

Interracial Marriage Formation:
Entry into First Union and Transition from Cohabitation to Marriage

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ABSTRACT

**YILAN FU: Interracial Marriage Formation:
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(Under the direction of Guang Guo)**

Few prior studies on union formation and transition have emphasized a very distinct group – racially and ethnically mixed couples, whose patterns of entry into first union and transition from cohabitation to marriage are very different from couples in general. Using the female data from 2002 National Survey of Family Growth (cycle VI), I employed survival analysis to specifically examine interracial marriage formation process. The results reveal that non-white females with higher education are more likely to be in interracial cohabitation and marriage, while such interracial unions are more common among white females with lower education. The likelihood of starting interracial first union is even among females from age 15 to 40. The likelihood of transition from cohabitation to marriage for a mixed couple falls in between those for same race couples of the two origin groups.

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CHAPTER 1

INTRODUCTION

Interracial marriage has long been viewed as a key indication of assimilation process in a society, and crossing the racial divide in marriage is considered the best measure of social distance between racial groups (Gordon 1964; Alba and Golden 1986). U.S. Census data shows that the proportion of interracial marriage has increased remarkably since the 1960s. In 1970 interracial marriages consisted less than 1% of all marriages, but it rose to over 5% by 2000. Such changes have been interpreted as signifying the fading of racial boundaries in U.S. society (Qian and Lichter 2007).

Meanwhile, since the 1960s, people have been postponing the age at which they first marry; the “retreat from marriage” is accompanied by a striking rise in cohabitation. Cohabitation has replaced marriage as the first union experience for the majority of young adults. 54% of first unions began with cohabitation, and 56% of those aged 19-44 who married had previously cohabited (Bumpass and Hsien-Hen 2000). Although the average age at first marriage has increased, the average age of first union formation has changed little if both marriage and nonmarital cohabitation are considered, suggesting that the timing of first union formation may not have changed as much as the choice of union type (Bumpass, Sweet et al. 1991).

The process of first union formation has significant consequences for individuals. Entry into a coresidential partnership is considered a crucial element of independence from the family of origin and the transition to adulthood. Moreover, the first union type (marriage or cohabitation) is closely related to the later childbirth and family stability (Smock 2000). Furthermore, the formation and transition process of interracial unions is of particular interest for several reasons. First, it is of great importance to extend the scope from interracial marriages to interracial unions, because cohabitation relationships are also indicators of the social barriers between racial groups; this kind of interracial involvement helps individuals to learn variation across racial groups and question racial stereotypes (Kalmijn 1998), and may eventually transition into interracial marriage. Although a growing literature has expanded the interest to interracial dating relationships and cohabitations (Joyner and Kao 2005; Wang, Kao et al. 2006), few studies have examined the formation and transition process of interracial unions and compared the different patterns between interracial and same-race unions. Second, interracial first union pattern has accompanied the general shift toward cohabitation started in 1970s, moreover, a disproportionately larger increase has been found in interracial cohabitation: nearly 10% of all cohabiting unions are between partners of different races (Fields 2001). It is expected that a better understanding of interracial marriage can be achieved by focusing on interracial couples who are already in coresidential relationships. Third, individuals in dating and cohabitating relationships are more likely than married individuals to have a partner of a different race, while marriages are less likely than other types of intimate relationships to be interracial (Blackwell and Lichter 2004; Joyner

and Kao 2005). Interracial couples face more challenges, thus it is important to explore the relative stability of interracial cohabitations and their prospects of transition into marriage.

To better understand the racial and ethnic variation in union formation and transition, this study tracks and explains the formation of interracial first union and its transition into interracial marriage. The analysis is based on the female sample of NSFG2002 (National Survey of Family Growth 2002), which collected detailed information on romantic relationship histories. Focusing on first unions, the first part of the study examines different patterns of entry into same-race and interracial first unions as women age, and identifies factors (family background and current attributes) that may explain the selection into interracial unions. Turning to women who started their first union with cohabitation, the second part of the study intends to explore the relative stability of interracial and same-race cohabitations. I use the likelihood of marriage or dissolution of interracial couples distinguished along the lines of race and gender (e.g. white male/Asian female vs. Asian male/white female)(Bratter and King 2008) to test whether the instability of interracial relationships can be found across all types of interracial couples.

CHAPTER 2

THEORY & RESEARCH

In this section, I first briefly review research on the determinants of entry into first union and the transition from cohabitation to marriage in general. I then discuss the perspectives specific to interracial relationships.

2.1 Union Formation Process and Transition into Marriage

The studies on formal and informal union formations share an emphasis on the costs and benefits of entry into marriage or cohabitation, compared to alternative activities and roles (Smock 2000; Sweeney 2002). The decision of entry into first union is influenced by two sets of factors: 1) the socioeconomic resources of the family of origin and 2) current activities of the young adults. Parental resources can affect the start of first union through providing more attractive alternatives to early marriage to young adults. Also, people from advantaged family background are more likely to start first union with marriage rather than cohabitation (Smock 2000). Growing up in an intact family is also related to the first union behavior. Living in a single parent family increases the probability of premarital sexual experiences and early marriage (Albrecht and Teachman 2003; Teachman 2003). Finally, sexual activities have been linked to union formation. A number of studies have found that active dating and sexual involvement in adolescence lead to early marriage and the formation

of informal unions (Teachman 2003).

Previous studies show that marriage at both individual and aggregate level is linked positively to economic opportunities, and it is expected that full time employment and higher completed education will accelerate the transition to marriage among cohabitators (Manning and Smock 1995). Family background and partner's attributes should also be taken into account. It is expected that partner's children from previous relationship have a negative impact on marriage probabilities (Bennett, Bloom et al. 1995).

2.2 Interracial Union Formation and Transition

Interracial marriage is a culminating event which is impacted by the tendency and propinquity for interracial contact as well as a sequence of intimate relationships during the transition to marriage. The tendency and propinquity for interracial contact set the stage for initiating interracial intimate relationships. But the influential factors at the initial phase may or may not continue to impact the transition into interracial marriage once intimate relationships are established. The following section first discusses how preferences and opportunities for interracial relationships differ by racial groups and the role these differences may play in the selection into interracial union. Secondly, the section reviews theoretical frameworks that explain marital matching processes, particularly for racially mixed couples.

Interracial marriages vary widely across racial/ethnic groups. According to structural theory (Blau 1977), the size of one racial group relative to other racial groups indicates the exposure to interracial contact and in turn interracial relationship and family formation.

Individuals from smaller racial groups have fewer opportunities to form in-group relationships and more opportunities to interact with members of other racial groups. Supporting this theory, studies have shown that after taking into account racial composition of local marriage markets, people from smaller racial groups have a greater chance of marrying interracially (Harris and Ono 2004).

When we look at the effect of educational upgrading on interracial contacts, the findings are mixed. Blacks and Hispanics are much less likely than whites and Asians to attend college (Census 2001). In the case of Asians, the advance from high school to college provides them higher social economic status and more opportunities to interact with mainstream society, therefore enhances their chance of interracial marriage. For blacks, high schools as well as colleges are sometimes racially segregated, and the advance from one to another may not change the opportunities of interracial contact.

Family background is an important predictor of people's interracial relationship preference. Better educated parents would generate a family environment of greater racial tolerance and understanding which encourages interracial contacts (King and Bratter 2007).

People are increasingly selective with respect to race when they are in more committed romantic relationships (Blackwell and Lichter 2004). Marriage differs from other types of intimate relationships because greater commitment is required. Marriage involves public acknowledgment of the relationship. Beyond the individual scope, marriage also means that a couple will share family, friends and larger social resources. Thus, marrying a person of other race may bring more external pressures than dating or cohabiting interracially.

It is speculated that preference for interracial marriage is weaker than that for interracial dating or cohabitation.

People are increasingly likely to enter into first union since their early 20s. The probability of starting first union reaches its peak around age 25 and then declines after that. However, as individuals transit from adolescence to young adulthood, they are decreasingly likely to involve in interracial relationships because of greater anticipation for marriage (Joyner and Kao 2005). The decreased preference for interracial relationships may partially suppress the age increase in starting interracial first union in early adulthood.

Status exchange theory argues that if a couple's characteristics are dissimilar in one area, exchange tends to make up the imbalance in others (Davis 1941; Kalmljn 1993). It predicts that interracial unions are frequently formed through an exchange relationship in which both white and minority partners benefit by trading status characteristics; that is, minorities pay a higher achieved status to marry whites for a higher racial status. The theory implies a hierarchy of status among racial groups, and the status difference is assumed to only exist between white – minority couples. This type of exchange may be best illustrated among white women and black men couples. Specifically, black men who are in upward mobility have incentives to marry white women in order to gain higher racial status. On the other hand, white women of lower achievements are willing to marry black men of higher achievements (Kalmljn 1993). Finding from other minority groups is also in accordance with this theory, and the proportion of marrying whites is much higher among well-educated Asians and Hispanics relative to their less educated counterparts (Qian and Lichter 2007). In

turn it is expected that white females are negatively selected into interracial relationships in terms of education, in contrast, non-white females are positively selected in this type of relationship.

The first perspective concerns the role of homogamy in the process of marriage formation. It has long been recognized that people tend to date and marry someone who shares a similar cultural background and social economic status. The marriage market is determined by local demographic and geographic composition, and within the marriage market, people generally prefer someone who is similar to them (Kalmijn 1998). When people progress into more serious relationships, couples with similar characteristics have fewer misunderstandings, less conflict and enjoy greater support from extended family and friends. The theory implies that cohabitating partners from the same racial group have a greater base of transition into marriage compared to interracial cohabiting partners. Heterogamy with respect to race would decrease the likelihood of marriage. The homogamy perspective further leads to the expectation that stronger the racial boundaries of the two origin groups of the cohabiting couple, lower the probability of eventuating into marriage. That is, Black-White cohabitations are expected to be less likely to transit into marriage than Hispanic-White or Asian-White cohabitations.

The other perspective involves the ethnic convergence model, developed by F. L. Jones in a study of divorce among interracial couples (Jones 1996). In the model of behavioral convergence, divorce rates for interracial couples are largely a function of the revealed group preferences for divorce and the convergence between the rates for the two

origin groups. The perspective implies that marriage propensity of interracial cohabiting couples is likely to fall between the marriage patterns of the involved racial groups. That is, the likelihood of transition from cohabitation to marriage for white/black couples is lower than that of white/white couples and higher than that of black/black couples. The two perspectives producing contradictory results will be examined in following analysis.

CHAPTER 3

DATA & ANALYTIC APPROACH

3.1 Data

My analysis uses female data from Cycle 6 of the National Survey of Family Growth (NSFG2002), which was conducted in 2002 by the National Center for Health Statistics. The survey is a repeated cross-sectional study designed to provide information on the fertility behaviors and reproductive health of the U.S. population of childbearing ages. It is based on a multistage probability sample of civilian, noninstitutionalized population in the United States and yields a nationally representative sample of 7,643 women and 4,928 men ages 15-45 (National Center for Health Statistics, 2004). The data includes retrospective histories of respondents' cohabitation and marriage experiences, as well as information regarding current sexual partners. Among the 7,643 female respondents, 2,383 had never experienced marriage or cohabitation by the time of interview. 3,286 women started their first union with cohabitation and 1,974 women started their first union with marriage.

A limitation of the data is that it is not representative of the immigrant population due to the barrier of language. The interview was conducted either in English or Spanish; immigrants who speak neither of the two languages are left out of the survey. Second, the life event data I used in my analysis is constructed from retrospective reports. The limitations of

retrospective survey involve not only recall problems, but also the fact that subjects may reconstruct their histories based on current experiences, mind sets, salience and norms. Retrospective histories underestimate cohabitations in distant periods relative to those estimated closer to the date of survey (Hayford and Morgan 2008). Research has also shown that many unwed mothers revise their retrospective reports of cohabitation. The reconstruction of cohabitation status is a function of socioeconomic factors and the couple's relationship (Teitler 2004). Third, the data only provides information on income, employment status and educational attainments at the time of interview, which prohibits the investigation of the impact of economic opportunities at the time of union formation and transition. Last, the data does not include information on relationships with anyone beyond the couple (e.g. extended family members, friends and neighbors), whose support or opposition toward the union may be especially influential for interracial couples.

3.2 Measures

3.2.1 Racial and Ethnic Identity of Respondents and Their Partners

Using U.S. census standard, NSFG gathered information on race and ethnicity separately. Hispanic origin was first asked, and race question followed. The provided racial categories are American Indian or Alaskan Native, Asian, Native Hawaiian, White and Black. Multiple checks on racial categories were allowed. Respondents reported their own as well as their partners' race and Hispanic ethnicity. Although there has been debates on viewing Hispanic as an ethnic as opposed to a racial category among social scientists and

policy-makers, I coded the race-ethnicity variables according to the logic of U.S. Census and many large scale social surveys: respondents and their partners are categorized into six major subpopulations: Hispanics, Non-Hispanic (NH) Whites, NH Blacks, NH Asians (and Pacific Islanders and Native Hawaiians), NH American Indians and NH multiracials. For individuals with more than one race, if they have a Hispanic origin, then they are classified into Hispanics; if they are non-Hispanic, then they are grouped into the multiracial subpopulation.

3.2.2 Cohabitation

The 2002 NSFG collected relationship histories of up to 8 pre-marital cohabitations and up to 15 current sexual relationships. The interview was conducted in person, and the terminology “living together” was used to ask about cohabiting relationships. A cohabiting relationship is defined as one where couple of opposite sex shares “the same usual address”. One weakness of the measure is that a length of time that a cohabiting relationship must last in order to be reported is not specified.

3.2.3 Interracial Cohabitation and Interracial Marriage

Multiracial people vary greatly based on the makeup of their ancestries and mono-racial identities, and usually they maintain both a major mono-racial identity and the multiracial identity at the same time. Multiracial identities are most fluid and likely to change across social contexts. Accordingly, it would be inappropriate to treat multiracials as a

homogenous group, and whether their relationships with other mono-racial individuals should be considered as interracial or same-race relies heavily on the fluidity of the multiracial identity and social contexts. Therefore, multiracials are not included in the following analysis due to the difficulty in defining their relationships with other racial group members.

Multiracial marriage and cohabitation are now defined as any such relationship in which a difference exists in the racial or ethnic background (5 racial groups defined above) of the respondent and the partner. Same-race relationships exist between the two individuals who are both Hispanic and those two who are both non-Hispanic and meanwhile of the same race.

3.3 Analytic Approach

3.3.1 Tree Diagrams

I began the analysis by describing the first union experience of women by age at interview. The sample was divided into three age groups: 15-24, 25-34 and 35-45. I used three tree diagrams to show the proportion of women who entered a first union, the proportion of first unions that began with interracial cohabitation, same-race cohabitation, interracial marriage and same-race marriage respectively, and the proportion of same-race or interracial cohabitations that transitioned into marriage. The stability of interracial and same-race unions was also demonstrated.

3.3.2 Competing Risk Models

I then used competing risk models to address the choice a woman made among different types of first partnership. Interracial marriage, interracial cohabitation, same-race marriage and same-race cohabitation were considered as four distinct exits from single state. Moreover, the four routes consist of competing risk situation because the occurrence of one type of event removes the individual from risk of all the other event types. The analysis was based on retrospective history data representing each respondent's relationship experience. The life-history data allowed the shift of focus from the age at interview to the age of exposure to the risk of relationship formation and transitions. The dependent variable measured whether or not one type of first partnership was entered. For each type of first union, the competing risk model was estimated by treating all other types as censoring. Events were measured in months. Each woman contributed to the analysis from age 15 until the age at which her first union was formed, she reached age 40, or her life experience was censored by the interview, that is, she neither entered a union nor reached 40 before the interview.

Competing risk models take the following functional form:

$$h_i(t) = \sum_j h_{ij}(t)$$
$$\log h_{ij}(t) = \alpha_j(t) + \beta_j X_i(t), j = 1, 2, 3, 4$$

where $h_{ij}(t)$ is the hazard of experiencing one type of first union j ($j=1$ for interracial cohabitation, $j=2$ for same-race cohabitation, $j=3$ for interracial marriage, $j=4$ for same-race

marriage) for a women i at time t since age 15, given that she has not yet experienced an event nor been censored prior to time t . $X_i(t)$ is a vector of time-constant covariates for woman i . In my models, the coefficients represent the increase or decrease in the relative risk of entry into one type of first union versus all other types associated with a unit or category change in an independent variable.

Two sets of explanatory variables were included in the models: the family background and personal characteristics. All variables were measured at the time of interview. The background variables include the respondent's race, whether the respondent was foreign born, whether the respondent is proficient in English, mother's education, whether the respondent is from an intact family, childhood religious affiliation and age at interview. Education is a series of dichotomous variables indicating having a high school diploma, some college, or a college degree or higher, with less than a high school education serving as the reference category. Intact family is measured by whether the respondent lived with two biological or adoptive parents from birth to age 14. Childhood religious affiliation is also a series of dichotomous variables indicating no religion, Catholic, Protestant and others. The respondent's age at interview is grouped into 25-35 years old cohort and 35-45 years old cohort, with 15-25 years old cohort as the reference category.

Competing risk models were also used to estimate the likelihood of transition into marriage or dissolution among interracial cohabiting couples and same-race cohabiting couples. This analysis was based on duration and outcome of the first unions started with cohabitation. Marriage and dissolution were considered as two distinct outcomes of

cohabitation that are influenced by different underlying mechanisms and are treated differently in the analysis.

Women's cohabitation experiences were tracked up to 5 years. I used 5 years as the primary exposure period for cohabitation because over 90% of cohabitations end by the fifth year (Lichter, Qian et al. 2006). I did not use a longer exposure period because of the concern about censoring. Although competing risk models handle the statistical aspects of censoring, substantive censoring issues still exist. If the exposure period wasn't set, for the earliest cohort, censoring would only occur when the cohabitations continued for a long time, which is a rare situation for the young cohabiting couples. But for the latest cohort, the major cause of censoring would be lack of exposure time. So I chose the 5-year period to allow enough time for marriage or dissolution to occur and meanwhile minimize the substantive censoring concerns.

In this set of models, the measures of family background and women's characteristics were also used as explanatory variables. In addition, women's circumstance at the cohabitation, partners' attributes and couples' relations were included.

Women's circumstance at the cohabitation include whether or not a woman has become sexually active before the start of the cohabitation; period of the cohabitation, which is categorized to 1983-1993 and 1993-2002, with 1983 and earlier as the reference category; and the respondent's age at the cohabitation. Partners' attributes were measured by age at the beginning of the cohabitation, whether the partner has children from prior relationship and whether he has married before. Whether the couple engaged during this cohabitation

measured their relations.

3.3.3 Hazard Function Plots

In order to examine the age patterns of entry into first union during the ages of 15-40, smoothed hazard function plots were used to visualize the likelihood of a woman entering each type of first partnership by age. The settings of the hazard functions are the same as the above competing risk models of entry into first union.

CHAPTER 4

RESULTS

4.1 Patterns of Entry into First Union

Using a tree diagram, Figure 1 summarizes the first union experience of female respondents aged 15-25 at interview. By the time of survey, 38% of women in this age group had formed a first coresidential union. Among them, 20% entered an interracial union and 80% entered a same-race union. 85% of the interracial couples began their first union with cohabitation, compared to 77% for same-race couples. Only 19% of the interracial cohabitators later married their partner, compared to 27% for the same-race cohabitators.

[Figure 1 about here]

Figure 2 and 3 present similar diagrams of the first union experience of women aged 25-35 and 35-45 at interview respectively. The results show that older cohorts were far less likely than younger cohorts to begin their union with cohabitation. Those in older cohorts who entered cohabitation were more likely to marry their partners than were their younger counterparts. Moreover, younger cohorts were somehow more likely to start interracial unions (both marriage and cohabitation), which is in accordance with the fact that younger individuals form their relationship in a more recent period of greater racial diversity and racial tolerance. But differences between interracial and same-race cohabitations in the

marriage likelihood are more pronounced for the younger population. Among the oldest cohort, 62% of interracial cohabitations had transitioned into marriage, compared to the same percentage of the same-race cohabitations. While among the women aged 15-25, only 19% of the interracial cohabitations ended in marriage, compared to 27% of same-race cohabitations.

[Figure 2 and 3 about here]

The overall pattern across all age groups shows that interracial unions differ remarkably from same-race unions. First, while single or cohabiting, women in interracial relationships were much less likely than their counterparts in same-race relationships to marry their partner. Second, interracial couples were much more likely to start their first union with cohabitation than same-race couples, the likelihood of starting cohabitation as opposed to marriage as first union among interracial couples was 1.89 times of that among same-race couples (data not shown), which is in accordance with the speculation that preference for interracial marriage is weaker than that for other types of interracial sexual relationships. Third, the instability of interracial unions relative to same-race unions is noteworthy. Interracial cohabitation as a whole has a lower proportion of ending in marriage than same-race cohabitation does.

The tree diagrams presented above provide useful descriptive information on the pattern of union formation. But the statistics may be biased due to the fact that for a woman in younger cohorts, her union experience is more likely to be truncated by the interview, so her exposure time is not as long as the a woman in older cohorts. A better understanding of the union formation patterns requires regression models to take into account the exposure

time, meanwhile, paying attention to the background and current circumstances of the female respondents would help explore their choice underlying the patterns. Thus I turned to a multivariate analysis of entry into first union.

Table 1 shows the distribution of the explanatory variables used in the analysis. Except for African American women, a greater percentage of interracial marriage or cohabitation among all first unions was found in minority females. Foreign born females are more likely to be in interracial cohabitation and marital relationships. Spanish speaking women are less likely than English speaking women to be in interracial first union.

Table 1 shows the distribution of the explanatory variables used in the analysis. Except for African American women, a greater percentage of interracial marriage or cohabitation among all first unions was found in minority females. Foreign born females are more likely to be in interracial cohabitation and marital relationships. Spanish speaking women are less likely than English speaking women to be in interracial first union. There are few systematic differences in terms of mother's education across union types. Women from an intact family in childhood are more likely to start first union with marriage than their counterparts. The percentage of marriage is substantively higher among women who did not initiate sexual activity until first union. In addition, the age at first union is greater for marriage than cohabitation. Unions formed in more recent years are more likely to be interracial and cohabitations.

[Table 1 about here]

Table 2 presents the coefficients and fit statistics from competing risk models of entry

into first union. Four models are estimated corresponding to the four union types. The coefficients provide a contrast between those who entered one type of union and those who entered other types of union as well as those remained single.

[Table 2 about here]

Minority females except for African Americans are more likely to involve in interracial relationships, foreign born background and proficiency in English encourage interracial first partnership, and these results are consistent across cohabitation and marriage. The likelihood of forming same-race cohabitation and marriage declines with mother's education. A lower likelihood of entry into interracial cohabitation is found among the cohort of 35-45 years old at interview. In general, the results largely support our expectation that smaller group size, English proficiency, and younger age encourage interracial involvement.

Growing up in an intact family encourages marriage and discourages cohabitation as the first union type. In general, religious affiliation is related to greater likelihood of marriage and smaller likelihood of cohabitation.

Figure 4 provides smoothed hazard function plots for the four types of first union: interracial marriage, interracial cohabitation, same-race marriage and same-race cohabitation. It is notable that the pattern of transition into interracial unions is very different from that for same-race unions. The likelihood of starting same-race first union is much higher than that for interracial unions. Females are least likely to enter into interracial marriage, followed by interracial cohabitation and same-race marriage, same-race cohabitation is the most common first union type. The likelihood of transition into same-race union increases from age 15 to 24,

reaches its peak around age 24, and then declines after that. In contrast, the hazard of entering into interracial unions is relatively even and does not change much with age. This finding is consistent with previous discussion on how decreased preferences for interracial relationships suppress the age increase in starting first union in early adulthood.

[Figure 4 about here]

4.2 Models of Union Type: Interracial VS. Same-Race

I then turned to the analysis of choosing first union type: interracial vs. same-race. As noted above, it is expected that white females and minority females have different opportunities and incentives to start interracial first union. Accordingly, I analyzed female respondents from four major racial groups (NH White, NH Black, NH Asian and Hispanics) separately in the following section.

Table 3 provides results from competing risk models predicting whether the first union is interracial. Each model is restricted to the women from a certain racial group. All the models include measures of the woman's background. I focused the attention on the difference between whites and non-whites.

The coefficient first indicates that native born Asian females are more likely to involve in interracial first unions. Foreign born is always associated with immigrant status, it is reasonable to expect that native born Asian females are better assimilated to the U.S. society and have an advantage over immigrants regarding interracial contacts. English

proficiency encourages interracial involvements among Hispanics. The finding that Spanish speaking white females are more likely to marry or cohabit interracially than their English speaking counterparts implies that many Hispanic whites may just identify themselves as white. The results also reveal differences between whites and minorities in the selection process into interracial first union. In the model for whites, those women whose mother has better education are less likely to enter into interracial first union. It is speculated that better family background decreases the incentives of white females to seek a minority partner with better socioeconomic status. On the contrary, mother's education is positively related to the likelihood of starting interracial first union among Hispanic females. For minorities, more advantaged family background would provide better opportunities for interracial contacts, and better education makes them more desirable in the marriage market. No significant results are found among African American and Asian females, it might be attributable to the small number of black female – other race male relationships and the small sample size of Asians. White females of younger cohorts are more likely to enter into interracial first union.

[Table 3 about here]

4.3 Models of Transition into Marriage

Table 4 presents results from competing risk models for first unions started with cohabitations. Previous models of entry into first union and choosing union type have only focused on women's attributes, while their partners' characteristics as well as their

commitment in cohabitation may be equally important to the outcome of cohabitation. In order to investigate the racial variation on cohabitation outcomes, racial combination of the couple was introduced into models. As restricted by sample size, only respondents from the four major racial groups (White, Black, Asian and Hispanic) were analyzed.

Baseline model only includes the race-by-race combinations between cohabiting partners. The full model includes women's characteristics, commitment in cohabitation, and partner attributes as control variables (controls are not shown in order to save space). The coefficients show the relative risk of marriage or dissolution of the couple compared to reference group. The effect of couple racial combination has not changed much when the control variables were included, suggesting that the variation on prospects of marriage or separation among couples of various racial combinations are rather robust and could not be explained by just adjusting for women's characteristics, partners' attributes and commitment in cohabitation.

[Table 4 about here]

The models for marriage indicate that black-black couples are least likely to transit into marriage among all same-race cohabiting couples, followed by Hispanic-Hispanic couples. A more interesting finding is that Hispanic couples are significantly less likely to marry as well as to separate than their white counterparts. This suggests that for them cohabitation may be more of an alternative rather than prelude to marriage. When it comes to interracial couples, the results show that compared to white/white couples, couples involving an Asian are more prone to marriage; meanwhile, those involving a Black or Hispanic have a

lower chance of marriage.

Prior studies found that Hispanics are most likely to marry whites, followed closely by Asian Americans, and African Americans are least likely to marry whites (Qian and Lichter 2007). My analysis, however indicates that when focusing on individuals already in interracial cohabiting unions, Asian–white couples are most likely to marry, followed by Hispanics-white couples, and African American-white couples are least likely to end in marriage. These facts suggest that among Hispanics and Asians, differences in the prevalence of marrying with whites may be largely explained by the differences in group sizes. When considering the prospects of marriage among cohabiting couples, the involvement of Asian marriage culture actually enhances such prospects.

Among blacks, the legacy of past racial prejudice and discrimination, certain remaining segregation from whites in schools, neighborhoods and the workplace, and the opposition toward black-white relationships from family and friends might be the main factors contributing to the low interracial marriage rates between blacks and whites.

More importantly, my results reveal that the likelihood of marriage for interracial cohabiting couples falls between the likelihoods for the origin racial groups. The chance of marriage for white-black couples falls in between those for white and black same-race couples (Table 5 and Figure 5). The same pattern is found among white-Hispanic couples (Table 6 and Figure 6). The result for white-Asian couples is not significant because of the small sample size. The consistent findings across racial groups suggest that marriage patterns for interracial couples reflect the interplay between the marriage cultures of the ethnic/racial

groups involved, instead of the marriage culture of the dominant group.

[Table 5- 6, figure 5 - 6 about here]

CHAPTER 5

CONCLUSION

My study tracks and explains women's interracial first union formation experiences and the transition into marriage of those interracial unions started with cohabitation. Younger cohorts are somehow more likely to start interracial unions. Differences between interracial and same-race cohabitations in marriage likelihood are more pronounced in the younger population. The results also suggest that across all age groups, women involving in interracial relationships are more likely to enter cohabitation as first union than those in same-race relationships. Minority females except for African Americans are more likely to be in interracial relationships, foreign born background and proficiency in English encourage interracial first partnership.

Different patterns of entry into interracial and same-race first unions are pronounced. The likelihood of entry into same-race unions (for both marriage and cohabitation) increases with age from 15 to 25 and then declines after that. The likelihood of starting interracial first unions is rather even from age 15 to 40. The pattern of interracial union formation reflects the age decline in preferences for interracial relationships, which suppresses the age increase in starting first union in early adulthood.

Marriages formed in recent years are more likely to be interracial. White females with

a more educated mother have a lower propensity of interracial cohabitation. But for non-white females, those with a more educated mother have a greater chance of starting their first marriage interracially. It suggests that the opposite selection patterns of entry interracial relationships with respect to achieved status among whites and minorities are the consequences of status exchange.

Turning to women who started their first union with cohabitation, both the homogamy perspective and ethnic convergence perspective receive some support from the results. Although homogamy perspective predicts that interracial cohabitations are less likely than same-race cohabitations to eventuate into marriage, which contradicts findings of the study, the perspective further leads to the expectation that the stronger the racial boundary between the two groups represented in the cohabiting couple, the lower the likelihood of transition into marriage. This point is confirmed by the finding that black-white cohabiting couples are in lower prospect of marriage than Asian-White or Hispanic-White couples. The results also show that black-black cohabiting couples are less likely to transition into marriage than their white-white counterparts; black-white couples have lower probability of marriage than white-white couples but higher probability than black-black couples. Similarly, Hispanic-white cohabiting couples are found to be more likely to marry than Hispanics endogamous couples but less likely to marry than white endogamous couples. Ethnic convergence hypothesis correctly predicts that the likelihood of marriage for interracial cohabiting couples falls between the marriage patterns of the origin racial groups.

Table 1: Distribution for Variables Used in Analysis by First Union Type

Independent Variable	Interracial		Same-Race		Single	All	Sample Size
	Cohabitation	Marriage	Cohabitation	Marriage			
<i>Background Characteristics</i>							
Respondent's race (%)							
NH White	6.87	1.86	37.75	26.42	27.1	100	4077
NH Black	5.42	1.1	43.28	14.81	35.39	100	1458
NH Asian	12.92	6.7	15.79	35.89	28.71	100	209
NH American Indian	28.79	9.09	22.73	3.03	36.36	100	66
NH Other	43.33	23.33	3.33	0	30	100	30
Hispanic	10.69	4.84	34.63	26.97	22.86	100	1487
Foreign born							
Yes	7.13	5.44	34.59	34.27	18.57	100	1249
No	8.02	2.03	37.83	22.10	30.02	100	6059
Spanish speaking							
Yes	2.19	1.64	42.34	43.25	10.58	100	548
No	8.33	2.68	36.91	22.63	29.44	100	6779
Mother's education (%)							
Less than high school	7.74	2.82	40.73	30.64	18.08	100	1952
High school graduate or GED	8.55	2.78	37.94	24.31	26.41	100	2480
Some college	6.82	2.42	35.91	20.54	34.31	100	1568
College degree or higher	8.04	2.26	32.08	18.74	38.88	100	1281
Intact family in childhood (%)							
Yes	6.76	3.10	33.47	29.08	27.59	100	4643
No	9.80	1.75	43.96	15.69	28.80	100	2684
Childhood religious affiliation (%)							
No affiliation	10.30	1.18	44.43	13.85	30.24	100	592
Catholic	8.72	3.28	37.43	25.10	25.47	100	2685
Protestant	6.97	2.09	36.90	24.90	29.13	100	3642
Other	6.98	4.91	29.72	26.61	31.78	100	387
<i>Current Attributes</i>							
Virgin (%)							
Yes	5.15	5.50	29.51	59.84	.	100	854
No	12.06	3.26	56.17	28.51	.	100	4419
Age at first union	20.85	22.65	20.90	21.76	.	21.26	5353
Period of first union (%)							
[1967,1983]	6.80	3.18	44.52	45.50	.	100	912
(1983,1993]	10.78	3.10	49.88	36.23	.	100	2161
(1993,2002]	12.82	4.32	56.82	26.05	.	100	2200
Age at interview (%)							
[15,25)	5.37	1.09	24.06	7.14	62.34	100	2382
[25,35)	10.69	3.05	46.67	25.49	14.10	100	2554
[35,45)	7.36	3.64	40.53	39.73	.8.74	100	2391
Engaged in first cohabitation	41.22	.	45.95	.	.	.	3418

(%)

All	7.87	2.61	37.31	24.17	28.03	100	7327
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Table 2: Competing Risk Models of Entry into First Union

Independent Variable	Interracial Couple		Same-Race Couple	
	Cohabitation	Marriage	Cohabitation	Marriage
<i>Background Characteristics</i>				
Respondent's race (ref=NH White)				
Hispanic	2.61***	3.98***	0.78***	0.78**
NH Asian	1.90**	1.51	0.39***	1.11
NH Black	0.50***	0.36***	0.79***	0.37***
NH Other	6.77***	8.37***	0.10*	.
NH American Indian	4.48***	6.27***	0.62+	0.12**
Foreign born	0.81	2.06***	0.77***	0.99
Spanish speaking	0.13***	0.17***	1.48***	1.95***
Mother's education (ref=Less than high school)				
High school graduate or GED	1.09	1.37	0.83***	0.79***
Some college	0.77+	1.06	0.72***	0.63***
College degree or higher	0.92	0.96	0.64***	0.55***
Intact family in childhood	0.51***	1.04	0.61***	1.16*
Childhood religious affiliation(ref=no affiliation)				
Catholic	0.73*	0.96	0.81**	1.13
Protestant	0.78	1.04	0.77***	1.71***
Other	0.64	1.39+	0.71**	1.27
Age at interview (ref=[15,25))				
[25,35)	0.86	1.91	0.77***	1.23*
[35,45)	0.53***	2.39	0.55***	1.49***
-2logLL	8539.87	2769.42	41665.41	26982.59
N	7146	7146	7146	7146

Table 3: Competing Risk Models of Entry into First Union: Interracial VS. Same-Race

Independent Variable	Sample			
	White	Hispanic	African American	Asian
<i>Background Characteristics</i>				
Foreign born	1.37	1.06	0.97	0.42*
Spanish speaking	7.05***	0.13***	.	.
Mother's education (ref=Less than high school)				
High school graduate or GED	0.72*	2.13***	0.88	0.57
Some college	0.42***	1.63*	0.99	0.60
College degree or higher	0.46***	2.37***	1.29	0.68
Intact family in childhood	0.52***	0.62***	0.74	0.71
Childhood religious affiliation(ref=no affiliation)				
Catholic	0.92	0.77	1.96	1.18
Protestant	0.89	1.54	0.89	1.59
Other	0.97	1.63	1.66	0.53
Age at interview (ref=[15,25))				
[25,35)	0.74*	0.75	0.81	1.21
[35,45)	0.43***	0.75	0.51+	1.15
-2logLL	5004.25	2568.37	1119.07	376.68
N	4003	1427	1421	203

Table 4: Competing Risk Models of Exit from Cohabitation (Relative Risk) among All Couples

Variable	Baseline Model		Full Model	
	Marriage	Dissolution	Marriage	Dissolution
Female race/Partner race				
White/White	1	1.75***	1	1.36*
Asian/White	1.89*	0.40	1.78*	0.33
Asian/Asian	1.31	1.85	1.31	1.03
White/Asian	1.33	1.85	1.48	1.34
White/Black	0.41***	2.09***	0.50**	1.65*
White/Hispanic	0.72*	2.02***	0.76*	1.48*
Black/Black	0.42***	1.58***	0.40***	1.32*
Black/White	0.42*	2.27*	0.42	1.34
Hispanic/White	0.63**	1.9***	0.70*	1.62*
Hispanic/Hispanic	0.59***	1.00	0.64***	1.00
-2LL	19684.30	15435.76	18343.73	14696.44
N	3094		2973	

Table 5: Competing Risk Models of Transition from Cohabitation to Marriage or Dissolution (Relative Risk) among Couples Involving Black and White

Variable	Baseline Model		Full Model	
	Marriage	Dissolution	Marriage	Dissolution
Female race/Partner race(ref=White/White)				
White/Black	0.42***	1.07	0.51**	1.11
Black/White	0.48	1.25	0.59	0.88
Black/Black	0.41***	0.88	0.42***	0.94
N	2474		2397	

Table 6: Competing Risk Models of Transition from Cohabitation to Marriage or Dissolution (Relative Risk) among Couples Involving Hispanic and White

Variable	Baseline Model		Full Model	
	Marriage	Dissolution	Marriage	Dissolution
Female race/Partner race(ref=White/White)				
White/Hispanic	0.71**	1.11	0.73*	1.06
Hispanic/White	0.68*	1.04	0.71*	1.13
Hispanic/Hispanic	0.59***	0.59***	0.63***	0.69***
N	2570		2485	

Figure 1: First Union Experience of Women Age 15-24

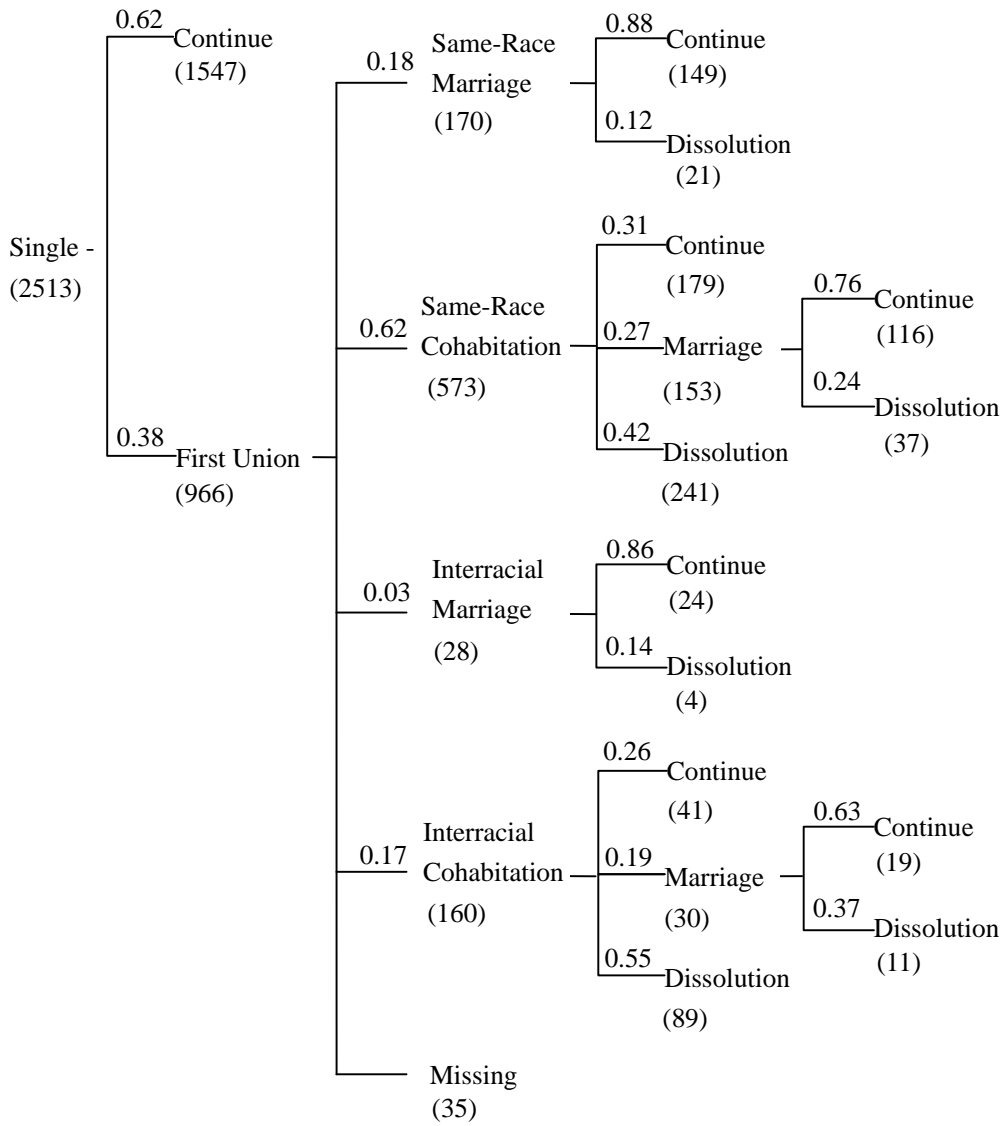


Figure 2: First Union Experience of Women Age 25-34

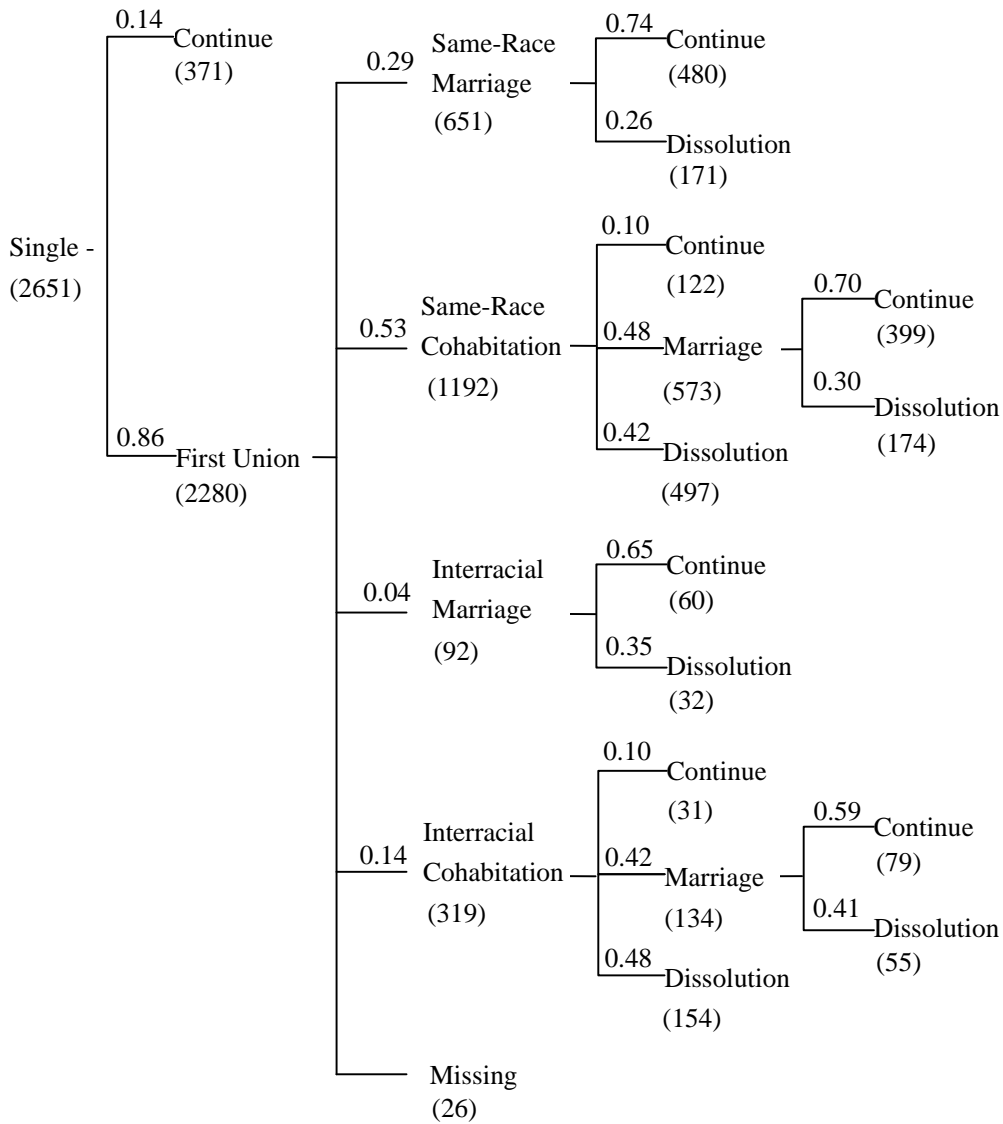


Figure 3: First Union Experience of Women Age 35-45

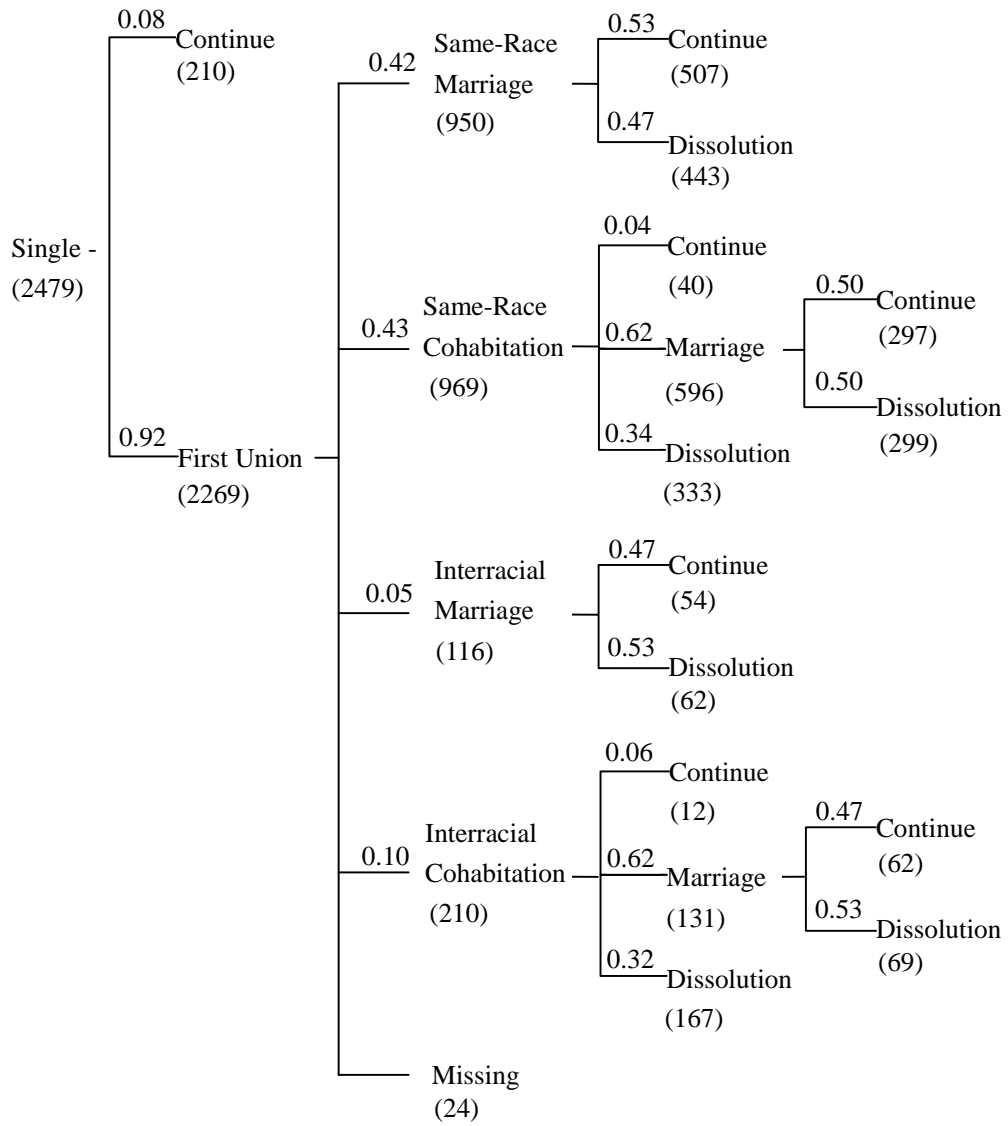
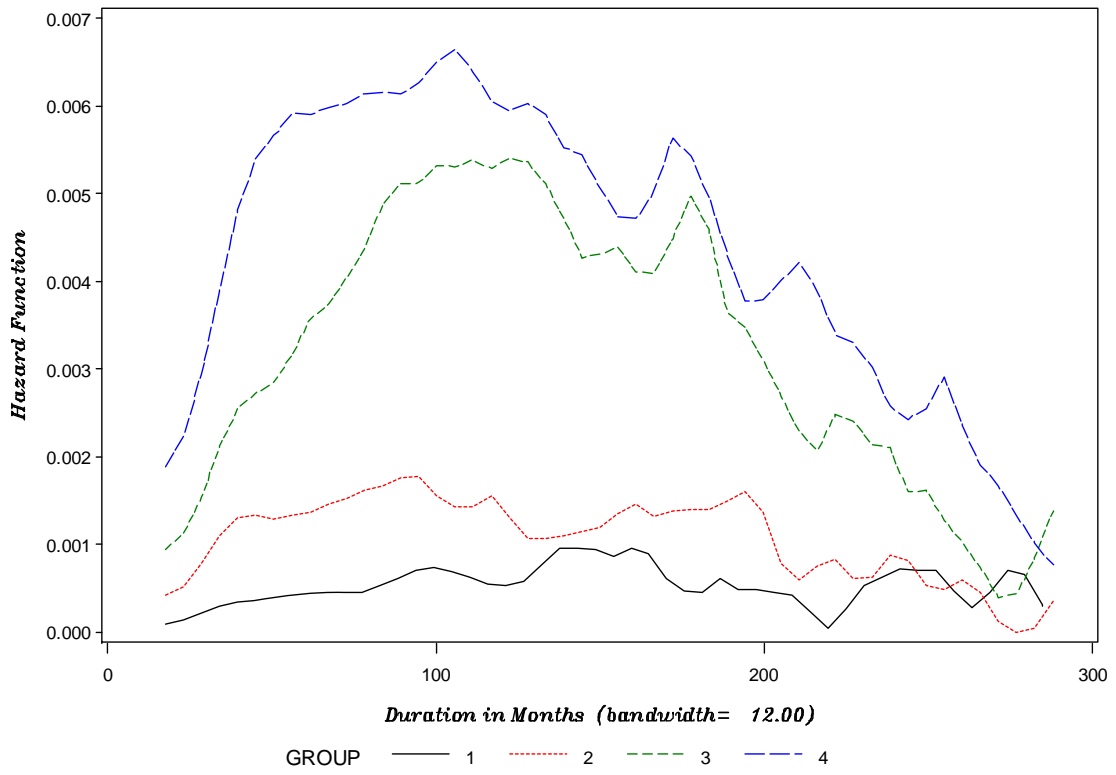


Figure 4: Smoothed Hazard Functions for Timing of Entry into First Union



1: Interracial Marriage , 2: Interracial Cohabitation , 3: Same-Race Marriage, 4: Same-Race Cohabitation

Figure 5: Smoothed Hazard Functions for Transition from Cohabitation to Marriage: White-Black Couples

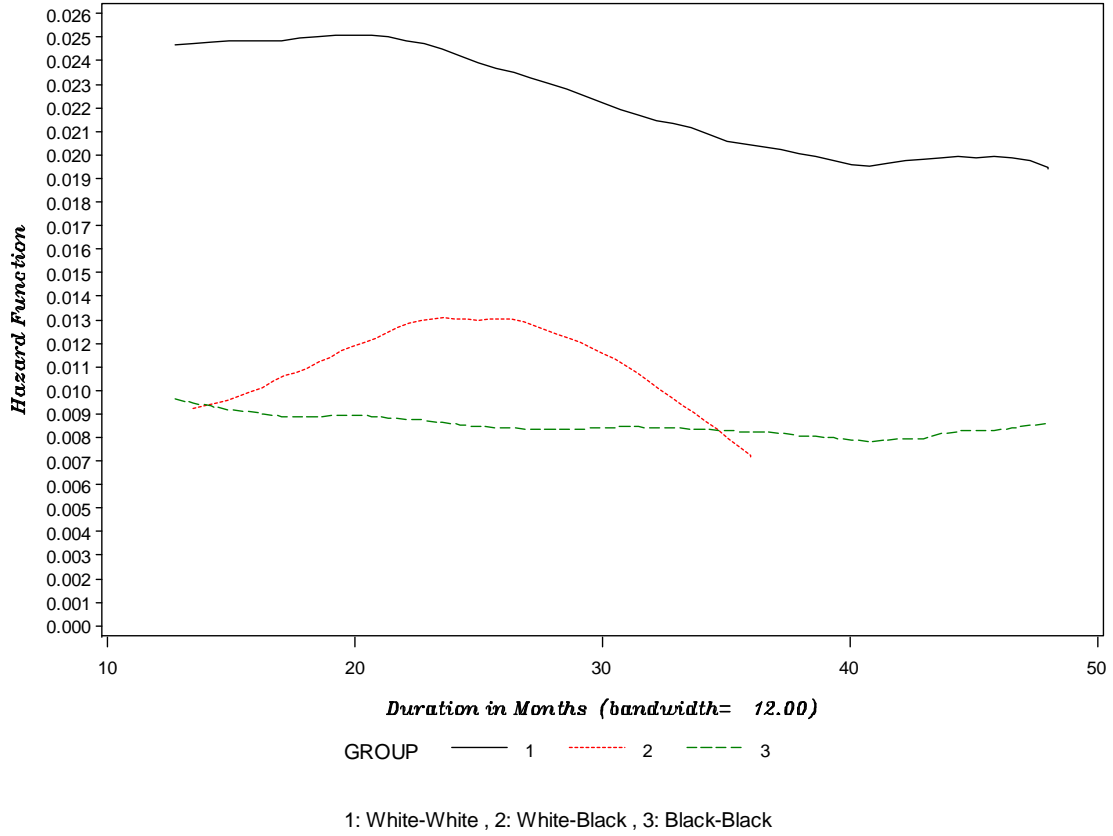
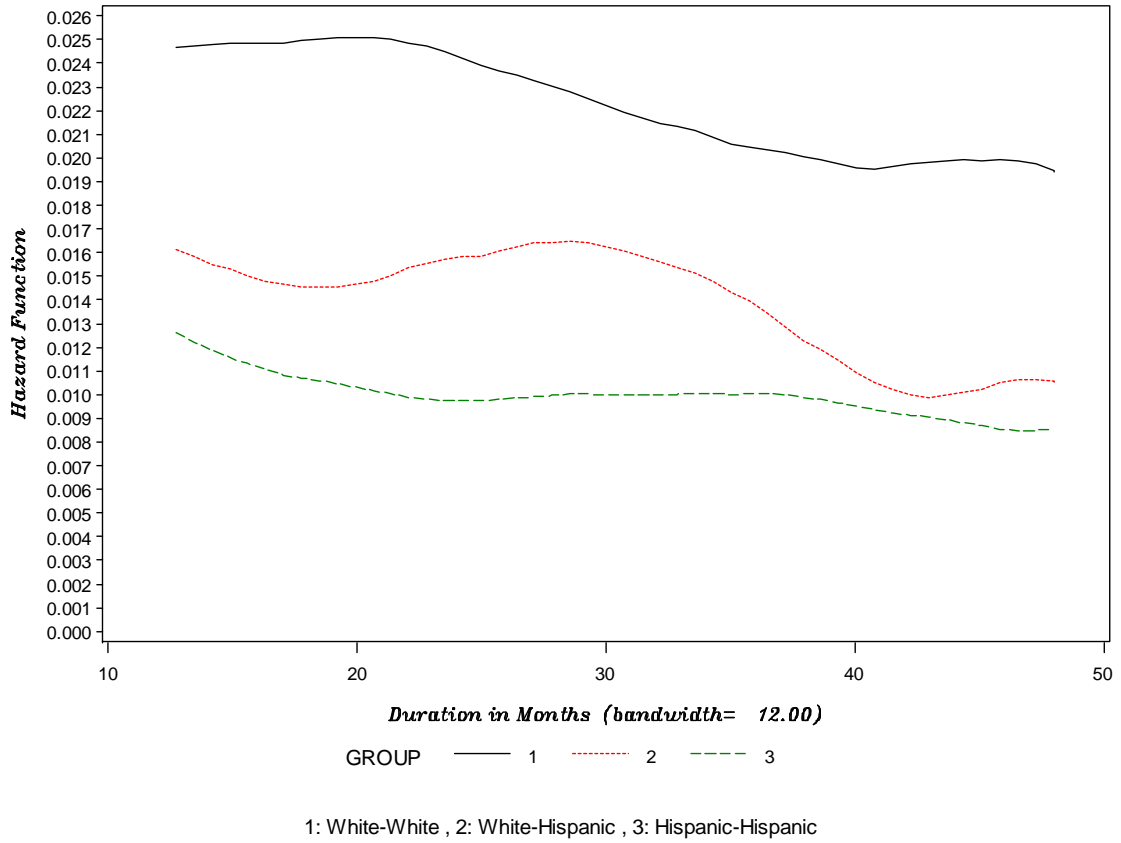


Figure 6: Smoothed Hazard Functions for Transition from Cohabitation to Marriage: White-Hispanic Couples



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