post-conception weddings were much more common among cohabiting than single pregnant woman. That is, women cohabiting at the beginning of their pregnancies were more likely than other single women to get married before the birth (13.5 vs. 5.3 percent). Cohabiting women were also more likely to marry than to break up between conception and childbirth (13.5 vs. 7.4 percent). These patterns raise conceptual issues about whether childbearing and marital decisions are made jointly or sequentially (i.e., that cohabiting couples decide to have a baby, which leads them to the altar), and may shed light on changing meaning of marriage (Sassler and Cunningham, 2008; Wu and Musick, 2008).

Interestingly enough, in some additional analysis (not reported), we found similar percentages of cohabiting women married between conception and childbirth, regardless of whether the pregnancy was intended or unplanned (i.e., roughly 13 percent). We had expected – incorrectly – that intended pregnancy would have higher rates of transition to marriage. Dissolution rates, however, were roughly twice as high among cohabiting women with unplanned conceptions (10.6 vs. 4.4 percent), which may indicate the disruptive effects of an unplanned conception.

As with the share of nonmarital births to cohabiters, union transitions occurring between conception and birth varied widely across population groups. These data are reported in Table 4. For example, older pregnant women – whether they are single or cohabiting – were slightly more likely than younger women to marry between conception and childbirth (panel 1). Over 16 percent of older cohabiting women married by time of birth, compared with 11 percent among younger cohabiters. Such results again are consistent the expectation of greater commitment among older than young unmarried couples, at least if measured by transitions to marriage. Older women may also have more economic and social resources that make them more attractive marriage partners.

The results also reveal substantial differences in union transitions across ethnoracial groups (panel 2, Table 4). Pregnant single Hispanic (5.8 percent) and non-Hispanic white women (7.8 percent) were more likely to marry (by the date of the birth) then were their black counterparts (2.5 percent). Furthermore, entrance into cohabitations following conception among those single at the beginning of the pregnancy was highest among Hispanics (21.4 percent) and whites (24.5 percent) and lowest among blacks (10.4 percent). Among pregnant cohabiting women, non-Hispanic whites were far more likely (17.6 percent) than their Hispanic (6.8 percent) and black (10.8 percent) counterparts to marry. Cohabiting black women (12.1 percent) were more than twice as likely as whites (6.0 percent) and Hispanics (5.3 percent) to see their relationships break up between conception and childbearing.

These racial disparities highlight the relationship instability among black pregnant women. For them, nonmarital births are much less likely to occur within cohabiting unions (see Table 2), a result that reflects the lower likelihood of transitioning to cohabitation after conceptions and the greater likelihood of dissolution by the date of birth (panel 2, Table 4). Large racial differences in relationship stability and marriage are often rooted in persistent disparities in education, employment, and income (see England and Edin, 2009). They may also result from distinct patterns of relationship formation. For example, sexual involvement occurs more rapidly among minority than white couples, which may elevate the risk of conception, reduce relationship quality, and affect subsequent union transitions (Sassler, Addo, and Lichter, 2012).

Finally, the relationship context of nonmarital fertility is decidedly different between college-educated pregnant women and less educated women (panel 3, Table 4). Class differences are large. Highly-educated single (18.5 percent) and cohabiting women (48.5 percent), for example, were far more likely to marry by the date of birth than were their least educated single and cohabiting counterparts (2.7 percent and 6.3 percent, respectively). Only a small fraction – 4.7 percent – of all college-educated pregnant women were not in co-residential unions at the time of conception, compared with 26.4 percent among high school dropouts (data not shown). Moreover, the former were considerably more likely than high school dropouts to form co-residential unions – either cohabiting or marital unions – prior to birth (43.3 percent vs. 18.5 percent). Clearly, these data highlight the comparatively low rates of partnered fertility among lower SES women.

4.3 Modeling post-conception cohabitation and marriage

Our final objective is to estimate several descriptive multinominal logistic regression models that identify sociodemographic variation in post-conception cohabitation and marriage. The results for single women (at the time of pregnancy) are reported in Table 5, while the results for cohabiting women at conception are provided in Table 6. We report odds ratios (OR) to indicate relative risks of a union transition. In both Tables 5 and 6, we start with strictly exogenous background variables (Model 1) before entering a set of potential mediators that link background characteristics to a change in union status (Model 2). These mediators include women's age at current childbearing, previous childbearing, and education.

We begin by modeling the post-conception union transitions of pregnant single (non-cohabiting) women (Table 5). The reduced form model (i.e., Model 1) identifies background

characteristics associated with post-conception union transitions, either to marriage or to cohabitation. Except in the case of being black and generation (1.5 generation), none of the variables in this model is statistically significant at conventional levels ($p < .05$). Women in the 1.5 generation, for example, are more than twice (OR = 2.05) as likely to transition from singlehood to cohabitation as their native-born counterparts. This indicates the cultural acceptability of informal unions as a context for childbearing and childrearing in some immigrant populations (e.g., various Hispanic-origin populations). The results also show that pregnant single black women are only .29 and .33 times as likely to marry or cohabit, post-conception, as their white counterparts. Moreover, in Model 2, the black coefficient changes only modestly and remains statistically significant with the inclusion of the three mediating variables. Black-white differences in post-conception union transitions – either to marriage or cohabitation – cannot be reduced to differences in family background or to other key mediators identified here. Other explanations for racial differences are required, including those that reflect other unobserved indicators, such as economic or material hardship, neighborhood and school conditions, and cultural factors. Still, the results of Model 1 highlight the recent uptick in post-conception cohabitation after 2003 (OR = 1.81), a shift that cannot be explained by trends in the population composition, at least as measured by the variables considered in Models 1 and 2.

The three mediator variables shown in Model 2 generally revealed expected associations with post-conception transitions. In particular, having a first birth was positively associated with post-conception union transitions, especially marriage (OR = 4.41). That is, unmarried pregnant women with no other children were 4.41 times more likely than women with previous births to marry, and twice as likely to cohabit (OR 2.01). Like other studies of union transitions among cohabiting women, our results suggest that previous childbearing, possibly with different partners, is a significant barrier to marriage among pregnant women (e.g., Lichter, Graefe, and Brown, 2003). This raises questions about whether these patterns reflect mostly selection (e.g., nonmarital childbearing is selective of women who hold non-traditional marriage attitudes) or causal factors (e.g., nonmarital fertility reduces women's "attractiveness" in the marriage market), questions we cannot fully adjudicate with these data.

We turn next to Table 6, which provides the results from our analysis of post-conception union transitions of pregnant cohabiting women. For cohabiting couples (at conception), we consider transitions either to marriage or to dissolution. Relative to remaining in cohabiting unions, the results of Model 1 indicate that the relative risk of post-conception marriage is greatest among women who grew up in an intact family (OR = 1.62), have Catholic backgrounds (OR = 1.66), and immigrated to the U.S. as young children (i.e., the 1.5 generation) (OR = 3.06). Compared with their white counterparts, cohabiting Hispanic pregnant women are significantly less likely to marry (OR = .23), which seemingly highlights the cultural salience of informal unions in the Hispanic community (Landale and Oropesa, 2007). In contrast, black pregnant women are no more likely to marry than whites, but are significantly more likely to dissolve the relationship (OR = 2.01). This is consistent with the expected disruptive effects of pregnancies, a disproportionate share of which are unplanned among black women (Musick, 2002).

Marriage was no more common for pregnant cohabiting women whose mothers had some post-secondary school (vis-à-vis those with a high school education or less), but dissolution was significantly more likely to occur (OR = 1.78). One interpretation, albeit a highly speculative one, is that cohabitation provides an alternative to marriage in disadvantaged communities; nonmarital fertility and childrearing represent an acceptable alternative to traditional family arrangements. For them, a pregnancy, even an unintended one, may not be disruptive to the relationship (cf., Guzzo and Hayford, 2012).

Model 2 includes the three additional mediator variables (Table 6). These results suggest that older pregnant cohabiting women are more likely to marry (OR=1.41) and less likely to dissolve their unions (OR=.52). (Only the association with dissolution, however, is statistically significant at the .05 level.) Interestingly enough, prior children is statistically unrelated to either post-conception marriage (although the sign is in the expected direction) or dissolution. The results nevertheless reveal large and statistically significant effects of education on transitions to marriage during the period between conception and childbirth (OR = 2.74). This result is consistent with other research showing that decisions about fertility among the most highly educated cohabiting couples are made jointly with the decision to marry. From older studies on this topic, we know that highly educated single women are also more likely to “legitimate” (using the language at the time) a newborn infant by marrying (Bachrach, 1987).

Finally, the results once again highlight patterns of black exceptionalism in marriage and family formation. Not unlike the case of pregnant single black women (Table 5), their cohabiting counterparts are considerably more likely to dissolve their relationships than is the case among whites (OR = 2.07). Pregnancy among blacks is much less strongly connected to co-residential unions than among other racial and ethnic groups. This is true even when controls are included for age, previous childbearing, and education.

5. Discussion and Conclusion

Cohabitation has become an increasingly important context for childbearing and childrearing (Gibson-Davis and Rackin, 2014; Kennedy and Bumpass, 2008). Today, emerging adulthood often begins with nonmarital pregnancy and childbearing, and then segues into cohabitation and family instability over the marital life course (Lichter and Qian, 2008; Edin and Tach, 2012). Our study, based on newly-released data from the NSFG (2006–2010), provides estimates of the share of all births and all nonmarital births to cohabiting couples. We highlight the conceptual and technical challenges involved in making unambiguous classifications of nonmarital fertility during a period of rising cohabitation. For pregnant women, the boundaries between singlehood, cohabitation, and marriage are highly fluid. And, as we show here, post-conception union formation – either cohabitation or marriage – represents an increasingly important dimension of family formation, especially among historically disadvantaged populations.

Our study yields several specific conclusions. First, as a baseline, we show that the majority (56 percent) of all nonmarital births during the 2000’s were to cohabiting couples, a figure representing over 20 percent of all U.S. births (see Copen et al., 2013). The share of

nonmarital births to cohabiters was especially high among the least educated and Hispanics. The clear substantive implication is that most nonmarital fertility today is not the result of casual unprotected sex, but the product of co-residential, on-going, and presumably committed intimate relationships. In this sense, our results, using a recent nationally-representative sample, reinforce the conclusions of Sigle-Rushton and McLanahan (2002) based on the disproportionately poor and minority fragile families (i.e., that casual relationships are not responsible for high rates of nonmarital fertility).

Second, our results imply that Hispanics may represent an increasing share of newly-formed "fragile families" (Hummer and Hamilton, 2010), especially during the current period in which the majority of all births are to minority women (i.e., groups other than non-Hispanic whites) (Frey, 2011). Hispanic children make up roughly one-third of all recent births (Martin et al., 2012). At the same time, informal unions (rather than marriage) are often viewed as an institutionalized feature of "Hispanicity" (Landale and Oropesa, 2007); any deleterious developmental consequences for children may therefore be mitigated. Compared with disadvantaged black populations, for example, childbearing and childrearing typically occurs in the context of two-biological parent households or in multi-generation extended families.

Third, our analyses of union transitions showed that post-conception cohabitation surpassed post-conception marriage ("shot-gun marriage") in frequency over the past decade. Among single pregnant women, roughly 18 percent segued into cohabitation before childbirth, compared with about 5 percent who married. Cohabiting pregnant women were far more likely than single women to marry (over 13 percent). Still, these percentages are quite low, which reinforces previous evidence of long-term declines in shot-gun marriages and the uncoupling of pregnancy and childbearing from marriage (England, Shaefer, and Wu, 2012). And, as expected, our results revealed substantial variation in post-conception unions along racial lines; much lower percentages of black single and cohabiting women transitioned into marriage. Whether racial patterns indicate differences in commitment or other relationship-specific characteristics, or instead reflect greater acceptability of single, unpartnered fertility and childrearing in the black population, remain empirical questions needing further study. That racial differences persist when we control for conventional social and economic risk factors seemingly reinforces explanations that now emphasize the influence of cultural values on disadvantaged minority communities, irrespective of past or current economic dislocations (for discussion, see Small, Harding, and Lamont, 2010).

Fourth, and more generally, our multivariate analyses of union transitions between conception and birth highlighted the implications of proximal (e.g., current education) rather than distal factors (e.g., living arrangements while growing up). The results – small and weakly significant coefficients – indicated the need for explanations that reside outside traditional arguments that typically emphasize the priority of socioeconomic disparities. Still, the results overall point to persistent class differences in patterns of family formation, including patterns of cohabitation and marriage following conception. Highly educated women, in particular, are much less likely to become pregnant as singles living alone or as partners in cohabiting unions. And, if they become pregnant while cohabiting, they are far more likely than poorly-educated women to get married. One interpretation, although hardly

the only one, is that among highly-educated woman pregnancy more often occurs in the context of a committed relationship, pregnancy is typically intended, and fertility and marriage are often jointly planned. An alternative explanation is that women of higher educational attainment are more likely to have the means and efficacy to utilize more effective (i.e., hormonal) and long acting contraceptives (Sweeney, 2010). Our descriptive results provide an empirical baseline for additional studies on such issues.

Our study is not without limitations. Our modeling approach does not lend itself to strong causal claims; these would require other modeling approaches using panel data (e.g., difference-in-difference or other approaches that control for unobserved heterogeneity). Our measurement approach is subject to problems of recall, especially the date of entry into cohabitation, and to correctly dating the timing of conception. Here we restricted the sample to women because we have more confidence in the accuracy of their retrospective reporting. But this also means that we have not examined gender differences in transitions (Joyner et al. 2013). The aforementioned study by Rankin and Gibson-Davis (2012) showed that young females were substantially more likely than young men to enter post-conception unions. It is difficult to understand why men and women, either from a conceptual or measurement standpoint (e.g., other than having different shares of men and women “at risk” of a transition), would generate different estimates of transitions, although the correlates of different transitions may be different between men and women. Lastly, we have not followed the trajectory of these relationships over a longer period of time. On the one hand, it may be that post-conception cohabitations experience subsequent rapid transitions to marriage, much like other studies report for all cohabiting couples (Kennedy and Bumpass, 2008). On the other hand, if post-conception cohabitations select disadvantaged or mismatched couples, we would expected greater union instability in the future, regardless of whether they marry or not. The developmental and economic consequences for young children may therefore be large.

In the final analysis, whether we should be sanguine or not about rising nonmarital fertility ratios ultimately depends on the changing share of nonmarital births to cohabiting couples and on the institutionalization of cohabitation as a normative context for childbearing and childrearing. It also depends on the stability of cohabiting unions, i.e., whether these relationships endure and give stability to family life. Our analyses showed that about 80 percent of women cohabiting at the time of conception were still cohabiting at the time of birth. Yet, using Fragile Families data, Edin and Tach (2012) found that only about 50 percent of mothers who were cohabiting at birth were still in relationships with the biological fathers five years later (cf., Carlson, McLanahan, and England, 2004; McLanahan, 2011). Clearly, we cannot fully understand the long-term implications of childbearing and childrearing among cohabiting couples without also evaluating their long-term stability and the quality of these relationships.

In sum, we have provided an empirical benchmark that acknowledges nonmarital conception as an important but often understudied pathway to cohabitation or marriage. Most previous studies of cohabitation have focused on marriage following the birth of child from a previous or current relationship (e.g., Gibson-Davis, 2014; Lichter et al., 2004; Manlove et al. 2012). Yet, the proportion of all adults who marry has declined significantly in the

aftermath of the "Great Recession," supplanted at least in part by concurrent increases in cohabitation (see Kreider, 2010; Manning, Brown, and Payne, 2014). Moreover, our results suggest that America's evolving families are likely to give substantial demographic impetus to fragile families and poverty (Lichter, 2013). Over the next generation, race and ethnicity may become an increasingly important axis of differentiation as today's newborns and children make the transition – or not – into productive adult roles. The public policy concern is that links between cohabitation and fertility may be shifting in ways that reinforce rather than reduce racial and economic inequality in America.

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Highlights

- Cohabitation has become an important context for childbearing
- The majority of all nonmarital births are to cohabiting women
- Post-conception cohabitations now surpass post-conception marriages
- Low percentages of pregnant black single women transition into cohabitation or marriage
- Highly-educated single women are especially likely to cohabit or get married if they become pregnant

Table 1

Descriptive Statistics

Variable	%	SD
Mother had some post-secondary education (%)	36.2	48.1
Grew up in intact family from birth	59.4	49.1
Catholic upbringing	34.5	47.6
Nativity		
Foreign-born, <13 at arrival	3.6	18.6
Foreign-born, 13 or older at arrival	15.3	36.0
Race/ethnicity		
Hispanic	20.5	40.4
Non-Hispanic White	58.1	49.3
Non-Hispanic Black	15.1	35.8
Non-Hispanic Other	6.3	24.2
Birth 2003 +	68.9	46.3
Age 25 or older at conception	69.2	46.2
First birth	30.0	45.8
High school graduate at conception	73.3	44.3

Table 2

Percent of Births to Cohabiting Women, 2006–2010

	% of Nonmarital Births to Cohabitors	% of Births to Cohabitors	% of Conceptions to Cohabitors
All women	56.3	21.2	22.6
Age (at birth)			
< 25 years old	55.4	37.8	37.8
≥ 25 years old	57.5	13.9	15.8
Race/Ethnicity			
Hispanics	64.4	29.8	29.2
Non-Hispanic Whites	64.6	18.1	19.8
Non-Hispanic Blacks	36.9	24.8	26.1
Education			
< HS	57.5	33.5	33.7
HS grad/some college	55.8	25.1	26.6
College graduate	54.3	3.8	5.5

Source: 2006–2010 NSFG.

Table 3

Relationship Status at Birth by Relationship Status at Conception, 2006–2010

	Relationship status at conception		
Relationship status at birth	**Married**	**Cohabiting**	**Non-Cohabiting,Unmarried**
Married	98.9	13.5	5.3
Cohabiting	0.0	79.1	18.1
Non-Cohabiting, Unmarried	1.0	7.4	76.5
N	2,516	1,438	1,375

Source: 2006–2010 NSFG.

Table 4

Relationship Status at Birth by Relationship Status at Conception, by Demographic Characteristics, 2006–2010

Demographic Characteristics		Relationship Status at Birth	Relationship Status at Conception		
			Married	Cohabiting	Non-cohabiting,
Age	< 25 Years	Married	98.3	11.0	5.4
		Cohabiting	0.0	79.2	21.8
		Non-cohabiting, unmarried	1.7	9.8	72.7
		N	430	765	822
	≥ 25 Years	Married	99.0	16.2	5.2
		Cohabiting	0.0	79.0	12.6
		Non-cohabiting, unmarried	0.9	4.8	82.2
		N	2,086	673	553
Race/ Ethnicity	Hispanic	Married	98.1	6.8	5.8
		Cohabiting	0.0	87.9	21.4
		Non-cohabiting, unmarried	1.9	5.3	72.7
		N	641	452	342
	NH-White	Married	99.1	17.6	7.8
		Cohabiting	0.0	76.4	24.5
		Non-cohabiting, unmarried	0.9	6.0	67.7
		N	1,448	558	391
	Black	Married	99.1	10.8	2.5
		Cohabiting	0.0	77.1	10.5
		Non-cohabiting, unmarried	0.9	12.1	87.1
		N	255	371	606
Education	Less than High School	Married	97.8	6.3	2.7
		Cohabiting	0.0	86.8	15.8
		Non-cohabiting, unmarried	2.2	6.9	81.5
		N	425	484	437
	HS/Some College	Married	98.6	13.5	5.2
		Cohabiting	0.1	78.6	18.5
		Non-cohabiting, unmarried	1.3	7.9	76.3

Demographic Characteristics	Relationship Status at Birth	Relationship Status at Conception		
		Married	Cohabiting	Non-cohabiting,
College Grad	N	1,249	870	840
	Married	99.7	48.5	18.5
	Cohabiting	0.0	47.0	24.8
	Non-cohabiting, unmarried	0.3	4.4	56.7
	N	842	84	98

Source: 2006–2010 NSFG.

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Table 5

Multinomial Logistic Regression of Relationship Status at Birth Among Women Unmarried at Conception

	Model 1						Model 2					
	Married			Cohabiting			Married			Cohabiting		
Predictor	Relative to Remaining Single						Relative to Remaining Single					
Background Characteristics	β	S. E.	*OR*	β	S. E.	*OR*	β	S. E.	*OR*	β	S. E.	*OR*
Mother had some post-secondary education	0.47	0.38	1.61	0.06	0.24	1.06	0.18	0.39	1.20	−0.10	0.24	0.91
Grew up in intact family from birth	0.17	0.35	1.18	0.16	0.24	1.18	−0.07	0.39	0.93	0.14	0.23	1.15
Catholic upbringing	0.40	0.43	1.50	0.06	0.29	1.06	0.37	0.42	1.45	0.08	0.29	1.08
Nativity (U.S.-born = 1)												
Foreign-born, <13 at arrival	0.16	0.72	1.17	0.72*	0.43	2.05	0.03	0.73	1.03	0.66	0.44	1.94
Foreign-born, 13 or older at arrival	−0.28	0.58	0.76	−0.46	0.48	0.63	−0.07	0.56	0.93	−0.16	0.49	0.85
Race (Non-Hispanic White = 1)												
Hispanic	−0.36	0.63	0.70	−0.23	0.33	0.79	−0.29	0.60	0.75	−0.36	0.32	0.70
Non-Hispanic Black	−1.25**	0.53	0.29	−1.10***	0.28	0.33	−1.14**	0.54	0.32	−1.07***	0.28	0.34
Non-Hispanic Other	−0.67	0.62	0.51	−0.91	0.64	0.40	−0.23	0.64	0.79	−0.80	0.65	0.45
Respondent Characteristics at Conception												
Birth 2003 +	0.07	0.39	1.07	0.59**	0.27	1.81	0.16	0.38	1.18	0.63**	0.28	1.87
Age 25 or older							0.10	0.45	1.10	−0.49*	0.30	0.61
First birth							1.48***	0.43	4.41	0.70**	0.27	2.01
High school graduate							1.12***	0.39	3.06	0.33	0.23	1.39
Constant	−2.58***	0.36	0.08	−1.55***	0.32	0.21	−4.16***	0.60	0.02	−1.91***	0.42	0.15
Wald χ^2	35.30						67.80					
N	1337						1337					

Note: Robust standard errors are reported.

*** p<.01;

** p<.05;

* p<.10.

Table 6

Multinomial Logistic Regression of Relationship Status at Birth Among Women Cohabiting at Conception

	Model 1						Model 2					
	Married			Single			Married			Single		
Predictor	Relative to Cohabiting						Relative to Cohabiting					
Background Characteristics	β	S. E. β	*OR*	β	S. E. β	*OR*	β	S. E. β	*OR*	B	S. E. β	*OR*
Mother had some post-secondary education	0.24	0.26	1.27	0.58**	0.26	1.78	0.16	0.26	1.18	0.51**	0.26	1.67
Grew up in intact family from birth	0.48**	0.24	1.62	−0.21	0.26	0.81	0.19	0.25	1.21	−0.14	0.27	0.87
Catholic upbringing	0.51*	0.29	1.66	0.06	0.33	1.06	0.48	0.29	1.61	0.10	0.33	1.10
Nativity (U.S.-born = 1)												
Foreign-born, <13 at arrival	1.12*	0.60	3.06	0.13	0.67	1.14	1.00*	0.57	2.72	0.20	0.68	1.22
Foreign-born, 13 or older at arrival	−0.22	0.67	0.80	0.49	0.54	1.63	−0.20	0.64	0.82	0.55	0.52	1.73
Race (Non-Hispanic White = 1)												
Hispanic	−1.47***	0.50	0.23	−0.38	0.52	0.69	−1.16**	0.46	0.31	−0.36	0.49	0.70
Non-Hispanic Black	−0.33	0.32	0.72	0.70**	0.27	2.01	−0.36	0.33	0.70	0.73***	0.27	2.07
Non-Hispanic Other	−0.18	0.53	0.83	0.93*	0.56	2.54	−0.06	0.55	0.94	0.85	0.56	2.34
Respondent Characteristics at Conception												
Birth 2003 +	−0.14	0.26	0.87	0.13	0.29	1.13	−0.19	0.27	0.83	0.15	0.29	1.16
Age 25 or older							0.34	0.30	1.41	−0.65**	0.28	0.52
First birth							0.28	0.29	1.32	0.02	0.26	1.02
High school graduate							1.01***	0.28	2.74	0.11	0.27	1.12
Constant	−1.85***	0.31	0.16	−2.83***	0.36	0.06	−2.70***	0.39	0.07	−2.70***	0.41	0.07
Wald χ^2	43.67						75.60					
N	1411						1411					

Note: Robust standard errors are reported.

*** p<.01;

** p<.05;

* p<.10.