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ABSTRACT Using data from the 1995 National Survey of Family Growth, we examine residential variation in cohabiting women's union outcomes. Prior work has shown that although there are no residential differences in cohabitation, nonmetro women are more likely than others to marry directly and hold more favorable attitudes toward marriage. Building on this work, we examined residential differences in cohabiting women's union outcomes (i.e., marriage, separation, or remaining intact) to test whether nonmetro cohabiting women's unions are more likely to "end" through marriage, and whether pregnancy has a larger positive effect on marriage entry among this group. We find that nonmetro women are less likely to remain in cohabiting unions and are more likely to either marry *or* separate during the first 24 months of the cohabiting union. Pregnancy during cohabitation encourages marriage and discourages separation, but these effects are not significantly larger for nonmetro women.

Over the past century, the spatial distribution of the U.S. population has shifted dramatically. Whereas most Americans once resided in farming communities or small towns, today the U.S. population is concentrated in urban areas. Families are also more diverse now than in the past as marriage and child bearing have been decoupled and more people are living alone (Casper and Bianchi 2002). Historically, there have been important differences in the family behaviors of nonmetropolitan (nonmetro) and metropolitan (metro) residents, with the former group following more traditional patterns that included earlier marriage, larger completed family sizes, and less child bearing outside of marriage (Albrecht and Albrecht 2004). Researchers have begun to recognize the need for further distinction among the metropolitan residence category and distinguish metro central city from metro suburban areas when examining family behaviors and outcomes (Snyder, Brown, and Condo 2004; Snyder and McLaughlin 2004). These studies find that residential variation in marriage and child bearing patterns remain as family behaviors are distinct in metro central city, metro suburban, and nonmetro contexts. Nonetheless, comparatively little attention has been given to residential variation in newer family forms, such as unmarried heterosexual cohabitation (although see Snyder et al. 2004 for an exception).

Cohabitation is now a normative feature of the family life course (Smock 2000). According to the 2000 Census there are about 5 million cohabiting couples in the U.S., up from a mere 500,000 in 1970 (U.S. Census 2001). Today, a majority of young adults have experienced cohabitation, which is the modal path of entry into marriage (Bumpass and Lu 2000; Bumpass and Sweet 1989; Bumpass, Sweet, and Cherlin 1991). The growth in cohabitation is evident across rural and urban communities alike; cohabitation is as common among nonmetro as metro women. Nonetheless, nonmetro women are less likely to choose cohabitation versus marriage as first union type and a first birth context, suggesting that marriage remains the more desirable

family building context among nonmetro women (Snyder, Brown, and Condo 2004)¹.

Thus, although the prevalence of cohabitation does not vary by residence (Snyder et al. 2004), nonmetro women's preference is for marriage as a family building context, portending distinct union outcomes for cohabitators according to residential status. Using data from the 1995 cycle of the National Survey of Family Growth, we evaluate whether cohabitation is especially likely to lead to marriage among nonmetro women since recent evidence indicates that they hold more pro-marriage attitudes (Struthers and Bokemeier 2000; Winkler 1994) and are more likely to marry (Snyder et al. 2004) as well as conceive and give birth within marriage (Albrecht and Albrecht 2004), compared to their central city and suburban metro counterparts. Using event history methods, we examine residential differences (i.e., metro central city, metro suburban, and nonmetro) in the survival time of cohabiting unions and cohabitators' union outcomes (i.e., marriage or separation). Since nonmetro women are most likely to bear children within marriage (Albrecht and Albrecht 2004), we also investigate whether pregnancy is especially likely to encourage marriage among nonmetro cohabiting women.

The findings from this study will inform our understanding of whether and how the dynamics of cohabiting unions vary by residence. We anticipate that nonmetro cohabiting women will be more likely to "end" their unions through marriage, especially in the event of a pregnancy. Ultimately, this study will shed light on whether the role of cohabitation in the family life course varies across residence as we examine whether cohabitation more often serves as a prelude to marriage among nonmetro women. As described in the next section, there are several reasons to expect cohabiting women's union outcomes to vary by residential type.

¹ Although "rural" and "nonmetro" are used interchangeably in this paper, we recognize the distinct definition of each residential measure. In this study, residential variation in the outcomes of interest is examined across metro-central city, metro-suburban, and nonmetro areas, as described in the measurement section.

The Significance of Residential Status

The transition from a farm/nonmetro to metro society has broadly impacted nonmetro areas (Albrecht and Albrecht 2004). In some ways, nonmetro communities are now more similar to metro areas. For instance, like their metro counterparts, nonmetro workers are considerably more likely to be employed in the manufacturing or service sectors than in agriculture.

Nonmetro residents are also much less socially isolated today than in the past as technology and media reach across geographic locations. At the same time, classic sociological theory, according to Albrecht and Albrecht (2004), would lead us to expect distinct patterns of interaction among nonmetro versus metro residents. The smaller communities of nonmetro areas facilitate the formation and maintenance of more primary relationships that are characterized by shared morals and values that encourage conformity to local norms. Nonmetro residents have historically been more traditional and conservative than their metro counterparts (Larson 1978; Willits, Bealer and Crider 1982). This distinction is particularly evident in the more traditional family attitudes and behaviors of nonmetro (versus metro) residents (Albrecht and Albrecht 2004; Struthers and Bokemeier 2000).

Residential differences in women's family formation behaviors persist. Nonmetro women typically become sexually active, experience pregnancy and childbearing, and get married at younger ages, on average, than do urban women (Brown 1981; Heaton et al. 1989; McLaughlin, Lichter, and Johnson 1993; Snyder et al. 2004). Early sexual activity, childbearing, and marriage are closely tied among nonmetro women, and evidence a tendency toward formalizing family behaviors early in the life course (Heaton, Lichter, and Amoateng 1989). In fact, the negative association between a nonmarital birth and subsequent union formation is considerably smaller among rural than urban women (Lichter and Graefe 2001). Although

Meyers and Hastings (1995) reported a decline in residential differences in age at first marriage between 1970 and 1990, more recent work by Albrecht and Albrecht (2004) as well as Snyder et al. (2004) demonstrates that residential differences in family formation behaviors, including age at marriage, remain. Compositional factors associated with marriage and child bearing, such as race, education, and family background, appear to operate similarly across residential type and account for only some of the association between residence and family behaviors (Synder et al. 2004).

We are aware of only one study that has used national data to examine residential differences in cohabitation. Investigating women's first union type (marriage versus cohabitation), Snyder et al. (2004) found that nonmetro women are more likely to marry and marry at younger ages than their metro counterparts. Although the likelihood of forming a cohabiting union does not vary by residence, when cohabitation and marriage are examined in a competing-risks framework, nonmetro women are more likely to marry than cohabit as a first union relative to metro women. Similarly, nonmetro women are more likely to experience a first birth in marriage than in a cohabiting union. This pattern of findings is consistent with the notion that nonmetro women continue to conform to traditional family norms.

Prevailing traditional family attitudes (Struthers and Bokemeier 2000) and behaviors (Albrecht and Albrecht 2004; Snyder et al. 2004) would also suggest that a nonmarital pregnancy should speed the transition to marriage among nonmetro cohabitators. People in rural areas maintain traditional family attitudes and preferences, despite their recognition that contemporary families have undergone considerable change in recent times (Struthers and Bokemeier 2000). Recent research using the 1995 NSFG also finds behavioral differences by residence--unmarried nonmetro women are more likely than their metro counterparts to marry following a premarital

first pregnancy (Albrecht and Albrecht 2004). Surprisingly, the role of cohabitation in this process was not examined, even though 40 percent of unmarried births occur to cohabiting women (Bumpass and Lu 2000; Wu, Bumpass, and Musick 2001). We expand knowledge in this area by examining whether the impact of a pregnancy on the timing and type of union transitions among cohabiting women depends on residential status.

The absence of residential variation in the cohabitation experience coupled with traditional family attitudes and the continued propensity for nonmetro women to marry at younger ages than metro women suggests that cohabitation may lead to distinct outcomes for these two groups. Nonmetro women demonstrate a greater affinity for marriage and childbearing within marriage than do metro women, meaning that cohabitation may be more likely to “end” through marriage among nonmetro women. This strategy would be in line with changing societal norms that are more accepting of cohabitation (Thorton and Young-DeMarco 2001) and at the same time reinforce the more traditional family values espoused by many rural residents that emphasize the importance of marriage (Bokemeier 1997; Struthers and Bokemeier 2000).

Cohabitors' Union Transitions

Both coresidential, intimate relationships and child bearing are increasingly taking place outside of marriage, in cohabiting unions. Most of the decline in marriage during the 1980s and 1990s was offset by corresponding increases in cohabitation (Bumpass and Lu 2000; Bumpass, Sweet and Cherlin 1991). Similarly, child bearing has been decoupled from marriage as the percentage of births that occur outside of marriage has climbed from 5 percent in 1960 to over 30 percent in 2000. Notably, 40 percent of unmarried births occur to cohabiting parents, and most of the growth in nonmarital childbearing in recent decades has occurred among cohabiting women (Wu et al. 2001). Nonetheless, cohabiting unions are generally short-lived, lasting on average less

than two years. Over 90 percent of cohabiting unions are terminated through marriage or separation within five years (Bumpass and Lu 2000; Bumpass and Sweet 1989). Twenty years ago, a slight majority (60%) of cohabiting unions “ended” in marriage. Today, less than one-half (45%) of all cohabiting unions are formalized through marriage (Bumpass and Lu 2000), suggesting that cohabitation is being decoupled from marriage.

Prior research has not considered residence, but instead has emphasized the importance of fertility and race-ethnicity in shaping cohabitators’ union outcomes (Smock 2000). The findings about fertility support our focus on the role of pregnancy in residential differences in cohabitators’ union outcomes. Manning (2004) argues that it is important to distinguish between conceptions and births that are uniquely associated with transitions into marriage or separation. A conception during cohabitation increases the odds of marriage and decreases the odds of separation. A birth in a cohabiting union actually decreases the odds of marriage and has no significant effect on the likelihood of separation. Race-ethnic specific analyses indicate that the positive association between a conception and marriage is evident only among white women (Manning 2004). A pregnancy spurs cohabiting white women to marry, whereas black and Latino women are no more likely to wed than their counterparts who are not pregnant. We expect a conception during cohabitation will be more likely to encourage marriage among nonmetro women, who are more likely than others to legitimate a nonmarital birth (Albrecht and Albrecht 2004).

Race-ethnic differences in cohabitators’ union transitions go beyond responses to fertility behaviors. White cohabitators are significantly more likely to formalize their unions through marriage than are blacks, and researchers have been unable to explain this difference (Brown 2000b; Manning and Smock 1995). We maintain that similar to race-ethnicity, residential status

may shape cohabitators' union outcomes because the role of cohabitation in the family life course likely varies for nonmetro versus metro women, as described below.

The Present Study

In the present study, we extend research on residence and family formation behaviors by investigating whether there are residential differences in cohabitators' union transitions. Specifically, we test whether a first cohabitation is more likely to end in marriage among nonmetro compared to other women. We evaluate the role of cohabitation in the family life course of nonmetro women in three ways. First, we examine the survival times of cohabiting unions by residence. We also consider residential differences in the proportions of unions ending through marriage or separation across duration. We expect to find that nonmetro cohabiting unions are of shorter durations since cohabitation as a long-term living arrangement is not consistent with a traditional family orientation. Second, we model residential differences in cohabitators' union outcomes to determine whether nonmetro women are more likely than other women to transition to marriage. We expect to find greater odds of transitioning to marriage among nonmetro cohabitators because nonmetro women are not only more likely to marry but also they tend to marry at younger ages. Third, we test whether residence and pregnancy status interact in their effects on cohabitators' union outcomes such that nonmetro pregnant cohabiting women are more likely to legitimate their pregnancy by transitioning into marriage. Other studies show that nonmetro women demonstrate a preference for marital childbearing (Albrecht and Albrecht 2004; Snyder et al. 2004) and thus we anticipate that a pregnancy during cohabitation will encourage formalization of the union through marriage. All predictions are consistent with a more "traditional" cohabiting experience (i.e., short cohabitation period before marriage, quick transition to marriage in response to a pregnancy) that would indicate

cohabitation is a prelude to marriage.

Data and Methods

We use data from the 1995 cycle of the National Survey of Family Growth (NSFG), a large national probability sample of 10,847 women aged 15-44 in 1995. The NSFG was designed to obtain information on the health and well-being of U.S. women and contains extensive retrospective data on women's union formation (including marital and cohabiting unions) and fertility behaviors. In this study we examine the outcomes of first cohabiting unions. The NSFG measures the length of cohabiting unions in century months, beginning the month the couple starts living together and ending when the cohabiting union ends through marriage or separation, or remains intact with the case censored at the interview date. To examine cohabitators' union outcomes, we treat the transition to marriage or separation (versus remaining in the cohabiting union) as competing risks among women who have ever cohabited (the risk set). For these models, the risk period begins at the start of the cohabiting union and ends when the union transitions to either marriage or separation, or the case is censored at the interview date.

Geographic residence is measured at interview. Respondents are asked to report the county in which they currently reside as well as the month and year in which they moved into the county. Since we rely on retrospective reports of family formation behaviors, some women (approximately 40 percent) lived in a different county at their first cohabiting union than they did at the 1995 interview. That is, the start date for the current residence is later than the start date of the cohabiting union. Since we are not able to determine these respondents' geographic residence type at union start we exclude them from our analytic sample. Thus, our models implicitly rely on the assumption that the mechanism through which residence operates on family formation behaviors, including cohabitators' union outcomes, is a function of their

residence at the time of union formation. For instance, prior research indicates that conformity to shared norms and values accounts for nonmetro women's relatively traditional family behaviors (Albrecht and Albrecht 2004; Struthers and Bokemeier 2000). This assumption is consistent with our decision to restrict our analyses to a sample that includes only those women who continuously resided in the same county between the time of their first cohabiting union and the 1995 NSFG interview date and results in an analytic sample size of 2,748 women who ever cohabited.² Analyses are weighted using the 1995 NSFG sampling weight, making them representative of the U.S. population of women aged 15-44 in 1995 (Potter et al. 1997). As described in the results section, we also performed our analyses using other analytic samples (including a sample with no geographic restrictions and another sample in which cohabiting women had to have lived in the same county throughout their entire lives) to help us determine how sample selection may be affecting our findings.

Measures

The means of all variables used in the analyses are shown in Table 1 for both the total sample and separately by residence.

Union outcome. Cohabitors' *union outcome* is measured through retrospective union histories. The outcome of the first cohabiting union is marriage, separation, or intact cohabitation (censored at interview).

Geographic residence. Geographic residence distinguishes among women residing in metro and nonmetro areas. This measure is based on the U.S. Census classification of counties as metro or nonmetro at the time of the 1995 NSFG survey. We further delineate residence by

² We acknowledge that our assumption is not consistent with research showing that parental family attitudes and behaviors are related to offspring's family attitudes and behaviors (e.g., Axinn and Thornton 1993; Thornton 1991). Nonetheless, since there is no evidence that this intergenerational transmission varies by residence, we can be reasonably confident that our estimates of residential effects are not biased by this omission.

separating metro residence into central city metro and suburban metro. The U.S. Census defines metropolitan and nonmetropolitan areas (U.S. Census 2005). Specifically, a metropolitan area must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total metro area population of at least 100,000 (75,000 in New England). A metro area is made up of one or more central counties, and may include one or more outlying counties that have close economic and social relationships with the central county. The population in metro areas is classified as metropolitan, which is further divided into inside and outside a central city. Areas outside a central city are classified as suburban. All areas outside a metro area are nonmetropolitan. It is not possible to examine more refined levels of rurality with these data. Prior research finds significant differences in family formation patterns, family structure, and economic well-being using this county-based categorization and indicates that a linear relationship does not exist between degree of urbanization and these aspects of family well-being (Snyder and McLaughlin 2004; Snyder et al. 2004). Thus, we use the *metro-central city*, *metro-suburban*, and *nonmetro* (reference) categorization.

Fertility behaviors. *Pregnancy* is a time-varying dummy variable that captures women's pregnancy status for every month during the observed period of cohabitation. We include the woman's pregnancy status during each month of the first cohabiting union and do not distinguish pregnancies that end in a live birth from those that end in abortion or miscarriage. We also control for whether the respondent had at least one child at the start of the cohabiting union (*child prior to union*), since children from prior relationships tend to destabilize cohabiting unions (Wu 2000) or at least reduce the likelihood of marriage (Manning 2004).

Individual characteristics. We include several demographic factors as controls since they are related to both geographic residence and cohabitators' union outcomes. *Race/ethnicity* is

coded using three dummy variables: Hispanic, non-Hispanic black, and non-Hispanic white (reference). Due to the small sample size, all other racial and ethnic groups are excluded from our analyses. We also control for whether the respondent was previously married, *prior marital experience* (1=yes, 0=no), which is associated with longer cohabiting unions and a decreased likelihood of marriage (Bumpass et al. 1991). *Birth cohort* is measured categorically with five-year birth cohorts of the respondent's year of birth: 1976-1980, 1971-1975, 1966-1970, 1961-1965, 1956-1960, 1951-1955 (reference). Categorizing years of respondent's birth in this manner allows us to account for cohort effects when examining cohabiting unions, which is important since prior work has documented cohort differences in the role of cohabitation in the retreat from marriage (Schoen and Standish 2001) and the association between premarital cohabitation and subsequent divorce (Schoen 1992).

Variables capturing the respondent's human capital are also included in the models. These include retrospective measures of *education* (high school or not) and *employment* (any employment history or not) at the time of the first cohabiting union. Socioeconomic resources ought to be positively associated with marriage, although the relationship may be nonsignificant as others have found only men's socioeconomic status is related to marriage (e.g., Smock and Manning 1997).

Family background characteristics. Family background characteristics are also associated with family formation behaviors and vary by geographic residence. Indeed, these characteristics may be related to childhood residence. We include the *number of transitions in living arrangements during childhood* (ranging from zero to three or more [topcoded]) as well as *mother's work status during childhood* (full-time, part-time, or not working [reference]), and *parental education* (gauging whether the respondent's mother (father) has a high school

education or more [1=yes, 0=no]) in the models. Family instability, maternal employment, and low levels of parental education are related to less traditional family behaviors (Snyder et al. 2004).

Finally, *time–months in sample*, a time-varying indicator of the number of months the respondent remains in the cohabiting union (the risk period), is included in the event history models. This variable is intended to account for the effects of time, or months spent in the union, on the outcome of the cohabiting union, since prior work has shown that the likelihood of separation or marriage depends in part on the duration of the cohabitation (Bumpass et al. 1991).

Analytic Strategy

This study examines the association between geographic residence and the outcomes of cohabiting unions, that is, whether they transition to marriage, separation, or remain intact. We begin by describing women in cohabiting unions overall and by residential location. Next, we use life tables to determine residential variability in the survival time of cohabiting unions and the proportions of unions ending through marriage or separation. Finally, we use multinomial logistic regression to estimate discrete-time event history models that examine the association between geographic residence and cohabitators' union outcomes. A multivariate framework allows us to take account of the compositional differences associated with residence. We treat marriage and separation as competing risks. In other words, our models estimate the odds of marriage or separation versus remaining in the cohabiting union. Multinomial logistic regression, or a competing risks model, is used when modeling a nominal outcome with more than two values. We are interested not only in the *type* of transition, but also the *timing* of the transition, which makes event history models an appropriate choice. Given our monthly event data we use discrete-time as opposed to continuous-time models (Allison 1984). Multiple

person-months are generated for each individual in the discrete-time models, depending on the months spent in the risk period, and thus potentially violate the regression assumption of independence. We use robust variance estimation to correct for this problem and prevent biased estimates (Long and Freese, 2001). The 2,748 women in first cohabiting unions contribute 59,723 person-months for analysis.

Results

Descriptive Results

As shown in Table 1, cohabiting women's union outcomes and family behaviors vary by geographic residence. When considering some outcomes, nonmetro women are similar to their suburban counterparts. For example, approximately 59 percent of both nonmetro and suburban metro cohabiting women transition into marriage, whereas about 27 percent end their first cohabiting union in separation. Approximately equal proportions of central city women transition into marriage and separation from a first cohabiting union, 45 percent and 41 percent, respectively. In addition, about one-fourth of both nonmetro and suburban women experience a pregnancy during their first cohabiting union, compared to nearly one-third of central city women. When considering the presence of children prior to first cohabiting unions, however, nonmetro women (32 percent) more closely resemble metro central city women (30 percent), with larger proportions having a child prior to their first cohabiting union than suburban women (25 percent). Finally, nearly 20 percent of both nonmetro and central city women have been married prior to their first cohabiting union, compared to 16 percent of suburban women.

There are some important differences in cohabiting women's individual and family background characteristics by residence. Nonmetro women are disproportionately white and they experienced fewer transitions in their childhood living arrangements, compared to their

metro counterparts. Still, nonmetro women are similar to their suburban counterparts in several regards. For example, nonmetro and metro suburban women are equivalent in their work experience and education levels prior to entering their first cohabiting union. These findings not only demonstrate the importance of distinguishing nonmetro women from metro women but also reveal the additional insights gained from separating metro women into central city and suburban, which is consistent with other recent research on family behaviors (Snyder et al. 2004; Snyder and McLaughlin 2004).

[TABLE 1 ABOUT HERE]

Figure 1 graphically depicts the life table estimates of the cumulative proportion exiting their first cohabiting union within five years overall and by residential location. Consistent with our hypothesis, significant variation exists by residential location with exits from a cohabiting union occurring earlier among nonmetro women. This pattern is evident especially during the first 24 months of cohabitation. Given that the cohabiting union persists for at least two years, nonmetro and metro suburban women have similar patterns of exiting their first cohabiting union, but metro central city women are unique in that lower proportions exit cohabiting unions regardless of duration.

[FIGURE 1 ABOUT HERE]

To determine whether there is residential variation in the *type* of union outcome cohabiting women experience, Figures 2 and 3 graphically depict the life table estimates of the cumulative proportions of women exiting cohabitation through marriage and separation, respectively. As expected and shown in Figure 2, nonmetro women are more likely to exit cohabitation through marriage during the first 24 months of a union than are metro women, although these differences are small. Larger residential differences are evident in union

dissolution, as shown in Figure 3. Nonmetro women are most likely to experience separation from their cohabiting partner, whereas metro-central city women are least likely. This pattern of findings is consistent with that shown in Figure 1 in which nonmetro women are the group most likely to exit cohabitation within the first 24 months. The short duration of nonmetro women's cohabiting unions coupled with their slightly higher likelihood of "ending" through marriage during the first two years suggests that cohabitation is more likely to serve as a stepping stone to marriage among nonmetro women.

[FIGURES 2 AND 3 ABOUT HERE]

Multivariate Results

We estimate discrete-time multinomial logistic regression models to examine both the timing and type of transitions out of cohabiting unions, placing emphasis on the residential variation in these processes. We compare the odds of (1) marriage versus remaining in cohabitation, (2) separation versus remaining in cohabitation, and (3) marriage versus separation. We initially examine the effect of residential location, then we control for relevant demographic and family background characteristics, and finally we examine the interactive effect of a pregnancy and residence on cohabitators' union outcomes. As shown in Table 2, we find that the union outcomes of central city women are distinct from those of their nonmetro counterparts. When remaining in an intact cohabiting union is presented as a competing risk, central city cohabiting women are only 70 percent as likely to marry as nonmetro women and are 1.4 times as likely to separate.

Comparing the likelihood of marriage versus separation, central city women are only half as likely to marry versus separate as nonmetro women. In other words, relative to their nonmetro counterparts, metro central city cohabiting women are less likely to marry and more likely to separate. There are no statistically significant differences between nonmetro and metro suburban

women in the likelihood of transitioning to either marriage or separation.

[TABLE 2 ABOUT HERE]

The full model in Table 3 reveals some residential differences in cohabiting women's union outcomes, controlling for individual and family background characteristics, which are consistent with those shown in Table 2. Central city cohabiting women are less likely than their nonmetro counterparts to make the transition to marriage, regardless of whether the competing risk is separating or remaining in the cohabiting union. Compared to nonmetro cohabiting women, cohabiting central city women are 35 percent less likely to end their union in marriage versus separation, and 20 percent less likely to end their union in marriage versus remaining in an intact cohabiting union. Note that the higher likelihood of separation among metro central city women reduces to nonsignificance in the full model, suggesting that it is explained by compositional differences. Also, there are no significant differences in union transitions between nonmetro and metro suburban women. Thus, it appears that the timing and type of union transitions are similar for nonmetro and suburban cohabiting women, and that central city women are unique in this regard. The mechanisms underlying these residential differences are not readily apparent, but the pattern of findings demonstrates the importance of distinguishing between metro central city and suburban residents.

[TABLE 3 ABOUT HERE]

Our results also show that pregnancy is a significant determinant of union transitions among cohabiting women. We find that pregnancy promotes the transition to marriage and reduces the odds of separation, which is consistent with the results reported by Manning (2004). Among pregnant cohabitators, the odds of marriage are nearly three times greater than the odds of separation and nearly double the odds of remaining in an intact cohabiting union. Pregnancy

decreases the odds of separation versus remaining intact by 33 percent.

Individual characteristics are also important predictors of union transitions. Compared to Non-Hispanic Whites, African American women are less likely to marry and more likely to separate. For example, the odds of African American cohabiting women making the transition to marriage are about half those of white women when separation is presented as the competing risk (.44) and three-fourths of white women when remaining intact is the alternative (.74). When the competing risks are separation versus remaining intact, African American women are two-thirds more likely to separate. This pattern of findings is similar to that documented by Manning and Smock (1995) and Brown (2000b) using data from the National Survey of Families and Households (NSFH). With the NSFG, we are able to include Hispanic cohabitators, who experience a similar likelihood of marriage as Non-Hispanic whites but are 1.26 times as likely to separate. A woman's birth cohort has a linear effect only on her transition to marriage from a cohabiting union. Compared to women born in the 1951-1955 cohort, women from more recent birth cohorts are less likely to transition to marriage, supporting recent work by Bumpass and Lu (2000) showing that cohabiting unions are less likely to be formalized through marriage. Women's education and work status are not related to their cohabiting union outcomes, which is consistent with Smock and Manning (1997).

Family background characteristics are not significantly associated with cohabiting women's union transitions. The longer a woman spends in cohabitation, the less likely she is to either marry or separate. The increasing time spent in cohabiting unions decreases the odds of both marriage and separation, although the effect is larger when remaining intact is presented as the competing risk.

As anticipated, there are residential differences in cohabitators' union outcomes. And,

pregnancy promotes marriage and inhibits separation. To test whether the effects of pregnancy on cohabitators' union outcomes are more pronounced among nonmetro women, we include an interaction term for pregnancy by residence in the full model. As shown in Table 4, this interaction term is not significantly associated with union transitions among cohabiting women (nor does its inclusion improve model fit, $\Delta - 2 \log L = 2.86$, $\Delta df = 4$, n.s.), meaning that pregnancy has similar effects on cohabiting women's union outcomes regardless of their residential status. Pregnancy among cohabiting women is associated with a greater likelihood of marriage and lower odds of separation, but the magnitude of these associations is not sensitive to residence. Nonetheless, the inclusion of the interaction terms reduces the effect of pregnancy to nonsignificance at the same time that the positive effect of central city residence is now significant (as it was in the initial model shown in Table 2). This pattern of findings suggests that the key difference emerges between metro central city nonpregnant and nonmetro nonpregnant women, with the former being more likely to separate than the latter.

[TABLE 4 ABOUT HERE]

A Note about Selection

By restricting our analytic sample to those women residing in the same county at the initiation of the cohabiting union as at the date of interview, there are reasons to expect we have introduced sample selection bias in our models. The focus on geographically stable women ignores those who are mobile, and it is likely that these two groups differ from one another in ways that may be related to their family behaviors. For instance, women residing in nonmetro areas who feel confined by the traditional family orientations characteristic of the locale may choose to move to a metro area. In other words, the women who remain in the same geographic area for a long period of time are probably those who are most entrenched in its culture and values, an

assumption that may not be consistent with that which guided our analyses, namely, that the mechanism through which residence operates on cohabitators' union outcomes is largely contemporaneous. Consequently, we may be overestimating the association between residence and cohabitators' union outcomes.

To investigate sample selection (and indirectly evaluate and compare various assumptions about the mechanisms through which residence operates on union transitions), we re-estimated our models using all respondents who ever cohabited (N=4,468) to compare the union outcomes of movers (for whom we do not know residence type at cohabitation start) to stayers (those in our original analytic sample). These models (not shown) did not include residence type, since this information is not known for movers. Our results indicated that movers and stayers do differ in terms of their composition. Stayers are especially likely to be Hispanic, to be younger, to have a high school education, and to have had a child prior to cohabitation. Event history analyses revealed that stayers are less likely to separate than movers, net of controls, although there was no difference between the two groups in the likelihood of marriage. Thus, residential stability is correlated with union stability. The mechanisms underlying this difference cannot be directly measured, and thus we cannot rule out the possibility that early socialization may play a role. Empirically, these findings suggest that our estimates of residential differences in marriage are relatively unbiased by the absence of movers (for whom we do not have residence information at the time of cohabitation), whereas those estimates for separation may be biased conservatively. That is, since stayers are less likely to separate than movers, we may have underestimated residential differences in cohabitators' transitions to separation. Indeed, our full models reveal no significant residential variation in the likelihood of separation versus remaining in an intact cohabitation.

We ran two sets of additional analyses to examine sample selection bias. First, using the full sample of women who in 1995 reported ever living with a cohabiting male partner (N=4,468), we modeled union outcomes using current residence type. We found no significant effects of residence on cohabitators' union outcomes (results not shown). This finding makes sense given that we do not know the residential location at the time of cohabitation for the 40 percent of respondents who were not living in the same county at first cohabitation as in 1995. These additional analyses confirm our decision to restrict our analyses to the 2,748 women for whom we are certain of their residential location during their first cohabiting union.

Second, we restricted our initial sub-sample further by including only those women who reported ever cohabiting and who lived in the same county of residence their entire lives (N=1,495 women). This more restrictive sub-sample was intended to better capture the effects of residence beyond social norms and to provide an indirect test of possible effects of early socialization (which are assumed to be trivial in the models presented in the tables). When we estimated separate multivariate models based on this restricted sample, we found nearly identical results to those presented in Tables 2-4 (results not shown). The direction of effects for the variables in the models is the same, and almost all of the same variables are significant predictors of union outcomes. The sole exception is that the coefficients for metro central city (versus nonmetro) were larger for this restricted sample. By revealing negligible evidence for residence-based early socialization influences on cohabitators' union outcomes, these findings reinforce our decision to analyze those women residing in the same county at start of cohabitation as at interview.

Finally, our study emphasizes the role of pregnancy in cohabitators' union outcomes. It is possible that a first (versus higher order) pregnancy has distinct influences on decisions to marry

or separate. In other words, women without other children in the household may respond in unique ways to pregnancy. For instance, the birth of a first child is associated with a more gendered division of labor (Thomson and Sanchez 1997). Thus, we re-estimated our models using a restricted sample comprised of women who had ever cohabited, lived in same county since first cohabitation, and did not have a birth prior to first cohabitation (N=1,827). We found nearly identical results to those presented in Tables 2-4, with the exception that among this sample, a pregnancy during a first cohabiting union has no effect on the odds of separating versus remaining in an intact cohabiting union. Recall that in the results presented in the tables, a pregnancy reduced the odds of separation. From these findings, we conclude that when a cohabiting woman experiences pregnancy her odds of separating may be higher if she has no other children. Importantly though, the effects of residence remained similar.

Discussion

Consistent with our expectations, residence is related to cohabitators' union outcomes. Nonmetro cohabiting women are more likely to experience a union transition during the first two years of cohabitation, and this pattern is evident for the transition into marriage as well as separation. Net of several individual and family background characteristics, we find differences in the transition to marriage or separation for nonmetro versus metro central city cohabiting women. Metro central city women are especially *unlikely* to marry their cohabiting partners. Nonmetro and metro suburban women do not differ in their propensities to marry or separate. As anticipated, pregnancy increases the odds of marriage and decreases the odds of separation. We expected these effects to be more pronounced among nonmetro women, but it seems they are similar regardless of residence as interaction terms for residence and pregnancy are not significant (although we note that among nonpregnant women, metro central city women are more likely

than nonmetro women to separate).

Our results are inconsistent with recently published findings (also using the 1995 NSFG) that nonmetro *unmarried* women are more likely than their metro counterparts to marry in response to a nonmarital pregnancy (Albrecht and Albrecht 2004). The absence of a significant interaction effect between residence and pregnancy in our study suggests that cohabitation is as likely to serve as a child rearing context among nonmetro as metro women. The contradictory findings between these two studies may be due in part to different analytic techniques as well as our specific focus on cohabiting women (who were not explicitly included in Albrecht and Albrecht's article) and require future investigation.

Indeed, other studies report contradictory findings about nonmetro cohabitators. For example, Snyder and McLaughlin (in press) find nonmetro cohabiting households that contain children are more economically vulnerable and more likely to use multiple forms of public assistance compared to metro cohabiting households. Brown and Lichter (2004), however, report no residential variation in the economic benefits of cohabitation to *single mothers* as metro and nonmetro single mothers cohabit as a livelihood strategy about as often and reap similar economic benefits. A more complete and consistent understanding of nonmetro cohabitators, including their family behaviors and well-being outcomes, will likely emerge as we accumulate more information about this population in future studies. Indeed, these seemingly disparate findings actually point to the importance of examining cohabitation. Neither Albrecht and Albrecht (2004) nor Brown and Lichter (2004) differentiated cohabitators from other groups, yet the present study as well as Snyder and McLaughlin (2002) demonstrate that residential differences in family behaviors observed for cohabiting women are distinct from those for married women and single mothers, respectively.

Although our research extends prior work on residential differences in family behaviors by showing that nonmetro women transition out of cohabitation more rapidly than their metro counterparts and are especially likely to move into marriage relative to metro central city women, this study also has some limitations. First, our ability to measure residence at the start of the cohabitation is constrained by data limitations, which possibly introduce sample selection bias. Our analyses are restricted to those women who reported residing in the same county at both the interview and the start of the first cohabiting union. Women who resided in a different county are excluded from these analyses. Our supplemental analyses investigating sample selection biases indicate that the cohabitation outcomes of movers do vary from those of the more geographically stable women considered here. Movers are more likely to separate, suggesting residential stability and union stability are correlated. Thus, an important caveat about our findings is that they pertain to a select group of cohabitators who are residentially stable. The mechanism through which stability operates on cohabitators' union outcomes may be not only a function of shared norms and values of residence at the time of union formation (our guiding assumption) but also early socialization (which we were not able to test directly due to data limitations). Identifying these mechanisms is an important task for future research. Additionally, we are not able to account for residential movement prior to cohabitation. Nor can we account for moves women make in order to live with their cohabiting partner. In this scenario, moves are endogenous to cohabitation. Another shortcoming of this work is that we only have information on women's characteristics. Prior research demonstrates the importance of accounting for the characteristics of both partners in the cohabiting union when predicting union transitions (see Smock 2000 for a summary). Moreover, the partner's residence history may also play a role in cohabitators' union outcomes, but we are unable to examine this

possibility.

Taken together, our results suggest that nonmetro women's cohabiting unions are more likely to transition to marriage than those of metro central city women (but not metro suburban women). Nonmetro women's cohabiting unions tend to be of shorter duration, on average, moving more rapidly to formalization through marriage or termination through separation, suggesting that nonmetro women cohabit on the path to marriage. Unions that are "successful" transition to marriage quickly; relationships that appear unlikely to survive as marriages are dissolved.

The findings from this study add to the growing literature on the salience of residential status in family formation behaviors and, more specifically, the importance of distinguishing among metro central city, metro suburban, and nonmetro residents. The changing dynamics of the family life course have been amply documented at the national level (e.g., Casper and Bianchi 2002), yet important variations are evident across residence. The mechanisms through which residence is associated with family behaviors, including cohabitation, are not fully understood and merit attention in future research, as family behaviors have important consequences for the well-being of adults and children alike (e.g., Amato 2000; Brown 2000a, 2004; Coleman, Ganong, and Fine 2000) and thus also are of great concern to policy makers (e.g., Lichter and Crowley 2004; McLanahan 2000).

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Table 1. Description of Women Who Have Ever Cohabited by Residence (percent)

| | Total | Met-CC | Met-Sub | Nonmet | Π^2 |
|--|-------|--------|---------|--------|-----------|
| Outcome of first cohab union | | | | | |
| Still cohabiting | 13.9 | 13.6 | 14.0 | 14.2 | 76.44*** |
| Marriage | 54.0 | 45.2 | 58.3 | 59.2 | |
| Separation | 32.1 | 41.2 | 27.7 | 26.6 | |
| Pregnancy during first cohab union | 27.4 | 32.2 | 24.9 | 25.3 | 35.37*** |
| First child born before first cohabiting union | 27.8 | 30.3 | 24.5 | 31.6 | 29.24*** |
| Married prior to first cohabitation | 19.4 | 15.6 | 19.9 | 25.0 | 29.68*** |
| Race/Ethnicity | | | | | |
| Hispanic | 11.1 | 17.9 | 9.2 | 3.2 | 357.20*** |
| Non-Hispanic White | 71.5 | 53.0 | 79.7 | 85.0 | |
| Non-Hispanic Black | 17.4 | 29.1 | 11.1 | 11.8 | |
| Birth Cohort | | | | | |
| 1976-1980 | 5.1 | 6.0 | 4.4 | 4.9 | |
| 1971-1975 | 18.1 | 18.0 | 17.3 | 20.3 | |
| 1966-1970 | 20.8 | 21.6 | 20.1 | 21.3 | |
| 1961-1965 | 22.1 | 22.1 | 23.9 | 17.1 | |
| 1956-1960 | 19.6 | 18.8 | 19.0 | 23.0 | |
| 1951-1955 | 14.4 | 13.5 | 15.3 | 13.6 | 13.70 |
| HS education at first cohab union | 91.1 | 90.8 | 91.3 | 91.2 | 3.14 |
| Work experience at first cohab union | 84.3 | 81.7 | 85.8 | 85.2 | 14.45*** |
| Number of childhood living arrangements | | | | | |
| 1 | 59.7 | 57.6 | 58.4 | 67.1 | 17.41*** |
| 2 | 18.9 | 19.5 | 18.8 | 18.2 | |
| 3 or more | 21.4 | 22.9 | 22.8 | 14.8 | |
| Mother's work during childhood | | | | | |
| Full-time | 45.1 | 46.6 | 15.8 | 37.7 | 12.52* |
| Part-time | 18.1 | 44.6 | 18.4 | 37.0 | |
| No work | 36.8 | 43.3 | 22.1 | 34.6 | |
| Mother has high school education | 65.1 | 60.9 | 69.8 | 60.6 | 21.58*** |
| Father has high school education | 67.6 | 65.4 | 70.7 | 63.5 | 14.15*** |

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

Note: A total of 4,468 women in the 1995 NSFG had ever been in a cohabiting union. Because of our emphasis on residential variation in cohabiting unions, our analyses are restricted to the 2,748 (metro central city=1115; metro suburban=1178; nonmetro=455) who were living in the same county in 1995 as they were at the time of their first cohabiting union.

Table 2. Discrete-Time Multinomial Logistic Regression Models Predicting the Outcome of a First Cohabiting Union

| Independent Variable | Marriage vs. Separation | | Marriage vs. Intact | | Separation vs. Intact | |
|---------------------------------------|-------------------------|-------------|---------------------|-------------|-----------------------|-------------|
| | β | e^{β} | β | e^{β} | β | e^{β} |
| Intercept | .979 | - | -1.87 | - | -2.85 | - |
| Residence (nonmetro omitted) | | | | | | |
| Metro-central city | -.70*** | .50 | -.34*** | .70 | .36*** | 1.43 |
| Metro-suburban | .02 | 1.02 | -.06 | .94 | -.08 | .94 |
| Time-months in sample | -.01*** | .99 | -.06*** | .94 | -.04*** | .96 |
| -2(log likelihood)=20855.62 | | | | | | |
| Model $X^2=1367.22$ | | | | | | |
| Pseudo $R^2=.0974$ | | | | | | |
| Person months=59,723 | | | | | | |

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

Table 3. Discrete-Time Multinomial Logistic Regression Models Predicting the Outcome of a First Cohabiting Union

| Independent Variable | Marriage vs. Separation | | Marriage vs. Intact | | Separation vs. Intact | |
|---|-------------------------|-------------|---------------------|-------------|-----------------------|-------------|
| | β | e^{β} | β | e^{β} | β | e^{β} |
| Intercept | 1.60 | - | -1.22 | - | -2.82 | - |
| Residence (nonmetro omitted) | | | | | | |
| Metro-central city | -.43*** | .65 | -.23** | .80 | .20 | 1.22 |
| Metro-suburban | -.01 | .99 | -.08 | .93 | -.07 | .94 |
| Pregnancy during cohab union | 1.04*** | 2.82 | .64*** | 1.90 | -.40*** | .67 |
| First child born before first cohabiting union | -.15 | .86 | -.14 | .87 | -.02 | 1.02 |
| Race/Ethnicity (White omitted) | | | | | | |
| Black | -.82*** | .44 | -.30 | .74 | .52*** | 1.68 |
| Hispanic | -.24 | .79 | -.02 | .99 | .23* | 1.26 |
| Married prior to first cohabitation | .14 | 1.15 | -.11 | .89 | -.25* | .78 |
| Birth cohort (1951-1955 omitted) | | | | | | |
| 1976-1980 | -2.09*** | .12 | -2.22*** | .11 | -.13 | .88 |
| 1971-1975 | -1.29*** | .28 | -.97*** | .38 | .32** | 1.38 |
| 1966-1970 | -.72*** | .49 | -.48*** | .62 | .24* | 1.27 |
| 1961-1965 | -.36* | .70 | -.26** | .77 | .11 | 1.12 |
| 1956-1960 | -.27 | .76 | -.13 | .88 | .14 | 1.15 |
| HS education at first cohab union | .07 | 1.08 | -.03 | .98 | -.10 | .91 |

| | | | | | | |
|---|---------|------|---------|------|---------|------|
| Work experience at first cohab union | .01 | 1.02 | -.11 | .89 | -.13 | .88 |
| Number of childhood living arrangements | .07 | 1.07 | -.02 | 1.02 | -.05 | .95 |
| Mother's employment during childhood (no work omitted) | | | | | | |
| Full-time | -.13 | .87 | -.03 | .98 | .11 | 1.12 |
| Part-time | -.10 | .90 | .06 | 1.07 | .17 | 1.18 |
| Mother has HS education | -.01 | 1.00 | -.04 | .97 | -.04 | .96 |
| Father has HS education | -.02 | .93 | -.05 | .95 | .02 | 1.02 |
| Time-months in sample | -.02*** | .99 | -.06*** | .94 | -.05*** | .95 |
| -2(log likelihood)=20460.988 | | | | | | |
| Model X²=1646.09 (40) | | | | | | |
| Pseudo R²=.1145 | | | | | | |
| Person months=59,723 | | | | | | |

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

Table 4. Discrete-Time Multinomial Logistic Regression Models Predicting the Outcome of a First Cohabiting Union

| Independent Variable | Marriage vs. Separation | | Marriage vs. Intact | | Separation vs. Intact | |
|---|-------------------------|-------------|---------------------|-------------|-----------------------|-------------|
| | β | e^{β} | β | e^{β} | β | e^{β} |
| Intercept | 1.61 | - | -1.20 | - | -2.80 | - |
| Residence (nonmetro omitted) | | | | | | |
| Metro-central city | -.42* | .65 | -.24* | .79 | .18* | 1.20 |
| Metro-suburban | -.05 | .96 | -.12 | .89 | -.07 | .93 |
| Pregnancy during cohab union | 1.00** | 2.73 | .47*** | 1.60 | -.53 | .59 |
| First child born before first cohabiting union | -.15 | .86 | -.13 | .88 | .02 | 1.02 |
| Residence * Pregnancy | | | | | | |
| Metro-central city pregnant | -.09 | .91 | .09 | 1.10 | .19 | 1.21 |
| Metro-suburban pregnant | .21 | 1.24 | .29 | 1.34 | .08 | 1.08 |
| Race/Ethnicity (White omitted) | | | | | | |
| Black | -.82** | .44 | -.30*** | .74 | .53*** | 1.68 |
| Hispanic | -.25 | .78 | .02 | .98 | .23 | 1.26 |
| Married prior to first cohabitation | .14 | 1.16 | -.11 | .90 | -.25* | .78 |

| | | | | | | |
|---|----------|------|----------|------|---------|------|
| Birth cohort (1951-1955 omitted) | | | | | | |
| 1976-1980 | -2.09*** | .12 | -2.21*** | .11 | -.12 | .88 |
| 1971-1975 | -1.28*** | .28 | -.97*** | .38 | .32* | 1.38 |
| 1966-1970 | -.72*** | .49 | -.48** | .62 | .24* | 1.27 |
| 1961-1965 | -.37* | .69 | -.26** | .77 | .11 | 1.11 |
| 1956-1960 | -.28 | .76 | -.13 | .88 | .14 | 1.15 |
| HS education at first cohab union | .08 | 1.08 | -.02 | .98 | -.10 | .91 |
| Work experience at first cohab union | .01 | 1.01 | -.12 | .89 | -.12 | .88 |
| Number of childhood living arrangements | .07 | 1.07 | .02 | 1.0 | -.05 | .95 |
| Mother's employment during childhood (no work omitted) | | | | | | |
| Full-time | -.14 | .87 | -.02 | .97 | .11 | 1.12 |
| Part-time | -.10 | .90 | .06 | 1.07 | .17 | 1.18 |
| Mother has HS education | -.01 | 1.01 | -.04 | .97 | -.05 | .96 |
| Father has HS education | -.07 | .93 | -.05 | .95 | .02 | 1.02 |
| Time-months in sample | -.02*** | .99 | -.06*** | .94 | -.05*** | .95 |
| -2(log likelihood)=20,458.142 | | | | | | |
| X²=1661.10 (44) | | | | | | |
| Pseudo R²=.1146 | | | | | | |
| Person months=59,723 | | | | | | |

* p<.05; **p<.01; ***p<.001. Weighted analyses.

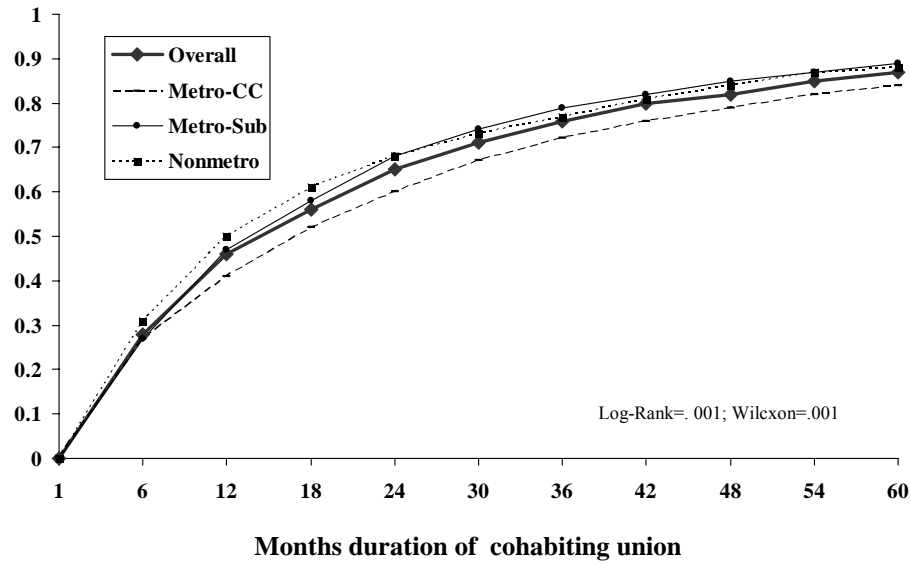


Figure 1. Life Table Estimates of the Cumulative Proportion Exiting Cohabiting Union by Residence

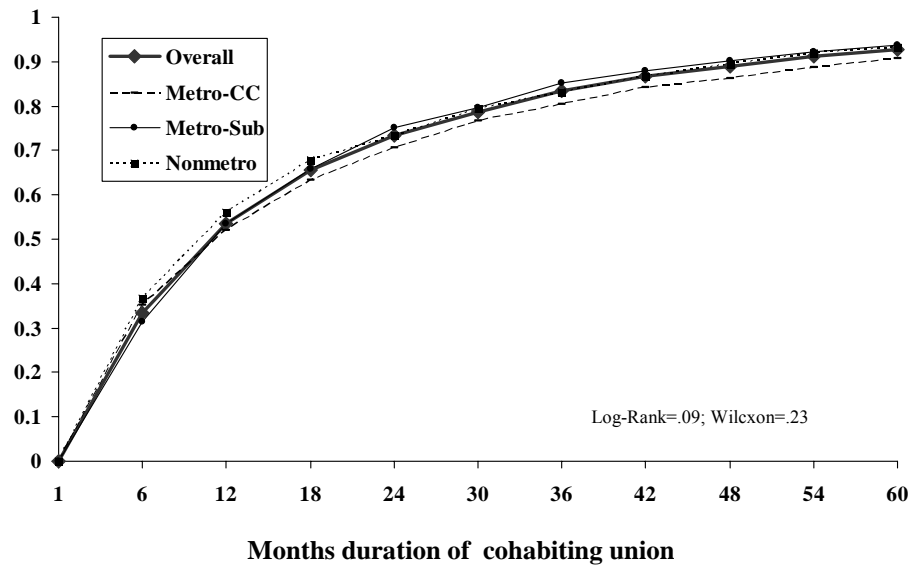


Figure 2. Life Table Estimates of the Cumulative Proportion Exiting Cohabiting Union to Marriage by Residence

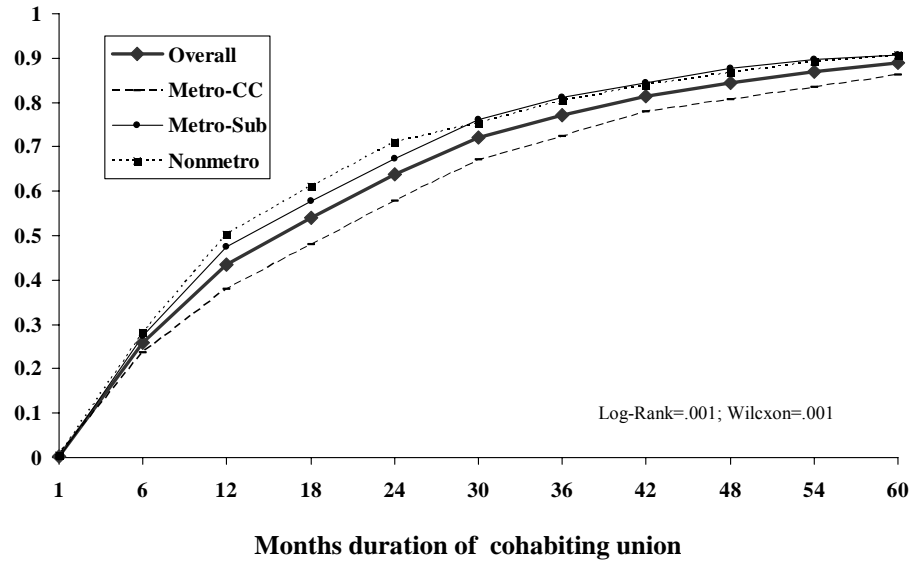


Figure 3. Life Table Estimates of the Cumulative Proportion Exiting Cohabiting Union to Separation by Residence