

Bowling Green State University
The Center for Family and Demographic Research

<http://www.bgsu.edu/organizations/cfdr>

Phone: (419) 372-7279 cfdr@bgsu.edu

2015 Working Paper Series

**CHANGE IN THE STABILITY OF FIRST PREMARITAL COHABITATION
AMONG WOMEN IN THE U.S., 1983-2013**

Esther O. Lamidi
Wendy D. Manning
Susan Brown

Department of Sociology &
Center for Family and Demographic Research
Bowling Green State University
Bowling Green, OH

Abstract

The rapid growth in cohabitation over the past quarter century necessitates studies of changes in the stability and outcomes of cohabitation. We utilized data from the 1988 National Survey of Family Growth (NSFG) and the most recent 2011-2013 NSFG data to examine the outcomes of two comparable cohorts of first premarital cohabiting women (1983-1988 and 2006-2013). Our results showed that cohabitations formed between 2006 and 2013 lasted longer, 18 months on average, than those formed in the mid-1980s which lasted for an average of 12 months. We found that the lengthening of cohabitation over time cuts across sociodemographic groups—race/ethnicity, education, and motherhood status—and resulted mostly from the declining rate of transitioning to marriage. There was some support for the diverging destinies perspective in that disparities in the outcomes of cohabitation by education and by cohabiting birth have widened over time. Our analyses showed that changes in the outcomes of first premarital cohabiting unions over the past three decades were not due to compositional shifts in cohabitators. These results demonstrate the evolving dynamics of cohabitation over a 30-year window.

Keywords: Cohabitation, change, stability, marriage

In the past quarter century one of the most striking family changes in the United States has been the rapid growth in cohabitation. The share of American women aged 30-34 who had cohabited at least once nearly doubled from 40% in 1987 to three-quarters in 2013 (Manning and Stykes 2015) and since the early 1990s, cohabitation has become the dominant pathway to forming a first coresidential union (Manning 2013). A defining feature of cohabitation in the U.S. is its relatively short duration (Heuveline and Timberlake 2004) with cohabiting unions lasting less than two years, on average (Copen et al. 2013). Given this growth in cohabitation, a key question is whether there have been changes in the stability and pathways out of cohabiting unions (marriage or dissolution).

Although there has been growth in cohabitation, the change has been uneven across sociodemographic groups resulting in a shift in the composition of cohabitators: increasing childbearing in cohabiting unions, larger increases in cohabitation among whites and Hispanics, greater increases in cohabitation among the modestly educated (Bumpass and Lu 2000; Kennedy and Bumpass 2008; Kuo and Raley 2016; Manning, Brown, and Stykes 2015). We draw on two key perspectives used to assess family change, diverging destinies and diffusion (Liefbroer and Dourleijn 2006; McLanahan 2004), to examine changes in patterns of cohabitation. We examine whether the sociodemographic divide in cohabiting outcomes is converging or diverging over time and consider how the changing composition of cohabitators is associated with shifts in the stability of first premarital cohabiting unions.

Unlike previous research on the stability of cohabitation, the present study compares two cohorts of first premarital cohabitators spanning a 30-year period (1983-1988 and 2006-2013). For the early cohort, cohabitation was relatively uncommon, with only 35% of women having ever cohabited, and a period when the late baby boom birth cohort was in their twenties. The recent

cohort represents a period when cohabitation is common, 65% of women ever cohabited, and a period when the millennials were in their twenties. To construct these cohabitation cohorts, we rely on the 1988 and 2011-2013 National Survey of Family Growth (NSFG). We utilize life table techniques and event history models as well as regression decomposition to analyze the trends and relative contributions of compositional factors to changes in the stability of first premarital cohabitation over the past three decades. This approach allows us to assess whether and how the stability of first cohabitations have shifted in the U.S. Understanding the trends in stability and transitions from premarital cohabitation to either marriage or separation provides a lens into the evolving relationship between cohabitation and marriage. Further, as cohabitation is increasingly a context of childbearing and childrearing, it is important that researchers consider how the stability of cohabiting unions differs for those with and without children.

Background

The growth in cohabitation over the past quarter century, popularly referred to as the cohabitation revolution (Smock and Manning 2010), has been well documented. Nearly two-thirds (65%) of women aged 19-44 had experienced cohabitation in 2013, compared to only one-third (33%) in 1987. Similarly, 69% of recent marriages among women aged 19-44 were preceded by cohabitation, a significant increase from 41% in 1987 (Kennedy and Bumpass 2011; Manning and Stykes 2015). Scholarly interest in cohabitation is high in part because of the pace of change in cohabitation, which has shifted from a minority to majority experience over a short time span. However, a challenge in studying cohabitation is that while it has become widespread, on average it does not last long. The median duration of first premarital cohabitation among women aged 15–44 in the 2006–2010 NSFG is less than 2 years (Copen et al. 2013). Thus, at any given point in time, there may not be many individuals cohabiting, but a high proportion

have spent some time in cohabiting union(s) or ‘ever’ cohabited. Although cohabitation tends to be short-lived it nevertheless can have a substantial influence on the family lives of adults and children.

According to the diffusion perspective (Liefbroer and Dourleijn 2006), the risk of union instability among cohabitators depends on the extent to which cohabitation has spread within a society. Based on the diffusion perspective, cohabitators and non-cohabitators become increasingly similar with the growing prevalence of cohabitation. Early on cohabitators were more select in terms of their less traditional attitudes and values, weaker commitment to marriage, and precarious socioeconomic conditions (Axinn and Thornton 1992; Bumpass et al. 1991; DeMaris and Rao 1992; Manning and Lichter 1996). As cohabitation has become more common and is now a normative part of the family life course, individuals who cohabit are less select than they were a quarter century ago. The spread of cohabitation across the U.S. population could have resulted from a number of factors ranging from increased acceptance of cohabitation, generational changes, and/or postponement of marriage with increasing emphasis on economic buoyancy as a requisite for marriage. The demographic characteristics of cohabitators could have also shifted in response to compositional changes in the larger population. The changing composition of cohabitators in terms of education, race/ethnicity, and parenthood status over the past few decades (discussed further below) suggests potential sources of shifts in the outcomes of cohabiting unions. Thus, based on the diffusion perspective we expect that patterns of transitions out of cohabitation may have converged across these demographic characteristics with declining selectivity.

Conversely, scholars have argued that economic changes over the past few decades (e.g. disappearance of manufacturing jobs) disproportionately affected American men with no college

degree, thereby precipitating what Andrew Cherlin describes as an hourglass economy. Marriage has also become a status symbol, with the prerequisites for marriage (e.g., assets) increasingly beyond the reach of many working-class Americans (Cherlin 2014). In view of the above changes, the diverging destinies perspective argues that changes in family patterns have been greater among the more economically disadvantaged than among those with more economic resources (McLanahan 2004). According to this view, the forces driving the trends of the second demographic transition (e.g. increasing cohabitation and unmarried childbearing) are producing different family experiences across social class (McLanahan 2004). Thus, while there has been growth in cohabitation in the U.S., the change has been uneven across sociodemographic groups (Gibson-Davis and Rackin 2014; Goldstein and Kenney 2001; Manning et al. 2014; Raley 2000). For example, the share of women whose first union was cohabitation has remained stable for college educated women (55% in 1984-88 to 56% in 2006-2010) but has increased markedly for women with more modest levels of education (56% in 1984-88 to 89% in 2006-2010) (Manning et al. 2014). Given the roles of race/ethnicity, education, and parenthood status in access to socioeconomic resources, a diverging destinies approach predicts growing disparity in cohabiting union transitions across race/ethnic groups, levels of education, and parenthood statuses.

Indeed, previous studies have documented shifts in union transitions that point to changing stability levels of cohabitation but explicit cohort comparisons are lacking. In the 1980s, cohabiting unions more often ended in marriage than dissolution (Bumpass and Sweet 1989). Researchers report a reversal of this trend by the late 1990s as cohabiting unions less often transitioned to marriage (Guzzo 2014; Lichter et al. 2006). Since the late 1990s, the lengthening of cohabitation (Kennedy and Bumpass 2008; 2011) has coincided with a continued decline in the rate of transition to marriage from premarital cohabiting unions (Guzzo 2014; Kuo

and Raley 2016). A contribution of this paper is to empirically evaluate the role of compositional changes in union transitions among women ages 15-39 in two key cohabitation cohorts (1983-1988 and 2006-2013).

An assessment of change in the stability of cohabitation requires attention to shifts in the composition of cohabitators over time. Prior work points to variation in cohabitation by race-ethnicity, education, and parenthood status (Brown 2000; Carlson et al. 2004; Guzzo 2009; Kennedy and Bumpass 2008; Kuo and Raley 2016; Lichter et al. 2006; Manning and Smock 2002) and we examine whether union outcomes across these dimensions are converging or diverging. Although cohabitation increased across racial/ethnic groups between the 1987 National Survey of Families and Households and the 2011-2013 NSFG surveys, the greatest increase in cohabitation experience was among Hispanics (Manning and Stykes 2015). Cohabitation is increasingly common among all racial minorities (Bumpass and Sweet 1989; Copen et al. 2013; Manning et al. 2014) but is a stepping stone to marriage more so for Whites than Blacks because cohabiting Whites have higher odds of transitioning to marriage (Brown 2000; Guzzo 2009; Lichter et al. 2006; Manning and Smock 1995). Cohabitation is a more typical pathway to parenthood and a more common family context for raising children among Hispanics and Blacks compared to Whites (Manning 2001; Manning et al. 2015; Musick 2002; Wildsmith and Raley 2006). As such, cohabitation tends to last longer among Hispanic and Black women (Copen et al. 2013; Kennedy and Bumpass 2008).

The experiences of cohabitation in the U.S. vary by social class. Cohabitation has been described as a more economical route to forming a co-residential union (Furstenberg 1996). Also, economic resources, particularly the male partner's economic stability, promote the transition to marriage among cohabiting couples (Smock and Manning and 1997; Smock et al.

2005). Middle-class cohabitators are more likely to be engaged to their cohabiting partners than their working-class counterparts (Sassler and Miller 2011). The present study focuses on educational attainment as an indicator of social class. Data limitations preclude the inclusion of other indicators. Adults with lower levels of education are more likely to cohabit than those with college degree and the educational gap in cohabitation experiences of women in the U.S. has widened over the past few decades. In 1987, among women aged 19-44, 43% of those with less than a high school degree and 31% of those with college degree had ever cohabited. In a recent time-period (2011-2013), more than three-quarters (76%) of women with less than a high school degree have ever cohabited compared to less than half (42%) of college educated women (Manning and Stykes 2015). Having a high school degree or higher, relative to no high school diploma, is positively associated with marriage among cohabitators (Carlson et al. 2004; Guzzo 2014; Kennedy and Bumpass 2008). A college education is associated with the highest odds of marriage among cohabiting women (Copen et al. 2013). College educated women rarely have a child while cohabiting in contrast to nearly one in three women with a high school degree (Manning et al. 2015).

An important shift in cohabiting unions is the presence of children. Nearly half of children are expected to spend some time in a cohabiting family (Brown, Stykes, and Manning 2016). The share of births to unmarried women in the U.S. has doubled since the 1980s and nearly all of the increase in nonmarital childbearing over the past few decades was due to increasing births among cohabiting women (Lichter et al. 2014; Manning et al. 2015). In the early 1980s, only 6% of children were born to cohabiting parents, and recently as many as one quarter of American children (25%) were born to cohabiting parents (Manning et al. 2015). As a form of relationship-specific capital, children may act as a deterrent against separation and help

to cement the relationship (Becker 1990; Manning 2004; Wu 1995). Alternatively, children can be a source of strain and stress resulting in potentially greater levels of union instability (Nomaguchi and Milkie 2003; Evenson and Simon 2005). Children who were born prior to cohabitation may be destabilizing as they are not the biological offspring of both parents resulting in potential tensions caused by ambiguous roles, financial obligations, and expectations among stepfathers and stepchildren (Brown and Manning 2009; Mahoney 2006; Marsiglio 2004; Sweeney 2010; Teachman 2008). Although several studies have considered the outcomes of cohabiting unions involving children (Lichter et al. 2016; Musick and Michelmore 2016), no recent study has established how parenthood status influences the outcome of cohabiting unions.

Current Investigation

The aim of this paper is to establish the trends in stability and transitions out of cohabiting unions over the past 30 years. We focus on whether there has been convergence (diffusion perspective) or divergence (diverging destinies perspective) in four compositional features of cohabiting women: race/ethnicity, education, parenthood, and age at cohabitation. Relying on life table, event history, and regression decomposition and standardization techniques we determine the probability of transitioning out of first premarital cohabitation into either marriage or separation relative to continuing to cohabit for five years. Our analyses account for key correlates associated with cohabitators' union outcomes: family structure while growing up, nativity status, and age at first sex. Previous research has documented differences in outcomes of cohabitation by family background and by nativity status (Guzzo 2014). Also, sexual experiences in adolescence is significantly related to cohabitation experiences in early adulthood (Raley et al. 2007; Meier and Allen 2009). We document patterns and differentials in the stability of

cohabiting unions during a period of rapid socioeconomic and attitudinal changes in the U.S.: 1983-2013.

Although researchers have established patterns of cohabitators' union transitions and stability at specific time points (Kuo and Raley 2016), few have empirically examined how the compositional changes in cohabitation influence cohabitation outcomes over a critical time span (30 years). In addition, to date no study has specifically focused on motherhood status along with race/ethnicity and educational attainment. Assessments of diffusion and diverging destinies perspectives require analyses across cohorts. We conduct tests for significant inter-cohort variation in the effects of the correlates of stability of first premarital cohabiting unions. Because women in each cohort were sampled relatively close to the date of their cohabitations, we hope to adequately capture the stability of cohabiting unions in each time period. Further, while the stability of cohabiting unions with children has received empirical attention (Lichter et al. 2015; Musick and Michelmore 2016), we extend the existing literature by focusing on the experiences of cohabiting unions with and without children. This distinction by motherhood status is critical because although cohabitation is increasingly a family context for children (Manning 2015), the majority of cohabiting couples do not have children,

Data and Methods

We used data from Cycle 4 (1988) of the National Survey of Family Growth (NSFG) and the most recent 2011-2013 NSFG data. The NSFG is a repeated cross-sectional nationally representative household survey of reproductive-aged women (aged 15-44) in the U.S. The survey is designed and administered by the National Center for Health Statistics (NCHS) in conjunction with other supporting agencies of the U.S. Department of Health and Human Services. The NSFG provides valuable information about union formation, union dissolution,

fertility patterns, and other aspects of family life in the U.S. Details about the design of the NSFG and its data collection procedures have been documented elsewhere (see U.S. Department of Health and Human Services 1994; 2014).

The NSFG interviewed 8,450 noninstitutionalized women between January and August 1988 for Cycle 4. There were 3,032 women interviewed in the 1988 NSFG Cycle 4 who had cohabited with at least one partner. Of those ever-cohabited women, 682 experienced their first non-marital cohabiting union after having been married and divorced and were excluded from our analysis. We further limited our sample to a single cohort of first premarital cohabitators, women who formed their unions within five years of the survey, between January 1983—and the date of interview (January to August 1988). The restriction constrained our analytic sample to 742 women ranging from ages 15-44. As in previous studies (e.g. Lichter et al. 2006), we relied on a five-year period to minimize problems of age truncation and underreporting of cohabitation which increases over time (Hayford and Morgan 2008).

Our goal is to analyze change in the stability of cohabitation between the 1980s when cohabitation was still a minority experience (fewer than half of U.S. adults had ever cohabited) and the recent years when majority (about two-thirds) of women had experienced cohabitation. Further these two time periods roughly represent when late baby boomers and millennials, respectively, were in their twenties. To capture the changes in the stability of first premarital cohabitation over a period of thirty years, we estimated the duration of premarital cohabiting unions formed by women between 2006 and 2013, using the 2011-2013 NSFG. In the 2011-2013 survey, 5,601 women were interviewed between September 2011 and September 2013. There were 3,135 women who ever-cohabited in the 2011-2013 NSFG of which 201 did not cohabit until after their first marriage ended and thus were excluded. Our approach is to analyze data

collected near the referent time period to minimize problems of recall of cohabitation start and end dates as well as to ensure cohabitation cohorts include the full age range.¹ Therefore, of the 2,934 women who cohabited prior to first marriage, we sampled 794 women (aged 15-44) who formed their first premarital cohabiting unions within five years of their interviews using January as the benchmark as in the earlier cohort (i.e. January 2006-to month of interview in 2011 for those interviewed in 2011, and January 2008-interview month in 2013 for those interviewed in 2013). The combined sample from both waves of the NSFG data (1988 and 2011-2013) includes 1,536 women aged 15-44.

In both NSFG surveys, women provided detailed histories of their union formations and dissolutions, including the start and end dates of each union. For a woman who reported ever cohabiting with a partner prior to marriage, the *duration* of her first premarital cohabitation equals the difference (in months) between the start and end dates of the cohabiting union corresponding to her first premarital cohabitation. The NSFG questions also permit the construction of first premarital *cohabiting union outcomes* as intact cohabitation, marriage, or dissolved cohabitation (i.e., separation).

Respondents' reports of their *racial/ethnic group identification* in the NSFG were recoded into the following categories: Hispanic (single race), non-Hispanic White (single race), non-Hispanic Black (single race), and "non-Hispanic other or multiple" racial/ethnic groups. Although we included women who identified with the "other" racial/ethnic category in our

¹ Because of the upper age limit of the NSFG, the retrospective construction of cohorts is problematic resulting in analyses that represent experiences of only older respondents. For example, the 2011-13 cannot be used to analyze outcomes of cohabitations formed in 1985 because it would only reflect the experiences of respondents aged 42-44 (15-17 in 2012). Similarly analyses of cohabitations formed in 1990 using the same data would reflect the experiences of respondents who were 15-22 years old in 1990 (37-44 in 2012).

analyses, we report the transitions of stability of first premarital cohabiting unions for the following racial/ethnic groups: Hispanic, non-Hispanic White (reference), and non-Hispanic Black women. There were only 19 (2.6 %) women of “other” race/ethnicity in the 1983-1988 cohort and 62 (8.1 %) in the 2006-2013 cohort.

Women were classified into four *educational categories* - less than high school degree, high school degree or GED, some college (including 2-year degree), and bachelor's degree or higher (reference). This was established at the time of interview and may not reflect their education at start of cohabitation. Our indicator is a proxy as the NSFG does not include full education histories so we were not able to link the start of cohabitation and educational attainment. The recent NSFG includes measures of timing of high school as well as college graduation and we find that the completed education level corresponds to education at time of interview.² In our exploratory models (results not shown), we found that controlling for maternal education as an indicator of social class did not change our results or alter our conclusions. We excluded maternal education from our analyses to minimize collinearity problems.

Birth timing during first premarital cohabiting union (cohabiting birth) is measured in three categories: a) no birth before and during cohabitation (reference), b) any birth during cohabitation, and c) any birth prior to (but not during) cohabitation. Based on this classification, women who gave birth both before and during cohabitation fall into category *b*. Cohabiting women with no birth, hereafter referred to as childless cohabitators, had zero parity. A woman is

² Our comparisons of the timing of college graduation (available in the 2011-2013 but not in the 1988 NSFG) and the timing of first premarital cohabitation showed that 89% of the college-educated women in the 2006-2013 cohort obtained their degrees before or during their first premarital cohabitations (all of them were already in college when they started cohabiting). Similarly, based on the timing of high school graduation in the 2011-2013 NSFG, the majority (80%) of women with high school degrees in our sample had the same levels of education at the time of cohabitation. It appears as if educational attainment at the time of interview largely reflects education at the time of cohabitation.

categorized as having had a birth during her first cohabitation if the date of the outcome of any of her reported pregnancies that resulted in live births falls in between the start and end dates of her first premarital cohabiting union. Women whose first biological child was born prior to the start date of their first premarital cohabitation and who did not report any other birth occurring while cohabiting were put in the third category – birth before cohabitation.

The multivariate models included key control variables. To capture family history we included an indicator of *non-intact family structure at age 14*. Non-intact family structure is coded 1 if a woman reported any living arrangement other than either both biological or adoptive parents at age 14, and 0 otherwise. *Nativity status* was measured with a binary variable coded 1 if a woman was born outside of the U.S. and 0 otherwise. We categorized our sample into three groups based on their *age at the beginning of their first premarital cohabiting relationships*. These are: less than 20, 20-24 (reference), and 25-39. We dropped from our sample fourteen respondents who began cohabiting before reaching age 15. We excluded twelve respondents in our sample who were 40 years or older at the time of interview because the upper age limit of the sample meant that women over age 40 were not captured in the starting points of our cohabitation cohorts. To estimate the association of *age at first sex* we included a dummy variable coded 1 if the respondent had sex before reaching age 16 (early sex) and 0 otherwise (later sex) and excluded seven respondents with missing age at first sex. Thus, our final analytic sample comprises 1,503 women aged 15-39—729 in the 1983-1988 cohort and 774 in the 2006-2013 cohort.

We compared first premarital cohabiting unions formed between 1983 and 1988 to those formed about three decades later between 2006 and 2013. First, we described the characteristics (duration of first premarital cohabitation, race/ethnicity, educational attainment, birth timing,

family structure, nativity status, age at first cohabitation, and age at first sex) of women in the two cohabitation cohorts. Then, we applied the techniques of multiple decrement life tables to estimate women's probability of transitioning out of first premarital cohabiting unions into marriages or through separation. We tracked each cohabiting union for a period of five years to see if it remained intact (censored), dissolved, or transitioned to marriage. An individual is censored if she remained in her first premarital cohabitation until the end of the fifth year or until the date of the interview.

In the second part of our analyses, we estimated women's risks of marrying or separating from their first premarital cohabiting partners in a series of discrete-time multinomial logistic regression models. The first two models (presented in Table 3) examine cohort differentials in the likelihood of transitioning to marriage or dissolving first premarital cohabitations. Model 1 includes the cohort indicator and Model 2 includes both the cohort measure and other predictors of the stability of cohabiting unions. Further, we test for how the associations between the sociodemographic indicators vary by cohabitation cohort.

The last set of analyses assessed how compositional factors were associated with the shifts in the outcomes of cohabiting unions. We estimated monthly conditional probabilities of transitioning from first premarital cohabitation to marriage or separation while varying the sociodemographic characteristics of cohabiting women (i.e. while holding the covariates at different cohorts at their weighted mean values). We then used the monthly conditional probabilities to estimate the cumulative predicted probabilities of transitioning to marriage and separation within five years of cohabiting at the different levels of sociodemographic characteristics.

All models account for duration of the cohabiting union. Each woman with a history of first premarital cohabitation contributed person-months, measured in discrete intervals of months from the start date of her cohabitation until the date she married, dissolved the union, or was censored. The 1,503 women in our sample contributed 25,251 person-months of data. All the analyses are weighted to account for unequal probability of selection into the sample and to adjust for differential coverage and response rates.

Results

Table 1 presents the descriptive statistics of our focal variables by cohabitation cohort and showcases the significant compositional shifts in the cohabiting women over the cohorts. The share of cohabiting women who were Hispanic nearly doubled across the period from 11% to 21%, the percentage of Blacks remained about the same at 13-14%, and there were fewer Whites in the recent cohort (73% versus 55%). The educational composition of cohabiting women has shifted. More women in the 2006-2013 cohort (28%) than in the 1983-1988 cohort (20%) were college graduates. The increased educational attainment among cohabiting women in our sample largely mirrors the general increase in education among women (results not shown). Our study reaffirms the growth in childbearing and childrearing within cohabiting unions. The share of first premarital cohabiting women with children increased across the two cohorts, from 19% in 1983-1988 to 30% in 2006-2013. The rise in childrearing among first premarital cohabitators over the past three decades is almost entirely due to increasing births within first cohabitation. Only a minority of single mothers (10-11%) transitioned to cohabiting relationships in both cohorts. Perhaps reflecting increased union instability in their parental generation, fewer cohabiting women in the recent cohabiting cohort (56%) than in the 1980s cohort (66%) lived in an intact family until age 14. The share of foreign-born cohabitators in the sample increased from

5% in the 1980s to 9% in the 2006-2013. Age at first cohabitation changed little across cohorts. The share of premarital cohabitators who experienced early sex (before age 16) increased from 25% in the 1983-1988 cohort to 35% in the 2006-2013 cohort.

[Table 1 about here]

Table 2 presents our life table estimates of transitions out of first premarital cohabiting unions formed between 1983-1988 and 2006-2013. Although still relatively short-lived, cohabiting unions are lasting longer nowadays in the U.S. Fewer than half of the earlier cohort of cohabitators celebrated their one-year anniversary, but two-thirds of the more recent cohabitation cohort did so. Similarly, the proportion of cohabiting unions surviving until the end of the fifth year nearly doubled from 23% in the 1980s to 43% in 2006-2013 (Table 2, Panel A). The lengthening of first premarital cohabitation over the past three decades cuts across sociodemographic groups. The rate of transitioning to marriage among cohabitators declined over time. More than two out of every five women (42%) married their first cohabiting partners within five years in the 1980s but only one in five women (22%) did so about thirty years later. Between 1983-1988 and 2006-2013, the probability of dissolving a first premarital cohabitation in the first year fell by 26% whereas by the end of the fifth year of cohabiting, similar shares of cohabitators had separated in both cohorts. This suggests that cohabitators were taking relatively longer to separate in the more recent years than in the 1980s. Nevertheless, whereas marriage served as the modal exit from premarital cohabitation in the 1980s, more cohabitators separated than married between 2006 and 2013.

[Table 2 about here]

As shown in Panel B of Table 2, the increased duration of first premarital cohabitation between 1983-1988 and 2006-2013 was more pronounced for Hispanics than for Whites and

Blacks. The shares cohabiting at five years nearly tripled for Hispanics whereas it was less than doubled for Blacks and Whites during the 30-year period. In both cohorts, a smaller share of Black premarital cohabitators than Whites and Hispanics transitioned to marriage. A greater proportion of White cohabitators than their minority counterparts married their partners in the earlier cohort but a larger share of Hispanics than Whites and Blacks transitioned to marriage in the more recent cohort. The proportion of cohabiting unions ending in dissolution at the end of the fifth year was greater for Blacks than either Hispanics or Whites in both cohorts. Over time, the modal pathway from first premarital cohabitation changed from dissolution to marriage for Hispanics and from marriage to dissolution for Whites. In both time periods, more Black cohabitators dissolved their unions than married their partners. Considering the relatively small size of Hispanic population in our 1983-1988 cohort (11%), the racial/ethnic differences should be interpreted with some caution.

There is a growing education gap in the share of women transitioning from a first premarital cohabitation to marriage (Panel C of Table 2). The proportion of cohabitators marrying their partners was 164% higher for college graduates than for high school dropouts in 2006-2013, and in the 1980s a much smaller gap existed (63% higher level for college graduates). In both time periods, more cohabiting unions formed by women with less than a high school degree ended in separation than transitioned to marriage. Conversely, for college-educated women greater shares of premarital cohabiting relationships transitioned to marriage than dissolved in both 1983-1988 and 2006-2013. This suggests that among highly educated women in the U.S., premarital cohabitation is still typically a prelude to marriage. The probability of transitioning to marriage or dissolving a first premarital cohabitation among women with high school degree and those with some college education reversed course between 1983-1988 and 2006-2013; marriage

was more common than dissolution in the 1980s but larger shares separated than married in 2006-2013.

Over the study period, a first premarital cohabiting union persisted for a longer time if the woman had one or more children while cohabiting than among childless cohabitators and single mothers who transitioned to cohabiting relationships (Panel D of Table 2). Also, in both cohabitation cohorts, fewer women with a cohabiting birth married their cohabiting partners compared to both childless cohabitators and those who had a biological child at the start date of their first premarital cohabitation. Births within cohabitation appear to delay marriage among women, more so than do pre-cohabitation births. We found some changes in the role of motherhood on the outcome of first premarital cohabiting unions over time. The gap in the proportions transitioning to marriage between women with cohabiting births and their counterparts with no birth and those with only pre-cohabitation births has widened over time, from less than 20% in the 1980s to more than 50% in 2006-2013. In the recent cohort, women with cohabiting births had only about half the probability of marriage as those with no children and those with births before but not during cohabitation. Further, in the 1980s, greater shares of childless cohabitators and those with cohabiting births transitioned to marriage than separated. Slightly more women with births before first premarital cohabitation dissolved their unions than married in the 1980s. In the recent cohort (2006-2013), more cohabitators separated than married regardless of their parenthood status.

More cohabiting unions initiated at younger ages (15-24), than at older ages (25-39) persisted for five years in the 1980s; larger share of older cohabitators remained with their partners until the end of the fifth year in the more recent cohort (Panel E of Table 2). In both cohorts, teen cohabitators transitioned to marriage at lower rates than women who delayed their first premarital

unions until their mid-20s or later. Although the rate of transitioning to marriage from first premarital cohabitation declined over time for all age groups, the decline was most pronounced in the teenage years. Across the study period, the rate of dissolution increased among teenage cohabitators, remained the same among women who formed their unions in their early- to mid-20s and declined among older cohabitators (aged 25+).

Next, we examined the relative risks of first premarital cohabiting unions transitioning to marriage or to dissolution in a series of discrete-time multinomial logistic regression models. Table 3 presents the results of the multinomial logistic regression models predicting the odds of transitioning to marriage or separation from a first premarital cohabiting union versus continued cohabitation for five years. The results in Model 1 suggest a significant change in the distribution of the outcomes of first premarital cohabitation in the U.S. between 1983-1988 and 2006-2013. Controlling for union duration, members of the 2006-2013 cohort of cohabitators were significantly more likely than the 1983-1988 cohort to continue cohabiting with their partners than to either marry or separate. The cohort differential in the risk of transitioning to marriage or dissolution persisted after accounting for changes in the other predictors of cohabitation outcomes as shown in Model 2. Net of other factors included in the models, first premarital cohabitations formed in the recent time period persisted longer than those formed in 1983-1988; they were significantly less likely to transition to marriage or dissolution.

[Table 3 about here]

The significant correlates of the outcomes of first premarital cohabitation in this study are education, birth timing, foreign-born status, and age at first cohabitation. Compared to those who graduated from college, women with a high school degree or less education were more likely to dissolve their unions than to continue cohabiting. In a bivariate model (not shown), college

graduates had about twice the risks of transitioning to marriage as their counterparts with no college degree but this was mostly due to their lower likelihood of having cohabiting births and their delayed union formation (results not shown). Only a minority of college graduates in both cohabiting cohorts (<10%) had children before or during their first premarital cohabiting relationships. Also, compared to more than two-thirds of those with less than a high school degree, only 5% of women with college degree in both cohabitation cohorts were teenagers (results not shown).

A cohabiting birth tended to prolong a first premarital cohabitation. We found significantly reduced odds of marriage and separation among women who gave birth while cohabiting relative to childless cohabitators but birth before first premarital cohabitation was not significantly associated with the risks of marriage and dissolution. Foreign-born cohabitators had higher chances of marriage than cohabiting women born in the U.S. Teenage cohabitators were more likely to separate from their partners than women who formed their first premarital cohabiting relationships in their early- to mid-20s.

We further examined inter-cohort differences in the predictors of outcomes of premarital cohabitation. Our analyses showed that only the effects of education and birth timing significantly changed across the two cohabitation cohorts. The results of the interactions between respondents' educational attainment and cohort presented in Model 3 (Table 3) suggest increasing educational divergence in the outcomes of cohabitation over time. Whereas college-educated cohabitators were not significantly different from their counterparts with lower levels of education in their risks of transitioning to marriage and dissolution in the 1980s, having a college degree, relative to less than college education, was associated with significantly higher risks of marriage in 2006-2013. Also, college-educated women had significantly lower risks of

dissolution than high school graduates in the 2006-2013 but not 1983-1988 cohort. The nonsignificant main effects of cohort in Model 3 indicate no significant change in the outcomes of cohabitation for college-educated women over the study period. Further tests of significant inter-cohort differences across educational groups showed that the risks of marriage declined significantly over time for all but college-educated women while the risks of dissolution were significantly reduced only among women with less than high school and some college education (results not shown).

Model 4 (Table 3) shows the results of the interactions between the indicators of birth timing and cohort. The findings suggest an increase in the marriage-inhibiting or marriage-delaying effect of a cohabiting birth over time. Having one or more children while cohabiting was associated with a significantly lower likelihood of marriage in 2006-2013 than in the 1980s. The majority of women who cohabited did not have or raise children in a cohabiting union and the pathways out of cohabitation shifted such that the risks of continued cohabitation, relative to transitions to marriage and dissolution among women with no children, increased significantly across cohorts.

We estimated the predicted probabilities of transitioning from first premarital cohabiting union to marriage or separation within five years of cohabiting at varying levels of the sociodemographic characteristics. The predicted probabilities presented in Table 4 are based on Model 2 in Table 3 with the covariates held at weighted mean values for each predictor in the model. Had there been no change in the sociodemographic characteristics of cohabiting women across the two cohorts (all covariates held at their 1983-1988 mean values), there would have been a slightly greater decline in the probability of transitioning from first premarital cohabitation to marriage within five years. The predicted probability of marriage would have

declined by 42% (from 53% in 1983-1988 to 31% in 2006-2013) as opposed to the 38% decline (from 53% to 33%) observed. Similarly, changes in the composition of cohabiting women over the past three decades minimized the increased risks of dissolution of first premarital cohabitation. The 20% increase in the predicted probability of separation, from 44% in 1983-1988 to 53% in 2006-2013, would have been higher (23%) if there was no change in the sociodemographic composition of first premarital cohabitators (i.e. all covariates held at their 1983-1988 mean values).

[Table 4 about here]

Changes in racial composition across the two cohorts produced minimal change in the outcomes of cohabiting unions with slightly lower levels of marriage and separation (holding race/ethnicity means at the 1983-1988 levels and other covariates at the 2006-2013 levels). With regard to women's educational attainment, the decline in the rate of transitioning to marriage from first premarital cohabitation would have been more pronounced and there is no difference in the probability of separation. The percentage change in the predicted probability of marriage would have been slightly higher had there been no changes in birth timing (holding birth timing at 1983-1988 mean values and other covariates at the 2006-2013 means) and a very minimal shift in the predicted probability of separation. Taken together, these standardization results indicate that changes in outcomes of first premarital cohabitation over the past three decades were mostly due to factors other than changing composition of cohabiting women.

Discussion

Decades after the onset of the growth in nonmarital coresidential unions, the cohabitation revolution (Smock and Manning 2010), there have been changes in the duration and outcomes of cohabiting unions. Our results showed that cohabitations formed between 2006 and 2013 lasted

longer, on average, than those formed in the mid-1980s. We also found that the lengthening of cohabitation over time resulted mostly from the declining rate of transitioning to marriage; close to half (42%) of first premarital cohabitators married their partners in the 1980s but only 22% of recent cohabitators did so. It is important to note that increased age at first marriage (Manning et al. 2014) might account for part of the reduced rate of transitioning to marriage from first premarital cohabitation found in this study. The increase in average duration of first premarital cohabiting union over the study period cuts across sociodemographic groups—race/ethnicity, education, and motherhood status. Our analyses indicate that only a small fraction of the change in outcomes of cohabiting unions is due to the changing composition of cohabiting couples. These findings suggest that the delinking of cohabitation from marriage and the declining rate of dissolution of first premarital cohabiting unions result from general changes in the U.S. population rather than behavioral changes specific to a group of cohabitators.

Although there are race and ethnic differences in the outcomes of cohabiting unions at the bivariate level, with longer average durations for Whites and Hispanics than Blacks, these racial and ethnic patterns have not changed over time. But, consistent with the diverging destinies perspective, we documented an increasing educational divergence in the outcomes of cohabitation over time. The risks of transitioning to marriage declined significantly over time for all but college-educated cohabitators; the college-educated experience twice the odds of marriage as their more modestly educated counterparts. Thus, with regard to social class the divide in the American family appears to be growing. While an increasing proportion of cohabitators are college educated, these findings suggest that college educated women may be more often treating cohabitation as a pathway to marriage and those with more modest educations are not. Future

analyses of variations in the experiences of cohabitation should further explore the growing socioeconomic inequality among different groups of cohabitators.

We introduced the possibility that changes in the outcomes of cohabiting unions may be due to the fact that cohabitation is more widespread and less selective (diffusion perspective). The empirical support for this approach has been documented in Europe (Liefbroer and Dourleijn, 2006) and has been applied to some U.S. analyses of marital dissolution including Manning and Cohen (2012) and a variation by Killewald (2016). Our study shows that the compositional factors do not explain the cohort changes in the outcomes of cohabiting unions which is contrary to the diffusion perspective.

Our findings show that cohabiting unions with children (particularly cohabiting births) last longer than those without children; women who had children while cohabiting experienced lower rates of transitioning to marriage or separation. Further, whereas the effect of birth before cohabitation on cohabitation outcomes changed little over time, cohabiting births were linked to significantly lower risks of transitioning to marriage, relative to continued cohabitation, in 2006-2013 than in 1983-1988. Given the concentration of cohabiting births among less economically advantaged women (Kennedy and Bumpass 2008), the above findings reinforce the growing divide in outcomes of premarital cohabitation across social class in the U.S., aligning with the diverging destinies perspective. The composition of first premarital cohabiting women has shifted to include more Hispanics, more college-educated women, and more mothers. However, the changing sociodemographic characteristics of cohabiting women did not account for most of the changes in the outcomes of first premarital cohabitation.

Understanding how the duration of cohabiting unions is changing is important for several reasons. First, it provides us with a broader perspective on the institutionalization of cohabitation

and its changing role in the U.S. family life course. The lengthening of premarital cohabitation, coupled with the increased rate of childbearing and childrearing among premarital cohabitators over the past 30 years (from 19% to 30%), suggests cohabitation is now more institutionalized as a unique family form in the U.S. Cohabitation is increasingly serving the traditional role of marriage as a viable context of childbearing and childrearing, particularly among women without a college degree. Compared to only 9% of women with a college degree, 59% of women with less than high school degree, 44% of high school graduates, and 24% of women with some college education had children before or during their first premarital cohabiting relationships in the 2006-2013 cohabitation cohort. The education gradient in childbearing during cohabitation has implications for assessments of children's experiences in cohabiting parent families and showcases potential differences in the meaning of cohabitation for education groups. Considering the fact that educational attainment was assessed at the time of interview, our estimates of cohabiting births among women with low levels of education are conservative.

Second, deciphering the trends in transitions from premarital cohabitation to marriage provides a lens into the evolving relationship between cohabitation and marriage. Our finding of a declining rate of transitioning to marriage from first premarital cohabitation among women with no college degree diminishes the traditional view of cohabitation as a prelude to marriage. Finally, the implications of cohabitation for the well-being of adults and children may shift as cohabitation has become less of a transitory experience for women with cohabiting births. Distinguishing the meaning and implications of short-term versus long-term cohabiting unions, particularly for those with children, is an avenue for future research.

Although our study provides new insights into the changing nature of cohabitation, it also has some limitations. First, our analyses are based on retrospective reports of the timing of first

premarital cohabitations. But the start and end dates of cohabitation are often fluid and retrospective recollection of cohabitation dates may not be totally accurate (Hayford and Morgan 2008; Manning and Smock 2005). We restricted our focus to cohabiting unions that occurred within five years of interview to minimize recall bias. Second, the age limit in our sample (15-39) means that our findings may not be generalizable to older first time premarital cohabitators (but there should be few at these older ages). Third, we limited the analyses to two cohorts of first premarital cohabitation. We acknowledge that further attention to serial cohabitation is warranted as it is an increasingly common experience. Also, to avoid conflating divorce (a second transition after marriage following cohabitation) with premarital union dissolution, we focused on first transitions out of first premarital cohabitation rather than the overall stability of relationships that began as cohabitations. It is important for future research on cohabitation, marriage, and family instability to employ a relationship-based approach (observing romantic partners from the onset of their union until they separate rather than transitions within the same relationship such as cohabitation to marriage with the same partner) in analyzing stability of relationships begun as cohabiting unions. Additionally, comparisons of changes in premarital and postmarital union dissolutions are an important avenue for future research on relationship stability in the U.S.

We compared cohabiting relationships formed in the 1980s to those formed in a recent time period. Our analyses span about 30 years (1983-2013) and these represent two key birth cohorts as well as a time period of rapid growth in cohabitation. These time periods roughly align with the experiences of the late baby boomers (the youngest boomers, born in 1964, were 19-24 between 1983 and 1988) and the millennial birth cohort (the oldest millennials were 28-33 between 2008 and 2013). Given the ages at first cohabitation during both time periods remained

relatively unchanged, age 22 (Manning et al. 2014), these time periods capture the experiences of cohabitation for two key birth cohorts. Some women in our 2006-2013 cohabitation cohort formed their unions around the last recession. Hence, we examined the effect of the recession on our findings. We compared cohabiting unions in the 2006-2013 cohort that were formed prior to the recession to those formed after the recession. In both our bivariate and multivariate analyses, we found no significant differences in the outcomes of first premarital cohabiting relationships consummated during (December 2007-June 2009) or up to six months after the recession and those formed prior to the recession (January 2006-November 2007).

Fourth, due to the absence of full educational histories in the NSFG, respondents' educational attainment was assessed at the time of interview rather than at the start of cohabitation. Women may complete their education after they begin cohabitation and as a result we may be placing them in an incorrect education category. Data limitations prevent us from directly addressing the issue of temporal ordering created by the assessment of respondents' educational attainment at the time of interview rather than at the beginning of cohabiting unions. Even though our analyses identify an important educational gradient in the experiences of first premarital cohabitation, we do not imply a causal relationship between education and cohabitation outcome. More importantly, understanding of social class variations in the experiences of cohabitation requires broader measures than just educational attainment. Our analyses highlight the need for collection of more detailed information about labor market outcomes and educational attainment in fertility and family surveys like NSFG. Moreover, our study offers additional evidence of the increasing divergence in family processes and family behaviors between college-educated Americans and their less educated counterparts reported in

previous studies (e.g. Gibson-Davis and Rackin 2014; Goldstein and Kenney 2001; McLanahan 2004; Raley 2000).

Fifth, data limitations precluded us from accounting for partners' characteristics in the multivariate models. Future analyses of changes in cohabitation among unmarried mothers would also benefit from additional information about the children born to cohabiting women. Although a large share of mothers in this study, particularly in the recent cohort, had one or more births within their first premarital cohabitation, we could not establish biological ties between the children and their mothers' cohabiting partners. Also, our supplemental analyses showed that 20% of women who had children prior to the start of (but not during) their first premarital cohabitations transitioned to co-residential unions within six months of the births, suggesting that some of the women with births before cohabitation in this study later cohabited with the biological fathers of their children. Nonetheless, the NSFG is the optimal data source to track changes in the stability of cohabitation. Lastly, further attention to racial and ethnic variation in cohabiting couple outcomes is warranted. In some cases, our analyses are limited to relatively small numbers of some subgroups (Hispanics in the 1983-1988 cohort).

Over the past 30 years, first premarital cohabiting unions have changed. Today's unions are less likely to eventuate in marriage and more likely to persist, suggesting that the meaning and purpose of cohabitation in the U.S. is evolving, particularly among women without a college degree. Millennials and Baby Boomers have had distinct cohabitation experiences. Further, the significant changes in the outcomes of cohabiting unions according to the presence of children as well as women's education provide insights into potential future family trajectories. Although first premarital cohabitations increasingly serve as a family context, tending to endure over time and often including children, this remains a minority experience. Clearly, social class

increasingly shapes the experiences of cohabitation. For most college-educated women, cohabitation serves as a transitory union, one that rarely includes children. As premarital cohabitation has diffused across the U.S. population, its contours have altered, reshaping the meaning of cohabitation among less educated Americans from a prelude to marriage to an increasingly important family form in its own right.

References

- Axinn, W. G., & Thornton, A. (1992). The relationship between cohabitation and divorce: Selectivity or causal influence? *Demography*, 29(3), 357-374.
- Becker, G. (1990). *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Breen, R., Karlson, K. B., & Holm, A. (2013). Total, direct, and indirect effects in logit and probit models. *Sociological Methods & Research*, 0(0), 1-28.
- Brown, S. L. (2000). Union transitions among cohabitators: The significance of relationship assessments and expectations. *Journal of Marriage and Family*, 62(3), 833-846.
- Brown, S. L., & Manning, W. D. (2009). Family boundary ambiguity and the measurement of family structure: The significance of cohabitation. *Demography*, 46(1), 85-101.
- Brown, S. L., Stykes, B. J., & Manning, W. D. (2016). Trends in children's family instability, 1995-2010. *Journal of Marriage and Family*, 78(5), 1173-1183.
- Bumpass, L. L., & Sweet, J. A. (1989). National estimates of cohabitation. *Demography*, 26(4), 615-626.
- Bumpass, L. L., Sweet, J. A., & Cherlin, A. (1991). The role of cohabitation in declining rates of marriage. *Journal of Marriage and the Family*, 53(4), 913-927.
- Carlson, M., McLanahan, S., & England, P. (2004). Union formation in fragile families. *Demography*, 41(2), 237-261.
- Cherlin, A. J. (2014). *Labor's love lost: The rise and fall of the working-class family in America*. Russell Sage Foundation.
- Copen, C. E., Daniels K., & Mosher, W. D. (2013). *First premarital cohabitation in the United States: 2006–2010 National Survey of Family Growth*. National health statistics reports; no 64. Hyattsville, Maryland: National Center for Health Statistics.
- DeMaris, A., & Rao, K. V. (1992). Premarital cohabitation and subsequent marital stability in the United States: A reassessment. *Journal of Marriage and Family*, 54(1), 178-190.

- Evenson, R. J., & Simon, R. W. (2005). Clarifying the relationship between parenthood and depression. *Journal of Health and Social Behavior*, 46(4), 341-358.
- Furstenberg, F. F. (1996). The future of marriage. *American Demographics*, 18(6), 34-40.
- Gibson-Davis, C., & Rackin, H. (2014). Marriage or carriage? Trends in union context and birth type by education. *Journal of Marriage and Family*, 76(3), 506-519.
- Goldstein, J. R., & Kenney, C. T. (2001). Marriage Delayed or Marriage Forgone? New Cohort Forecasts of First Marriage for U.S. Women. *American Sociological Review*, 66(4), 506–519.
- Guzzo, K. (2014). Trends in cohabitation outcomes: Compositional changes and engagement among never-married young adults. *Journal of Marriage and Family*, 76(4), 826-842.
- Guzzo, K. B. (2009). Marital intentions and the stability of first cohabitations. *Journal of Family Issues*, 30(2), 179-205.
- Hayford, S. R., & Morgan, S. P. (2008). The quality of retrospective data on cohabitation. *Demography*, 45(1), 129-141.
- Heuveline, P., & Timberlake, J. M. (2004). The role of cohabitation in family formation: The United States in comparative perspective. *Journal of Marriage and Family*, 66(5), 1214-1230.
- Kennedy, S., & Bumpass, L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. *Demographic Research*, 19, 1663-1692.
- Kennedy, S., & Bumpass, L. (2011, April). *Cohabitation and trends in the structure and stability of children's family lives*. Paper presented at the 2011 annual meeting of the Population Association of America, Washington, DC.

- Lichter, D. L., Qian, Z. Z., & Mellott, L. M. (2006). Marriage or dissolution? Union transitions among poor cohabiting women. *Demography*, 43(2), 223-240.
- Lichter, D. T., Sassler, S., & Turner, R. N. (2014). Cohabitation, post-conception unions, and the rise in nonmarital fertility. *Social Science Research*, 47, 134-147.
- Liefbroer, A. C., & Dourleijn, E. (2006). Unmarried cohabitation and union stability: Testing the role of diffusion using data from 16 European countries. *Demography*, 43(2), 203-221.
- Mahoney, M. M. (2006). Stepparents as third parties in relation to their stepchildren. *Family Law Quarterly*, 40, 81-108.
- Manning, W. D. (2001). Childbearing in cohabiting unions: Racial and ethnic differences. *Family Planning Perspectives*, 33(5), 217-223.
- Manning, W. D. (2004). Children and the stability of cohabiting couples. *Journal of Marriage and Family*, 66(3), 674-689.
- Manning, W. D. (2013). *Trends in cohabitation: Over twenty years of change, 1987-2010. (FP-13-12)*. Resource document. National Center for Family and Marriage Research. <http://www.bgsu.edu/content/dam/BGSU/college-of-arts-and-sciences/NCFMR/documents/FP/FP-13-12.pdf>. Accessed 10 June 2015.
- Manning, W. D., & Cohen, J. A. (2012). Premarital cohabitation and marital dissolution: An examination of recent marriages. *Journal of Marriage and Family*, 74(2), 377-387.
- Manning, W. D., & Lichter, D. T. (1996). Parental cohabitation and children's economic well-being. *Journal of Marriage and Family*, 58(4), 998-1010.
- Manning, W. D., & Smock, P. J. (1995). Why marry? Race and the transition to marriage among cohabitators. *Demography*, 32(4), 509-520.

- Manning, W. D., & Smock, P. J. (2002). First comes cohabitation and then comes marriage? A Research Note. *Journal of Family Issues*, 23(8), 1065-1087.
- Manning, W. D., & Stykes, B. (2015). *Twenty-five years of change in cohabitation in the U.S., 1987-2013. (FP-15-01)*. Resource document. National Center for Family and Marriage Research. <http://www.bgsu.edu/content/dam/BGSU/college-ofarts-and-sciences/NCFMR/documents/FP/FP-15-01-twentyfive-yrs-changecohab.pdf>. Accessed 11 June 2015.
- Manning, W. D., Brown, S. L., & Payne, K. K. (2014). Two decades of stability and change in age at first union formation. *Journal of Marriage and Family*, 76(2), 247-260.
- Manning, W. D., Brown, S. L., & Stykes, B. (2015). *Trends in Births to Single and Cohabiting Mothers, 1980-2013 (FP-15-03)*. Resource document. National Center for Family and Marriage Research. <http://www.bgsu.edu/content/dam/BGSU/college-ofarts-and-sciences/NCFMR/documents/FP/FP-15-03-birthtrends-singlecohabitingmoms.pdf>. Accessed 20 June 2015.
- Marsiglio, W. (2004). When stepfathers claim stepchildren: A conceptual analysis. *Journal of Marriage and Family*, 66(1), 22-39.
- Meier, A., & Allen, G. (2009). Romantic relationships from adolescence to young adulthood: Evidence from the National Longitudinal Study of Adolescent Health. *The Sociological Quarterly*, 50(2), 308-335.
- McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 41(4), 607-627.
- Musick, K. (2002). Planned and unplanned childbearing among unmarried women. *Journal of Marriage and Family*, 64(4), 915-929.

- Nomaguchi, K. M., & Milkie, M. A. (2003). Costs and rewards of children: The effects of becoming a parent on adults' lives. *Journal of marriage and family*, 65(2), 356-374.
- Raley, R. K. (2000). Recent trends and differentials in marriage and cohabitation: The United States. In L. J. Waite (Ed.), *The Ties that Bind: Perspectives on Marriage and Cohabitation* (pp. 19-39). New York: Aldine de Gruyter.
- Raley, R. K., & Wildsmith, E. (2004). Cohabitation and children's family instability. *Journal of Marriage and Family*, 66(1), 210-219.
- Raley, R. K., Crissey, S., & Muller, C. (2007). Of sex and romance: Late adolescent relationships and young adult union formation. *Journal of Marriage and Family*, 69(5), 1210-1226.
- Sassler, S., & Miller, A. J. (2011). Class differences in cohabitation processes. *Family Relations*, 60(2), 163-177.
- Smock, P. J., & Manning, W. D. (1997). Cohabiting partners' economic circumstances and marriage. *Demography*, 34(3), 331-341.
- Smock, P. J., & Manning, W. D. (2010). New couples, new families: The cohabitation revolution in the United States. In B. J. Risman & V. Rutter (Eds.), *Families as They Really Are* (pp. 131-139). New York: Norton.
- Smock, P. J., Manning, W. D., & Porter, M. (2005). "Everything's there except money": How money shapes decisions to marry among cohabitators. *Journal of Marriage and Family*, 67(3), 680-696.
- Sweeney, M. M. (2010). Remarriage and stepfamilies: Strategic sites for family scholarship in the 21st century. *Journal of Marriage and Family*, 72(3), 667-684.

- Teachman, J. (2008). Complex life course patterns and the risk of divorce in second marriages. *Journal of Marriage and Family*, 70(2), 294-305.
- U.S. Department of Health and Human Services (1994). *Public use data tape documentation: National Survey of Family Growth, Cycle IV, 1988*. Maryland: National Center for Health Statistics, Centers for Disease Control and Prevention.
- U.S. Department of Health and Human Services (2014). *Public use data file documentation: 2011-2013 National Survey of Family Growth*. Maryland: National Center for Health Statistics, Centers for Disease Control and Prevention.
- Wildsmith, E., & Raley, R. K. (2006). Race-ethnic differences in nonmarital fertility: A focus on Mexican American women. *Journal of Marriage and Family*, 68(2), 491-508.
- Wu, Z. Z. (1995). Premarital cohabitation and postmarital cohabiting union formation. *Journal of Family Issues*, 16(2), 212-232.

Table 1. Distribution of Variables by Cohabitation Cohort

	Cohabitation Cohort	
	1983-1988	2006-2013
Duration of First Cohabitation	11.93 (11.81)	17.97 (15.51)
Race/Ethnicity		
Hispanic	10.65	20.51
Non-Hispanic White	73.05	54.90
Non-Hispanic Black	13.13	14.31
Others	3.17	10.28
Respondent's Educational Attainment		
Less than high school	18.94	13.19
High school/GED	36.05	25.62
Some college	25.17	33.25
College degree or higher	19.84	27.93
Birth Timing		
No birth	81.45	70.39
Birth before cohabitation	9.68	10.76
Birth during cohabitation	8.88	18.85
Family Structure		
Non-intact family at age 14	34.50	43.84
Intact family at age 14	65.50	56.16
Nativity Status		
Born outside of the U.S.	5.21	8.71
Born in the U.S.	94.79	91.29
Age at First Cohabitation		
<20	36.85	36.76
20-24	41.25	40.54
25-39	21.90	22.70
Age at First Sex		
Early sex (<16)	25.34	34.51
Later sex (>=16)	74.66	65.49
Unweighted n	729	774

Source: National Survey of Family Growth, 1988 and 2011-2013; Note: Standard deviation in parentheses where appropriate; all means and proportions are significantly different across cohorts

Table 2. Multiple-Decrement Life-Table Estimates of Transitions Out of First Premarital Cohabiting Unions by Cohabiting Cohort and Duration

	Years Since Cohabitation Started					
	1 year		3 years		5 years	
	1983- 1988	2006- 2013	1983- 1988	2006- 2013	1983- 1988	2006- 2013
Panel A: All Women						
Cohabitation intact	0.43	0.67	0.25	0.48	0.23	0.43
Cohabitation transitioning to marriage	0.30	0.13	0.41	0.20	0.42	0.22
Cohabitation ending in dissolution	0.27	0.20	0.34	0.32	0.35	0.36
Panel B: By Race/Ethnicity						
Hispanic						
Cohabitation intact	0.34	0.66	0.21	0.51	0.19	0.48
Cohabitation transitioning to marriage	0.29	0.19	0.36	0.26	0.39	0.27
Cohabitation ending in dissolution	0.37	0.15	0.43	0.23	0.43	0.25
Non-Hispanic White						
Cohabitation intact	0.44	0.67	0.26	0.46	0.24	0.42
Cohabitation transitioning to marriage	0.31	0.12	0.43	0.22	0.44	0.23
Cohabitation ending in dissolution	0.25	0.21	0.31	0.32	0.32	0.35
Non-Hispanic Black						
Cohabitation intact	0.46	0.64	0.25	0.44	0.22	0.38
Cohabitation transitioning to marriage	0.22	0.09	0.31	0.14	0.32	0.15
Cohabitation ending in dissolution	0.32	0.27	0.44	0.42	0.46	0.47
Panel C: By Educational Attainment						
Less than high school						
Cohabitation intact	0.42	0.71	0.26	0.53	0.25	0.48
Cohabitation transitioning to marriage	0.25	0.08	0.32	0.12	0.32	0.14
Cohabitation ending in dissolution	0.33	0.21	0.42	0.34	0.43	0.37
High school/GED						
Cohabitation intact	0.41	0.59	0.24	0.39	0.22	0.34
Cohabitation transitioning to marriage	0.32	0.11	0.41	0.14	0.43	0.15
Cohabitation ending in dissolution	0.27	0.30	0.34	0.47	0.35	0.51
Some college						
Cohabitation intact	0.42	0.69	0.25	0.54	0.24	0.47

Cohabitation transitioning to marriage	0.29	0.11	0.40	0.15	0.41	0.17
Cohabitation ending in dissolution	0.29	0.20	0.35	0.31	0.35	0.37
College degree or higher						
Cohabitation intact	0.49	0.69	0.26	0.46	0.22	0.43
Cohabitation transitioning to marriage	0.30	0.19	0.49	0.36	0.52	0.37
Cohabitation ending in dissolution	0.21	0.11	0.25	0.18	0.26	0.20
Panel D: By Birth Timing						
No birth						
Cohabitation intact	0.40	0.63	0.24	0.45	0.22	0.40
Cohabitation transitioning to marriage	0.30	0.15	0.42	0.23	0.43	0.24
Cohabitation ending in dissolution	0.29	0.22	0.33	0.32	0.34	0.36
Birth before cohabitation						
Cohabitation intact	0.42	0.49	0.22	0.41	0.19	0.40
Cohabitation transitioning to marriage	0.30	0.20	0.36	0.22	0.38	0.23
Cohabitation ending in dissolution	0.28	0.31	0.42	0.37	0.43	0.38
Birth during cohabitation						
Cohabitation intact	0.67	0.91	0.38	0.63	0.35	0.56
Cohabitation transitioning to marriage	0.22	0.01	0.33	0.10	0.35	0.11
Cohabitation ending in dissolution	0.11	0.09	0.29	0.27	0.31	0.33
Panel E: By Age at First Cohabitation						
Cohabitors <20						
Cohabitation intact	0.43	0.64	0.28	0.44	0.26	0.37
Cohabitation transitioning to marriage	0.24	0.08	0.32	0.12	0.33	0.12
Cohabitation ending in dissolution	0.33	0.28	0.40	0.44	0.41	0.51
Cohabitors 20-24						
Cohabitation intact	0.41	0.68	0.25	0.47	0.24	0.43
Cohabitation transitioning to marriage	0.33	0.13	0.42	0.23	0.44	0.25
Cohabitation ending in dissolution	0.27	0.19	0.33	0.30	0.33	0.31
Cohabitors 25-39						
Cohabitation intact	0.46	0.68	0.21	0.55	0.17	0.52
Cohabitation transitioning to marriage	0.33	0.20	0.52	0.29	0.55	0.30
Cohabitation ending in dissolution	0.20	0.12	0.26	0.17	0.28	0.19

Source: National Survey of Family Growth, 1988 and 2011-2013 Data, 1,503 women ages 15-39 (729 in 1988 and 774 in 2011-2013)

Table 3. Multinomial Logistic Regression Relative Risk Ratios of Transitions Out of First Premarital Cohabitation Within Five Years

Predictors	Model 1		Model 2		Model 3		Model 4	
	Marriage vs. Intact	Dissolution vs. Intact	Marriage vs. Intact	Dissolution vs. Intact	Marriage vs. Intact	Dissolution vs. Intact	Marriage vs. Intact	Dissolution vs. Intact
Cohort (1983-1988 = 0)								
2006-2013	0.35***	0.68***	0.39***	0.77*	0.67	0.61	0.41***	0.74*
Race/Ethnicity (White = 0)								
Hispanic			1.33	1.03	1.37	1.04	1.34	1.03
Black			0.75	1.29	0.78	1.31	0.74	1.30
Other			0.62	1.35	0.68	1.39	0.63	1.35
Respondent's Education Attainment (College+ = 0)								
<HS			0.71	1.60*	1.01	1.51	0.72	1.61*
HS/GED			0.83	1.75*	1.29	1.23	0.84	1.74*
Some college			0.74	1.30	1.17	1.30	0.73	1.30
Respondent's Education Attainment x Cohort								
<HS x cohort					0.48	1.03		
HS/GED x cohort					0.38*	1.75		
Some college x cohort					0.43*	1.01		
Birth Timing (no birth = 0)								
Birth before cohabitation			1.06	1.08	1.07	1.06	0.91	0.96
Birth during cohabitation			0.31***	0.38***	0.32***	0.38***	0.49*	0.35***
Birth Timing x Cohort								
Birth before cohabitation x cohort							1.38	1.21
Birth during cohabitation x cohort							0.46*	1.14
Non-intact Family at Age 14			0.86	1.00	0.86	1.00	0.84	1.00
Born Outside of the U.S.			2.06**	0.69	2.06**	0.69	2.07**	0.69
Age at First Cohabitation (20-24 = 0)								
<20			0.77	1.34*	0.80	1.33*	0.76	1.34*

25-39			1.02	0.78	1.05	0.78	1.01	0.78
Early Age at First Sex (<16)			0.76	0.92	0.73	0.96	0.75	0.92
Duration (months)	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Intercept	0.04***	0.03***	0.05***	0.02***	0.04***	0.02***	0.05***	0.02***

Source: National Survey of Family Growth, 1988 and 2011-2013 data; Women Ages 15-39; person-months =25,251, number of cohabitations = 1503; <HS = Less than high school; College+ = College degree or higher; * p<0.05, ** p<0.01, *** p<0.001

Table 4. Predicted Probabilities of Transitions Out of First Premarital Cohabitation Within Five Years

	1983-1988		2006-2013	
	Marriage	Separation	Marriage	Separation
All covariates held at observed levels	0.53	0.44	0.33	0.53
All covariates held at 1983-1988 levels	—	—	0.31	0.54
Race/Ethnicity held at 1983-1988 level, other covariates held at 2006-2013 levels	—	—	0.29	0.50
Education held at 1983-1988 level, other covariates held at 2006-2013 levels	—	—	0.28	0.53
Birth timing held at 1983-1988 level, other covariates held at 2006-2013 levels	—	—	0.31	0.54

Source: National Survey of Family Growth, 1988 and 2011-2013 data; Women Ages 15-39; person-months =25,251