Stepping Stones and Steady States: Cohabitation and Marriage among Single Mothers

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INTRODUCTION

The value of marriage in U.S. society has been the subject of much debate over the past several years. Changes in patterns of family formation that involve decreased marriage and increased non-marital cohabitation have raised concern about the importance of marriage as an organizing structure of adulthood and of American family life. Concern about the rising proportion of women delaying marriage or never marrying, especially when non-marriage is accompanied by childbearing and rearing, has contributed to national interest in marriage promotion. Proponents of marriage promotion see it as a way to enhance the well-being of children, ensuring them the benefits usually associated with living in a married-parent household (Kenney, 2004), and as a way to end poverty and welfare dependence for single mothers (Lichter, Qian & Mellott, 2006).

Accordingly, much research has examined factors that contribute to and inhibit single mothers' marriage. This research shows that access to marriage is highly stratified. Racially and economically disadvantaged single mothers marry less than more advantaged single mothers (Lundberg & Rose, 2003; Carlson, McLanahan and England, 2004; Johnson, Honnold & Threlfall, 2011; Fitzgerald & Ribar, 2004). With the exception of a few studies (Kalmijn and Monden, 2010; Harknett and Gennetian, 2003; Carlson, McLanahan and England, 2004), the literature on single mothers' union formation has generally overlooked cohabitation as a status distinct from marriage, yet focusing only on marriage may exaggerate racial and educational differences in family formation (Raley, 1996). The study of single mothers' cohabiting behaviors has occurred mainly outside the U.S., and Carlson, McLanahan and England's (2004) U.S. study is limited to urban areas and unions formed within one year of initial observation. Considering sharp increases in cohabitation over the last several years, there is a clear need for more research single mothers' transitions to cohabiting unions. For proponents of marriage promotion,

cohabitation may not be a satisfactory solution to "the problem" of single motherhood, but it may be an accessible option for a disadvantaged group of women.

Using data from the 2006-2010 National Survey of Family Growth (NSFG), a nationally representative sample of women between the ages of 15-45 in 2006-2010, I use event history analysis to examine the relationship trajectories of single mothers from different racial and educational groups. The study further considers how race and education interact to produce variations in the amount of time women spend as single mothers. This paper contributes to the literature on union formation in two ways. First, it expands our knowledge of women's transitions out of single motherhood by investigating the formation of not only marital but also cohabiting unions among a nationally representative sample of U.S. single mothers. Second, by examining the chances of marriage or dissolution for single mothers' who transition to cohabitation, this study informs our understanding of the role of cohabitation in the U.S. family system, which evidence indicates varies across individual characteristics and situations (Loomis & Landale 1994, Manning 2001; Manning & Landale 1996, Manning & Smock 1995).

Results show that a majority of single mothers who form unions form cohabiting unions. Transitions to cohabitation, like marriage, are less common for black women than for white women, and when black single mothers do cohabit, their chances of marriage are relatively low. These results suggest that black single mothers spend more time parenting without partners, and neither marriage nor cohabitation provides long-term respite from this experience.

THEORETICAL PERSPECTIVES ON UNION FORMATION

Cohabitation is less institutionalized than marriage, and the role of cohabitation in the family formation process may vary across individuals and situations (Nock, 2005). There are two predominant conceptualizations of cohabitation in the literature; cohabitation functions as either

a stage in the marriage process or an alternative to marriage. According to the first perspective, cohabitation is much like an engagement and serves as a precursor to marriage. Couples enter into cohabiting relationships because they intend to marry. This perspective is supported by empirical evidence that cohabitating unions are relatively short and large proportions are followed by marriage (Bumpass and Lu, 2000).

In the second view, couples who cohabit may have no plans to marry, and cohabitation serves as an alternative or substitute. Scholars generally agree that blacks are more likely than whites to be in cohabitating relationships that function as alternatives to marriage (Loomis & Landale 1994, Manning 2001; Manning & Landale 1996, Manning & Smock 1995). Greater levels of economic disadvantage among blacks may render marriage less attainable regardless of intention or desire to marry (Manning & Smock, 2002). Much of literature in this area uses racial differences in tendency to give birth while cohabiting as criteria for determining the role of cohabitation. This strategy is based on the assumption that when a cohabiting couple has a child together, they make a commitment to the relationship and to shared responsibilities (Phillips & Sweeney, 2005). For women who already have children, a cohabiting relationship may not be formalized by having additional children despite a high level of commitment.

Formal theory on union formation, and its relationship to socio-demographic characteristics, is much more attentive to marriage than cohabitation, perhaps because the meaning and nature of cohabitation varies, and cohabitation is a relatively recent phenomenon. In economic frameworks, marriage is described as a process of matching; individuals search for the best match among potential partners in their local marriage markets by evaluating their own assets and "trading" for a partner whose assets are complimentary. According to the specialization model for mate selection, the gains to marriage are greatest when spouses specialize in certain family functions, or when their economic contributions to the family differ.

The lower earning partner, in most cases the woman, specializes in domestic production, while the higher earning partner, typically the man, focuses on market work (Becker, 1981).

The specialization model suggests that if women's economic position in the labor market improves, but men's remain constant, the gains to gender role specialization within marriage are reduced. This makes marriage less attractive for both men and women, and allows women to raise their children without husbands. Empirically, this hypothesis means that a better economic position will be negatively associated with marriage. Regarding cohabitation, we may expect the impact of women's economic position to be weaker, or less negative, than it is for marriage, since there may be fewer benefits to specialization for cohabiting women than for married women. Cohabiting relationships tend to be less stable than marriages, so specialization along traditional gender lines is likely more risky for cohabiting women.

There is little evidence to support the specialization hypothesis. Several studies have found that better economic position in the labor market, as measured by education, employment or income, is positively associated with women's entry into marriage (Lichter, McLaughlin, Kephart & Landry, 1992; Goldstein & Kenney, 2001; Raley, 1996) and with unmarried mothers' formation of martial unions (Lundberg & Rose, 2003; Carlson, McLanahan & England, 2004). However, some studies have found no effect of women's economic standing on marriage (Xie, Raymo, Goyette & Thorton, 2003; Smock & Manning, 1997). Although these findings are still inconsistent with the notion that women's better economic position is always a marriage deterrent, they suggest that women's economic position may have offsetting effects; economic resources may make women more attractive partners while at the same time also reducing their need to marry. This combination of effects leads to what appears to be no effect (Smock & Manning, 1997; Oppenheimer, 1994).

Carlson, McLanahan and England's (2004) study of union formation among fragile families is one of the few U.S. studies to consider un-married mothers' transitions to cohabitation. They examine women's relationship status with their child's biological father one year after the birth and find that mothers' education positively affects the formation of cohabiting unions; mothers with a high school diploma or higher are 28 percent more likely to be cohabiting one year after their child's birth than mothers with no diploma (p. 250). A second study, conducted by Xie, Raymo, Goyette and Thorton (2003), also includes cohabitation in its examination of the impact of economic potential on the rate of entry into first unions. Although they find a negative effect of educational attainment on cohabitation, it is important to note that their sample is quite different than Carlson, McLanahan and Englands'. Xie and his colleagues study cohabitation among women who may or may not have children, and their data is limited to whites in a single metropolitan area. The literature has yet to determine the impact of educational attainment on cohabitation among single mothers drawn from a national sample.

An alternative theoretical perspective regarding mate selection proposes that finding a mate is related to the available supply of suitable partners (Wilson, 1987; Oppenheimer, 1994). Much of the theoretical and empirical work in this area focuses on differences in black and white women's marriage rates. Over the past few decades, black women have experienced a substantial increase in the proportion who *never* marry. In 2009, thirteen percent of black women age 55 and older had never married, compared to less than five percent of white, non-Hispanic women; this is nearly double the proportion of unmarried black women from 1999 (Kreider & Ellis, 2011).

Scholars have argued that blacks marry less than whites because of fewer employment opportunities for young black men (Wilson, 1987; Oppenheimer, 1994). According to this perspective, black men were hit particularly hard by the recessions of the 1970s because the industries that suffered the most were those in which black men were employed. Increasing

unemployment and low wages among those with jobs rendered many black men unable to support a family. This, coupled with assortative mating along racial lines (Qian & Lichter, 2011) and a low ratio of men to women among blacks, dramatically diminished the pool of marriageable black men (Wilson, 1987). Extending this hypothesis to cohabitation, we may expect the black-white gap to be smaller since women may be more willing to live, at least temporarily, with a man who is struggling to find employment. Empirical evidence confirms that racial difference in the availability of employed men contributes to black-white gap in marriage rates, but it does not explain the entire gap (Lichter, McLaughlin, Kephart and Landry, 1992).

Raley's (1996) investigation of the role of cohabitation in black-white differences in marriage rates reveals that black women are less likely to cohabit than white women, but the negative effect of being black on cohabitation is weaker than it is for marriage. For black women, the relative risk of cohabitation versus remaining single is 72 percent of the risk for whites, but the relative risk of marriage is only 39 percent (Raley, 1996, p.978). The black-white difference in first union type, or tendency for blacks to cohabit rather than marry, is not related to differences in the availability of employed black men.

The literature on single mothers' union formation shows that black single mothers are less likely to marry than white single mothers (Graefe & Lichter, 2002; Lundberg & Rose, 2003; Rendall,1999). Carlson and colleagues (2004) find no race effect on cohabitation which suggests that racial differences in union formation are diminished among this disadvantaged group of mothers. In light of Raley's (1996) results, this may be surprising, but Carlson and colleagues are not necessarily studying women's first unions, and the unions of interest are those with the father of their child. It may be that cohabitation is an equally viable option for black and white unmarried mothers.

Marriage among Hispanics has received less attention than the black-white marriage gap. Studies show a similar rate of marriage among Hispanic and white women, even when Hispanic marriage markets are tight (Oropesa, Lichter & Anderson, 1994; Bramlett & Mosher, 2002). However, Hispanic women who give birth outside of marriage are less likely than similar white women to marry (Graefe & Lichter, 2002), and they are more likely than black unwed mothers to marry and cohabit (Carlson, McLanahan, England, 2004; Harknett & McLanahan, 2004).

Intersectionality theory provides another way of thinking about the impact of socio-demographic characteristics on single mothers' union formation. This theory focuses on ways in which systems of advantage and disadvantage mutually construct each other and overlap to co-determine inequality (Choo & Feree, 2010, Collins, 1998). Intersectionality theory does not prioritize socio-economic status or race as the most important determinant of social context; instead it focuses on how the two operate together (Choo & Ferree, 2010).

Insights from intersectionality theory suggest that single mothers' transitions to marriage and cohabitation are uniquely impacted by the various positions women occupy at the intersections of their socioeconomic and racial identities. Although intersectionality theory warms against an additive model where greater disadvantage is produced by adding disadvantage on one axis to disadvantage on another axis, it is plausible that less-educated black single mothers, who experience disadvantage in the marriage market on due to both their economic position and access to marriageable black men, may be less likely to marry than more educated blacks and similarly educated whites. If indeed education and race have weaker relationships with cohabitation than with marriage, we would anticipate less variation in cohabitation than marriage across education-race categories. Empirical evidence confirms that black women with the least education have particularly low chances of marriage (Bennett, Bloom & Craig, 1989).

The current study will investigate the impact of these intersections on single mothers' formation of both cohabiting and marital unions.

In sum, theory and prior research offer suggestions as to how race and education may facilitate or impede single mothers' formation of marital and cohabiting unions. Specialization theory suggests that a better economic position will be negatively associated with marriage, and the effect on cohabitation may be weaker than it is on marriage if there are fewer benefits to specialization for cohabiting women. However, the empirical evidence provides little support for these hypotheses. Black single mothers are likely to marry less than white single mothers, and based on pool of marriageable men hypothesis, we may expect the black-white gap in cohabitation to be smaller if women are more willing to live, at least temporarily, with a man who is struggling to find employment. Intersectionality theory suggests that less-educated black single mothers may be less likely to marry than more educated blacks and similarly educated whites, but variation in cohabitation across education-race categories may be less pronounced.

DATA AND METHODS

Data

To examine single mothers' transition to cohabitation and marriage, I use data from the 2006-2010 wave of the NSFG, a cross-sectional national probability sample of 12,279 women and 10,403 men between the ages of 15 and 44 years old.[1] These data are particularly suitable for studying union transitions and the duration of unions because they include dates of major life events and allow for the construction of martial, cohabitation, fertility and education histories. These data were collected using life calendars designed to improve the accuracy of recollection

[1] The NSFG sampled black and Hispanic women ages 15-24 at higher rates than others but provides sampling weights that adjust for this sampling strategy as well as for response and coverage rates (Lepkowski et al, 2010). These weights are used in all analyses so that the data are broadly representative of the national population.

of events that have already occurred, including those that are more difficult to remember, such as dates of cohabitation (Hayford & Morgan, 2008). Because the data were collected retrospectively, there are few gaps in the histories and the data are not limited to a set observation period. Thus, life history data for women of all ages extends back to their first marital, cohabitation and birth events, and the problem of left-censoring is alleviated.

While the data offer many benefits, they are also subject to an important limitation. Ideally, a study of single mothers' union formation would include information about women's partners, since union formation is theorized to be a process of matching of individuals. However, the NSFG lacks complete information about partner demographic characteristics. I make the assumption, based on evidence from studies of assortative mating, that women partner with men who are educationally and racially similar to them (Qian & Lichter, 2011; Schwartz & Mare, 2005; Sweet & Bumpass, 1987; Blackwell & Lichter, 2000; Schoen & Weinick, 1993).

Event history analysis is used to investigate racial and educational variation in two parts of the union formation process, so person-months are the unit of analysis. The first analysis examines single mothers' formation of cohabiting and marital unions. The risk of forming a union begins when a woman enters single motherhood – when she either gives birth outside a union or experiences the dissolution of a union while a mother. The risk ends when a woman experiences one of the outcomes of interest – marriage, cohabitation, or the 18th birthday or departure of the youngest child in her residence – or she is censored at the interview date. The sample for this analysis consists of 166,512 person-months; 3,499 women contributing at least one month of risk.

Only women's first experience of single motherhood was selected for analysis. This approach, which is common in the literature, is based on the idea that the first experience is governed by a different process than subsequent experiences, and a first will likely exert an

impact on subsequent experiences, should a woman have them (Le Bourdais, Desrosiers, Laplante,1995; Moffitt & Rendall,1995).

The second event history analysis examines the outcomes of single mothers' cohabiting unions. This analysis is conducted on a sub-sample of the first. Only single mothers who formed cohabiting unions (1,819 women) contribute months of risk. This sample contains 63,846 person-months lived between the start data of the cohabiting relationship and the transition to marriage, back to single motherhood, or to having no children under age 18 residing in the household. Women who do not transition are censored at the interview date.

Variables

The dependent variable for both analyses is *motherhood-union status* for each person-month observation. Combining information about women's marital and cohabitation statuses with the age of her youngest child led to the development of mutually exclusive and exhaustive *motherhood-union status* categories: single mother, married mother, cohabiting mother, and mother with no children under age 18 living in the household. Although the dependent variable in both analyses is *motherhood-union status*, the reference categories for the analyses differ. In the first analysis the reference category is single motherhood; in the second, cohabiting motherhood.

The independent variables include education, race/ethnicity and other theoretically relevant covariates. I use education as a proxy for economic potential because the 2006-2010 wave of the NSFG did not collect retrospective data on women's employment, welfare receipt or other socioeconomic characteristics. Educational attainment is a binary measure indicating whether or not a respondent has a high school diploma. Although research has found a divergence in marriage patterns between women with and without a bachelor's degree (Goldstein

& Kenney, 2001), women who experience single motherhood are predominantly those with no college degree (McLanahan & Percheski, 2008; Martin, 2004; Kennedy & Bumpass, 2008) which makes a binary high school diploma measure a more appropriate measure of single mothers' educational attainment. Educational attainment is time-varying, meaning the covariate may assume a different value for the same respondent over the course of the observation period. For example, a woman who begins single motherhood with no high school diploma but completes high school before marrying or cohabiting will be coded as having less than a high school diploma for the first part of single motherhood and as having a high school diploma for the second part.[2] As a result a woman's monthly risk of forming a union is estimated based on her educational attainment in that month.

Race/ethnicity is categorically measured as white (non-Hispanic), black (non-Hispanic), and Hispanic. This coding was derived from racial categorizations provided by the NSFG which also included a non-Hispanic other (Asian American, Native American and multi-racial) category. Because the "other" race category was heterogeneous, women in this category have been excluded from analyses.

Control variables include age, measured in century months, and the event at the origin of single motherhood. The event at the origin of single motherhood includes three categories: un-partnered birth, end of marriage, and end of cohabiting union. Women who enter single motherhood through un-partnered birth and through union dissolution likely experience different union formation or re-formation processes (Moore, 1989; Le Bourdais, Desrosiers & Laplante, 1995) since a woman experiencing an un-partnered birth may have the option of marrying or cohabiting with the father of their child, and a woman experiencing union dissolution has likely just ended a relationship with the father of her child.

[2] Two hundred eighty-seven women earn high school diplomas while single mothers.

Analyses

I conceptualize single mothers' union formation and the subsequent outcomes of their cohabiting relationships as time-dependent processes. Thus, racial and educational differences in union formation are modeled using discrete-time event history analysis. In the discrete-time approach, the unit of analysis is the person-month, which captures month-to-month changes in women's *motherhood-union status*. Discrete-time event history models can be estimated using multinomial logistic regression which relies on maximum likelihood estimation to predict the likelihood of being in certain categories of a given variable at each person-month observation. Thus, the parameters are interpretable as logit coefficients. In the first analysis, which investigates single mothers' tendency to marry and cohabit, the equations express the effects of the independent variables on the log-odds of forming either a marital or cohabiting union or having all children reach age 18 or move out of the household, relative to remaining a single mother. In the second analysis, which focuses on the outcomes of single mothers' cohabiting unions, the effects are expressed on the log-odds of marriage, returning to single motherhood, ceasing to be a single with minor children in her household, relative to remaining a cohabiting mother.

The dependency of the likelihood of experiencing the event of interest on time is captured by a variable that counts the number of months the woman has been a single mother, for each person-month observation. The log of this duration variable is included in the models to account for the number of months a woman has spent as a single mother on the chances of marriage, cohabitation, or her youngest child exiting the home.

The investigation for each part of the event history analysis begins by testing a model that includes race and education as well as control variables. In subsequent models I include interactions between race and education to explore the ways in which these two variables

mutually impact union formation. Coefficients from the multinomial logistic regression that includes interactions are then used to conduct a series of simulations that predict median time to cohabitation and marriage for single mothers with a particular set of race and education characteristics.

RESULTS

Single mothers are an educationally disadvantaged group. As shown in Table 1, in this sample of single mothers from the NSFG, 43 percent have not completed high school by the time they become single mothers. Of the women who are age 18 or older when they enter single motherhood, 33 percent do not have a high school diploma (calculation not shown). Nationally, only 13 percent of women ages 18 and older have no high school diploma or GED (U.S. Census Bureau, 2010). Table 1 also contains descriptive information about single mother's educational attainment broken down by race/ethnicity. Large proportions of single mothers from each racial/ethnic group do not hold a high school diploma, but white single mothers are most likely to have completed high school. For Hispanic single mothers having no high school diploma is more common than having one.

[Table 1 about here]

Single mothers come from all racial/ethnic groups (40 percent are white, 35 percent are black, and 25 percent are Hispanic), but the final three columns in Table 1 reveal several important racial differences among single mothers. For example, black women's entry into single motherhood is overwhelming characterized by un-partnered births. Nearly eighty percent of black single mothers give birth outside a marital or cohabiting union, while half of Hispanic single mothers and about forty percent of white single mothers do. This is consistent with vital

statistics reports and other research that shows that black women especially, but also Hispanic women, are more likely to give birth outside of marriage than white women (Martin et al, 2013; Graefe & Lichter, 2002). For example, Carlson, McLanahan and England's (2004)'s sample of non-marital births, although not nationally representative, consists of two times as many Hispanics and two and a half times as many blacks as whites (p. 247).

There are also racial differences in the age at which women become single mothers. Whereas 50 percent of black single mothers and nearly 40 percent of Hispanic single mothers enter single motherhood before age 20, only 27 percent of white single mothers begin single motherhood at the younger ages. White single mothers tend to begin their first single motherhood spell in their 20s. These statistics, taken together, suggest that single motherhood is a slightly different phenomenon for each demographic group. Black and Hispanic single mothers are somewhat younger and less educated than white single mothers, but many more of these Hispanic single mothers have just ended a union.

Turning to single mothers' union formation, the bottom panel of Table 1 shows that cohabitation is much more common than marriage. More than half of the single mothers form cohabitating unions, but only ten percent marry. I observe an even smaller share (4%) of women exiting single motherhood status when their child moves out of the household or turns age 18. In total, 80 percent of all observed exits from single motherhood are through cohabitation (calculation not shown). The large proportion of women who form cohabitating unions as compared to marriages suggests that distinguishing cohabitating motherhood from married motherhood is an important part of understanding transitions out of single motherhood.

Determinants of Single Mothers' Transitions to Marriage and Cohabitation

As presented in Table 2 (model 1), having a high school diploma facilitates single mothers' transitions to marriage. High school graduates (and GED earners) are 77 percent (e^b=1.77) more likely to marry than those who have not completed high school. This is consistent with previous studies that have also found a positive relationship between single mothers' educational attainment and marriage (Lundberg & Rose, 2003; Carlson, McLanahan & England, 2004) and is contrary to specialization predictions. A high school education does not significantly impact the formation of cohabiting unions.

[Table 2 about here]

Race is also a strong predictor of union formation. Black single mothers are less likely than white single mothers to form any type of union. Black single mothers have 47 percent (e^b=.53) lower odds of transitioning to marriage and 44 percent (e^b=.56) lower odds of transitioning to cohabitation than white single mothers. Like Raley's (1996) study of women's first unions, these results indicate that the black-white difference in the rate of cohabitation is less pronounced than it is for marriage. However, compared to white women, black women's first unions following single motherhood are only slightly more likely to be cohabitations than marriage (.56/.53 = 1.06). Hispanic single mothers are also less likely to cohabit than white single mothers; their odds are 26 percent lower (e^b=.74) – a less dramatic difference than between black and white single mothers.

Also note that having been married or cohabiting is an indicator of entering a cohabiting union (see Table 2). Single mothers who ended either marriages or cohabiting unions have about 30 percent higher odds of transitioning to cohabitation than single mothers who experienced un-partnered births (marriage dissolution: e^b=1.27, cohabitation dissolution: e^b=1.31). Marriage dissolution is not a predictor of marriage, but single mothers who ended a cohabiting union are

significantly less likely than those who gave birth outside a union to marry. Additionally, age is negatively associated with transitions to marriage and cohabitation, and the longer single motherhood lasts, the less likely a woman is to cohabit.

Few women transition out of single motherhood as a result of their children moving out of turning age 18, but blacks and Hispanics are considerably less likely than white women to experience this outcome (Blacks: e^b=.54, Hispanics e^b=.49). One explanation for this finding is that black and Hispanic women have more children than white women (Matthews & Ventura, 1997). When women have multiple children and do not form unions, their time as single mothers expands, since it will end only when the youngest child turns age 18 (unless they marry or cohabit). Women with a high school diploma or higher degree are less likely than those with no diploma to end single motherhood through their children turning age 18 or moving out (e^b = .33).

When interactions are included (see Table 2, model 2), the results indicate that the negative effect of being black or Hispanic on forming either type of union is reduced for those with a high school diploma. The cohabitation coefficients for black and Hispanic are negative (*b* = -.904 and *b* = -.527, respectively), but the coefficients for the interaction between race/ethnicity and high school diploma are positive and significant (*b* = .499 for black*HS and *b* = .384 for Hispanics*HS). Thus, a high school education facilitates black and Hispanic single mothers' transitions to cohabiting unions. For transitions to marriage, results in Table 2 show the same pattern of negative coefficients for the main effects and positive coefficients for the interaction terms. The racial gap in formation of both marital and cohabiting unions is greatest for those with the least education.

Educational variation in the racial gap is most apparent in the simulations of single mothers' predicted median times to cohabitation and marriage. These results are shown in Table 3. It is important to note that the median duration is a median survival time, and the survival

function assesses the probability that a woman will "survive" single motherhood. It refers to the non-occurrence of *one* event, but when multiple events compete, such as cohabitation or marriage, the non-occurrence of marriage does not imply the non-occurrence of cohabitation (Singer & Willett, 2003). Some of the single mothers who do not experience marriage will have experienced cohabitation and will no longer be single mothers, even though the survival function treats them as if they are. As a result, the duration estimates themselves should be interpreted with some caution. The differences in duration between race-education groups, rather than differences in duration between events, is what is most relevant to this study.

[Table 3 about here]

As detailed in Table 3, among single mothers with less than a high school education, blacks spend six years more than whites raising their children without a partner before entering either a marital or cohabiting union. The differences between black and white single mothers with a high school diploma are less stark then they are for less educated women. High school educated blacks, compared to whites, spend nearly three additional years as single mothers before entering a cohabiting relationship, but their time to marriage is not significantly different. This provides support for the hypothesis that the intersection of disadvantage in black, less educated single mothers' lives has an important impact on the amount of time they spend as single mothers and on their chances of union formation.

Black single mothers are also in a worse position to form unions than are Hispanic single mothers. Among those with no high school diploma, blacks spend five years more than Hispanics as single mothers before marrying, and three additional years before cohabiting. High school educated black single mothers spend six more years as single mothers before marriage than their Hispanic counters.

For Hispanics, having a high school diploma is so protective that they spend four fewer years than whites as single mothers before marriage, while there is no significant difference between less than high school educated Hispanic and white single mothers' time to marriage. High school educated Hispanics and whites spend similar amounts of time as single mothers before cohabiting, but Hispanics with no diploma spend three years more than whites as single mothers before forming a cohabiting union.

Is Cohabitation a Stepping-stone toward Marriage?

The finding that cohabitation is much more common than marriage begs the question of what happens to the cohabiting unions formed by single mothers? Do single mothers who cohabit then transition to marriage, and does this vary by education and race?

Investigation of the outcomes of single mothers' cohabiting unions suggests that cohabitation is less a stepping-stone toward marriage for black and Hispanic single mothers than it is for white single mothers. As shown in Table 4 (model 3), black and Hispanic women have 41 percent (e^b=0.59) and 49 percent (e^b=0.51) lower odds than white women, respectively, of transitioning from cohabitation to marriage following single motherhood. This is consistent with previous literature that finds black cohabiting women are less likely to marry than their white counterparts (Manning & Smock, 1995). Hispanic women are also less likely than white women to return to single motherhood after cohabitation (e^b=0.59), but black women's odds of returning to single motherhood are 28 percent higher than white women's (e^b=1.28). This suggests that black single mothers' cohabiting relationships are not only less likely to lead to marriage but also less stable than white single mothers'.

[Table 4 about here]

When race and education interactions are added to the model estimating single mothers' relationship transitions following cohabiting unions, I find that coefficients for these interaction terms are significant in only one case. Table 4 (model 4) shows a negative main effect (b = -.906) for Hispanics and positive interaction term (b = 0.745) for Hispanics with a high school diploma. This suggests that although Hispanics are less likely than whites to return to single motherhood, this is less true for Hispanics with a high school diploma. The rate of return to single motherhood is more similar among Hispanics and whites with a high school diploma than it is for those without. Although interaction terms are not significant for blacks, the main effect of race/ethnicity on return to single motherhood for black women remains significant in model 4. This suggests that, regardless of education, black women are more likely than whites to break up with their cohabiting partners and reenter single motherhood.

Table 5 shows predicted median durations of the cohabiting unions formed by single mothers. Compared to their white counterparts, blacks with a high school diploma spend more time cohabiting before marriage and less time cohabiting before returning to single motherhood. Also note that Hispanics of both levels of education cohabit longer than blacks before returning to single motherhood and longer than whites before marriage. Cohabitation, which lasts anywhere from ten to thirteen years for Hispanics, appears to be a more steady state for Hispanic single mothers than for whites or blacks.

[Table 5 about here]

DISCUSSION AND CONCLUSION

Patterns of family formation have undergone a number of changes in the past few decades. Decreases in marriage and increases in non-marital cohabitation have led researchers to puzzle over the role of cohabitation in the U.S. family system. This study contributes to this line

of inquiry by focusing on the union formation process of single mothers – women who have been central in discussions about declining marriage rates and efforts to promote marriage. Drawing on data from the NSFG, this paper informs our understanding of women's transitions out of single motherhood by investigating the formation of both marital and cohabiting union and by examining the chances of marriage or dissolution for single mothers' who transition to cohabitation.

For single mothers, cohabiting unions are the most common first union formed, but single mothers' access to cohabitation, like their access to marriage, is highly stratified by race. Both black and Hispanic single mothers form cohabiting unions at lower rates than whites. This leads to an increased amount of time, on average, that black and Hispanic single mothers spend raising their children without a partner before cohabiting. The gaps are particularly large among single mothers with the least education.

Previous research suggests that cohabitation is increasingly an alternative to marriage for black women (Manning & Smock, 1995; Raley, 1996), and the results of this study lend support to that conclusion. Black single mothers, regardless of education, are considerably less likely than their white counterparts to marry their cohabiting partners, which indicates that cohabitation is less a stepping-stone for black single mothers than it is for whites. However, it is difficult to conclude that cohabitation is a clear alternative to marriage for black single mothers when cohabitation is more difficult for blacks than whites to attain, and the chances of break-up and return to single motherhood are also higher.

Hispanic single mothers face chances of marriage that are similar to white single mothers, and when they have a high school education, they actually spend less time than whites as single mothers before marrying. Their likelihood of cohabitation is lower than that for whites, but when Hispanic single mothers do cohabit, they are less likely to either marry or break up with their

cohabiting partner. Results suggest that cohabitation may be a more steady state for Hispanic women who have experienced single motherhood than it is for similar whites.

Having a high school diploma facilitates single mothers' transitions to marriage, just as it does in the general population. However, contrary to prior research (Xie, Raymo, Goyette & Thorton, 2003; Raley, 1996; Carlson, McLanahan, England, 2004), a high school education does not impact single mothers' formation of cohabiting unions. The importance of education in transitions to cohabitation is only robust when the interplay between race and education are investigated. For black and Hispanic single mothers, having a high school diploma increases the chances of both marriage and cohabitation. Thus, in most cases it is among single mothers with the least education that racial differences in union formation are most pronounced.

Some scholars and policy makers have purported that encouraging marriage is an important component of strategies to address the inequalities between children raised in homes headed by single mothers and married parents. Whether or not black and less-educated single mothers want to marry or would prefer to raise their children in married-parent households, the large, significant and consistent differences in rates of union formation found in this study suggest that for these women, the chances of marriage or re-marriage are slim. Marriage, directly from single motherhood, is rare for all single mothers, but this is particularly true for black single mothers. Marriage prospects for black single mothers with the least education are the most dire, and cohabitation functions neither as a clear alternative nor a point of marriage access. Simply promoting marriage without altering the social and economic contexts in which marriages and cohabitations form for some and not others will likely have little impact on the marriage gaps scholars have documented.

Future research should continue to explore racial/ethnic and educational differences in women's transitions out of single motherhood. Other background characteristics, factors

measured at the time of the spell, and socio-demographic information about women's partners may provide additional information about black women's reduced likelihood of both marriage and cohabitation. Continued research that explicates the role of cohabitation in single mothers' lives and how cohabitation may alleviate difficulties they face is also needed. We may continue to measure the level of commitment in cohabitating relationships by the tendency to bear children within these unions and by their durability, but we may also want to ask to what extent these cohabiting relationship make a difference in single mothers' day-to-day lives. For example, do single mothers' cohabiting partners, as opposed to marital partners, share in childcare and other household responsibilities? Cohabitation may provide the benefits of co-residence and co-parenting even if it does not confer the same legal benefits and protections as marriage.

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TABLES

Table 1. Distribution of Independent and Dependent Variables, by Race/Ethnicity[a]

	All	White	Black	Hispanic
Education[b]				
Less than high school diploma	43%	34%	47%	59%
High school diploma/GED or more	57%	66%	53%	41%
Event at the origin of single motherhood				
Un-partnered birth	51%	37%	79%	51%
End of marriage	33%	46%	10%	30%
End of cohabitation	16%	18%	11%	19%
Age[b]				
<17	16%	11%	24%	18%
18-19	19%	16%	26%	20%
20-24	32%	33%	33%	30%
25-29	17%	22%	9%	14%
30+	16%	19%	9%	18%
Motherhood-union status at final observation				
Single mother	31%	28%	35%	33%
Married mother	10%	10%	8%	14%
Cohabiting mother	55%	57%	53%	50%
Mother with no child under age 18	4%	4%	4%	3%
N	3,499	1,386	1,229	884

[a] *Percentages have been weighted but the Ns have not.*
[b] *For the purposes of the descriptive statistics, variable is measured at the beginning of the single motherhood spell.*

Table 2. Multinomial Logistic Regression Analysis of Single Mothers' Union Formation

	Model 1			Model 2		
	Married	Cohabiting	No Child < age 18	Married	Cohabiting	No Child < age 18
Race						
Black, non-Hispanic	-.640***	-.582***	-.623**	-1.623***	-.904***	-.929**
	(.231)	(.086)	(.292)	(.430)	(.137)	(.437)
Hispanic	.352	-.306***	-.711**	-.247	-.527***	-.815***
	(.228)	(.094)	(.321)	(.368)	(.137)	(.414)
White, non-Hispanic	--	--	--	--	--	--
Education						
HS Diploma or More	.569**	-.062	-1.121***	.023	-.287**	-1.323***
	(.233)	(.082)	(.286)	(.339)	(.121)	(.380)
Less than HS Diploma	--	--	--	--	--	--
Event at Origin of Spell						
End of Marriage	.344	.240**	.683*	.355	.249**	.688*
	(.237)	(.110)	(.365)	(.237)	(.110)	(.598)
End of Cohab. Union	-.658*	.268***	.600	-.673*	.259**	.596
	(.363)	(.104)	(.365)	(.365)	(.104)	(.369)
Un-partnered Birth	--	--	--	--	--	--
Age at beginning of spell	-.004*	-.006***	-.0008	-.004**	-.006***	.0009
	(.002)	(.0008)	(.003)	(.002)	(.0008)	(.003)
Duration of Spell – log(t)	.028	-.136***	.281	.018	-.131***	.289*
	(.065)	(.026)	(.167)	(.065)	(.027)	(.170)
Interactions						
HS or More * Black				1.230**	.499***	.668
				(.495)	(.168)	(.592)
HS or More * Hispanic				.810*	.384**	.173
				(.443)	(.185)	(.941)
HS or More * White				--	--	--
Less than HS * Black				--	--	--
Less than HS * Hispanic				--	--	--
Less than HS * White				--	--	--
Intercept	-5.248***	-2.332***	-7.221***	-4.831***	-2.193***	-7.123***
	(.497)	(.219)	(.896)	(.479)	(.221)	(.913)
N	166,512 months			3,499 persons		
Model x^2	183.69***			218.18***		
df	21			27		

**p<.10 **p<.05 ***p<.01*

Table 3. Predicted Conditional Median Duration to Marriage or Cohabitation for Single Mothers, in years

	Marriage	Cohabitation
White, Less than High School Diploma	17.2[a]	3.1[abd]
Black, Less than High School Diploma	23.2[cd]	8.9[c]
Hispanic, Less than High School Diploma	18.6[d]	6.0
White, High School Diploma	17.1[b]	4.5[a]
Black, High School Diploma	19.3[c]	7.2
Hispanic, High School Diploma	13.1	5.3

a. significant difference between whites and blacks with same education
b. significant difference between whites and Hispanics with same education
c. significant difference between blacks and Hispanics with same education
d. significant difference between less than high school and high school diploma within racial group

Table 4. Multinomial Logistic Regression Analysis of Transitions out of Cohabiting Unions formed by Single Mothers

	Model 3			Model 4		
	Single	Married	No Child < age 18	Single	Married	No Child < age 18
Race						
Black, non-Hispanic	.244*	-.520***	-.776	.054*	-.353	-1.112
	(.127)	(.136)	(.498)	(.203)	(.243)	(.800)
Hispanic	-.526***	-.680***	-.774*	-.906***	-.697***	-.933*
	(.168)	(.157)	(.465)	(.244)	(.231)	(.719)
White, non-Hispanic	--	--	--	--	--	--
Education						
HS Diploma or More	-.006	.097	-.342	-.240	.140	-.482
	(.125)	(.136)	(.384)	(.206)	(.188)	(.523)
Less than HS Diploma	--	--	--	--	--	--
Age at beginning of spell	-.000004	.001	.008**	-.0001	.001	.009**
	(.001)	(.001)	(.134)	(.001)	(.001)	(.003)
Duration of Spell – log(t)	-.033	-.190***	.134	-.031	-.188***	.132
	(.044)	(.037)	(.221)	(.045)	(.037)	(.220)
Interactions						
HS or More * Black				.294	-.249	.489
				(.263)	(.291)	(.968)
HS or More * Hispanic				.745**	.066	.321
				(.323)	(.312)	(.924)
HS or More * White				--	--	--
Less than HS * Black				--	--	--
Less than HS * Hispanic				--	--	--
Less than HS * White				--	--	--
Intercept	-4.455***	-3.898***	-9.421***	-4.345***	-3.934***	-9.343***
	(.381)	(.295)	(1.598)	(.394)	(.306)	(1.614)
N	63,846 months			1,819 persons		
Model x^2	124.81***			134.39***		
df	15			21		

**p<.10 **p<.05 ***p<.01*

Table 5. Predicted Conditional Median Duration to Marriage or Single Motherhood for Cohabiting Mothers, in years

	Single Motherhood	Marriage
White, Less than High School Diploma	6.8[b]	6.5[b]
Black, Less than High School Diploma	6.5[c]	9.0
Hispanic, Less than High School Diploma	13.3[d]	11.7
White, High School Diploma	8.4[a]	5.7[ab]
Black, High School Diploma	6.1[c]	9.8
Hispanic, High School Diploma	9.5	10.1

a. significant difference between whites and blacks with same education
b. significant difference between whites and Hispanics with same education
c. significant difference between blacks and Hispanics with same education
d. significant difference between less than high school and high school diploma within racial group