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RACIAL AND EDUCATIONAL DISPARITIES IN UNION TRANSITIONS OF COHABITORS: THE IMPORTANCE OF LONGTERM ECONOMIC PROSPECTS

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RACIAL AND EDUCATIONAL DISPARITIES IN UNION TRANSITIONS OF COHABITORS: THE IMPORTANCE OF LONGTERM ECONOMIC PROSPECTS

by

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Dedication

To my parents

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Racial and Educational Disparities in Union Transitions of Cohabitors:

The Importance of Long-Term Economic Prospects

Janet Chen-Lan Kuo, Ph.D.

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The purpose of this dissertation is to provide a better understanding of the

mechanisms that sustain the divergent patterns of union transition behavior among

cohabitors of different socioeconomic backgrounds—broadly defined by race and

education. For this purpose, this dissertation proposes three research questions. First, it

asks how racial and educational disparities in cohabitors' union transition behaviors have

changed over time. I find that the trends of cohabitors' union transitions diverge

particularly among educational groups, with the decline in the odds of transitioning into

marriage primarily concentrated among those with no college degrees, resulting in a

growing disparity in marriage between college-educated and non-college educated over

time. Moreover, the differences in transitioning to marriage across educational or racial-

ethnic groups cannot be explained by differences in marital intentions. Specifically, the

current analysis suggests that there are no differences in marital intentions by education

(or race-ethnicity) among recent cohabitors.

Second, I explore how the first union formation processes based on a variety of

indicators for young people's socioeconomic conditions vary between African Americans

and non-Hispanic whites. I find that the process of entering cohabiting unions does differ

vii

between African Americans and non-Hispanic whites. That is, non-Hispanic whites who come from disadvantaged family backgrounds, in terms of low levels of parental incomes and education, and who have nonmarital births are more likely to enter cohabiting unions than to stay single, as compared with their non-Hispanic white peers with more advantaged backgrounds and those who have no children born outside of marriage. Yet, African Americans are significantly less likely to enter cohabiting unions and are more likely to stay single, as compared with similarly disadvantaged non-Hispanic whites. I further discuss in Chapter 2 how the findings on racial differences in the process of entering first unions can shed light on how racial and educational differences in cohabitation outcomes take shape among recent cohorts of cohabitors.

Third, I investigate to what extent the educational disparities in the odds of transitioning to marriage could be attributed to differences in wealth as well as employment conditions among educational groups. I find that cohabitors' union transitions are largely contingent on their homeownership status (and the access to credit for securing it) for both male and female cohabitors. Moreover, parental wealth is also associated with their opportunities for entering marriage with their cohabiting partners, but only for women. More importantly, a substantial amount of educational disparities in the probability of transition to marriage from cohabitation is found to be attributable to the differences in securing these economic resources among educational groups.

Altogether, findings in my dissertation update our knowledge of what cohabitation looks like in contemporary American society. Also, they point out the importance of exploring the institutional and economic mechanisms involved in the educational differences in family behavior and investigating the racial differences in family behavior through the lens of class.

Table of Contents

CHAPTER 1: INTRODUCTION	1
1.1 Statement of the problem and the purpose of the study	1
1.2 Outline of the dissertation	6
CHAPTER 2: DIVERGING PATTERNS OF UNION TRANSITION AMON COHABITORS BY RACE-ETHNICITY AND EDUCATION: TRENI MARITAL INTENTIONS	OS AND
2.1 Introduction	7
2.2. Background	8
2.3 Data and methods	13
2.4 Results	16
2.5 Discussion	19
CHAPTER 3: RACIAL DIFFERENCES IN FIRST UNION FORMATION.	28
3.1. Introduction	28
3.2. Background	30
3.3. Data and Methods	34
3.4. Results	38
3.5. Discussion	44
CHAPTER 4: COHABITORS' UNION TRANSITIONS ACROSS EDUCA' GROUPS: THE ROLE OF PARENTAL AND OWN WEALTH FOR MAND WOMEN IN YOUNG ADULTHOOD	MEN
4.1. Introduction	57
4.2. Background	59
4.3. Data and methods	64
4.4. Results	71
4.5 Discussion	76

CHAPTER 5: CONCLUSION93
APPENDIX A98
A.1 Life-table estimates: proportions of cohabiting unions end in marriage or separation within three years following the start of unions: by education and race-ethnicity for 1990-1995 and 2005-2010 cohabiting cohorts, separately
A.2 Table of Average Marginal Effects (AME) from Multinomial Logistic Regression Models Estimating Cohabitors' Transitions to Marriage or Breaking up, as opposed to Staying in Cohabitation100
A.3 Table of coefficients from multinomial logistic regression models estimating cohabitors' union transitions (marriage or break up, as opposed to stay together) with interaction terms between marital intention and education (or race-ethnicity)
A.4 Table of weighted coefficients from multinomial logistic regression models estimating age variation in the associations between covariates and first union formation
REFERENCES105

List of Tables

Table 2. 1 Descriptive Information on Analytic Samples by Data Sources
Table 2. 2 Coefficients from Multinomial Logistic Regression Models Estimating Union Transition Outcomes (Weighted Results)
Table 2. 3 Percentages Starting Cohabitation with Marital Intention by Race-Ethnicity and Education (Weighted Results)
Table 3. 1 First Union Type by Race-Ethnicity, Education, and Parental Education 46
Table 3. 2 Descriptive Statistics for Time-Fixed Demographic Characteristics (Weighted Results)
Table 3. 3 Descriptive Statistics for Time-Varying Variables Based on Person-Month Data (Weighted Results)
Table 3. 4 Weighted Coefficients from Multinomial Logistic Regression Models Estimating Transitions to First Unions for Ages 16-22
Table 3. 5 Weighted Coefficients from Multinomial Logistic Regression Models Estimating Transitions to First Unions for Ages 23-32
Table 4. 1 Premarital Cohabitations and Their Relationship Outcomes of Female and Male Samples, Separately
Table 4. 2 Descriptive Statistics on Selected Independent Variables for Female Cohabitors (Weighted Results)
Table 4. 3 Descriptive Statistics on Selected Independent Variables for Male Cohabitors (Weighted Results)
Table 4. 4 (continued) Average Marginal Effects from Multinomial Logistic Regression Models Estimating Union Transition Outcomes for Female Cohabitors (Weighted Results)
Table 4. 5 (continued) Average Marginal Effects from Multinomial Logistic Regression Models Estimating Union Transition Outcomes for Male Cohabitors (Weighted Results)

List of Figures

Figure 2. 1 Predicted Annual Probabilities of Transitioning into Marriage by Education for 1990-1995 and 2005-2010 Cohabiting Cohorts with 95% C.I.s (Weighted Results). 2013
Figure 2. 2 95% C.I.s of Predicted Average Probability of Transitioning to Marriage in A Given Month for 2005-2010 Cohabiting Cohort by Education or Race-Ethnicity and Marital Intention Status (Weighted Results)
Figure 3. 1 Predicted Probabilities of Entering Cohabiting Unions (in Any Given Month) as Opposed to Staying Single, with 95% C.I.s by Parental Education and Race-Ethnicity for People in the Late Teens and Early Twenties
Figure 3. 2 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Parental Income Level and Race-Ethnicity for People in Their Late Teens and Early Twenties
Figure 3. 3 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Premarital Parenthood Status and Race-Ethnicity for People in Their Late Teens and Early Twenties
Figure 3. 4 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Parental Education and Race-Ethnicity for People in Their Mid-to-Late Twenties

CHAPTER 1: INTRODUCTION

1.1 STATEMENT OF THE PROBLEM AND THE PURPOSE OF THE STUDY

In the United States, individuals of different race-ethnic and educational backgrounds follow divergent paths to family formation (McLanahan 2004). Compared with their non-Hispanic white peers, African Americans are less likely to marry (Ellwood and Jencks 2004) or stay married (Raley and Bumpass 2003). The college-educated are less likely to marry at a younger age than the non-college educated but are more likely to ultimately marry (Goldstein and Kenney 2001) and stay married (Copen et al. 2012). These and other disparities in marital behavior between racial and educational groups are of great social concern because marriage in the U.S., compared to any other union type, is relatively stable and provides a legal foundation for couples to secure social recognition and institutional support. It is also associated with a good deal of positive economic, social, and physical and psychological health outcomes for men and women (Gallagher and Waite 2000; Umberson 1987; Umberson 1992; Waite 1995; Waite and Joyner 2001). Therefore, the aforementioned lower rates of marriage among African Americans and the less-educated are considered to have fundamental consequences for social inequality (McLanahan 2004; McLanahan and Percheski 2008).

Prior studies suggested that the shortage of marriageable men (e.g., Lichter et al. 1995; Lichter et al. 1992; Wilson 1987) and the disadvantaged position that the less-educated people occupy in the marriage market (see Chiappori et al. 2009) may have played an important role in shaping this different pattern of marriage formation by raising difficulties for racial minorities and the less-educated in finding partners. The rise of cohabitation in family formation, however, adds another layer of complexity in

understanding the marital divide in that, even among those who have found a coresidential partner, African Americans and the non-college educated are still less likely than their non-Hispanic white and college-educated counterparts to marry. Specifically, using data from the 1987-1988 NSFH, Manning and Smock (1995) found that within four years following the union formation, non-Hispanic white cohabitors (60%) are almost twice as likely as African American cohabitors (38%) to progress to marriage. With more recent data, Copen, Daniels, and Mosher (2013) suggested that college-educated first-time cohabiting women (53%) are twice as likely as their peers with less than a high school diploma (30%) to transition to marriage within three years following the start of union.

The marital divides between racial and educational groups are not simply shaped by the differences in marriage market conditions or how easily people can find their marital partners, but also depend on whether or not couples are able to move toward marriage once they have found a partner. Thus, the primary goal of this dissertation is to explore the potential factors that contribute to these racial and educational differences in cohabitation outcomes. I pay special attention to *the institutional forces* that underlie the processes of selecting people with varied levels of social and economic resources into cohabitation and emphasize the *economic conditions* that signal a person's *long-term economic prospect* (i.e., *wealth* and *access to credit*) in understanding the differential marital behavior among cohabitors who come from different educational and racial backgrounds.

Overall, this study has three broad aims. The first aim is to examine how raceethnic and educational disparities in union transition among cohabitors have changed over time. Prior studies have consistently documented the race-ethnic and educational

differences in how cohabitors exit relationships (i.e. marriage or separation), with some suggesting cohabitation overall has increasingly become less stable over time (Kennedy and Bumpass 2008). However, little is known about how the general trend of increasing union instability has played out across different socioeconomic segments. Furthermore, prior studies have proposed that the lower rates of marriage among African Americans and less educated cohabitors could be attributed to the differences in attitudes toward marriage and couples' marital intention at the start of a union (e.g., Brown 2000; Bulcroft and Bulcroft 1993; Guzzo 2009). That is, African Americans and the lesseducated may see marriage as less attractive and are less likely to have marital intention when initiating co-residential unions. Given that prior studies' findings are inconsistent regarding whether cohabitors from different racial and educational groups differ with respect to their attitudes toward marriage (Bulcroft and Bulcroft 1993; Edin and Reed 2005; Gibson-Davis et al. 2005; Manning and Smock 2002; Smock et al. 2005) and the extent to which racial and educational differences could be attributable to attitudinal divergence (Guzzo 2009; Smock et al. 2005), I revisit this research question as part of my first aim. With information on cohabitors' engagement status at the start of cohabitation, I examine whether the divergent patterns of union transition behavior can be linked to the differences in marital intention among people from different socioeconomic backgrounds.

Although in contemporary U.S. society, both race and education are important predictors for people' social standings and economic resources, the history of race in shaping how U.S. opportunity structure is stratified is longer than that of education. While education has increasingly gained importance in U.S. opportunity structure since the economic transformation that took place in the 1970s (e.g., Kalleberg 2011), the importance of race in stratifying U.S. opportunity structure can be traced back to the

American colonies. Yet, American society has changed over time. The structure of the U.S. economy has changed and the way Americans perceive and treat race as well as enact racial boundaries have also changed. Since historical contexts, wherein race and education served as markers of social status and economic resources are different, we may expect that the underlying processes for racial and educational differences in cohabitors' union outcomes to take shape could also be different. Therefore, it is appropriate to examine separately the racial and educational disparities in cohabitors' union outcomes. Focusing on racial differences, the second aim of this study is to examine how first union formation varies by race and explore how racial disparities in union transitions of cohabitors may take shape under such processes. Specifically, I intend to investigate how first union formation (i.e. entering into cohabitation, as opposed to staying single, or marriage), based on a wide array of indicators that capture a person's current and prospective socioeconomic conditions, may differ between African Americans and non-Hispanic whites. As recognized by scholars such as Manning and Smock (1995) and Sassler and Miller (2011), knowledge about people's cohabitation selections, which are informed by various aspects of social and economic characteristics, as well as about how the selection processes differ between African Americans and non-Hispanic whites are important means of understanding race-ethnic disparities in cohabitation outcomes. Yet, extant literature lacks this piece of information on racial variation in the socioeconomic characteristics that shape entry into cohabitation, especially for recent cohorts of young people. The second aim of this study is to fill this gap.

The third aim of this study focuses on educational differences. I examine how parental wealth and a cohabitor's own assets and access to credit jointly shape his/her

chance of marrying the cohabiting partner. This aim also investigates to what extent the differences in the odds of transitioning to marriage from cohabitation between people with varied levels of education could be attributed to their economic resource differences.

In light of the fact that marriage has been historically contingent on the ability of young couples to establish and maintain an independent household above some socially acceptable minimum level (Banks 1954; Easterlin 1978; Goldstone 1986; Watkins 1984), other scholars have speculated that the higher rates of unemployment and lower levels of earnings among the less-educated may be conducive to educational disparities in transitioning to marriage among cohabitors (e.g., Oppenheimer 2003). Yet, despite the fact that cohabitors' current employment characteristics (i.e. employment status and earnings) are positively associated with the odds that a cohabiting union progresses to marriage, they still cannot fully explain why less-educated cohabitors are less likely than college-educated counterparts to transition to marriage (Manning and Smock 1995; Oppenheimer 2003).

Still other researchers have proposed that economic conditions signaling people's longer-term economic prospects and predicting the ability to secure a family's financial stability in the long run should be also important for marriage than current economic status alone, given that marriage is expected to last (Raley and Sweeney 2009; Schneider 2011; Xie et al. 2003). However, scanty research has been conducted to test this line of explanation. Therefore, rather than focusing on cohabitors' current employment status as the sole source defining cohabitors' ability to meet economic prerequisites of marriage, my dissertation includes wealth of both the individual and their parents (i.e. assets and homeownership and ownership of vehicles) as an indicator of cohabitors' long-term economic prospects and abilities to maintain stable family life.

Furthermore, I include *access to credit* as a separate concept in the analysis. *Access to credit* may emerge as young adult cohabitors and their partners attempt to secure resources such as homeownership that increase couples' incentives to form a long-term commitment. Yet this could create financial burdens on young adults, produce relationship tension, and undermine couples' abilities to make or invest in a long-term, joint commitment. Thus, I do not expect that all types of debt have an equivalent influence on cohabitors' marriage decision. In Chapter 4, I will develop these hypotheses in more detail.

1.2 OUTLINE OF THE DISSERTATION

This dissertation is composed of five chapters. The first chapter (Chapter 1) provides the overall introduction of this study by addressing research problems, purposes, aims of the study, and dissertation outline. I address my three research aims in the next three chapters (Chapters 2 through 4) as discrete analytic chapters, so each chapter has its own specific research goals, introduction, data and methods, analytic strategy, statistical analysis, results, and discussion. Finally, Chapter 5 summarizes findings from the three analytic chapters, provides conclusions, and offers the contribution of this study.

CHAPTER 2: DIVERGING PATTERNS OF UNION TRANSITION AMONG COHABITORS BY RACE-ETHNICITY AND EDUCATION: TRENDS AND MARITAL INTENTIONS

2.1 Introduction

The rise of cohabitation in the courtship process has made it the modal pathway to marriage. About two-fifths of women who married in the early 1980s first cohabited, but today nearly two-thirds of first marriages are preceded by cohabitation (Kennedy and Bumpass 2011; Manning 2010). Even as cohabitation has increasingly become a part of the marriage process, a declining proportion of cohabitations transition into marriage and an increasing proportion dissolve within three years of initiation (Guzzo 2014; Kennedy and Bumpass 2008). Some suggest that these trends represent a broader process of deinstitutionalization of marriage at least partly due to an ideational change emphasizing individual autonomy and gender equality (Cherlin 2004; Lesthaeghe and Kaa 1986; Lesthaeghe 1995).

Yet, trends in marriage and marital stability indicate that the consequences of these societal shifts in expectations about marriage are realized differently across the socioeconomic spectrum (Ellwood and Jencks 2004; McLanahan 2004). Although the proportion of women who will ever marry is declining across all socioeconomic groups, the decline is projected to be much more pronounced for women without a college degree and African Americans than for college-educated whites (Goldstein and Kenney 2001; Martin et al. 2014). Similarly, education has long been negatively associated with divorce, but this difference is growing over time (Martin 2006; Raley and Bumpass 2003). In fact, the proportion of the population projected to marry by age 40 has declined little for college educated women and men (Martin, Aston, and Peters 2014), and marital

stability appears to have increased for this group as well (Martin 2006). Thus, despite the society-wide shifts in gender norms and marriage expectations, the diverging trends in marriage and divorce (at least in the recent short-term) may be more strongly linked to the changes in opportunity structure rather than to the shifts in people's attitudes toward family.

The goal of this chapter is to investigate whether trends in educational and raceethnic disparities in cohabitation outcomes—transitioning to marriage (or break-up)—
have become larger over time, and if so, whether socioeconomic differentials in these
outcomes are related to lower expectations for marriage among disadvantaged cohabitors.

The rise in cohabitation has been a signature theme of the Second Demographic
Transition and Deinstitutionalization of Marriage arguments and the weakening link
between cohabitation and marriage supports the predictions of these ideational/cultural
accounts of family change. But past research also indicates that economic constraints are
a key factor in cohabitors' decisions to marry (Manning and Smock 1995; Manning and
Smock 2005; Oppenheimer 2003; Smock et al. 2005). Thus, growing economic
inequality may be at least as responsible as ideational change for recent trends in
cohabitation outcomes under current examination. To achieve these goals, I use data from
the National Survey of Family Growth (NSFG) 1995 and 2006-2010.

2.2. BACKGROUND

Two perspectives on recent changes in family behavior lay the foundation for developing expectations about trends in union transitions among cohabitors and how these trends diverge across race-ethnic and educational groups. One is the Second Demographic Transition (SDT) perspective (Lesthaeghe and Kaa 1986; Lesthaeghe 1995; van de Kaa 1987); the other is the diverging-destinies thesis that emphasizes the fact that

family change is not uniform for all Americans but reflects a growing social divide in family formation behavior between the socioeconomically advantaged and disadvantaged (McLanahan 2004).

2.2.1 Model of Second Demographic Transition

Developed by Lesthaeghe and van de Kaa to differentiate recent trends in family formation and fertility from patterns described in the first demographic transition, the Second Demographic Transition (SDT) is characterized by changes in a wide array of family behaviors, including the rise of cohabitation, that began in the 1960s in Nordic countries (see Lesthaeghe and Neidert 2006). The SDT perspective suggests that the trends in different aspects of family behavior—such as the rise of cohabitation, increasing postponement of marriage, and increase in nonmarital childbearing—are all due to the growing emphasis on individualism, fueled by such social changes as modernization and women's growing economic independence (Lesthaeghe 1995).

Based on experiences in Sweden and other Nordic countries, the SDT model outlines a developmental course for cohabitation, suggesting that cohabitation may first emerge as a deviant status; however, as it becomes more prevalent, it turns into a prelude to marriage, and ultimately cohabitation becomes a union setting equivalent to marriage. Cohabitation has been established as a normal (even normative) stage in the marriage process for at least 20 years as over half of marriages initiated in the early 1990s were preceded by cohabitation (Kennedy and Bumpass 2008). Since the 1990s, the declining proportion of unions transitioning into marriage (Guzzo 2014) is consistent with SDT predictions and serves as evidence for the continued deinstitutionalization of marriage (Cherlin 2004).

2.2.2. The Diverging-Destinies Perspective

Building on the SDT perspective, which emphasizes the role of ideas in contributing to social change, the diverging-destinies thesis (McLanahan 2004) contends that economic and other institutional forces condition the influence of ideational changes. As families have increasingly emphasized and been characterized by couples' companionship, egalitarian female-male family roles, and dual wage earners, the socioeconomically advantaged have the resources to meet the demands of these "new families" for balanced work-family lives and quality family time (Goldscheider and Waite 1991), whereas the less-educated and racial minorities do not. Consequently, under the SDT socioeconomically disadvantaged persons experience sharper declines in marriage as well as greater increases in divorce and non-marital fertility. Moreover, research showing greater increases in serial cohabitation among African American women and the less-educated (Cohen and Manning 2010; Lichter et al. 2010) seems also to suggest a trend that reflects an increasingly divergent pattern in family behavior across the socioeconomic groups—defined broadly by race and education. Taking these prior studies into account, this chapter focuses particularly on the relationship outcomes of first premarital cohabiting unions. In sum, SDT theory leads us to expect an overall decline in the odds of marriage among more recent cohabiting cohorts and the divergent-destinies perspective predicts that the decline is accompanied by larger differentials among cohabitors of different race-ethnic and educational backgrounds.

2.2.3. Marital Intentions

The SDT and deinstitutionalization of marriage arguments suggest that the decrease in the desire to marry is an important contributor to marriage decline. Consistent with such explanations, a declining proportion of cohabitors intend to marry their

partners (Vespa 2014). Minority women and those with lower levels of education are more likely to have experienced single-parent families while growing up (McLanahan and Percheski 2008). Such experiences might reinforce broader ideational changes leading to weaker attachments to marriage. Even disadvantaged women who have not themselves experienced single-parent families have grown up in contexts with fewer examples of healthy marriages. Consequently, greater declines in marriage among lesseducated and minority cohabitors might arise because of their weaker attachment to the institution. If so, I expect that these cohabitors have lower intentions to marry and that this could explain any difference in marriage rates we might observe. Alternatively, based on the diverging-destinies perspective, we may argue that differences in marriage might not be due to lower attachment to marriage, but to differences in people's abilities to achieve the material requirements of acceptable marriage (Gibson-Davis et al. 2005; Smock et al. 2005). Less-educated women might have similar intentions as more highly educated women to marry their cohabiting partner. If so, I expect that differential patterns of cohabitors' union transitions between different socioeconomic groups may not be attributable to differences in their intentions to marry.

Prior studies on marital intentions or marital expectations—a proxy of marital intentions but with a weaker link to marital behavior than intentions (Manning and Smock 2002)—have predominantly focused on race-ethnic differences rather than educational differences likely because of the more substantial decline in marriage among African Americans. These studies, however, provide inconsistent findings. Manning and Smock (2002) find that African American female cohabitors are *less* likely to expect to marry their cohabiting partners as compared with their non-Hispanic white counterparts. Guzzo (2009), however, suggests that African American female as well as male

cohabitors are *more* likely to report being engaged or having a definite plan for marriage at the start of union than are their non-Hispanic white counterparts. Brown (2000) finds that there are *no* race-ethnic differences among cohabitors in marriage plans (also see Brown and Booth 1996; Bumpass et al. 1991).

Additionally, some scholars speculate that racial differences in marital intentions might lie in non-Hispanic white cohabitors' greater ability to carry out their plans for marriage when compared with African American and other race-ethnic groups. Findings from previous studies are also mixed. Specifically, while Brown (2000) suggests that African American cohabitors with marital plans had 85 percent lower odds of marrying their partners, as compared with non-Hispanic white cohabitors who also have a marriage plan, Guzzo (2009) finds that African Americans who have marriage plans are as likely as their non-Hispanic white peers with marriage plans to marry their cohabiting partners.

The inconsistencies in these past findings likely originate from differences in the measurement (i.e. engagement, marriage plan, marriage expectation), analytic samples (i.e. all cohabitations, first premarital cohabitations), the timing at which marital intentions or expectations were measured (i.e. at the start of union or at the moment of interviewing), and birth cohorts of cohabitors. In current analysis of marital intention, I focus only on the first premarital cohabitations that were initiated between 2005 and 2010 and operationalize marriage intentions as (retrospectively reported) engagement status at the start of cohabiting unions.

Altogether, this chapter addresses the following two research questions. First, are race-ethnic and educational differences in the outcomes of cohabiting unions growing? Second, are differences in cohabitation outcomes explained by lower intentions to marry among the disadvantaged? If I find evidence of educational and/or race-ethnic divergence

and differences cannot be explained by marriage intention, this suggests that ideational accounts of changes in cohabitation neglect an important source of family change.

2.3 DATA AND METHODS

Data for this analysis are from the National Study of Family Growth 1995 (NSFG Cycle 5) and 2006-2010 (NSFG 2006-2010). Interviewing for the National Survey of Family Growth (NSFG) Cycle 5 was conducted from January through October 1995. Inperson interviews were conducted with a nationally representative sample of 10,847 women 15-44 years of age, of all marital statuses. Interviewing for the release of the 2006-2010 NSFG was conducted from June 2006 through June 2010. In-person interviews were conducted with a nationally representative sample of 12,279 women 15-44 years of age and a nationally representative sample of 10,403 men 15-44 years of age, of all marital statuses.

Although the NSFG 2006-2010 collected information from both men and women, because the NSFG 1995 only provides information on women, in this chapter I only use female respondents' information from both surveys. I also limit the samples to those first premarital cohabitations that were initiated no more than five years prior to the interviews. I observe relationship outcomes of first premarital cohabitations that were initiated in two periods of time: between 1990 and 1995 and between 2005 and 2010.

I restrict the sample to first-time premarital cohabitations for two reasons. First, I focus only on *premarital* cohabitations because cohabitating relationships initiated after marital disruption could be substantively different than those formed prior to marriage with respect to cohabitors' attitudes toward marriage, and the factors that influence decision to marry are also likely to be different for people in post-marital and pre-marital cohabiting relationships. Moreover, given that risk of marital disruption differs between

people from different socioeconomic groups, if I included both pre-marital and postmarital cohabitations in the analysis, it might be difficult for us to understand the socioeconomic patterns of cohabitors' union transitions.

Second, the reason why I focus only on *first-time* premarital cohabitation is because the relationship outcome of a union formed later may depend on the recurrent event history of dissolved relationships. This dependency is problematic for the current research inquiry in that people's family attitudes and intentions to marry may change based on previous relationship experiences. As socioeconomically disadvantaged persons or minorities are more likely to experience serial cohabitations—that is, more relationship dissolutions—it is difficult to understand whether, and to what extent, the socioeconomic disparities in union transitions could be attributed to differentials in marital intention or simply reflect the differences in union stability of people from different socioeconomic backgrounds.

I further excluded 30 premarital cohabitations that lasted for less than a month from the analytic sample. Such a short co-residential arrangement is more ambiguous in its status as a union. The final analytic samples are comprised of 929 premarital cohabitations initiated between 1990 and 1995 and 1,142 between 2005 and 2010.

2.3.1 Samples

Table 2.1 displays descriptive information for the analytic samples of cohabiting relationships, from the NSFG 1995 and NSFG 2006-2010, respectively, along with information from each NSFG's original full sample. The two analytic samples are rather similar to the original NSFG samples from which they are drawn with respect to race-ethnic and educational compositions. The analytic samples of first-time, never-married cohabitors have a median age of 23 at the time of interview, which is younger than the

full NSFG samples. The median ages at cohabitation are 21 years old for both analytic samples. In the analytic sample of first premarital cohabitations initiated between 1990 and 1995, 340 marriages occurred, 347 cohabitors broke up, and 242 stayed together at the time of interview; the corresponding figures in the sample of cohabitations initiated between 2005 and 2010 are 194, 504, and 444.

2.3.2 Measures

I construct educational groups as those with *less than high school diploma*, *a high school diploma*, *some college*, *and college or more*. Race-ethnic groups in the analysis include non-Hispanic Whites, African Americans, Hispanics, and other non-Hispanic race-ethnic groups. I construct measures that indicate the relationship outcome of the union as the dependent variable with three mutually exclusive categories (marriage, separation, and stay intact). I measure marital intention with a dichotomous variable based on female cohabiting respondents' answer to the question: "At the time you began living together, were you and your partner engaged to be married or have definite plans to get married?" from the NSFG 2006-2010 data set. In the analysis, I control for information on *duration of union* and cohabitor's *age at initiating the union* (and *its squared term*) because these two factors are associated with cohabitors' union outcome (Brown 2003; Cohen and Manning 2010; King and Scott 2005; Stanley et al. 2006) and they may vary by race-ethnicity and education (Kennedy and Bumpass 2008; Manning et al. 2014).

2.3.3 Analytical Strategy

First, I convert data into person-month data sets with the first month indicating the month when cohabitation started and last month indicating either the month when

cohabitation was ended either by marriage or separation or the month when interview was conducted for those whose first premarital cohabitation remained intact at the time of interview (i.e. censoring). Then, I use multinomial logistic regression modeling technique for discrete-time event history data to estimate how educational disparities in the odds of transitioning to marriage and the odds of separation (as opposed to staying cohabiting) differ between the two cohabiting cohorts. Second, focusing on recent female cohabitors, I demonstrate whether/how marital intentions vary across race-ethnic and educational groups. Then, employing multivariate multinomial logistic models, I investigate whether controlling for marital intentions attenuates the race-ethnic and educational differences in cohabitors' union transition behavior.

2.4 RESULTS

2.4.1 Trends of Educational and Race-Ethnic Disparities in Union Transitions

Multi-decrement life-table estimates (see Appendix A.1) show that among cohabiting unions initiated between 1990 and 1995, 41 percent transitioned to marriage and another 35 percent separated by the end of the third year following union formation. Yet, among the 2005-2010 cohabiting cohort, only 24 percent transitioned to marriage and another 41 percent dissolved within three years. The results are consistent with findings from prior studies indicating a decline in the probabilities of transitioning to marriage among more recent cohabiting cohorts (e.g., Guzzo 2014; Kennedy and Bumpass 2008; Kennedy and Bumpass 2011; Manning 2010).

Table 2.2 displays the results from multinomial logistic regression analysis to statistically test the significance of changes in racial/ethnic and educational disparities. Model 1 (in Table 2.2) includes interactions between education and period and thus the

main education coefficients represent differences in 1990-1995. These are not significant, indicating that there were no educational differences in the likelihood of marriage versus remaining cohabiting in the earlier period. The significant coefficients for the interaction between education and period indicate that educational differences are significantly larger in the more recent period.

Figure 2.1 provides a visual representation of the growing educational disparities. This figure presents the average estimated probability of transitioning to marriage in a given year for each educational group from 1990-1995 and 2005-2010 cohabiting cohorts. For college-educated cohabitors from the 1990-1995 cohort, the average probability of transitioning into marriage in any given year is about 27 percentage points and for the college-educated cohabitors from the 2005-2010 cohort, it is 24 percentage points, an insignificant decline. Additionally, the overlapping confidence intervals of all educational groups in the 1990-1995 cohort indicate that there are no significant educational disparities in transitioning to marriage in this early period. However, educational disparities in the probabilities of transitioning to marriage have become statistically significant among the 2005-2010 cohabiting cohort clearly due to drastic drops in the probabilities of transitioning to marriage among all non-college educated cohabitors. The average annual probabilities of transitioning to marriage for the 2005-2010 non-college educated cohabitors are less than half of those for their similarly educated counterparts in the early cohort.

In Table 2.2, Model 2 shows the results for the interaction between race-ethnicity and period. The main effects of race-ethnicity show the results for the 1990-1995 cohabiting cohort. African Americans who initiated the unions in 1990-1995, as compared with their non-Hispanic white counterparts, have lower odds of transitioning to

marriage but higher odds of breaking up. The non-significant product terms in the model predicting transitioning to marriage or the model predicting breaking up, however, suggest that the differences between non-Hispanic white cohabitors and African Americans (and other race-ethnic groups) in union transition do not change over time. In fact, the direction of the coefficient suggests that differences between African Americans and non-Hispanic whites might have declined slightly for the recent cohort.

2.4.2 Marital Intention and Differentials in Union Transitions

Findings in this chapter suggest that union transition pattern among cohabitors in the recent cohabiting cohort is significantly contingent on cohabitors' educational attainments. Does accounting for marital intention help attenuate the educational disparities in union transitions among cohabitors from the 2005-2010 cohabiting cohort? Results displayed in Table 2.3 show that college-educated cohabitors are no more likely than their less-educated peers to enter cohabiting unions engaged or with a definite plan for marriage despite the fact that they are, on average, older than their lower-educated peers at the start of union. That is, cohabitors with less-than-high-school education entered their unions at the average age of 19 and yet 42 percent of them were engaged at the start of union, which is for a similar percentage as college-educated cohabitors (43%), although the latter entered their unions at the average age of 25. Also, there are no significant differences in marital intentions by cohabitors' race-ethnicity. Specifically, 45 percent of African American and non-Hispanic white cohabitors reported being engaged at the start of their unions.

The estimates of the average marginal effects (AME) on union transitions from the multivariate multinomial logistic regression models also show that, although marital intention is positively associated with the probability of transitioning to marriage and negatively associated with the probability of relationship dissolution, controlling for marital intention does not attenuate the educational (or racial) differences in union transition patterns of recent cohabitors (see Appendix A.2). The predicted probabilities of transitioning into marriage for college-educated and white cohabiting women are still significantly higher than those for the less-educated or race-ethnic minority women. Figure 2.2 displays the predicted probability of transitioning into marriage for educational and race-ethnic groups, with marital intention controlled. Figure 2.2 shows that, on average, compared with their similarly educated counterparts (or peers from the same race-ethnic background) without marital intentions, cohabitors with marital intentions have higher probabilities of transitioning to marriage. Yet, with marital intention controlled, the predicted probability of transitioning into marriage for college-educated women is still significantly higher than for less-educated women. Furthermore, for this 2005-2010 cohabiting cohort, the association between marital intention and the probability of transitioning into marriage (or separation) does not vary by education or race-ethnicity (see Appendix A.3).

2.5 DISCUSSION

Focusing on union transition experience among two cohabiting cohorts—first premarital cohabitations initiated in 1990-1995 and in 2005-2010—the first research question in this chapter is whether trends in educational and race-ethnic disparities in cohabitation outcomes have become larger over time. In line with the SDT perspective and findings from previous studies (e.g., Kennedy and Bumpass 2008), the results from this analysis suggest that cohabitators have become increasingly less likely to progress to marriage. Also, conforming to the diverging-destinies predictions, the current analysis shows that, while race-ethnic differences in the odds of transitioning to marriage have

remained constant over time, educational disparities in the odds of such a union transition among cohabitors have become larger over time. More specifically, I found that the growing educational disparities in transitioning to marriage are primarily the results of drastic declines in marriage among some-college or high-school educated cohabitors in the recent cohabiting cohort.

In the U.S., education is an important dimension of the stratification system. It defines a person's social and economic status. Education's role in stratifying the opportunity structure has increased since the 1970s when the economic transformation began (Cherlin 2014; Kalleberg 2011; Levy 1998; Marshall and Tucker 1992; Reich 2002; Sweet and Meiksins 2008). Under the economic transformation, the massive reduction of manufacturing jobs in the American economy undermined historically important means for those who do not have college degrees to maintain stable employment and earn decent wages to raise a family (also see Kalleberg 2011; Sweet and Meiksins 2008). As career success and the ability to provide for the family has become greatly dependent on the attainment of a college or graduate degree, many scholars (e.g., Cherlin 2014; McLanahan 2004; Oppenheimer 2003) have increasingly linked the emergent pattern of socioeconomic divides in family behavior with growing economic inequalities. The finding of the current chapter—educational disparities in the odds of transitioning to marriage from cohabitation have grown larger over time—appears to echo the changes in the dynamics of social stratification system in the U.S. The growing importance of a college degree in determining a person's economic opportunities seems to have a fundamental bearing on how recent cohabitors secure resources for establishing stable families through marriage.

Although there are good reasons to speculate that those with better economic prospects are more likely to enter cohabiting unions with definite marriage plans than the socioeconomically less-advantaged, given the economic prerequisites of marriage, I found that there are no educational or race-ethnic differentials in marital intentions at the start of union. Accounting for marital intention in the model does not help attenuate educational disparities in the probabilities of transitioning to marriage among the recent cohabiting cohort. Neither did I find that non-college educated cohabitors or African American cohabitors are less likely than their college-educated and non-Hispanic white peers to fulfill their marital intentions. These findings point to the need for future research to discover the social and structural barriers that are faced by today's youth, particularly those who do not have a college degree, when securing important resources for marriage.

Overall, the results in this analysis indicate that SDT accounts of family change are incomplete. The present analysis suggests that the process of the deinstitutionalization of marriage (at least recently) is as much about material constraints as about ideational change. I observed no decline in the likelihood that college educated women's cohabiting unions transition into marriage. Moreover, the changes in outcomes of cohabiting unions of less-educated women are not obviously linked to declines in attachment to marriage. By stressing the importance of structural barriers in preventing some people from securing resources for stable family life, the diverging-destinies thesis provides valuable insight into the emerged patterns of divides in union behavior that follow along racial and educational lines. As economic inequality grows, the standards of respectable marriage may be increasingly difficult for women to attain without a college degree. As fewer and

fewer women are able to attain this ideal, we can expect that the real influence of marriage wanes, but not because of a decline in personal attachment to the institution.

Finally, in addition to education, race is also an important dimension of the stratification system. In this chapter, I found that race-ethnic disparities did not increase over time; however, the lingering effect of being a minority on contemporary U.S. family behavior, for the recent cohorts in particular, still warrants scholarly and public attention and further investigation. To better understand the racial differences in cohabitors' union transitions, in the next chapter, I explore and discuss in greater detail how the processes of entering cohabitation based on their socioeconomic characteristics could vary by race-ethnicity and consequently sustain the current pattern of divergence in cohabitors' union transitions between people from different race-ethnic groups.

Table 2. 1 Descriptive Information on Analytic Samples by Data Sources

	NSFG	1995	NSFG 2006-10			
	Complete	Analytic	Complete	Analytic		
	NSFG sample	sample	NSFG sample	sample		
Birth years of respondents	1950-1980	1951-1979	1961-1995	1962 -		
in the sample	1930-1960	1931-1979	1901-1993	1994		
Ages at interview						
Range	14-45	15 - 43	15-45	15 - 44		
Median	31	23	29	23		
Mean	30	24	30	24		
Year when first premarital cohabitation initiated		1990 - 1995		2005-2010		
Ages at initiating first premarital cohabitation						
Range		12 - 42		13-42		
Median		21		21		
Mean		22		22		
Std Dev.		5		4.33		
Total sample size	10,847	929	12,279	1,142		
Less than high school	16.75%	16.37%	16.19%	16.08%		
High school	36.52%	36.12%	33.55%	33.78%		
Some college	25.83%	26.32%	28.22%	28.39%		
College or more	20.89%	21.18%	22.04%	21.75%		
Non-Hispanic Whites	72.31%	72.49%	58.09%	58.04%		
African Americans	13.99%	14.06%	16.72%	17.02%		
Hispanics	10.50%	10.20%	19.11%	18.96%		
Non-Hispanic others	3.19%	3.25%	6.08%	5.98%		
Share of first premarital						
cohabitation with marriage intention				44.35%		
Marriage		340		194		
Separation		347		504		
Censored		242		444		

Note—Samples from NSFG 1995 and NSFG 2006-2010, respectively, are comprised of respondents whose first premarital cohabitations were initiated no more than five years before the interview date. Cohabiting sample from NSFG 2006-2010 is further restricted to those between 2005 and 2010.

Table 2. 2 Coefficients from Multinomial Logistic Regression Models Estimating Union Transition Outcomes (Weighted Results)

	Model 1			Model 2				
	Marry vs.		Break up vs		Marry vs.		Break up vs	3
	Stay intact		Stay intact		Stay intact		Stay intact	
Period								
1990-95								
2005-10	-0.137	(0.18)	-0.343	(0.26)	-0.683***	(0.14)	0.071	(0.14)
Non-Hispanic White								
African American	-0.427**	(0.15)	0.363**	(0.12)	-0.546**	(0.18)	0.517***	(0.13)
Hispanic	-0.325†	(0.18)	-0.201	(0.15)	-0.182	(0.20)	-0.252	(0.19)
Other non-Hispanic	-0.466	(0.34)	0.265	(0.21)	-0.058	(0.30)	0.683*	(0.33)
Less than HS	0.096	(0.26)	-0.220	(0.24)	-0.222	(0.21)	0.061	(0.20)
HS or GED	0.316†	(0.17)	-0.088	(0.21)	-0.005	(0.14)	0.109	(0.17)
Some college	$0.202^{'}$	(0.18)	0.236	(0.22)	-0.073	(0.14)	0.304†	(0.16)
College+							'	′
Less than HS X Period	-0.963**	(0.34)	0.564†	(0.32)				
HS or GED X Period	-1.017***	(0.30)	0.432	(0.29)				
Some college X Period	-0.725**	(0.27)	0.168	(0.31)				
African American X Period					0.297	(0.31)	-0.336	(0.22)
Hispanic X Period					-0.450	(0.35)	0.073	(0.28)
Other non-Hispanic X Period					-0.912	(0.64)	-0.671	(0.46)
Constant	-5.815***	(1.15)	-1.660	(1.06)	-5.820***	(1.12)	-1.943†	(1.05)
Number of person-months	54291			54291				

[†] p < .10 * p < .05 ** p < .01 *** p < .001. Standard errors are in parentheses.

Models control for duration of the union and age at the start of union

Table 2. 3 Percentages Starting Cohabitation with Marital Intention by Race- Ethnicity and Education (Weighted Results)

	% engaged	Mean age at the
	at the start of	start of union
	union	
Educational attainment		
College +	42.71	24.71
Some college	45.91	21.75*
High school	46.43	20.61*
Less than high school	41.52	19.09*
Race-ethnicity		
Non-Hispanic whites	44.85	21.49
African Americans	45.16	22.64*
Hispanics	42.89	20.71
Other non-Hispanic racial/ethnic groups	43.56	20.95

^{*} indicates significant differences from Non-Hispanic whites or the college educated at alpha level .05

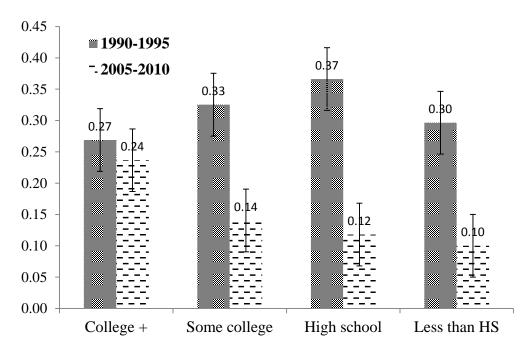


Figure 2. 1 Predicted Annual Probabilities of Transitioning into Marriage by Education for 1990-1995 and 2005-2010 Cohabiting Cohorts with 95% C.I.s (Weighted Results)

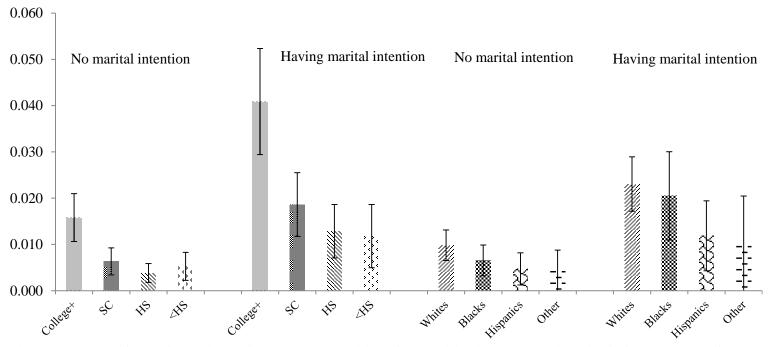


Figure 2. 2 95% C.I.s of Predicted Average Probability of Transitioning to Marriage in A Given Month for 2005-2010 Cohabiting Cohort by Education or Race-Ethnicity and Marital Intention Status (Weighted Results)

Note—Race-ethnic differences in the probability of transitioning into marriage for 2005-2010 cohabiting cohort are not statistically significant before taking into account marital intention (See Appendix A.2).

CHAPTER 3: RACIAL DIFFERENCES IN FIRST UNION FORMATION

3.1. Introduction

In Chapter 2, I discovered that racial differences in cohabitation outcomes have remained large over time. In this chapter, I focus on racial differences in first union formation for a recent cohort of young people who have never formed any unions (marriage or premarital cohabitation). This analysis explores how race-ethnic disparities in cohabitors' union outcomes can be traced back to early in on in these union entry processes, in which African Americans and non-Hispanic whites demonstrate different patterns.

Many scholars have noted the importance of understanding how cohabitating unions' entrance processes differ between people with varied levels of social and economic resources; namely, this understanding enables us to determine why differences in cohabitation unions subsequently emerge (e.g., Manning and Smock 1995; *Manning* and Smock 2005; Sassler 2004; Sassler and Miller 2011). Prior studies investigating the process of entering into cohabiting unions have focused primarily on class differences—defined broadly by education, occupation, earning, or/and incomes, and family background (i.e. parental education)—and how differences in cohabitation entry processes speak to class variations in cohabitors' union outcomes.

Little is known, however, about how processes of entering into cohabitation, shaped by people's social and economic characteristics, vary by race-ethnicity and how this raceethnic variation may subsequently contribute to the differences in cohabitation outcomes between race-ethnic groups. This gap in existing literature regarding race-ethnic differences is unjustifiable given that, as shown in the preceding chapter, net of educational differences between non-Hispanic whites and African Americans (and other minority groups), raceethnicity still plays an important role in diversifying cohabitors' union outcomes. The processes underlying this persistent pattern of race-ethnic disparities in cohabitation outcomes are underexplored.

Using data from the 1997 National Longitudinal Survey of Youth (NLSY97), this chapter centers on first union formation—timing and type (cohabitate or marriage) of first unions—and addresses the following two questions. *First*, I ask how the processes of entering into cohabiting unions, as opposed to staying single or transitioning to marriage, differ between race-ethnic groups, particularly between African Americans and non-Hispanic whites. Prior studies have consistently found that it is not random for people to form cohabiting unions as first unions. Rather, these studies found that people whose parents have more education or have higher levels of income take a slower pace to enter unions of any type (i.e. cohabitation or marriage), as compared with their peers from less advantaged families (Axinn and Thornton 1992; Wiik 2009). Moreover, prior studies also found that people from disadvantaged backgrounds and/or lacking socioeconomic resources—such as lower earnings and/or unstable employment (e.g., Clarkberg 1999; Oppenheimer 2003; Xie et al. 2003)—and/or whose parents, mothers in particular, have disrupted marital histories (e.g., Thornton 1991) are found to be more prone to entering cohabiting unions, as opposed to marriage, than their more advantaged peers.

Some scholars argued that class differences in the risk of cohabitation arise in part because a shared living arrangement comes as practical solution to a housing need (Manning and Smock 2005; Sassler and Miller 2011), which is an alternative to staying single. Yet, a housing crisis or financial constraints might be less likely motives for African Americans to enter into cohabitation than for non-Hispanic whites, partly because a strong kin network

among African Americans (Raley 1995) could make it less likely for those lacking resources to resort to a shared living arrangement with unmarried partners, as compared with similarly disadvantaged non-Hispanic white peers. Answers to these open questions regarding racial variation in the processes of entering cohabitation are missing in extant literature, but are important because understanding how racial differences in socioeconomic characteristics shaping entry into cohabitation could provide us with a better perspective about why African American cohabiting unions are less likely than non-Hispanic white cohabiting unions to transition to marriage.

Second, in this chapter, I also examine how racial differences in the processes of entering into cohabitation may vary by age. The processes of entering into cohabitation based on people's socioeconomic backgrounds may differ not only between race-ethnic groups, but also depending on where people stand in their lives. Consequently, both the meaning of cohabitation and the factors that dominate cohabitation entry processes should vary over the life course. Therefore, within the life course framework, in this chapter, I am also attentive to how the processes of entering into cohabitation and racial variations within these processes vary by age.

3.2. BACKGROUND

3.2.1 First Union Formation Based on Young People's Socioeconomic Backgrounds: Type and Timing of First Unions

Prior studies have found that people with poor economic prospects and wellbeing, such as no college education (e.g., Kennedy and Bumpass 2008), lower earnings and/or lower levels of employment (e.g., Clarkberg 1999; Oppenheimer 2003) or having less-educated parents (Wii 2009) are more likely to enter cohabiting unions as opposed to marriage than their more advantaged peers when they form first unions. Some scholars argue that the reason

why the socioeconomically disadvantaged have higher chances of entering into cohabitation than marriage, as compared with advantaged ones, in part is because marriage is held in high esteem in American society. People place high criteria on achievements in social standing, economic status, and relationship quality before marriage (see Cherlin 2004). Cohabitation may present itself as an attractive alternative for those who are romantically involved but lack social/relational and/or economic resources required for marriage (Clarkberg 1999; Gibson-Davis 2009; Manning and Smock 2005; Nock 1995; Oppenheimer 2003; Smock and Manning 2004; Smock et al. 2005; Soons and Kalmijn 2009; Stanley et al. 2006).

Additionally, prior research not only found that the type of first union is shaped by people's socioeconomic resources, but also suggested that young people's socioeconomic traits—the social and economic characteristics of their parents—also play an important role in shaping young adults' timing of first unions. Prior studies found that children whose parents have higher education and/or higher incomes enter unions of any sort—cohabitation or marriage—at a slower pace than their peers with fewer parental resources (Axinn and Thornton 1992). The negative association between parental resources and the odds of entering into cohabitation emerges in part because children with more resourceful parents are able to help children live independently (Wiik 2009) rather than move in with unmarried partners due to a housing crisis or financial constraints (Sassler 2004; Sassler and Miller 2011) and are likely to postpone marriage, for example, to pursue education (Axinn and Thornton 1992). Overall, when forming first unions, people who come from more advantaged backgrounds such as families where parents have more education and higher levels of income—are less likely to form cohabiting unions or enter marriage, despite the fact that if they ever form any unions, they are likely to enter marriage instead of cohabitation, as compared with their counterparts with few parental resources.

Non-marital childbearing is also an important risk factor that predicts people's first union formation. People may respond to a non-marital birth by marrying or moving in with their unmarried partners (i.e. the children's parents). Therefore, non-marital childbearing could facilitate the timing of first unions. Yet, non-marital childbearing may not necessarily make marriage more likely to happen than cohabitation in part because those who give birth outside of marriage are more likely consider childbearing more feasible than marriage, due to a lack of economic resources required by marriage (Gibson-Davis 2009).

3.2.2 Racial Differences in First Union Formation and Entry into Cohabitation

Prior studies have found that African Americans and non-Hispanic whites have different patterns of entering into first unions. African Americans are less likely to form unions of any type (i.e. marriage or cohabitation), as compared with their non-Hispanic white peers (Lichter et al. 1992). However, if they ever enter any first unions, African Americans are more likely to form cohabitation than marriage, as compared with their non-Hispanic white counterparts (Raley 1996). Although the racial differences in first union formation are well acknowledged in prior research and studies have also documented how first union formation (i.e. timing and type of first union) is shaped based on people's socioeconomic backgrounds, little is known about how race intersects with class in shaping the timing of entrance into first unions (cohabitation or marriage). Further, little is known about whether these first unions are cohabitation or marriage.

Nonetheless, we may expect that the pattern of first union formation based on people's socioeconomic resources could vary between African Americans and non-Hispanic whites. Specifically, although cohabitation may serve as a convenient way to resolve housing and financial crises (Sassler 2004; Sassler and Miller 2011), we may expect it to be less so for African Americans than for non-Hispanic whites due to previously discussed African

Americans' strong kinship ties. Therefore, we may expect that African Americans who do not have social and economic resources or who experience non-marital childbearing may less likely to resort to cohabitation as a way out of current hardship or challenges, as compared with similarly disadvantaged non-Hispanic whites. In other words, non-Hispanic whites who lack resources or come from disadvantaged families or have births outside of marriage are expected to be more likely to enter cohabitation, as opposed to staying single, compared to their similarly disadvantaged African American counterparts.

3.2.3 Variations by Age during Young Adulthood

The life course perspective (Elder et al. 2003; Shanahan 2000; Shanahan et al. 2002) anticipates that the factors shaping union formation should vary over the early adult years. We may expect that factors influencing people's first union formation—with respect to the timing of entering into cohabitation (or marriage) relative to staying single, or the type of first unions (marriage versus cohabitation)—should vary over the early adulthood years. For example, previous studies suggest that school enrollment is an important factor preventing people from entering marriage or cohabitation (Thornton et al. 1995). Yet, its importance lasts only up to the early twenties; after that, school enrollment is not associated with union formation (Goldscheider and Waite 1991).

Further, as mentioned earlier, prior studies suggest that parental resources influence the timing of children's first unions as well as the type of their first unions, but this influence declines as children grow older, complete education, and gain (economic) independence (Avery et al. 1992; Axinn and Thornton 1992; South 2001; Waite and Spine 1981). Yet, economic prospects based on young people's education and earning ability may be likely to become increasingly important in shaping their union formation at an older age by either

increasing the chances of forming any unions or by increasing the chances of entering into marriage rather than cohabitation.

3.3. DATA AND METHODS

Data for the analysis of this chapter is derived from the first fifteen waves of the National Longitudinal Survey of Youth 1997 cohort (NLSY97). 8,984 individuals, born between January 1980 and December 1984, were first interviewed in 1997 at ages ranging from 12 to 17. Since then, interviews have been conducted annually. At the time of round 15 interviews, which took place between September 2011 and June 2012, the respondents were 26 to 32. With the use of the provided sampling weights, the NLSY is designed to be nationally representative. In this study, I use sampling weights from the first round of the NLSY 97 for all analyses. NLSY 97 is one of few data sets providing exhaustive information about relationship histories (marriage and cohabitation) and educational trajectories, as well as data on family backgrounds, including parental education, childhood family structure, and parental incomes, for a cohort of young adults who experienced early adulthood in more recent years.

For the current analysis, I only focus on the first unions (either marriage or unmarried cohabitation) initiated after respondents turned sixteen years old. I excluded those who ever entered cohabitations or ever married before age 16 from the analytic sample. I impose such an age restriction because people could start cohabiting unions at a rather young age; however, cohabiting unions initiated in early teens or at even younger ages could be extreme cases. Further, as this chapter is concerned about the differences in first union formation between African Americans and non-Hispanic whites, I excluded respondents from other race-ethnic groups such as American Indian, Eskimo, Aleut, Asian or Pacific Islander from the sample, while keeping Hispanics in the analysis as a useful comparison group. At the end, I

have 7,968 (almost half females and half males) in the final sample for the current analysis. Of the final sample, 5,706 have formed their first unions by either entering first marriages (n=1,088) or cohabiting unions (n=4,618). Table 3.1 shows the descriptive information on union outcomes by race-ethnicity, own education, and parental education. African Americans are more likely to stay single, as compared with non-Hispanic whites (or Hispanics). People with high-school education or less are more likely to cohabit and less likely to marry, as compared with more educated people; similar patterns can be found for the association between parental education and first union formation.

3.3.1. Measures

The primary outcome variable in the current analysis is the *timing* of first unions (either cohabitation or marriage) and the *type* of first unions (cohabitation versus marriage). I am interested in *when* respondents transition from being never-married and never-cohabiting (i.e. singlehood) to marriage or cohabitation, as opposed to staying single, and *what* unions they form (cohabitation or marriage). NLSY97 collected information on the dates when respondents married for the first time and the dates when respondents formed co-residential unions with their un-married partners of opposite sex for the first time. Based on this information, I am able to identify the age at which respondents entered their first unions and the type of first unions.

In addition to race-ethnicity, classified into *non-Hispanic Whites, African Americans*, and *Hispanics*, I construct several measures for a young person's socioeconomic wellbeing, including a person's *employment status*, *annual earnings*, *educational attainment*, *non-marital childbearing status*, and measures that capture the socioeconomic status of his/her *family of origin*, including *annual income of parents* and *parental educational attainment*. Information on young people's annual earnings over the past year was collected annually in each survey

round. I use information on annual earnings in the last year to predict the probability of transitioning to the first union in the following year; based on a prior study, people's employment characteristics, including earnings, could change upon or after they get married (Light 2004). Education of the analytic sample is measured by respondents' educational attainments, classified by four categories: *less-than high-school, high school, some college* (reference group in the models), and *college educated or more*. A person's education could change over time in the data as he/she gained educational certificates. In the analysis, education is also a time-lagged variable like respondents' annual earnings. Employment status can also change over time and, based on the average number of work hours a week, is classified into three categories: no employment (the reference group), full-time employment (work for 35 hours or more per week), and part-time employment (work for less than 35 hours per week). Childbearing status is a time-varying measure based on the birth of first kids. Based on respondents' reports of birth dates of first children, respondents' childbearing status is measured with a dummy variable, switching from *being childless* (0) to *parenthood* (1) in the month when kids were born.

Measures for a person's socioeconomic status of their family of origin are, however, time-invariant. The variable on *parental annual income* is asked only once in the first survey round (in the year of 1997), summing up the total amount of income parents received over the past year. Questions on parents' education were asked in the first survey round, too. I took information from the most educated parent and classified it into four categories: *less-than high-school* (the reference group in the models), *high school*, *some college*, and *college educated or more*.

In all models of this chapter, I include sex, age, residential area (i.e. West, South, North Central, and North East), MSA (metropolitan statistical area) status, childhood family

structure at age 12, and school enrollment status as control variables. These control variables, except sex and childhood family structure, can change over time in the data. For continuous independent variables with missing data, I employ mean imputation method and create dummy variables for those cases whose values are set to the means. For categorical independent variables with missing data, I create separate categories to classify the missing data as separate traits on these variables.

3.3.2. Analytic Strategy

First, I convert data into a person-month data set with the first month indicating the month when respondents turned age 16 and last month indicating the month when the first unions (either marriage or cohabitation) were initiated or the month when the last interviews were conducted for those who remained single (i.e. never had cohabiting partners or spouses) at the time of interview (i.e. censoring). Then, I estimate multivariate discrete-time event history models with multinomial logistic regression, separately for two age groups: ages between 16 and 22 (i.e. late-teen to early-twenties) and ages between 23 and 31 (i.e. mid-to late-twenties). I estimate two sets of these age-specific models: the first set of multivariate multinomial logistic models use *staying single* as the reference group and the second set of models use *marriage* as the reference group. Models with different first union outcomes as reference groups allow me to investigate how covariates are associated with cohabitation processes that take place in two distinct scenarios: transitioning to cohabitation, as opposed to *staying single*; transitioning to cohabitation, as opposed to marriage.

In these two sets of age-specific models, Model 1 is the baseline model, including all covariates to estimate how young people's *employment status*, *earnings*, *parenthood status*, *education*, *parental education*, and *parental income* are associated with their first union timing and first union type. Then in Models 2 through 4, I interact each measure of

socioeconomic traits based on their parents' education, income, and their own nonmarital childbearing status with race-ethnicity one-by-one to examine how the association between a given socioeconomic trait and the odds of entering into cohabitation (relative to staying single or marriage) vary by race-ethnicity.

Last, I also estimate multivariate discrete-time event history models with multinomial logistic regression to investigate whether the factors that are associated with the processes of entering into cohabitation differ between these two age groups (i.e. late-teens to early-twenties versus mid-to-late twenties) by pooling data from two age groups and including interaction terms of each socioeconomic indicators with an age group dummy variable (1=mid-to-late twenties and 0=late-teens and early-twenties). Time in these discrete-time event history models is modeled with a series of dummy variables representing respondents' ages (in years).

3.4. RESULTS

Table 3.2 displays the time-invariant demographic characteristics of the sample for analysis in the current chapter. The majority of the sample came from two-biological-parent families and a considerable proportion of the sample from single-mother families. Almost half of the analytic sample comes from respondents whose parents have only high-school or less education and half whose parents have at least some college education. The average logged parental annual income reported in the year of 1997 is 9.33 (about 11,271 U.S. dollars), which is higher than the average annual earnings of their children (see Table 3.2.) throughout their young adulthood (before entering first unions). Table 3.3 presents the descriptive information for the characteristics that can change over respondents' life courses. After turning age 16, by the time they transitioned to their first unions, respondents spent a great amount of time being childless (93.94%), unemployed or only employed part-time, and having no college degrees.

The logged average annual earnings of the studied youths during their young adulthood is 8.02, about 3,041 U.S. dollars.

3.4.1 Cohabitation Processes and Age Variation

Table 3.4 shows the results for ages 16-22 (late-teens and early-twenties) from the multinomial logistic regression models estimating the average likelihood of transitioning to first unions (marriage or cohabitation), as opposed to staying single or marriage, in a given month. Results from Model 1 (Table 3.4), with no interaction terms between socioeconomic indicators and race-ethnicity included, are here for us to make comparisons with findings from prior studies. Similar to what was found by Raley (1996), results from Model 1 show that compared to non-Hispanic whites, African Americans in any given month are less likely to enter first unions of any type (cohabitation or marriage). as Also, as suggested by Raley (1996), I found that African Americans are more likely to form cohabitation in the scenario where marriage is the alternative status, as compared with non-Hispanic whites.

Similar to findings in prior studies, the results from Model 1 (Table 3.4) also show that between the late teens and early twenties, the odds of entering into cohabitation, as opposed to staying single or to marriage, are significantly higher for people from disrupted families than for people from two-biological-parent families. Also consistent with findings in prior studies, I found parental education is negatively associated with the odds of entering into unions of any type (i.e. cohabitation or marriage) and is not associated with the odds of entering into cohabitation when marriage is the alternative union status. I found parental income is not associated with young people's union formation in this age group (16-22). Parenthood status is also an important predictor for higher odds of entering into cohabitation but only when staying single is the alternative union status. Overall, people who are disadvantaged with respect to socioeconomic status of their families of origin are more likely to enter into

cohabitation, as opposed to staying single or to marriage, as compared with their more advantaged peers. Those who have premarital births are more likely to enter into cohabitation, as opposed to staying single, as compared with their childless counterparts.

In the late teens and early twenties, young people's education does not play a role in differentiating the odds of entering into cohabitation, as opposed to staying single. Yet, for those who indeed formed first unions, the least educated—those who do not have high school diplomas—are more likely to cohabit rather than marry, as compared with other more educated counterparts. Being employed (either part-time or full-time) is associated with higher odds of entering into cohabitation, as opposed to staying single or to marriage. Higher levels of earnings are associated with higher odds of cohabitation but only when staying single is the alternative status. Overall, I found young people's labor-market participation and earnings ability are associated with higher odds of entering into cohabitation, as opposed to staying single. These are different from prior findings, which proposed that young people who lack resources are more likely to move in with partners than staying single as a means of solving financial constraints and housing problems.

Table 3.5 shows the results for ages 23-32 (mid-to-late twenties) from the multinomial logistic regression models estimating the average likelihood of transitioning to first unions (marriage or cohabitation), as opposed to staying single or marriage, in a given month. Results from Model 1 (Table 3.5), with no interaction terms between socioeconomic indicators and race-ethnicity included, show that, for people who have not formed any unions by this life stage, African Americans in their mid-to-late twenties are still less likely than their non-Hispanic white counterparts to form unions of any type (cohabitation or marriage), as opposed to staying single. Notably, in this age group, if they formed any union, it is as likely to be a cohabiting union for African Americans as for non-Hispanic Whites. Childhood family

structure is again associated with first union formation. That is, the odds of entering into cohabitating unions (relative to staying single or to marriage) are significantly higher for people from disrupted families than for people from two-biological-parent families. Yet, unlike what I found for people in their late teens and early twenties, results in Model 1 (Table 3.5) shows that parental education is not associated with people's first union formation and neither is parental income. Parenthood status is still associated with higher odds of entering into cohabitation, relative to remaining single. Results from models examining age variation in the associations between indicators for socioeconomic status of young people's family of origin (see Appendix A.4) further show that the socioeconomic traits of family which used to influence cohabitation processes for children in their late teens and early twenties have significantly declined for children in their mid-to-late twenties. The importance of parenthood status for entry into cohabitation also declined at older ages (see Appendix A.4).

For people in their mid-to-late twenties, the college-educated have a higher chance of entering into cohabitation than staying single, as compared with other less-educated counterparts; yet, the college-educated are less likely to cohabit and more likely to marry, as compared with other young people with less education. Employment is also an important predictor for the odds of entering into cohabiting unions, relative to remaining single, for people in their mid-to-late twenties. However, employment status is not related to the type of first union or the chance of entering into marriage, relative to remaining single. Earnings are not associated with people's first union formation at these ages. Results in Appendix A.4 show that the influences of education and young people's employment status on the odds of entering into cohabitation, as opposed to staying single, increased in the mid-to-late twenties. Overall, consistent with what the life course perspective suggests, factors that are associated with people's union formation can vary by age.

3.4.2 Racial Variation in Cohabitation Processes

In Models 2 to 4 (in both Tables 3.4 and 3.5), I include interaction terms with race-ethnicity categories for parental education, parental income, and premarital parenthood status of young people, respectively, to examine how cohabitation processes, shaped by these socioeconomic and demographic characteristics of young people, differ between African Americans and non-Hispanic whites. Table 3.4 shows that, for people in their late teens and early twenties, the processes of entering into cohabitation, relative to remaining single (based on *parental education*, *parental income*, and *young people's parenthood status*) do differ between African Americans and non-Hispanic whites. Yet, results from Models 2 through 4 (Table 3.5) suggest that the processes of entering into cohabitation in the mid-to-late twenties (ages 23-32) do not show racial variation, with only one exception for parental education in influencing the chance of entering into cohabitation, as opposed to marriage.

In Figures 3.1 through 3.4, I use predicted probabilities of entering cohabitation (in any given month), as opposed to staying single, to show how such processes differ between African Americans and non-Hispanic whites in their late teens and early twenties. Figure 3.1 shows that, during this age range, the association between the odds of entering into cohabitation (relative to staying single) and parental education differs between African Americans and non-Hispanic whites. That is, African Americans whose parents have college degrees (or some college education) are as likely as Non-Hispanic whites (and Hispanics) with similarly educated parents to enter into cohabiting unions, as opposed to staying single, whereas African Americans whose parents have only high school diplomas or less have significant lower probabilities of entering into cohabiting unions, but staying single, as compared with non-Hispanic whites (or Hispanics) whose parents have similarly low levels of education. Notably, in this age group, non-Hispanic whites with the least educated parents

have the highest probability of entering into cohabiting unions, among the three race-ethnic groups in this study.

Figure 3.2 shows how the processes of entering into cohabitation, as opposed to staying single, in the late teens and early twenties and based on parental income, vary by race. Figure 3.2 illustrates that, at the lower end of the parental income distribution, the probability of entering into cohabiting unions, as opposed to staying single, are significantly lower for African Americans than for non-Hispanic whites (and Hispanics). The probability for African Americans increases slightly as parental income increases and eventually the probabilities of entering into cohabiting unions for African Americans and non-Hispanic whites (as well as Hispanics) converge at the higher end of the parental income distribution.

Figure 3.3 denotes how the processes of entering into cohabitation, as opposed to staying single, in the late teens and early twenties and based on young people's parenthood status, vary by race. This figure reveals that parenthood is an important predictor for a higher probability of entering into cohabitation; however, the predictor is less important for African Americans. Compared with non-Hispanic whites (as well as Hispanics), African Americans who have non-marital children have significantly lower probability of entering into cohabiting unions, as opposed to staying single.

Figure 3.4 shows the racial variation regarding the type of first union people form in their mid-to-late twenties, based on parental education. Figure 3.5 shows that although parental education is not significantly associated with the odds of entering into cohabiting unions, relative to marriage, for any race-ethnic group, the least-educated African Americans have significantly lower probability of entering into cohabiting unions, as opposed to marriage, when compared with their similarly low-educated non-Hispanic whites (as well as Hispanics).

3.5. DISCUSSION

In this chapter, I investigated how the processes of entering into cohabiting unions are contingent on people's socioeconomic backgrounds and differ for race-ethnic groups. I also examined how these processes could vary by age, that is, between two age groups—late teens and early twenties (16-22) and mid-to-late twenties (23-32).

Consistent with findings in prior studies, I found that, in their late teens and early twenties, young people from disadvantaged socioeconomic backgrounds or having non-marital births are associated with a higher chance of entering into cohabiting unions, as opposed to staying single (or entering marriage). The associations between these different indicators for young people's socioeconomic conditions and union formation processes, as I expected, vary by age. I found that the influences of parental education and childhood family structure or nonmarital childbearing status on the odds of entering into cohabitation significantly declined as people reached their mid-to-late twenties. Moreover, the importance of socioeconomic indicators based on young people's own education and employment characteristics increased significantly as people grew older, with more education and better employment prospects associated with higher odds of entering into cohabitation (as opposed to staying single).

Overall, advantaged family background is associated with delayed union formation. After entering into the mid-to-late twenties, the influences of parental resources on children's first union formation decline. More important, I found that the union formation processes do differ between African Americans and non-Hispanic whites (as well as Hispanics). Racial differences in union formation vary by socioeconomic status, particularly in the late teens and early twenties. In line with my expectations, I found that African Americans with low levels of parental income, born to parents with low levels of education, and having nonmarital births

are significantly less likely to enter cohabitation but stay single, as compared with non-Hispanic whites (as well as Hispanics) with similarly disadvantaged backgrounds. In other words, non-Hispanic whites with disadvantaged socioeconomic backgrounds are more likely than African Americans to move in with their non-marital partners rather than stay single. Union processes in the late teens and early twenties appear to be less selective of young adults without parental resources.

These racial differences in the processes of entering into cohabitation could be, as discussed earlier in the Background section, due to racial differences in kinship networks. In their late teens and early twenties, studies have shown that African Americans who lack parental resources are less likely than their similarly disadvantaged non-Hispanic whites to move in with a unmarried partner. Perhaps disadvantaged African American young people are more likely to rely on kinship networks—moving in with grandparents or other relatives—than similarly disadvantaged non-Hispanic white young people.

Overall, findings in this chapter suggest that cohabitation is more common for non-Hispanic whites with disadvantaged socioeconomic backgrounds who enter into cohabiting unions at a young age. In view of the pattern of racial differences in union formation observed in this chapter, we may envision that, since socioeconomically disadvantaged non-Hispanic whites are more likely to comprise the body of cohabitors, the divergence in cohabitors' union outcomes, shown in Chapter 2, could be driven by class more than by race. Consequently, the findings in this chapter speak to how racial and educational differences in cohabitation outcomes take shape among recent cohorts of cohabitors.

Table 3. 1 First Union Type by Race-Ethnicity, Education, and Parental Education

	Stay Single	Married	Cohabited	Total number
Race-ethnicity				
Non-Hispanic Whites	25%	14%	61%	4,101
African Americans	37%	9%	54%	2,127
Hispanics	26%	18%	56%	1,740
Own education				
Less than high school	18%	8%	74%	1,617
High school	24%	13%	62%	2,202
Some college	31%	16%	53%	2,851
College or more	43%	16%	40%	1,298
Parental education				
Less than high school	25%	15%	61%	1,296
High school	28%	12%	60%	2,610
Some college	28%	13%	59%	1,850
College or more	32%	16%	52%	1,826
Missing parental education	28%	13%	59%	386

Table 3. 2 Descriptive Statistics for Time-Fixed Demographic Characteristics (Weighted Results)

	% (or mean)
Females	48.59
Years first unions were formed (or at exposure to first union	
formation)	1997-2011
Mean age at first union	21.53 (3.23)
Race-Ethnicity	
Non-Hispanic Whites	70.66
African Americans	15.91
Hispanics	13.43
Family Structure at age 12 (Reference: Two-biological-parent	
family)	
Two-biological parent family	49.7
Single mother	32.89
Step family	5.93
Other type of family	9.55
Missing family structure information	1.93
Parental education (Reference: Less than High school)	
Less than high school	11.83
High school	31.68
Some college	24.87
College or more	27.48
Missing parental education	4.13
Parental Annual income from baseline year 1997 (logged)	9.33 (3.49)
% Missing parental annual income information and imputed	
with means	15.74
Number of respondents in the analytic sample	7,968

Note—Numbers in parentheses are standard deviations. Variables with standard deviations are continuous variables, of which means are reported. Variables without standard deviations are categories of categorical variables or dummy variables, of which percentage points are reported.

Table 3. 3 Descriptive Statistics for Time-Varying Variables Based on Person-Month Data (Weighted Results)

	% (or mean)
First birth status	
Childless	93.94
<1 year old	1.23
>= 1 but less than 2 years old	1.06
2 years old or even older	3.77
Employment status of youth	
Not employed	40.21
Full-time (>= 35 hours per week)	27.41
Part-time (< 35 hours per week)	31.98
Missing employment status	0.4
School enrollment (currently enrolled)	49.28
Missing school enrollment status	7.11
Own earnings (logged)	8.02 (1.91)
% Missing youth earnings and imputed with means	49.65
Own educational attainment	
Less than high school	44.39
High school	17.94
Some college	29.68
College or more	7.99
Regions of residence	
North East	17.84
West	18.49
South	32.93
North Central	23.92
Missing information on region of residence	6.82
Metropolitan Areas (Dummy)	79.80
Missing information on metropolitan status	6.62
Number of person-months	812,630

Note—Numbers in parentheses are standard deviations. Variables with standard deviations are continuous variables, of which means are reported. Variables without standard deviations are categories of categorical variables or dummy variables, of which percentage points are reported.

Table 3. 4 Weighted Coefficients from Multinomial Logistic Regression Models Estimating Transitions to First Unions for Ages 16-22

			Mode	el 1			Model 2							
			Basel	line			Parental education X Race-Ethnicity							
	Marr. vs	Single	Coh. Vs.	Single	Coh. Vs	. Marr	Marr. vs	Single	Coh. Vs.	Single	Coh. Vs	. Marr		
Age (ref. 16-17)														
Age 18	1.695***	(0.25)	1.383***	(0.08)	-0.312	(0.26)	1.698***	(0.25)	1.388***	(0.08)	-0.310	(0.26)		
Age 19	1.792***	(0.26)	1.400***	(0.09)	-0.391	(0.27)	1.797***	(0.25)	1.408***	(0.09)	-0.389	(0.27)		
Age 20	2.124***	(0.26)	1.375***	(0.10)	-0.749**	(0.28)	2.130***	(0.26)	1.386***	(0.10)	-0.744**	(0.28)		
Age 21	2.145***	(0.26)	1.341***	(0.10)	-0.804**	(0.28)	2.151***	(0.26)	1.352***	(0.10)	-0.798**	(0.28)		
Age 22	2.275***	(0.27)	1.447***	(0.10)	-0.828**	(0.28)	2.282***	(0.27)	1.459***	(0.10)	-0.823**	(0.28)		
Region of residence (ref. North East)														
West	1.244***	(0.20)	0.218**	(0.07)	-1.026***	(0.21)	1.231***	(0.20)	0.228**	(0.07)	-1.004***	(0.21)		
South	1.356***	(0.19)	0.239***	(0.06)	-1.117***	(0.20)	1.353***	(0.19)	0.241***	(0.06)	-1.112***	(0.20)		
North Central	0.899***	(0.20)	0.218**	(0.07)	-0.681**	(0.21)	0.893***	(0.20)	0.219***	(0.07)	-0.674**	(0.21)		
Missing region information	0.713*	(0.28)	-0.486***	(0.12)	-1.199***	(0.31)	0.695*	(0.28)	-0.481***	(0.12)	-1.175***	(0.31)		
female	0.782***		0.687***	(0.04)	-0.095		0.781***		0.686***	. ,	-0.095	(0.10)		
MSA area	-0.256*		-0.242***		0.014		-0.265*		-0.236***		0.029	(0.14)		
Race-Ethinicity (Ref. Non-Hispanic Whites)		()		(/		()		(/		(,		(/		
African Americans	-1.135***	(0.15)	-0.674***	(0.06)	0.461**	(0.16)	-1.098***	(0.21)	-0.809***	(0.08)	0.289	(0.22)		
Hispanics	0.104		-0.147*	, ,	-0.251*		0.021		-0.243*	. ,	-0.265	(0.22)		
Family Structure at age 12 (Ref. two-biologic				(0100)	*****	(0.110)	****	(===)		(0110)		(===)		
Single-mother	-0.080		0.508***	(0.05)	0.588***	(0.12)	-0.072	(0.11)	0.501***	(0.05)	0.573***	(0.12)		
Step family	-0.228		0.596***	, ,	0.823***	` ′	-0.214	` ′	0.586***	, ,	0.800***	(0.23)		
Other family type	-0.326+		0.535***	` ′	0.861***		-0.314+		0.523***	, ,	0.837***	(0.19)		
Missing family structure	-0.432		0.174	, ,	0.606		-0.441		0.168	, ,	0.608	(0.17)		
Parental education (ref. high school)	-0.432	(0.44)	0.174	(0.17)	0.000	(0.47)	-0.441	(0.44)	0.100	(0.17)	0.000	(0.47)		
Less than high school	0.236+	(0.14)	0.191**	(0.06)	-0.044	(0.15)	0.202	(0.23)	0.269**	(0.00)	0.067	(0.25)		
Some college	-0.149	` /	-0.104+		0.045	` ′	-0.186	` ′	-0.155*	. ,	0.030	(0.23) (0.17)		
College +	-0.304*		-0.389***		-0.085		-0.165+	` /	-0.133	. ,	-0.223	(0.17) (0.17)		
Missing parental education	0.214		-0.064		-0.278		0.048		-0.248	. ,	-0.223	(0.17)		
Parental income from 1997 (logged)	0.000		-0.004	` ′	-0.278		0.048		-0.248		-0.290	(0.01)		
. 55	-0.030		-0.004		-0.004	` ′	-0.030		-0.004	. ,	-0.004			
Missing parental income	0.491**									. ,		(0.14)		
Have at least one kid (dummy=1) Own education (ref. high school)	0.491	(0.10)	0.637***	(0.07)	0.146	(0.17)	0.500**	(0.10)	0.644***	(0.07)	0.144	(0.17)		
	0.407**	(0.17)	0.107	(0.07)	0.004***	(0.10)	0.406**	(0.17)	0.112	(0.07)	0.500**	(0.10)		
Less than high school	-0.497**		0.107	, ,	0.604***	` ′	-0.486**		0.112+	, ,	0.598**	(0.18)		
Some college	0.132		-0.076	, ,	-0.207		0.130		-0.076	, ,	-0.207	(0.14)		
College +	0.371	(0.29)	-0.248	(0.19)	-0.619+	(0.33)	0.360	(0.29)	-0.242	(0.19)	-0.602+	(0.35)		
Employment status (ref. not employed)	0.222	(0.10)	0.500	(0.00)	0.746666	(0.10)	0.222	(0.10)	0.510000	(0.00)	0.5.40	(0.10)		
Full-time employment (>=35 hrs a week)	-0.223+		0.523***		0.746***		-0.223+		0.519***	, ,	0.742***	(0.13)		
Part-time employment	-0.421***		0.137*		0.558***		-0.417***		0.137*		0.554***	(0.13)		
Missing employment status	-0.071		0.109		0.180	, ,	-0.052		0.112	. ,	0.164	(0.78)		
Enrolled in school (dummy=1)	-0.784***		-0.590***		0.195		-0.788***	` ′	-0.585***	. ,	0.203	(0.14)		
Annual earnings (logged)	0.071		0.078**	, ,	0.007		0.073		0.077**	. ,	0.005	(0.06)		
Missing information on earnings	-0.082	(0.10)	-0.039	(0.04)	0.043	(0.11)	-0.085	(0.10)	-0.039	(0.04)	0.046	(0.11)		
Parental education X Race-ethnicity														
< HS X African American							-0.998*		-0.166	, ,	0.832+	(0.50)		
Some college X African American							0.125		0.249*		0.124	(0.36)		
College+ X African American							0.074		0.635***			(0.43)		
Missing Parental edu. X African American							0.540		0.540*		-0.000	(0.59)		
< HS X Hispanics							0.237		-0.075		-0.312	(0.34)		
Some college X Hispanics							0.221		0.121		-0.100	(0.33)		
College+ X Hispanics							-0.717+	(0.41)	0.454**	(0.17)	1.171**	(0.44)		
Missing Parental edu. X Hispanics							0.303	(0.47)	0.365	(0.23)	0.063	(0.52)		
Constant	-9.373***	(0.59)	-7.234***	(0.23)	2.139***	(0.63)	-9.385***	(0.59)	-7.207***	(0.23)	2.178***	(0.63)		
Number of person-months		_	6204	54	·		·		6204	54	·	_		
Log Likelihood			-4.67e	+09					-4.66e	+09				
Chi-squared			3569.	277					3650.	903				

Table 3. 4 (continued)

			MODI			MODEL 4							
			ntal Income X						marital Birth 2				
A (P 1 (17)	Marr. vs	Single	Coh. Vs.	Single	Coh. Vs.	Marr	Marr. vs	Single	Coh. Vs.	Single	Coh. Vs.	Marr	
Age (ref. 16-17)	1.696***	(0.25)	1.382***	(0.00)	0.212	(0.26)	1 606***	(0.25)	1 201***	(0.00)	0.214	(0.26)	
Age 18		(/		` ′	-0.313	, ,	1.696*** 1.792***		1.381***	` ′	-0.314	(0.26)	
Age 19	1.792***	` ′	1.401***	` ′	-0.391	(` ′	1.400***	` ′	-0.393	(0.27)	
Age 20	2.124***	` ′	1.377***	` ′	-0.748**	` /	2.125***	` ′	1.376***	` ′	-0.749**	(0.28)	
Age 21	2.145*** 2.276***	` ′	1.343***	` ′	-0.802** -0.826**	` /	2.145***	` ′	1.342*** 1.451***	` ′	-0.802**	(0.28)	
Age 22 Region of regidence (mf. North Foot)	2.270	(0.27)	1.450***	(0.10)	-0.820***	(0.29)	2.274***	(0.27)	1.451***	(0.10)	-0.824**	(0.28)	
Region of residence (ref. North East) West	1.246***	(0.20)	0.222**	(0.07)	-1.024***	(0.21)	1.243***	(0.20)	0.220**	(0.07)	-1.022***	(0.21)	
South	1.358***	` ′	0.234***	` ′	-1.024***	` /	1.355***	` ′	0.236***	(/	-1.022***	(0.21)	
North Central	0.899***	` ′	0.234**	` ′	-0.681**	` /	0.898***	()	0.230***	` ′	-0.679**	(0.20)	
Missing region information	0.833***	, ,	-0.479***	` ′	-1.190***	` /	0.717*	` ′	-0.492***	. ,	-1.209***	(0.21)	
female	0.711*		0.689***	` ′	-0.092		0.717	` ′	0.686***	. ,	-0.096	(0.31)	
MSA area	-0.255*	` ′	-0.241***	` ′	0.014	` /	-0.254*	` ′	-0.245***	` ′	0.009	(0.10)	
Race-Ethinicity (Ref. Non-Hispanic Wh		(0.13)	-0.241	(0.03)	0.014	(0.14)	-0.234	(0.13)	-0.243	(0.03)	0.009	(0.14)	
African Americans	-0.799*	(0.26)	-1.370***	(0.17)	-0.571	(0.40)	-1.230***	(0.17)	-0.586***	(0.06)	0.644***	(0.18)	
Hispanics	0.085	` ′	-0.325*	` ′	-0.371	` /	0.123	` ′	-0.148*	, ,	-0.271*	(0.13)	
Family Structure at age 12 (Ref. two-bio				(0.13)	-0.410	(0.30)	0.123	(0.12)	-0.146	(0.00)	-0.271	(0.13)	
Single-mother	-0.078	•	0.504***	(0.05)	0.582***	(0.12)	-0.079	(0.11)	0.505***	(0.05)	0.584***	(0.12)	
Step family	-0.226		0.584***	` ′	0.810***		-0.227	` ′	0.505	` ′	0.818***	(0.12)	
Other family type	-0.322+	` ′	0.529***	` ′	0.851***	()	-0.327+	` /	0.530***	` ′	0.857***	(0.23) (0.19)	
Missing family structure	-0.322+	` ′	0.160	` ′	0.594	` /	-0.431	` ′	0.180	` ′	0.611	(0.17)	
Parental education (ref. high school)	-0.434	(0.44)	0.100	(0.17)	0.574	(0.47)	-0.431	(0.44)	0.100	(0.17)	0.011	(0.47)	
Less than high school	0.238+	(0.14)	0.188**	(0.06)	-0.051	(0.15)	0.235+	(0.14)	0.190**	(0.06)	-0.044	(0.15)	
Some college	-0.147	` ′	-0.106*	` ′	0.040	` /	-0.149	` ′	-0.105+	` ′	0.044	(0.13)	
College +	-0.305*	` ′	-0.385***	` ′	-0.081	(-0.306*	` ′	-0.386***	` ′	-0.080	(0.14) (0.15)	
Missing parental education	0.217	` ′	-0.063	` ′	-0.280	. ,	0.215	` ′	-0.064		-0.279	(0.13)	
Parental income from 1997 (logged)	0.004		-0.003	. ,	-0.022	. ,	0.000		-0.004	. ,	-0.275	(0.23)	
Missing parental income	-0.018	` ′	-0.010	` ′	-0.063	. ,	-0.029	` ′	-0.047		-0.018	(0.01)	
Have at least one kid (dummy=1)	0.489**		0.644***	. ,	0.155	. ,	0.461+		0.750***		0.288	(0.14) (0.26)	
Own education (ref. high school)	0.407	(0.10)	0.044	(0.07)	0.133	(0.17)	0.401+	(0.24)	0.730	(0.10)	0.200	(0.20)	
Less than high school	-0.494**	(0.17)	0.104	(0.07)	0.598**	(0.18)	-0.497**	(0.17)	0.105	(0.07)	0.602***	(0.18)	
Some college	0.135	` ′	-0.082	` ′	-0.217	(0.14)		` ′	-0.077	` ′	-0.209	(0.14)	
College +	0.133	. ,	-0.032	` ′	-0.632+	. ,	0.370		-0.249		-0.619+	(0.14) (0.35)	
Employment status (ref. not employed)	0.574	(0.27)	-0.236	(0.17)	-0.032⊤	(0.55)	0.570	(0.27)	-0.24)	(0.17)	-0.017⊤	(0.55)	
Full-time employment (>=35 hrs a week)	-0.224+	(0.12)	0.523***	(0.06)	0.747***	(0.13)	-0.224+	(0.12)	0.521***	(0.06)	0.745***	(0.13)	
Part-time employment	-0.422***	` ′	0.137*	` ′	0.559***	` /	-0.421***	` ′	0.137*	` ′	0.559***	(0.13)	
Missing employment status	-0.070	. ,	0.103	, ,	0.173	` /	-0.074		0.112	` /	0.186	(0.78)	
Enrolled in school (dummy=1)	-0.785***	` ′	-0.589***	` ′	0.173		-0.784***	. ,	-0.588***	. ,	0.196	(0.76) (0.14)	
Annual earnings (logged)	0.071	` ′	0.079***	. ,	0.008		0.072	. ,	0.077**	` ′	0.006	(0.06)	
Missing information on earnings	-0.081		-0.041	. ,	0.040	. ,	-0.082	()	-0.040	, ,	0.042	(0.11)	
Parental income X race-ethnicity	-0.001	(0.10)	-0.041	(0.04)	0.040	(0.11)	-0.002	(0.10)	-0.040	(0.04)	0.042	(0.11)	
Parental income X African American	-0.037	(0.04)	0.080***	(0.02)	0.118**	(0.04)							
Parental income X Hispanics	0.002		0.015	(0.013	(0.03)							
Missing parental inc. X African American	-0.126		-0.036		0.090	(0.38)							
Missing parental inc. X Hispanics	0.029		0.204		0.174	(0.29)							
Childbearing status X race-ethnicity	0.027	(0.20)	3.201	(0.15)	J. 1 . 1	(0.27)							
Having kid X African American							0.277	(0.33)	-0.350**	(0.13)	-0.627+	(0.35)	
Having kid X Hispanic							-0.145	. ,	-0.031		0.114	(0.35)	
Constant	-9.411***	(0.60)	-7.103***	(0.23)	2.309***	(0.64)	-9.375***		-7.231***		2.143***	(0.63)	
Number of person-months	7.111	(0.00)	6204		2.507	(0.01)	7.515	(0.07)	6204		2.113	(0.03)	
Log Likelihood			-4.66e						-4.66e				
Chi-squared			3583.						3629.				

⁺ p < .00 * p < .05 ** p < .01 *** <math>p < .001. Standard errors are in parentheses.

Table 3. 5 Weighted Coefficients from Multinomial Logistic Regression Models Estimating Transitions to First Unions for Ages 23-32

	Model 1							Model 2 Parental Education X Race-Ethnicity							
		C:1-	Base		C-l- V-	M	M					. M			
Age (ref. 23)	Marr vs.	Single	Coh. Vs.	. Single	Coh. Vs	. Marr	Marr vs.	Single	Coh. Vs.	. Single	Coh. Vs	. Marr			
Age 24	-0.083	(0.14)	-0.032	(0.08)	0.051	(0.16)	-0.080	(0.14)	-0.028	(0.08)	0.052	(0.16)			
Age 25	-0.265	(0.14)	-0.032	(0.00)		` ′	-0.260	, ,	-0.020	` ′	0.222	(0.18)			
Age 26	-0.287+	(0.10)		` ′	0.221	` ′	-0.280+		-0.037		0.222	(0.18)			
Age 27	-0.267+	` /	-0.042		0.243		-0.280+		-0.033	` ′	0.145	(0.19)			
Age 28	-0.336	(0.19)			0.070		-0.438		-0.254*		0.068	(0.21)			
•	-0.558+	(0.22)	-0.285+		0.070		-0.522		-0.234+			(0.23)			
Age 29	-0.5567	(0.40)	-0.285+ -0.407+	` ′		` ′	-0.560	` ′	-0.271+ -0.396+		0.273 0.164				
Age 30 or older	-0.307	(0.40)	-0.407+	(0.22)	0.160	(0.43)	-0.300	(0.40)	-0.390+	(0.21)	0.104	(0.45)			
Region of residence (ref. North East) West	0.270	(0.18)	-0.028	(0.09)	-0.298	(0.20)	0.261	(0.19)	-0.031	(0.00)	-0.292	(0.20)			
South	0.685***	(0.16)	-0.028	(0.09)	-0.298	(0.689***	` ′	-0.031	` ′	-0.292	` ′			
	0.480**			` ′	-0.392*	` ′	0.478**	` ′	0.079	` ′	-0.701***	` ′			
North Central		(0.18)		(0.09)		(` ′		` ′		(0.20)			
Missing region information	0.457	(0.38)			-0.596		0.447		-0.120		-0.566	(0.43)			
female	0.139		0.148*		0.010		0.137		0.144*		0.007	(0.12)			
MSA area	-0.057	(0.29)	-0.092	(0.14)	-0.035	(0.33)	-0.079	(0.29)	-0.096	(0.14)	-0.017	(0.33)			
Race-Ethinicity (Ref. Non-Hispanic White		(0.15)	0.620***	(0.00)	0.070	(0.17)	0.710**	(0.24)	0.740+++	(0.11)	0.040	(0.27)			
African Americans	-0.559***	(0.15)	-0.629***	, ,	-0.070	` ′	-0.712**	(0.24)	-0.760***	` ′		(0.27)			
Hispanics	0.229+	(0.13)	-0.364***	(0.08)	-0.593***	(0.16)	0.183	(0.25)	-0.458**	(0.15)	-0.641*	(0.29)			
Family Structure at age 12 (Ref. two-biolog		•	0.000	(0.05)	0.401/66	(0.15)	0.000	(0.10)	0.005	(0.05)	0.455544	(0.15)			
Single-mother	-0.383**	(0.13)		` ′	0.481**	, ,	-0.380**	(0.13)		()	0.476**	(0.15)			
Step family	-0.335	(0.26)	0.039	` ′	0.374	, ,	-0.323	(0.26)		, ,	0.366	(0.29)			
Other family type	-0.564*	(0.24)		(0.11)		, ,	-0.565*	(0.25)	0.311**		0.876**	(0.27)			
Missing family structure	-0.471	(0.52)	0.117	(0.22)	0.588	(0.57)	-0.488	(0.52)	0.115	(0.22)	0.603	(0.57)			
Parental education (ref. high school)															
Less than high school	-0.009	(0.19)		(0.10)	-0.006	(/	-0.487	(0.48)	-0.111		0.376	(0.51)			
Some college	-0.043		-0.041	` ′	0.002		-0.088		-0.078		0.010	(0.21)			
College +	-0.010	(/	-0.071	(0.08)	-0.061	` ′	-0.033	` ′	-0.125		-0.092	(0.19)			
Missing parental education	-0.086	(0.30)			0.070	, ,	-0.045		-0.039		0.006	(0.46)			
Parental income from 1997 (logged)	-0.004	(0.02)		` ′	0.005	, ,	-0.003	(0.02)			0.004	(0.02)			
Missing parental income	0.407***	(0.12)	-0.277***	` ,	-0.684***	` ′	0.407***	(0.12)	-0.273***	` ′	-0.680***	, ,			
Have at least one kid (dummy=1)	0.047	(0.18)	0.425***	(0.08)	0.378+	(0.20)	0.068	(0.18)	0.441***	(0.08)	0.373+	(0.20)			
Own education (ref. high school)															
Less than high school	-0.516+	(0.28)	-0.001	(0.12)	0.514+	(0.31)	-0.517+	(0.29)	0.009	(0.12)	0.526+	(0.31)			
Some college	0.253	(0.16)	0.124	(0.08)	-0.129	(0.17)	0.250	(0.16)	0.116	(0.08)	-0.134	(0.17)			
College +	0.543**	(0.17)	0.170*	(0.08)	-0.372*	(0.19)	0.534**	(0.17)	0.163+	(0.08)	-0.371*	(0.19)			
Employment status (ref. not employed)															
Full-time employment (>=35 hrs a week)	0.189	(0.15)	0.263**	(0.08)	0.074	(0.17)	0.183	(0.15)	0.249**	(0.08)	0.066	(0.17)			
Part-time employment	-0.112	(0.17)	0.069	(0.09)	0.181	(0.19)	-0.113	(0.17)	0.056	(0.09)	0.169	(0.19)			
Missing employment status	-0.442	(0.81)	0.126	(0.34)	0.567	(0.88)	-0.434	(0.81)	0.110	(0.34)	0.543	(0.88)			
Enrolled in school (dummy=1)	-0.002	(0.14)	-0.242**	(0.08)	-0.240	(0.16)	-0.004	(0.14)	-0.249**	(0.08)	-0.244	(0.16)			
Annual earnings (logged)	0.109	(0.07)	0.070+	(0.04)	-0.039	(0.08)	0.099+	(0.05)	0.046+	(0.03)	-0.052	(0.06)			
Missing information on earnings	0.032	(0.17)	0.085	(0.08)	0.053	(0.19)									
Parental education X Race-ethnicity															
< HS X African American							0.619	(0.60)	0.014	(0.24)	-0.605	(0.65)			
Some college X African American							0.172	(0.35)	0.180	(0.17)	0.008	(0.39)			
College+ X African American							0.265	(0.34)	0.490**	(0.18)	0.226	(0.39)			
Missing Parental edu. X African American							0.278		0.059		-0.219	(0.69)			
< HS X Hispanics							0.665		0.313		-0.352	(0.60)			
Some college X Hispanics							0.105		0.028		-0.076	(0.42)			
College+ X Hispanics							-0.156	(0.37)	-0.001		0.155	(0.44)			
Missing Parental edu. X Hispanics							-0.511	(0.80)	0.071		0.582	(0.88)			
Constant	-7.327***	(0.79)	-5.344***	(0.39)	1.983*	(0.88)	-7.170***		-5.048***			(0.67)			
COLUMN		(0.17)	J.J TT	(0.37)		(0.00)	7.170	(0.01)		` /	1	(0.07)			
Number of person-months	192176				19/1/n		192176								
Number of person-months Log Likelihood	192176 -2.77e+09				192176 -2.77e+09				-2.77e						

Table 3. 5 (continued)

		D.	Mode		2.1	Model 4 Non-marital births X Race-Ethnicity							
			al Income X									11	
Age (ref. 23)	Marr vs.	Single	Coh. Vs.	Single	Coh. Vs.	Marr	Marr vs.	Single	Coh. Vs.	Single	Coh. Vs.	Marr	
Age (161, 23) Age 24	-0.078	(0.14)	-0.033	(0.08)	0.045	(0.16)	-0.081	(0.14)	-0.031	(0.08)	0.050	(0.16)	
Age 25	-0.259		-0.033		0.215		-0.263		-0.031		0.030	(0.10)	
Age 26	-0.281		-0.044		0.213	` /	-0.284+	, ,	-0.039	. ,	0.221	(0.19)	
Age 27	-0.441*		-0.302**		0.139		-0.244*		-0.039		0.146	(0.19)	
Age 28	-0.334		-0.266*		0.068		-0.333		-0.261*		0.072	(0.22)	
Age 29	-0.560+	. ,	-0.285+		0.275		-0.556+		-0.279+		0.072	(0.23) (0.34)	
Age 30 or older	-0.574		-0.265+		0.169		-0.561		-0.279+		0.165	(0.34) (0.45)	
Region of residence (ref. North East)	-0.374	(0.40)	-0.405+	(0.22)	0.109	(0.43)	-0.301	(0.40)	-0.370+	(0.22)	0.103	(0.43)	
West	0.217	(0.17)	0.005	(0.00)	-0.222	(0.19)	0.267	(0.10)	-0.024	(0.00)	-0.291	(0.20)	
South	0.619***		-0.005	` ′					-0.024	. ,	-0.692***	(0.20)	
North Central	0.619***		0.005		-0.614***		0.688***	` /		, ,		` ′	
	0.424	(0.17)	0.106	(0.09)	-0.318+	(0.19)	0.483**		0.094		-0.389*	(0.20)	
Missing region information	0.142	(0.11)	0.140*	(0.00)	0.005	(0.10)	0.455		-0.143		-0.598	(0.43)	
female	0.143	. ,	0.148*		0.005		0.145		0.150*		0.005	(0.13)	
MSA area	-0.302	(0.18)	-0.019	(0.10)	0.282	(0.21)	-0.059	(0.29)	-0.097	(0.14)	-0.038	(0.33)	
Race-Ethinicity (Ref. Non-Hispanic W		(0.a=)		(0.00)			0.400111	(0.40)	0.504.1.1.	(0.00)		(0.00)	
African Americans	-0.870*		-0.756***				-0.638***		-0.591***			(0.20)	
Hispanics	-0.168		-0.695***	(0.20)	-0.528	(0.40)	0.181	(0.14)	-0.495***	(0.09)	-0.677***	(0.17)	
Family Structure at age 12 (Ref. two-b			-										
Single-mother	-0.389**		0.095		0.484**		-0.381**		0.099		0.481**	(0.15)	
Step family	-0.330		0.034		0.365	` ′	-0.335		0.037		0.372	(0.29)	
Other family type	-0.567*		0.299**		0.865**		-0.559*		0.305**		0.864**	(0.26)	
Missing family structure	-0.423	(0.52)	0.104	(0.22)	0.527	(0.56)	-0.470	(0.52)	0.117	(0.22)	0.588	(0.57)	
Parental education (ref. high school)													
Less than high school	0.011	(0.19)	-0.007	(0.10)	-0.018	(0.21)	-0.000	(0.19)	0.003	(0.10)	0.004	(0.21)	
Some college	-0.031	(0.15)	-0.039	(0.08)	-0.008	(0.16)	-0.038	(0.15)	-0.044	(0.08)	-0.006	(0.16)	
College +	0.006	(0.15)	-0.069	(0.08)	-0.075	(0.17)	-0.015	(0.15)	-0.079	(0.08)	-0.063	(0.17)	
Missing parental education	-0.071	(0.30)	-0.016	(0.15)	0.055	(0.34)	-0.089	(0.30)	-0.030	(0.15)	0.058	(0.34)	
Parental income from 1997 (logged)	-0.017	(0.02)	-0.006	(0.01)	0.010	(0.02)	-0.004	(0.02)	0.001	(0.01)	0.005	(0.02)	
Missing parental income	0.397**	(0.15)	-0.340***	(0.10)	-0.737***	(0.18)	0.408***	(0.12)	-0.273***	(0.08)	-0.681***	(0.14)	
Have at least one kid (dummy=1)	0.041	(0.18)	0.427***	(0.08)	0.386 +	(0.20)	-0.280	(0.36)	0.327*	(0.13)	0.607	(0.39)	
Own education (ref. high school)													
Less than high school	-0.512+	(0.28)	-0.003	(0.12)	0.509 +	(0.31)	-0.506+	(0.29)	0.005	(0.13)	0.511	(0.31)	
Some college	0.255	(0.16)	0.124	(0.08)	-0.131	(0.17)	0.261 +	(0.16)	0.136 +	(0.08)	-0.125	(0.18)	
College +	0.540**	(0.17)	0.168*	(0.08)	-0.372*	(0.19)	0.542**	(0.17)	0.176*	(0.08)	-0.366+	(0.19)	
Employment status (ref. not employed)												
Full-time employment (>=35 hrs a week)		(0.15)	0.264**	(0.08)	0.071	(0.17)	0.190	(0.15)	0.262**	(0.08)	0.072	(0.17)	
Part-time employment	-0.109		0.071		0.180		-0.111		0.069		0.180	(0.19)	
Missing employment status	-0.437		0.131		0.568		-0.437		0.117		0.553	(0.88)	
Enrolled in school (dummy=1)	-0.002		-0.243**	` ′	-0.241		-0.000		-0.244**	, ,	-0.244	(0.16)	
Annual earnings (logged)	0.109		0.070+		-0.039		0.109		0.070+		-0.039	(0.08)	
Missing information on earnings	0.048	. ,	0.076		0.028		0.029		0.083		0.054	(0.19)	
Parental income X race-ethnicity	0.0.0	(0.10)	0.070	(0.00)	0.020	(0.10)	0.02)	(0.17)	0.002	(0.00)	0.00	(0.1)	
Parental income X African American	0.039	(0.04)	0.010	(0.02)	-0.029	(0.04)							
Parental income X Hispanics	0.042		0.035+	. ,	-0.027	(0.04)							
Missing parental inc. X African American	-0.135		0.035+		0.352	(0.04) (0.33)							
Missing parental inc. X Hispanics	0.102		0.125		0.023	(0.33)							
Childbearing status X race-ethnicity	0.102	(0.29)	0.123	(0.21)	0.023	(0.30)							
•							0.500	(0.42)	0.010	(0.17)	0.510	(0.45)	
Having kid X African American							0.500		-0.019		-0.519	(0.45)	
Having kid X Hispanic	C 020***	(0.75	5 0 10 mm	(0.20)	1.500	(0.05)	0.612	` ′	0.653***	. ,	0.041	(0.50)	
Constant	-6.930***	(0.76)	-5.349***		1.582+	(0.85)	-7.324***	(0.79)	-5.340***		1.984*	(0.88)	
Number of person-months			1921′						1921				
Log Likelihood			-2.77e-						-2.77e-				
Chi-squared			359.1	59					373.8	07			

 $[\]frac{\text{Cni-squared}}{+ p < .10 * p < .05 ** p < .01} *** p < .001. Standard errors are in parentheses.$

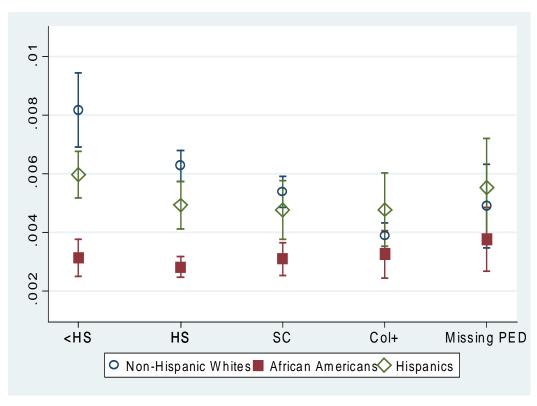


Figure 3. 1 Predicted Probabilities of Entering Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Parental Education and Race-Ethnicity for People in the Late Teens and Early Twenties

Note— < HS: Less than high school, HS: High school, SC: Some college, Col+: College or more. PED: Parental education

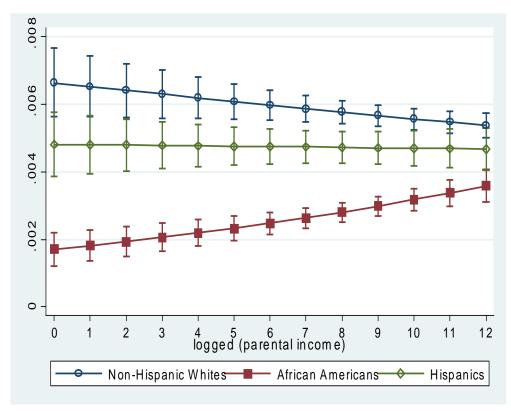


Figure 3. 2 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Parental Income Level and Race-Ethnicity for People in Their Late Teens and Early Twenties

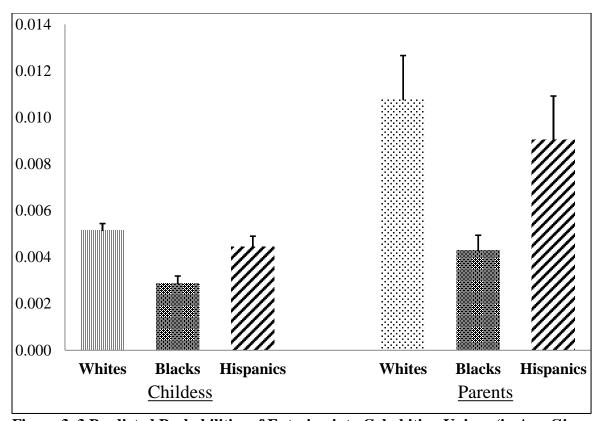


Figure 3. 3 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Premarital Parenthood Status and Race-Ethnicity for People in Their Late Teens and Early Twenties

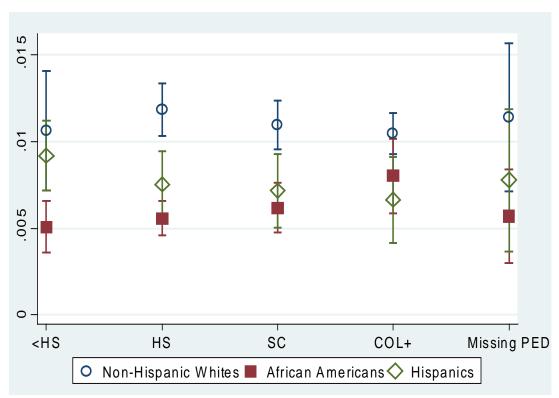


Figure 3. 4 Predicted Probabilities of Entering into Cohabiting Unions (in Any Given Month), as Opposed to Staying Single, with 95% C.I.s by Parental Education and Race-Ethnicity for People in Their Mid-to-Late Twenties

Note—<HS: Less than high school, HS: High school, SC: Some college, COL+: College or more, PED: parental education

CHAPTER 4: COHABITORS' UNION TRANSITIONS ACROSS EDUCATIONAL GROUPS: THE ROLE OF PARENTAL AND OWN WEALTH FOR MEN AND WOMEN IN YOUNG ADULTHOOD

4.1. Introduction

In Chapter 2, I discovered that the educational disparities in the odds of transitioning to marriage among cohabitors have increased over time. The dramatic declines in the odds of transitioning to marriage among people without college degrees are the primary driving forces for the enlarged differences in union transition patterns for cohabitors from more recent cohorts. In this chapter, I focus on the educational divides in cohabitors' union transition behavior and explore the roles that parental wealth, cohabitors' assets, and debts play in influencing couples' transitions to marriage; thereby, I intend to understand how these characteristics shape disparities in the odds of transitioning to marriage across educational groups.

The importance of earnings and stable employment for marriage has been well explored in prior research. Some scholars, however, noticed that current employment characteristics alone provide incomplete data about a person's longer-term economic prospects (e.g., Raley and Sweeney 2009; Schneider 2011; Xie et al. 2003). In contrast, wealth—given its role in defining and foreshadowing a family's living standards, social standing, and economic wellbeing in the long run (McKernan et al. 2013; McKernan et al. 2009)—might be important for marriage and understanding the marital divides across socioeconomic groups (e.g., Raley and Sweeney 2009; Schneider 2011; Xie et al. 2003). Schneider (2011), using data from the NLSY-79 cohorts, was the first scholar to directly examine the association between a person's own wealth and the timing of *first marriage*. Further, Schneider sought to show how this association is related to the socioeconomic

disparities—broadly defined by race and education—in marriage for a sample of men and women aged 21 to 46 years old. Not only did he find that wealth is important for marriage for both men and women, but also the racial and educational differentials in wealth accounted for 20-50% of racial and educational disparities in the probabilities of first marriage. These findings were much bigger quantities than those accounted for by current employment status and earnings.

Using data from the NLSY 1997 cohort, this chapter extends prior studies on the association between economic wellbeing of young adults and their family formation in three important ways. First, a focus on cohabitors' transition to marriage allows me to speak to a long-standing open question of whether cohabitors indeed think of marriage differently than those who marry straightway. Some researchers have suggested that cohabitation tends to be selective of people with less traditional family views and more supportive of egalitarian gender roles, as compared with their married peers (Clarkberg et al. 1995; Thornton et al. 1992). Other researchers argued that the important factors for cohabitors' relationship cohesion (e.g., Brines and Joyner 1999; Wu and Musick 2008; Yabiku and Gager 2009) and for cohabitors' stable family formation through marriage (e.g., Sassler and McNally 2003; Schwartz and Mare 2012; Smock and Manning 1997) could differ from those predicting marital stability and marriage formation among singles. Second, in this chapter, I extend Schneider's research by not only considering young people's own wealth, but also their parental wealth. In the U.S., where, for example, state housing support for new households is very limited or even absent, parental wealth can be an important resource for promoting young people's transitions to adult roles, such as entry into marriage (Furstenberg Jr 2010; Mulder et al. 2006). Third, I pay attention to debt, incurred particularly from purchasing a home and/or financing a vehicle, considering that such debt emerging early in life could be a strategic investment for long-term economic wellbeing and thus conducive to marriage. I expect that coevolution of debts (i.e. mortgage and vehicle loans) and ownership of varied assets helps better capture the financial dynamics that young adults face when attaining the economic standing and long-term economic prospects required by marriage. In the next section, I discuss in detail how parental wealth, people's assets, and debts are associated with cohabitors' transitioning to marriage and how they are related to the educational gaps in terms of the odds of marrying their cohabiting partners.

4.2. BACKGROUND

4.2.1. Parental wealth and Children's Family Formation

A long-standing line of research about parental resources' association with children's marital behavior has consistently supported the notion that more financially affluent parents are able to use their resources to influence children's union formation (toward parents' own preferences) (e.g., Avery et al. 1992; Axinn and Thornton 1992; Waite and Spine 1981; Wiik 2009). Wealthier parents have the resources and ability to, for example, finance a child's wedding or/and assist a child in securing homeownership (Mulder and Smits 1999). Parental wealth may facilitate children's marriage by helping cohabiting children achieve the living standard that marriage requires. Additionally, parents may share wealth with their children through inheritance and other forms of direct economic support in times of need (Wiik 2009). Therefore, regardless of young people's current asset, debt, or employment conditions, parental resources signal to children and/or children's cohabiting partners that a joint future with a decent standard of life is feasible; thereby children with wealthier parents may be more likely to enter marriage with their cohabiting partners. Overall, as parents may utilize their wealth to facilitate marriage for cohabiting children, I expect that:

Hypothesis 1: Parental wealth is positively associated with the odds of transitioning to marriage for cohabiting children.

4.2.2. Young People's Wealth and Marriage

Several qualitative studies on unmarried cohabiting couples (e.g., Edin and Kefalas 2005; Edin et al. 2004; Edin and Reed 2005; Gibson-Davis et al. 2005; Smock et al. 2005) clearly indicate that both *current economic circumstances* and *assessments of likely future economic circumstances* are important for marriage. Using representative data sets, prior studies stress the importance of a job and a steady source of income for cohabiting couples' relationship outcomes (e.g., Lichter et al. 2006; Oppenheimer 2003). Among studies that focus on *earnings* and *employment status* as measures for cohabitors' current economic circumstances, some found that current employment status and earnings are positively associated with the odds of marrying cohabiting partners (e.g., Brown 2000; Carlson et al. 2004; Lichter et al. 2006; Manning and Smock 1995; Sanchez et al. 1998); others suggested that these employment characteristics are of greater importance for cohabiting couples to stay together than to transition to marriage (e.g., Oppenheimer 2003; Smock and Manning 1997).

More importantly, cohabitors indicate that the economic prerequisites of marriage go beyond having enough money to pay day-to-day checks. Ownership of some *wealth* such as having a car, some money in the bank, and even owning a home are necessary prerequisites for marriage (Gibson-Davis et al. 2005; Smock et al. 2005). This is because couples expect marriage to be a long-term committed relationship and they recognize that financial strain can increase their chances of divorce by endangering relationship quality (Edin et al. 2004). Wealth, however, allows them to envision a joint life with long-term financial security.

Overall, the importance of wealth for a family lies in its ability to help maintain a stable standard of living, especially in times of labor-market setbacks or loss of incomes

(McKernan et al. 2009; Raley and Sweeney 2009; Schneider 2011). Wealth also has a role in establishing the social standing of a family (Keister and Moller 2000; McKernan et al. 2009; Orr 2003). Further, wealth allows families to attend to and improve the wellbeing of family members by, for example, moving to better and safer neighborhoods, investing in businesses, saving for retirement, and supporting children's education aspirations. (e.g., Orr 2003). Given the importance of wealth for a family's long-term financial stability, I expect to see that:

Hypothesis 2a: Owning assets (in the form of homeownership, ownership of vehicles, financial assets, and other non-financial assets) is positively associated with the odds of transitioning to marriage for cohabitors.

Additionally, Schneider (2011) theorized that the importance of wealth for marriage, on the one hand, may lie in its symbolic manifestation of the "attainment of a prestigious, comfortable, and stable style of life" that is suitable for marriage (Cherlin 2004, 857). On the other hand, the importance of wealth for marriage may lie in its use value. That is, assets of high use value—for example, a car or a home of high market value or more savings in the bank—increase individuals' abilities to enhance the material aspects of a comfortable life (Schneider 2011), to provide a buffer to families against uncertainty about their economic future (Kalmijn and Luijkx 2005; Oppenheimer et al. 1997; Oppenheimer 1988), and to minimize the harmful effects of economic distress on relationship quality in a situation where assets needed to be liquidated. Schneider (2011) found that vehicles, financial assets, and other non-financial assets are associated with increased odds of marriage for not only their symbolic meaning, but also their use values. Surprisingly, among varied measures for wealth, he found that homeownership is not relevant for marriage in any way. Yet, in view of the twofold function that wealth may serve for a family, I expect that:

Hypothesis 2b: The market values of assets, such as a home or a car, can be as relevant for marriage as ownership status of these assets.

4.2.3 Young People's Indebtedness (Access to Credit) and Marriage

Indebtedness is another important dimension that may impact couples' ability to meet the economic prerequisites of marriage and influence individuals' and their families' long-term economic wellbeing. Plausibly, indebtedness can be an effective barrier to marriage simply because repayment plans could create additional financial burdens for young people. As such, their ability to invest in other resource-demanding life events, such as marriage, may be restrained (e.g., Hiltonsmith 2013). Additionally, indebtedness and the repayment obligations may also make someone a less attractive potential partner and thereby reduces the opportunity for debtors to tie the knot.

Focusing solely on bachelor degree recipients, Bozick and Estacion (2014) found that college loan debts slow the timing of first marriage. Additionally, using the NLSY97's nationally representative data, Addo (2014) found that college loan debts increase the odds of transitioning from singlehood to cohabitation relative to marriage as first union. Interestingly, both Bozick and Estacion (2014) and Addo (2014) found that the effects of college loan debts on young adults' union formation behavior are statistically significant only for women but not for men. Addo (2014) also examined the influence of credit card debt and found that this form of debt significantly increases the odds of cohabitation for both men and women as first union relative to marriage.

As noted in these previous studies, the influence of debt on young adult men's and women's family formation not only depends on the quantity of debt but also on its source. While student loan debt and credit card debt are found to deter young people from entering into marriage, other types of debt may facilitate marriage formation. A type of access to credit

that assists young people in securing assets, homeownership in particular, can be an important approach to establishing and financing a stable family life; thereby this credit access is positively associated with marriage. As a summary of good (those contributing to marriage) and bad (those deterring marriage) debts, the total amount of debts may have little to do with whether cohabitors move to marriage. Therefore, I expect that:

Hypothesis 3a: Indebtedness (i.e. total amount of debt), in general, may slow cohabitors' transition to marriage.

Yet, debts that are incurred in securing assets, homeownership in particular, may help facilitate cohabitors' transition to marriage. Therefore, I expect that:

Hypothesis 3b: Mortgage debt and even car/vehicle loan debt is positively associated with the odds of transitioning to marriage for cohabitors.

Overall, it is likely that it is *desire to marry* that facilitates ownership of assets and emergence of related debt (e.g., mortgage) rather than that wealth or access to credit triggers marriage. Nonetheless, given the importance of wealth for a family's long-term financial stability, I still expect to see that associations between wealth and cohabitors' union transitions hold, as previously hypothesized.

4.2.4. Educational Differences in Wealth and Access to Credit

Inheritance is an important source of wealth as it accounts for at least 50 percent and perhaps more than 80 percent of the net worth of American families (Gale et al. 1996; Kotlikoff and Summers 1981) and greatly facilitates homeownership, a core asset for many Americans (Miller Jr and McNamee 1998). Nonetheless, many other factors also influence individuals' wealth accumulation, such as educational attainment and income (Keister 2005). Education, especially college education, influences asset accumulation independently of income, age, race, family structure, and other influences on intergenerational mobility (Bucks

et al. 2009; Bucks et al. 2006; Keister 2000) by increasing financial knowledge, promoting earlier investments, and providing access to better and more varied financial advice (Chang 2005; Keister 2000). Therefore, because wealth may be an important facilitator of movement from cohabitation into marriage and education is positively associated with asset accumulation, I expect that understanding the distribution of assets across educational groups will help us understand the disparities in marriage between college- and non-college educated persons.

Notably, however, despite college graduates' higher earnings and ability to accumulate assets at a higher rate, they are likely to carry more debt than their less-educated peers especially in the first few years of young adulthood. This is in part because, given their greater earnings potential and ability to hold stable employment, it is easier for the college educated than the non-college educated to access loans and receive financial services that facilitate ownership of a home, a vehicle, and other types of assets at a young age (Ando and Modigliani 1963; Chen and Finke 1996; Mountain and Hanna 2012). Since assets are expected to be positively linked with transitioning to marriage from cohabitation, indebtedness that is incurred for securing assets—homeownership in particular—is expected to be positively associated with the probability of transitioning to marriage for cohabitors. The inclusion of parental and young person's wealth in the analysis will help explain the differential pattern of union transition among educational groups. So, overall I expect that:

Hypothesis 4: Taking into account wealth and indebtedness helps attenuate educational differences in the odds of transitioning to marriage for cohabitors.

4.3. DATA AND METHODS

Data for this chapter's analysis comes from the first fifteen waves of the National Longitudinal Survey of Youth 1997 cohort (NLSY97)—the same data source I employed for

analysis of Chapter 3. NLSY 97 is one of few data sets providing detailed information on relationship histories (marriage and cohabitation), educational trajectories, employment history, as well as information on assets and debt accumulation for a cohort of young adults who experienced their early adulthood in more recent years. The NLSY 97 enables me to examine not only how those frequently-investigated economic factors (such as education and employment outcomes) but also how parental resources, one's own assets, and debt shape the union outcomes of each cohabiting relationship (whether a cohabiting relationship ends with a marriage or separation, as opposed to remaining cohabiting).

I focus on all premarital cohabitating relationships initiated at or after age 16. Teens under this age restriction are considered too young to form either a conjugal or cohabiting union and factors associated with their union formation could be substantively different than those for their older peers (Kemp and Kemp 2002; King and Scott 2005; Moustgaard and Martikainen 2009). The current analytic sample consists of 4,986 (2,586 female and 2,400 male) respondents who formed co-residential unions with unmarried partners before first marriages as of the last NLSY interview. Of the respondents under study, 60% formed only one cohabiting relationship and 15% formed more than two cohabiting relationships before first marriage. A total of 7,954 premarital cohabiting relationships (4,289 from female and 3,665 for male cohabitors) are under study. Among these premarital cohabiting relationships, 2,062 ended up in marriage (1,122 for female and 940 for male cohabitors).

4.3.1. Measures

The primary dependent variable for the current analysis is the relationship outcome of each premarital cohabiting relationship that respondents initiated up to their last NLSY interviews. The relationship outcome is classified with three mutually exclusive categories: marriage, separation, still cohabiting at the last interview. NLSY respondents reported data on

each "marriage-like" (i.e. cohabiting) relationship they had ever formed with their opposite-sex partners, and explained when the relationships started and when and how relationships ended. Based on this information, I am able to know when a cohabiting union was initiated (and the age at which it was initiated) and whether it ended in a marriage or a break-up (and the age at which the relationship was terminated). Educational differences in cohabitors' union outcomes are the focus of this chapter. Educational attainment is measured at the start of each cohabiting relationship with four levels—less than high school, high school, some college, and college-educated or more (i.e. a Bachelor's degree or more).

In this chapter, I use another set of independent variables, *parental wealth* and *youth's own wealth, debts* and *employment outcomes* (i.e. employment status and earnings), to understand their relation to the educational divides in cohabitors' union transition behavior, with respect to the odds of transitioning to marriage from cohabitation. Information on parental wealth was collected in 1997, when the first NLSY interviews were conducted. Parents were asked to report the total amount of net worth of their households. NLSY topcoded net worth values above \$600,000 to the value of 600,000. Questions for NLSY respondents about holding assets and debts were administered when respondents were ages 20, 25, and 30. Before reaching age 20 (in early survey round), "independent" respondents—respondents who had a child, were enrolled in a four-year college, were no longer enrolled in school, were not living with any parents or parent-figures, or had ever been married or were in a marriage-like (i.e. cohabiting) relationship—also answered questions on assets and debts. I focus on assets indicated by:

1) Cohabitors' homeownership status, a dummy variable with 1 indicating respondent owns the house/apartment s/he currently lives in, as well as the market value of the dwelling (if it were to be sold). If the residence is owned

- solely by the respondents or jointly by both respondents and their cohabiting partners, then I consider it as having homeownership.
- 2) Ownership status of vehicles as well as their market value. Also, if respondents own vehicles or jointly own vehicles with cohabiting partners, they are considered vehicle owners.
- 3) Total amount of financial assets, including stocks, bonds, bank deposits, etc.
- 4) Total amount of other non-financial assets, from which market values of owned residence and vehicles are excluded.
- 5) Value of net worth, which was also topcoded to \$600,000.

To measure indebtedness, I first consider the total amount of debts and then separate out two specific sources of debts—home mortgage debts and vehicle loan debts—from all the debts owed to examine how the influence debts have on union transitions vary based on the purpose of the debt (i.e. car or home purchase).

As mentioned earlier, questions about young people's assets and debts were administered primarily at specific respondent ages: 20, 25, and 30. To ensure that relationship outcome of cohabitation occurs after measuring asset and indebtedness, I use the measures of wealth (or debt) during (or, if none are available, prior to) the cohabiting union. Specifically, wealth at age 20 is employed for any cohabiting union formed by a respondent that was censored or terminated by either marriage or breakup at age 25 or younger (but older than age 20). Wealth at age 25 is employed for any cohabiting union formed by a respondent that was censored or terminated by either marriage or breakup at age 30 or younger (but older than age 25).

The market values of the dwelling and vehicles are centered at their means. The market values are set to zero (i.e. the means) for those who do not own the residence (a house

or an apartment) or those who do not own a vehicle. With the inclusion of both ownership status (dichotomous) variable and mean-centered market value variables, we are able to integrate Schneider's thesis to see whether homeownership (or vehicle ownership) matters for marriage based simply on its symbolic meaning—indicating the attainment of economic readiness for marriage—or also on its use value (or both). The dichotomous ownership variable indicates the effect of owning a home (or a vehicle) on a cohabitor's union transition outcome. The mean-centered variables indicate whether market values of residences (or vehicles) can further distinguish union outcomes among cohabitors who own a home (or a vehicle).

Respondents' employment characteristics are another important set of independent variables in that their inclusion in the model renders results of the current analysis comparable to prior studies. In NLSY 97, information on the number of average work hours per week were collected on a weekly basis since the first week of January 1994. We aggregate weekly information into monthly data. Employment status at the start of cohabitation and at the month of each anniversary is constructed based on monthly work-hour information with three mutually exclusive statuses: no employment, full-time employment (i.e. working for at least 35 hours a week), and part-time employment (i.e. working for less than 35 hours a week). Annual earnings in a given year are used to predict the union transition outcome in the following year. I added a tiny amount (i.e. one dollar) to all variables measured with US currency before taking a logarithm of them to address the issues about zero values in logarithm transformation. For variables with possible negative values, such as parental net worth and young people's net worth, we assign a minus sign after taking log of the absolute values for negative net worth.

All of the models also include other time-invariant or time-varying independent variables as important controls because these variables are not only associated with wealth and/or indebtedness of respondents, but also influence relationship outcomes; thereby they may confound the association between wealth and cohabitors' union transition outcomes. These control variables include cohabitors' race-ethnicity. This variable is constructed as a four-category variable-non-Hispanic white, African Americans, Hispanics, and other raceethnic groups, including American Indian, Eskimo, Aleut, Asian or Pacific Islander, or other. Additionally, models are also controlled for cohabitors' childhood family structure when respondents were at age 12 (two-biological parent, single mother, step-parent, and other), and parental education (less-than high school-educated, high school, some-college, and college or more). Models also include age at the start of each cohabitating union with quadratic term, and cumulative time (in years) respondents spent in each cohabiting spell as control variables. Additionally, violation of independence failure times assumption required in eventhistory/survival analysis may be induced as the relationship outcome of a union formed later may depend on recurrent event history. To avoid the potential biases from violation of such assumption, I also control for sequential order of each premarital cohabitation. Other timevarying control variables are region of residence, low-income support receipt status (i.e. AFDC/TANF), unemployment benefit receipt status, and childbearing status (measured by first births).

For continuous independent variables with missing data, I employ the mean imputation method and create dummy variables for those cases whose values are set to the means. I create separate categories for missingness for categorical independent variables with missing data.

4.3.2. Analytic Strategy

I convert the data into a person-year data set, 1 using cohabitors' characteristics at the start of cohabitation or at the beginning of each anniversary, to predict the relative risk of marrying the current cohabiting partner (or dissolving) by the next anniversary, as compared with staying in a cohabiting relationship. In the person-year data set, observations are censored when a cohabiting relationship ends, due to transitioning to marriage or separation, or at the last interview when they were still cohabiting with the current partner. Due to the right-censoring nature of the data (i.e. some cohabiting couples are still cohabiting at last observation), I apply discrete-time event history analysis method to a series of multinomial logistic regression models to estimate, on top of employment status and earnings, how varied sources of wealth and debts are associated with relationship outcomes of cohabiting unions. In these discrete-time event history models, time is measured by dummy variables for each additional year respondents spent in a given premarital, cohabiting relationship.

Predictions of the odds of transitioning to marriage are based on multinomial logistic regression models because there are substantive reasons to expect that effects of covariates differ depending on whether the alternative choice is separation or marriage. Within this competing-risk framework we estimate the odds of (1) marrying versus staying together and (2) separating versus staying together. Exposure to the risk of marriage or separation begins at the time of the cohabitation and continues until marriage, separation, or the last NLSY interview. The focus is placed on the transition to marriage in particular. The models are estimated step-wise: the first model, controlling for basic demographic and family backgrounds, shows the educational differences in the odds of transitioning to marriage or

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¹ Early analysis was conducted using person-month data. Findings are largely consistent with those from person-year data but only that the estimates of average marginal probabilities of covariates are roughly 12 times larger in person-year data than person-month data.

break-up, as opposed to remaining in the cohabiting unions. Later, each of the variables—employment characteristics, parental net worth, own net worth, information on debts—were added one-by-one to the previous model. The last model takes into account all parental, own wealth, and debts, to see how the sizes of educational differences change.

Furthermore, as indicated in many previous studies (e.g., Kuo and Raley 2014; McClendon et al. 2014; Waller and McLanahan 2005), men and women appear to experience family formation at a different pace and factors that shape men's family behavior can differ from those for women. Present analysis is therefore conducted separately for female and male cohabitors. To compare the effects of variables across models, we will present estimates of the average marginal effects (AME) of men and women's characteristics on union transitions (see Mood 2010).

4.4. RESULTS

First, Table 4.1 shows that, for both female and male cohabitors, college-educated cohabitors (41% of premarital cohabiting relationships) are more likely to transition to marriage from cohabitation, as compared with their less-educated peers (less than 20-30% of premarital cohabiting relationships). Tables 4.2 and 4.3 display sociodemographic compositions of the analytic person-year data by education for female and male cohabitors, respectively. For both male and female cohabitors, the non-college educated cohabitors spend less time working full-time and have significantly lower earnings than do the college-educated cohabiting persons. The less-educated female and male cohabitors also have less parental net worth, lower rates of homeownership, lower rates of vehicle ownership, and less financial and other non-financial assets as compared with their college-educated peers. If the less-educated owned a home or a vehicle, the market value of the residence or the vehicle is also, on average, lower than that of the home or vehicle owned by their college-educated peers.

Counterintuitively, with regard to net worth and debts, college-educated cohabitors are not more advantaged. College-educated cohabitors, on average, have significantly less net worth than do their less-educated peers. This may be partly because, as shown in Tables 4.2 and 4.3, the college-educated have a larger amount of debt, perhaps coming from mortgage and vehicle loans.

4.4.1 Educational Disparities in Transitioning to Marriage

Tables 4.4 and 4.5 present the average marginal effects (AME) of all covariates for female and male cohabitors, respectively. Model 1 in both tables presents the educational differences in the average probability of transitioning to marriage (or dissolving) in any given year, relative to still cohabiting with the same partners, controlling only for basic demographic characteristics. There are sizable and significant differences in the probabilities of transitioning to marriage between educational groups for both female and male cohabitors. The probability of transitioning to marriage for college-educated female cohabitors, on average, is 11 percentage points higher than that of their high school-educated counterparts; for men, the difference is about 8 percentage points. Some college-educated women also have a higher probability of marrying their cohabiting partners, as compared with the high-school educated, by 3 percentage points; no significant difference between some college-educated cohabiting men and their high school-educated counterparts appears, however. For both female and male cohabitors, the least-educated—people without high-school diplomas—have the lowest probability of transitioning to marriage from cohabitation in any given year among all educational groups. For men and women, cohabiting unions are more likely to separate than stay together for the non-college educated, as compared with their college-educated counterparts.

4.4.2 Cohabitors' employment characteristics and Transitions to Marriage

In Model 2 (of Tables 4.4 and 4.5) I add employment status and earnings, the two most frequently used measures in prior studies for young people's economic conditions in predicting marriage. I found that earnings are significantly associated with a higher probability of moving to marriage for female cohabitors. Their participation in full-time paid work is only related to a lower probability of breaking-up. For male cohabitors, however, employment characteristics are not associated with the probability of marrying their cohabiting partners, but their full-time employment is associated with their ability to prevent the break-up of their current union. The addition of employment characteristics to Model 1 reduces the educational differences in the probability of transitioning to marriage between the college-educated and the high-school educated by 14% for female and 18% for male cohabitors; the educational differences in the probability of transitioning to marriage between the some-college educated and high-school educated are reduced by almost 12% for female cohabitors. Notably, after including the employment characteristics in the model, the original gap in the probability of transitioning to marriage between the less-than high-school educated and the high-school educated (Model 1) has been rendered non-significant for female cohabitors; the difference between these two educational groups is, however, still significant for male cohabitors but is reduced by almost 18% due to the inclusion of employment characteristics in the model.

4.4.3 Parental Wealth and Union Transitions of Cohabitors

In Model 3, I further include parental net worth. Parental net worth is positively associated with the probability of transitioning to marriage in any given year for cohabiting daughters (Table 4.4) but not for sons (Table 4.5), and it has little to do with whether children's cohabiting relationships continued or broke up for neither daughters or sons. With

the addition of parental net worth in the model, the associations between employment characteristics and union transition behavior of cohabitors remain consistent. The inclusion of parental wealth reduces the educational differences in the probability of transitioning from cohabitation to marriage—left unexplained by employment characteristics—among female cohabitors by about 3-4% for some-college educated and college-educated females, as compared with their high-school educated counterparts, respectively.

4.4.4 Cohabitors' Own Wealth and Debts and Their Relationship Outcomes

In Models 4 and 8 (of Tables 4.4 and 4.5), I examine the associations of union outcomes with young people's varied forms of assets, controlling for young people's employment characteristics and parental net worth among others. Model 4 in Tables 4.4 and 4.5 shows that for both female and male cohabitors, homeownership is associated with a higher probability of transitioning to marriage and a lower probability of breaking up with a partner. Yet, the market value of owned residence has nothing to do with cohabitation outcomes for either female or male cohabitors. Model 5 in Table 4.4 shows that, for female cohabitors, owning a vehicle has little to do with transitioning to marriage but is associated with a lower chance of breaking up with partners. However, the market value of vehicles is associated with a higher probability of transitioning to marriage for vehicle owners. Model 6 in Table 4.5 shows that, for male cohabitors, owning a vehicle is associated with a higher probability of transitioning to marriage and a lower probability of breaking up. The market value of owned vehicles is only associated with a lower odds of relationship dissolution. Models 6 and 7 in Tables 4.3 and 4.4 show that, for both female and male cohabitors, financial and non-financial values are associated with a higher probability of transitioning to marriage and a lower probability of breaking up with cohabiting partners. As expected, these results suggest that assets of varied forms are associated with the odds of transitioning to marriage for cohabitors. Yet, the importance of homeownership for marriage seems to lie solely in its symbolic meaning. After all, for many people, home purchase is one of the largest life-time investments and such an investment is rare in the twenties. Regardless of the market values, possession of a home is, therefore, sufficient enough for marriage.

However, Model 8 shows that net worth—an individual's net economic position with total amount of debts being deducted from the assets—is not associated with transitioning to marriage (or maintaining current relationship status) for either female (Table 4.4) or male (Table 4.5) cohabitors. As expected, Model 9 in both Tables 4.4 and 4.5 shows that debts do not necessarily create barriers for cohabitors regarding entering into marriage with their cohabiting partners. Model 10 in both Tables 4.4 and 4.5 further shows that access to credit, which comes from purchasing a home (i.e. mortgage) or purchasing a vehicle (i.e. car loan), is associated with a higher probability of transitioning to marriage for both female and male cohabitors. This might be because mortgage or car loans are the sort of debts that people are most likely to have at a young age as important means to securing and building up lifetime wealth, even if these debts may reduce their current consumption or wealth profile. As such, this probably explains why, in Model 8, young people's net worth does not play a significant role in shaping their relationship outcomes.

4.4.5 Educational Differences in Cohabitation Unions and Cohabitors' Assets and Access to Credits

In the final model (Model 11 in Tables 4.4 and 4.5), I include varied forms of assets and the total amount of debts cohabitors owed to examine net of debt, how assets are associated with the probability of transitioning to marriage from cohabitation, and how much of the educational gap in cohabitors' probabilities of transitioning to marriage (which is left unexplained by employment characteristics and parental wealth) could be attributed to the

differences in asset and debt between educational groups. In this final model, I did not include mortgage debt and car loan debt because they are linearly associated with home and vehicle ownership status and consequently present a problem for model estimation. Additionally, I also exclude market values of owned home and vehicles from the total value of non-financial asset because they are included in the model as separate components that comprise non-financial asset.

In Model 11, the inclusion of young people's varied forms of assets as well as debt helps to account for another 16% of the gap (left unexplained by employment characteristics and parental wealth) between college-educated and high-school educated female cohabitors in the probability of transitioning to marriage. More important, including these asset and debt variables renders the gap nonsignificant between the some-college educated and high-school educated female cohabitors in the probability of transitioning to marriage. For male cohabitors, the educational gaps in the probability of transitioning to marriage from cohabitation are still significant in Model 6. The gaps in the probabilities of transitioning to marriage between the college-educated (and the least-educated) and the high-school educated (again, left unexplained by employment characteristics) are further reduced by another 13-18% after taking into account young people's parental wealth and own assets and debts.

4.5 DISCUSSION

This study examines how young cohabiting men's and women's economic conditions are associated with couples' transitioning to marriage and thereby shape the educational differences in the probability of such a relationship transition. To extend prior studies, this chapter's analysis further includes parental wealth, cohabitors' asset and access to credit (in particular, mortgage and vehicle loans) rather than simply focuses on young people's employment characteristics or young people's own wealth. In line with Hypothesis 1, results

from this current analysis show that parental wealth is positively associated with the probability of transitioning to marriage, but only for cohabiting women. For cohabiting men, parental wealth has nothing to do with union outcome.

With respect to a person's assets, in line with Hypothesis 2a and some of Schneider's (2011) findings, my results show that home ownership is positively associated with the probability of transitioning to marriage for both female and male cohabitors but vehicle ownership does not matter. Yet, the market values of their homes (or their owned vehicles) do not further differentiate the probability that a cohabiting union would transition to marriage among those who have ownership of their residence. That is, none of the results support Hypothesis 2b, which argues that wealth may matter for union transition behavior because of use value. Nonetheless, I found that the amounts of financial assets are associated with an increased probability of marrying cohabiting partners, but only for male cohabitors. After excluding market values of owned residence and vehicles, however, values of other nonfinancial assets are not related to whether or not cohabiting couples would transition to marriage. Overall, similar to first marriages, results from current analysis show that wealth is also important for cohabitors' transition to marriage; yet, not all forms of assets matter. My analysis shows that homeownership is the most relevant type of asset for both male and female cohabitors' marriage. Furthermore, parental wealth facilitates marriage but only for female cohabitors; financial assets facilitate marriage only for male cohabitors.

Notably, my results regarding the association between net worth of young cohabitors and their union transition are different from Schneider's suggestion (2011). While Schneider found that net worth is positively associated with the odds of transitioning to first marriage, I found that young people's net worth—a person's net economic position with total amount of debts being deducted from the total holding of assets—is not associated with union outcomes

for either male or female cohabitors. This seemingly surprising result is likely because, as expected in Hypothesis 3b, access to credit for purchasing a home or a car (i.e. mortgage and car loans, respectively) could serve as important means to securing a certain living standard required by marriage for people in early adulthood. Credit consequently is conducive to marriage. As debts can be composed of these "good debts" that facilitate marriage, along with other "bad debts" that hinder marriage, and effects from these different sources of debts could cancel each other out, the influences of net worth—and, as expected in Hypothesis 3a, the sheer total amount of debts—therefore appear to be nonsignificant. Overall, for cohabitors, having access to credit for home (or vehicle) purchase is important for transition to marriage.

Further, in line with Hypothesis 4, my results support the notion that the advantages that more-educated persons have in obtaining assets may play a substantial role in contributing to their higher probabilities of marrying their cohabiting partners, as compared with their less-educated counterparts. I found that, on average, taking into account parental wealth and one's own assets and access to credit, the gap between the college-educated and the high-school educated in the probability of transitioning to marriage among female cohabitors is reduced by 17%. The inclusion of these asset and debt variables renders the gap between some-college educated and high-school educated cohabitors non-significant. For male cohabitors, the sizes of reduction in the educational gaps are about 13-17%. Moreover, results from the current chapter also show that the educational differences in employment characteristics, at least for the analytic samples of recent cohorts, also play a substantial role in explaining 12-19% educational differences in marriage for both male and female cohabitors; more of the educational differences are explained for male than for female cohabitors by considering employment characteristics. While Schneider (2011) found that wealth plays a bigger role than employment characteristics in explaining educational

disparities with respect to the odds of first marriage, results from my analysis suggest that employment characteristics play as substantial a role as that of one's own assets (and parental wealth combined) in explaining educational disparities.

The amount of educational differences in cohabitation outcomes which young people's assets and access to credit account for seems small to readers. Two reasons allow us to expect that the amount of educational differences in cohabitors' union transition behavior, explained by these employment and wealth conditions, will increase as people from this studied cohort grow older. First, in the late teens or early twenties, careers and wealth accumulation for some people have just started and, for many, are yet to begin. Therefore, gaps in wealth (Land and Russell 1996) and employment characteristics (Oppenheimer 2003) between educational groups have not taken the full measure. As the analytic sample of young people grows into their mid- or late-thirties, however, we may expect that the increasing gap in wealth and earnings between educational groups will be larger and more of the gaps in marital behavior will be attributed to educational differences in resource levels.

Second, stratifying economic opportunities have led to a growing importance of education in the contemporary American economy. In his recently published book, titled *Labor's Love Lost*, Andrew Cherlin (2014) argued that, under the economic transformation that took place in the 1970s, the disappearance of manufacturing jobs from the structure of the American economy undermined historically important means for those without college degrees to maintain stable employment and earn decent wages to raise a family (also see Kalleberg 2011; Sweet and Meiksins 2008). Therefore, as the opportunity structure in the labor market has become primarily divided among educational groups, we may expect that family behaviors of young people from the recent cohorts will become even more divergent

among educational disparities and their employment conditions and wealth accumulated over their life courses may become more responsible for disparities in family behavior.

Additionally, my findings about the importance of female cohabitors' labor-market outcomes for marriage are in line with the income-effect hypothesis (e.g., Oppenheimer 1997) that emphasizes the role of women's employment and earnings in increasing a couple's income, economic stability, and ability to set up an independent household, thus facilitating their transition to marriage. As for male cohabitors, I found that their labor-market outcomes are not associated with marriage transition but are important for preventing the dissolution of their cohabiting relationships. This pattern of sex difference is likely attributable to the young ages of our samples. The normatively expected ages for marriage tend to be older for men than for women and the social expectations for men's economic conditions for marriage are also higher. These factors may also explain why parents are likely to respond to daughters' cohabiting unions differently by employing their wealth to facilitate cohabiting daughters' and not necessarily sons' marriages.

As with many other empirical studies, this study inevitably encounters several limitations that urge caution when interpreting results. First, since data on wealth are only collected at three time points over the young adulthood, I can only measure cohabitors' assets and debts at certain specified ages (i.e. age 20, 25, and 30). I may not have precise information on wealth that is close to the timing when the studied event occurred (i.e. marriage or separation). Nonetheless, since wealth often grows with age, any association that I observe could be an effect of smaller magnitude. In other words, any positive effect I found with wealth, which is measured remotely from the time at marriage (or break-up), is likely to be an under-estimated rather than an exaggerated result. Second, it is reasonable to argue that home ownership or ownership of other types of assets anticipates or prepares for marriage rather

than "causes" the marriage. Even if this is true, the importance of wealth and the ability to secure it for marriage, as revealed in the current analysis, is still incontestable. Overall, by focusing on young people who started their unions with cohabitation, this study broadens our knowledge about how what people (and their parents) own, not just what they earn, shapes entrance into marriage and how institutional barriers structured on education underlie the patterns of the marital divide in contemporary US society.

Table 4. 1 Premarital Cohabitations and Their Relationship Outcomes of Female and Male Samples, Separately

		Education	nal attainment	at the start of co	habitation
	All	< High school	High school	Some college	College +
Female Sample					
Number of female cohabitors in the analytic sample	2,586				
count of cohabiting relationships initiated	4,289	1,045	1,171	1,560	513
count of cohabiting relationships end in marriage	1,122	202	273	437	210
count of cohabiting relationships end in separation	2,498	740	728	871	159
count of cohabiting relationships continue by last interviews	669	103	170	252	144
Male Sample					
Number of female cohabitors in the analytic sample	2,400				
count of cohabiting relationships initiated	3,665	931	1,351	1,072	311
count of cohabiting relationships end in marriage	940	148	329	335	128
count of cohabiting relationships end in separation	2,011	643	772	518	78
count of cohabiting relationships continue by last interviews	714	140	250	219	105

Table 4. 2 Descriptive Statistics on Selected Independent Variables for Female Cohabitors (Weighted Results)

		Weight	ed result	s (mean	s or perc	centage)) from pe	erson-ye	ear data	<u> </u>
	A	All	< High	school	High scl	hool	Some c	ollege	Colle	ge +
Own educational attainment										
Less than high school	23.86									
High school	31.74									
Some college	30.34									
College or more	14.06									
Mean age at the start of cohabitation	21.83	(3.15)		(3.00)	21.28	(2.80)	22.69	(2.67)	24.79	(1.90)
Enrolled in school at the start of cohabitation (dummy)	10.92		13.19		1.95		20.50		6.60	
Race-Ethnicity										
Non-Hispanic Whites	68.38		61.36		68.05		69.34		78.92	
African Americans	13.36		14.33		14.71		14.65		5.89	
Hispanics	13.19		19.41		12.90		11.57		6.81	
Other racial-ethnic groups	5.07		4.90		4.34		4.43		8.38	
Employment Status										
Full-time	51.26		30.77		50.56		57.44		74.24	
Part-time	22.40		20.11		24.24		24.85		16.84	
No employment	25.92		48.84		24.87		17.20		8.20	
Missing	0.43									
Annual earnings (logged) ¹	9.47	(1.29)	8.54*	(1.49)	9.25*	(1.30)	9.67*	(1.03)	10.23	(0.91)
Parental net worth in 1997(logged \$) ²	9.14	(3.51)		(3.77)		(3.42)				(3.16)
Net worth (logged \$) ³	6.08	(6.47)	6.66*	(5.32)	6.98*	(5.36)		(6.59)	3.37	(9.10)
Home ownership status (dummy)	5.62		1.52*		5.36*		6.10*		12.16	
Missing	11.78									
Market value of the residence										
(among those who own) (logged \$)		(0.73)		(0.81)	11.60*	(0.69)		(0.68)		(0.64)
Vehicle ownership status (dummy)	50.15		26.34*		52.08*		62.44		59.71	
Missing	2.07									
Market value of vehicle(s)										
(among thos who own) (logged \$)	8.61	(1.29)		(1.29)		(1.30)		(1.20)	9.04	(1.38)
Financial assets (logged \$) 4	3.90	(3.76)		(2.71)		(3.48)		(3.54)	l	(3.54)
Non-Financial assets (logged \$) ⁵	8.32	(1.65)	8.06*	(1.85)	8.33*	(1.73)	8.32*	(1.56)	8.58	(1.36)
Total debts (logged \$) ⁶	5.38	(4.35)	3.22*	(4.11)	4.87*	(4.20)	6.16*	(4.04)	7.09	(4.37)
Mortgage owed (logged \$) ⁷	0.49	(2.31)	0.17*	(1.37)	0.39*	(2.06)	0.63*	(2.60)	0.94	(3.21)
Vehicle loans owed (logged \$) ⁸	2.13	(3.78)		(2.36)		(3.80)		(4.13)		(4.19)
count of person-years	8026		2087		2609		2409		921	

Note—Numbers in parentheses are standard deviations for continuous variables. * indicates statistically significant difference from the college-educated at alpha level .05, one-tailed test. T-tests are only conducted for asset-or debt-related variables.

- 1. Forty-one percent of the data have no information on young people's own annual earnings.
- 2. Fifteen percent of the data have no parental wealth information.
- 3. Seventeen percent of the data have no information on young people's own net worth.
- 4. Twenty-four percent of the data have no information on young people's financial assets.

Table 4.2 (continued)

- 5. Twenty four percent of the data have no information on young people's non-financial assets, excluded values of primary residence and all the vehicles.
- 6. Nineteen percent of the data have no information on young people's total amount of all debts.
- 7. Four percent of the data have no information on young people's amount of mortgage.
- 8. Three percent of the data have no information on young people's amount of car loans.

Table 4. 3 Descriptive Statistics on Selected Independent Variables for Male Cohabitors (Weighted Results)

			Weighte	d results (1	neans or pe		from perso	n-year dat			
		All	< High s	chool	High sch	ool	Some co	llege	College	+	
Own educational attainment											
Less than high school	23.66										
High school	41.21										
Some college	25.96										
College or more	9.17										
Mean age at the start of cohabitation	22.58	(3.02)	20.70	(2.97)	22.43	(2.82)	23.61	(2.52)	25.21	(2.01)	
Enrolled in school at the start of											
cohabitation (dummy)	5.64		6.78		1.28		11.92		4.52		
Race-Ethnicity			40.55						04.00		
Non-Hispanic Whites	64.01		49.55		67.17		66.11		81.20		
African Americans	18.01		24.09		18.07		15.76		8.45		
Hispanics	14.68 3.30		23.59		12.75		13.23		4.47 5.88		
Other racial-ethnic groups Employment Status	3.30		2.77		2.01		4.90		5.88		
Full-time	66.56		54.72		68.32		68.73		83.12		
Part-time	14.24		13.71		12.85		18.62		9.52		
No employment	18.62		31.25		18.34		12.05		5.87		
Missing	0.57		31.23		10.51		12.03		3.07		
Annual earnings (logged) ¹	9.81	(1.25)	9.24*	(1.46)	9.74*	(1.24)	10.00*	(1.04)	10.51	(0.89)	
Parental net worth in 1997(logged \$) ²	9.03	(3.57)	8.51*	(3.59)	8.77*	(3.71)	9.66+	(3.11)	9.75	(3.69)	
Net worth (logged \$) ³	7.22	(5.42)	7.35*	(4.65)	7.78*	(4.50)	7.00*	(5.92)	4.97	(8.33)	
Home ownership status (dummy)	6.78	()	3.78	(,	7.12	(,	7.43	(/	11.13	()	
Missing	8.50										
Market value of the residence											
(among those who own) (logged \$)	11.61	(0.99)	11.36*	(1.63)	11.36*	(0.78)	11.80*	(0.90)	12.25	(0.52)	
Vehicle ownership status (dummy)	59.25		43.58*		60.30*		67.81*		70.77		
Missing	2.05										
Market value of vehicle(s)											
(among thos who own) (logged \$)	8.64	(1.31)	8.29*	(1.24)	8.57*	(1.45)	8.82*	(1.17)	9.02	(1.01)	
Financial assets (logged \$) 4	4.13	(4.00)	1.93*	(3.26)	4.01*	(3.91)	4.84*	(3.91)	7.33	(3.31)	
Non-Financial assets (logged \$) ⁵	8.33	(1.71)	8.14*	(1.80)	8.31*	(1.64)	8.38*	(1.85)	8.58	(1.31)	
Total debts (logged \$) 6	4.73	(4.34)	3.26*	(4.01)	4.54*	(4.21)	5.51*	(4.32)	6.21	(4.57)	
Mortgage owed (logged \$) ⁷	0.57	(2.50)	0.28*	(1.78)	0.56*	(2.43)	0.71*	(2.79)	0.94	(3.25)	
Vehicle loans owed (logged \$) ⁸	2.31	(3.88)	1.21*	(2.95)	2.44*	(3.94)	2.87*	(4.18)	2.86	(4.25)	
count of person-years	7603		2117		3054		1872		560		

Note—Numbers in parentheses are standard deviations for continuous variables. * indicates statistically significant difference from the college-educated or whites at alpha level .05, one-tailed test. T-tests are only conducted for asset-or debt-related variables.

- 1. Thirty-three percent of the data have no information on young people's own annual earnings.
- 2. Thirteen percent of the data have no parental wealth information.
- 3. Fifteen percent of the data have no information on young people's own net worth.
- 4. Seventeen percent of the data have no information on young people's financial assets

Table 4.3 (continued)

- 5. Sixteen percent of the data have no information on young people's non-financial assets, excluded values of primary residence and all the vehicles.
- 6. Twelve percent of the data have no information on young people's total amount of all debts.
- 7. Three percent of the data have no information on young people's amount of mortgage.
- 8. Three percent of the data have no information on young people's amount of car loans.

Table 4. 4 Average Marginal Effects from Multinomial Logistic Regression Models Estimating Union Transition Outcomes for Female Cohabitors (Weighted Results)

		Mo	del 1			Mod	del 2			Mod	lel 3			Mod	del 4	
		Baselin	e model			Emplo	yment			Parenta	l wealth		J	Homeov	wnership	
	Marr. vs	Stay	Break up	vs Stay	Marr. vs	Stay	Break up	vs Stay	Marr. vs	Stay	Break up	vs Stay	Marr. vs	Stay	Break up	vs Stay
	Coh		Coh	1.	Coh		Col	n.	Coh		Col	1.	Coh		Col	h.
Race-ethnicity (Ref.= non-Hispanic)W	hites)															
African Americans	-0.078***	(0.01)	0.100***	(0.01)	-0.076***	(0.01)	0.098***	(0.01)	-0.074***	(0.01)	0.102***	(0.01)	-0.073***	(0.01)	0.100***	(0.01)
Hispanics	-0.046***	(0.01)	0.017	(0.01)	-0.047***	(0.01)	0.017	(0.01)	-0.046***	(0.01)	0.018	(0.01)	-0.045***	(0.01)	0.018	(0.01)
Other racial-ethnic group	-0.048**	(0.02)	0.014	(0.02)	-0.051**	(0.02)	0.013	(0.02)	-0.051**	(0.02)	0.016	(0.02)	-0.052**	(0.02)	0.016	(0.02)
Educational attainment (Ref.=High sc.	hool)															
Less than high school	-0.021*	(0.01)	0.006	(0.02)	-0.017	(0.01)	0.001	(0.02)	-0.018	(0.01)	-0.001	(0.01)	-0.015	(0.01)	-0.001	(0.02)
Some college	0.026*	(0.01)	0.004	(0.01)	0.023*	(0.01)	0.006	(0.01)	0.022*	(0.01)	0.007	(0.01)	0.025*	(0.01)	0.005	(0.01)
College or more	0.106***	(0.02)	-0.071***	(0.02)	0.091***	(0.02)	-0.064**	(0.02)	0.088***	(0.02)	-0.064**	(0.02)	0.084***	(0.02)	-0.064**	(0.02)
Employment Status (Ref.: Not employe	ed)															
Full-time employment (>=35 hours a																
week)					-0.003	(0.01)	-0.037**	(0.01)	-0.004	(0.01)	-0.037**	(0.01)	-0.004	(0.01)	-0.036**	(0.01)
Part-time employment					-0.017	(0.01)	-0.017	(0.02)	-0.018	(0.01)	-0.018	(0.02)	-0.017	(0.01)	-0.019	(0.01)
Own annual earnings (logged \$)					0.015**	(0.01)	-0.004	(0.01)	0.015**	(0.01)	-0.004	(0.01)	0.013*	(0.01)	-0.003	(0.01)
Parental net worth in 1997 (logged \$)									0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)
Number of person-years	8026	5	802	6	802	5	802	6	8020	5	802	6	8020	5	802	26

(continued)

Table 4.4 (continued)

			Iodel 5				odel 6				Iodel 7			M	odel 8	
			e ownership			Non-fina	incial assets				icial Assets			Ne	t worth	
	Marr. vs St	ay Coh.	Break up	vs Stay Coh.	Marr. vs	Stay Coh.	Break up	vs Stay Coh.	Marr. vs S	tay Coh.	Break up	vs Stay Coh.	Marr. vs S	tay Coh.	Break up v	s Stay Coh
Race-ethnicity (Ref. = non-Hispanic)Whites)																
African Americans	-0.072***	(0.01)	0.097***	(0.02)	-0.073***	(0.01)	0.099***	(0.01)	-0.074***	(0.01)	0.100***	(0.01)	-0.075***	(0.01)	0.101***	(0.01)
Hispanics	-0.045***	(0.01)	0.017	(0.01)	-0.045***	(0.01)	0.017	(0.01)	-0.045***	(0.01)	0.017	(0.01)	-0.046***	(0.01)	0.017	(0.01)
Other racial-ethnic group	-0.048**	(0.02)	0.015	(0.02)	-0.048**	(0.02)	0.013	(0.02)	-0.052**	(0.02)	0.015	(0.02)	-0.051**	(0.02)	0.016	(0.02)
Educational attainment (Ref.=High school)																
Less than high school	-0.014	(0.01)	-0.004	(0.02)	-0.015	(0.01)	-0.001	(0.02)	-0.016	(0.01)	0.000	(0.02)	-0.015	(0.01)	0.001	(0.02)
Some college	0.021+	(0.01)	0.007	(0.01)	0.022 +	(0.01)	0.008	(0.01)	0.020+	(0.01)	0.008	(0.01)	0.022+	(0.01)	0.006	(0.01)
College or more	0.085***	(0.02)	-0.066***	(0.02)	0.084***	(0.02)	-0.062**	(0.02)	0.079***	(0.02)	-0.062**	(0.02)	0.088***	(0.02)	-0.066***	(0.02)
Employment Status (Ref.: Not employed)																
Full-time employment (>=35 hours a week)	-0.006	(0.01)	-0.036**	(0.01)	-0.005	(0.01)	-0.036**	(0.01)	-0.005	(0.01)	-0.036**	(0.01)	-0.003	(0.01)	-0.036**	(0.01)
Part-time employment	-0.019	(0.01)	-0.018	(0.02)	-0.018	(0.01)	-0.018	(0.02)	-0.019	(0.01)	-0.016	(0.02)	-0.017	(0.01)	-0.017	(0.01)
Own annual earnings (logged \$)	0.013**	(0.01)	-0.003	(0.01)	0.013**	(0.01)	-0.003	(0.01)	0.013**	(0.01)	-0.003	(0.01)	0.015**	(0.01)	-0.004	(0.01)
Parental net worth in 1997 (logged \$)	0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)
Home ownership status (dummy) Mean-Centered market value of owned home																
Vehicle ownership status (dummy) Mean-Centered market value of owned	0.015	(0.01)	-0.026*	(0.01)												
vehicles (logged \$)	0.014*	(0.01)	-0.003	(0.01)												
Total amount of non-financial assets (logged \$	")				0.012**	(0.00)	-0.008*	(0.00)								
Total amount of financial assets (logged \$)									0.004**	(0.00)	-0.002	(0.00)				
Net worth of youth (logged \$)													0.001+	(0.00)	-0.001	(0.00)
Number of person-years	8020	5		026	80)26		3026	802	26	8	026	802	26	80	26

Table 4. 4 (continued)

		M	lodel 9			Mo	odel 10			Mo	odel 11	
			al debts				by source				and Debts	
Down day in the form of the second with the second	Marr. vs S	Stay Coh.	Break up	vs Stay Coh.	Marr. vs S	Stay Coh.	Break up vs	Stay Coh.	Marr. vs	Stay Coh.	Break up v	s Stay Coh.
Race-ethnicity (Ref. = non-Hispanic)Whites African Americans	-0.074***	(0.01)	0.101***	(0.02)	-0.070***	(0.01)	0.098***	(0.02)	-0.070**	::/(0.01)	0.097***	(0.02)
Hispanics	-0.074***	'	0.101	(0.02)	-0.070****	(0.098****	(0.02)	-0.070***	(0.097	(0.02)
Other racial-ethnic group	-0.049**	(0.01)	0.016	(0.01)	-0.049**	(0.01)	0.017	(0.01)	-0.050**	` ′	0.017	(0.01)
Educational attainment (Ref.=High school		(0.02)	0.010	(0.02)	-0.049	(0.02)	0.017	(0.02)	-0.030	(0.02)	0.015	(0.02)
Less than high school	-0.016	(0.01)	0.000	(0.02)	-0.013	(0.01)	-0.003	(0.02)	-0.012	(0.01)	-0.004	(0.02)
Some college	0.021+	(0.01)	0.007	(0.01)	0.021+	(0.01)	0.006	(0.01)	0.021+	(0.01)	0.006	(0.01)
College or more	0.086***	(0.02)	-0.064**	, ,	0.086***	(0.02)	-0.065***	(0.02)	0.076***	` '	-0.066**	(0.02)
Employment Status (Ref.: Not employed)	0.000	(0.02)	0.001	(0.02)	0.000	(0.02)	0.005	(0.02)	0.070	(0.02)	0.000	(0.02)
Full-time employment (>=35 hours a week)	-0.005	(0.01)	-0.037**	(0.01)	-0.007	(0.01)	-0.036**	(0.01)	-0.007	(0.01)	-0.035*	(0.01)
Tur-tire employment (>=35 notis a week)	-0.003	(0.01)	-0.037	(0.01)	-0.007	(0.01)	-0.030	(0.01)	-0.007	(0.01)	-0.033	(0.01)
Part-time employment	-0.019	(0.01)	-0.018	(0.02)	-0.018	(0.01)	-0.020	(0.02)	-0.019	(0.01)	-0.018	(0.02)
Own annual earnings (logged \$)	0.014**	(0.01)	-0.004	(0.01)	0.012*	(0.01)	-0.002	(0.01)	0.011*	(0.00)	-0.002	(0.01)
Parental net worth in 1997 (logged \$)	0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)	0.002*	(0.00)	0.001	(0.00)
Home ownership status (dummy)									0.064**	(0.02)	-0.070*	(0.03)
Mean-Centered market value of owned home (logged \$)									-0.001	(0.02)	0.055	(0.05)
Vehicle ownership status (dummy)									0.011	(0.01)	-0.024+	(0.01)
Mean-Centered market value of owned vehicles (logged \$)									0.007	(0.01)	-0.002	(0.01)
Total amount of non-financial assets (logge	еі											
Total amount of financial assets (logged \$))								0.003+	(0.00)	-0.001	(0.00)
Net worth of youth (logged \$)												
Total amount of debts (logged \$)	0.002	(0.00)	0.000	(0.00)	0.000	(0.00)	0.001	(0.00)	0.000	(0.00)	0.001	(0.00)
Total amount of Vehicle loans (logged \$)					0.003*	(0.00)	-0.002	(0.00)				
Total amount of mortgage (logged \$)					0.007***	(0.00)	-0.007*	(0.00)				
Total amount of non-financial assets net												
of values of residence and vehicles(logged												
\$)									0.002	(0.00)	-0.004	(0.00)
Number of person-years	802	26		3026	80	26	802	26	8	026	80	26

*** p < .001 ** p < .01 * p < .05 + p < .10. Standard errors are in parentheses. Models also control for age (in years) at the start of each cohabitation spell and its quadratic term, sequential order of cohabitations, duration of each cohabitation spell (in years, dummy variables), school enrollment status at the start of cohabitation, regions of residential areas, metropolitan status of residential area, low-income government support status, unemployment government receipt status, family structure at age 12, parental educational attainment, first birth status (i.e. age of the first birth), and the missing flags for missing categories or missing data with mean imputation

Table 4. 5 Average Marginal Effects from Multinomial Logistic Regression Models Estimating Union Transition Outcomes for Male Cohabitors (Weighted Results)

			del 1				del 2				del 3				del 4	
		Baselir	ne model			Empl	oyment			Parenta	l wealth]	Homeo	wnership	
	Marr. vs	Stay	Break up	vs Stay	Marr. vs	Stay	Break up	vs Stay	Marr. vs	Stay	Break ı	up vs	Marr. vs	Stay	Break up	vs Stay
	Col	1.	Coh).	Col	١.	Col	1.	Col	1.	Stay C	Coh.	Col	1.	Col	1.
Race-ethnicity (Ref.= non-Hispanic)Whites)															
African Americans	-0.058***	(0.01)	0.071***	(0.01)	-0.052***	(0.01)	0.058***	(0.01)	-0.053***	(0.01)	0.061***	(0.01)	-0.052***	(0.01)	0.058***	(0.01)
Hispanics	-0.047***	(0.01)	0.003	(0.01)	-0.046***	(0.01)	0.002	(0.01)	-0.047***	(0.01)	0.003	(0.01)	-0.046***	(0.01)	0.001	(0.01)
Other racial-ethnic group	-0.050*	(0.02)	0.015	(0.03)	-0.048*	(0.02)	0.011	(0.03)	-0.048*	(0.02)	0.012	(0.03)	-0.046*	(0.02)	0.013	(0.03)
Educational attainment (Ref.=High school)																
Less than high school	-0.033**	(0.01)	0.015	(0.01)	-0.028*	(0.01)	0.007	(0.01)	-0.028*	(0.01)	0.007	(0.01)	-0.028*	(0.01)	0.006	(0.01)
Some college	0.021+	(0.01)	-0.010	(0.01)	0.020+	(0.01)	-0.009	(0.01)	0.021+	(0.01)	-0.009	(0.01)	0.023*	(0.01)	-0.011	(0.01)
College or more	0.077***	(0.02)	-0.100***	(0.02)	0.063**	(0.02)	-0.089***	(0.02)	0.064**	(0.02)	-0.089***	(0.02)	0.064**	(0.02)	-0.091***	(0.02)
Employment Status (Ref.: Not employed)																
Full-time employment (>=35 hours a week)					0.005	(0.01)	-0.037**	(0.01)	0.005	(0.01)	-0.037**	(0.01)	0.004	(0.01)	-0.036**	(0.01)
Part-time employment					-0.017	(0.02)	0.010	(0.02)	-0.016	(0.02)	0.010	(0.02)	-0.017	(0.02)	0.010	(0.02)
Own annual earnings (logged \$)					0.013+	(0.01)	-0.010+	(0.01)	0.013+	(0.01)	-0.010+	(0.01)	0.010	(0.01)	-0.009+	(0.01)
Parental net worth in 1997 (logged \$)									-0.001	(0.00)	0.001	(0.00)	-0.001	(0.00)	0.001	(0.00)
Home ownership status (dummy)													0.069***	(0.02)	-0.059*	(0.03)
Mean-Centered market value of owned																
home (logged \$)													0.025	(0.02)	0.022	(0.03)
Number of person-years		7	603			7	603			76	503			76	503	

Table 4.5 (continued)

			del 5				del 6				del 7			Mo	del 8	
			ownership				ncial assets				al Assets				worth	
	Marr. vs	Stay	Break up	-		•	Break up	vs Stay			Break up	vs Stay	Marr. vs	Stay	Break up	
	Col	1.	Col	1.	Col	۱.	Col	1.	Col	1.	Col	1.	Col	1.	Col	1.
Race-ethnicity (Ref. = non-Hispanic)Whites)																
African Americans	-0.051***	(0.01)	0.056***	(0.01)	-0.051***	(0.01)	0.056***	(0.01)	-0.049***	(0.01)	0.056***	(0.01)	-0.053***	(0.01)	0.061***	(0.01)
Hispanics		(()	-0.046***	(/	0.000	(-0.044***	()	-0.000	()	-0.048***	(0.01)		(0.01)
Other racial-ethnic group	-0.049*	(0.013	` ′	-0.049*	(0.02)		` /	-0.043*	(0.02)		` /	-0.046*	` /	0.009	(0.03)
Educational attainment (Ref.=High school)		(/		(0.00)		(/		(0.00)		(===)		(0.00)		()		(0.00)
Less than high school	-0.026*	(0.01)	0.003	(0.01)	-0.027*	(0.01)	0.005	(0.01)	-0.024*	(0.01)	0.003	(0.01)	-0.028*	(0.01)	0.006	(0.01)
Some college	0.019+		-0.006	` ′	0.019+	. ,	-0.007	` /	0.019+		-0.008	` /	0.021+		-0.010	(0.01)
College or more	0.064**	` ′	-0.087***	` /	0.062**	. ,	-0.086***	` /	0.055**	` /	-0.085***	` /	0.066**		-0.094***	` /
Employment Status (Ref.: Not employed)		(/		(===)		(/		(===)		(===)		(===)		()		(***=)
Full-time employment (>=35 hours a week)	0.002	(0.01)	-0.033*	(0.01)	0.003	(0.01)	-0.033*	(0.01)	0.005	(0.01)	-0.037**	(0.01)	0.004	(0.01)	-0.035**	(0.01)
Part-time employment	-0.018	, ,	0.010	` ′	-0.018	` /	0.012	` /	-0.016	` /	0.010	` /	-0.017	(0.02)		(0.02)
Own annual earnings (logged \$)	0.010	(0.01)	-0.007	(0.01)	0.011	(0.01)	-0.008	(0.01)	0.009	(0.01)	-0.008	(0.01)	0.013+	(0.01)	-0.009+	(0.01)
Parental net worth in 1997 (logged \$)	-0.001	(0.00)	0.001	(0.00)	-0.001	(0.00)	0.001	(0.00)	-0.001	(0.00)	0.001	(0.00)	-0.001	(0.00)	0.001	(0.00)
Home ownership status (dummy) Mean-Centered market value of owned home (logged \$)																
Vehicle ownership status (dummy) Mean-Centered market value of owned	0.026**	(0.01)	-0.033**	(0.01)												
vehicles (logged \$)	0.008+	(0.00)	-0.014**	(0.01)												
Total amount of non-financial assets (logged	d				0.011**	(0.00)	-0.011***	(0.00)								
Total amount of financial assets (logged \$)									0.006***	(0.00)	-0.004*	(0.00)				
Net worth of youth (logged \$)													0.001	(0.00)	-0.003*	(0.00)
Number of person-years		70	503			76	503			76	503			70	503	

Table 4.5 (continued)

		Mod			_	Mode					lel 11	
		Total					source				and Debts	
	Marr. vs Coh	•	Break up Col		Marr. vs Col		Break up Col		Marr. vs Col	-	Break up v	
	Con		Col	11.	Col		Col	1.	Col		Con	
Race-ethnicity (Ref. = non-Hispanic)Whites)												
African Americans		` /		' '		' '		, ,	-0.047***	, ,		(0.01)
Hispanics	-0.046***	(0.01)	0.002		-0.046***	. ,		. ,	-0.041***	(0.01)	-0.001	(0.01)
Other racial-ethnic group	-0.049*	(0.02)	0.012	(0.03)	-0.047*	(0.02)	0.009	(0.03)	-0.044*	(0.02)	0.012	(0.03)
Educational attainment (Ref.=High school)												
Less than high school	-0.027*	(0.01)	0.006	(0.01)	-0.026*	(0.01)	0.003	(0.01)	-0.023*	(0.01)	0.000	(0.01)
Some college	0.019+	(0.01)	-0.009	(0.01)	0.021+	(0.01)	-0.010	(0.01)	0.021+	(0.01)	-0.008	(0.01
College or more	0.062**	(0.02)	-0.089**	(0.02)	0.068**	(0.02)	-0.093**	(0.02)	0.055**	(0.02)	-0.085***	(0.02)
Employment Status (Ref.: Not employed)												
Full-time employment (>=35 hours a week)	0.005	(0.01)	-0.037**	(0.01)	0.002	(0.01)	-0.034**	(0.01)	-0.000	(0.01)	-0.030*	(0.01
Part-time employment	-0.016	(0.02)	0.009	(0.02)	-0.017	(0.02)	0.010	(0.02)	-0.020	(0.02)	0.013	(0.02
Own annual earnings (logged \$)	0.012+	(0.01)	-0.009+	(0.01)	0.009	(0.01)	-0.008	(0.01)	0.006	(0.01)	-0.005	(0.01
Parental net worth in 1997 (logged \$)	-0.001	(0.00)	0.001	(0.00)	-0.001	(0.00)	0.001	(0.00)	-0.001+	(0.00)	0.001	(0.00
Home ownership status (dummy) Mean-Centered market value of owned home									0.055***	(0.02)	-0.041	(0.03
(logged \$)									0.019	(0.02)	0.025	(0.03
Vehicle ownership status (dummy)									0.018+	(0.01)	-0.028*	(0.01
Mean-Centered market value of owned vehicles (logged \$)									0.002	(0.00)	-0.011*	(0.01
Total amount of non-financial assets (logged \$	")											
Total amount of financial assets (logged \$)									0.004**	(0.00)	-0.003	(0.00
Net worth of youth (logged \$)												
Total amount of debts (logged \$)	0.002+	(0.00)	-0.000	(0.00)	-0.000	(0.00)	0.002	(0.00)	0.000	(0.00)	0.002	(0.00
Total amount of Vehicle loans (logged \$)					0.003*	(0.00)	-0.003+	(0.00)				
Total amount of mortgage (logged \$)					0.005***	(0.00)	-0.006*	(0.00)				
Total amount of non-financial assets net of									0.001	(0.00)	0.006#	(0.00
values of residence and vehicles(logged \$) Number of person-years		76				760			0.001		-0.006* 603	(0.00)

*** p < .001 ** p < .01 * p < .05 + p < .10. Standard errors are in parentheses. Models also control for age (in years) at the start of each—cohabitation spell and its quadratic term, sequential order of cohabitations, duration of each cohabitation spell (in years, dummy variables), school enrollment status at the start of cohabitation, regions of residential areas, metropolitan status of residential area, low-income government support status, unemployment government receipt status, family structure at age 12, parental educational attainment, first birth status (i.e. age of the first birth), and the missing flags for missing categories or missing data with mean imputation

CHAPTER 5: CONCLUSION

Despite cohabitation's high prevalence in the US and the increased length of time couples staying together, cohabitation is still considered a transient union. More than half of cohabiting couples either transition to marriage or end in break-up in the two years since the start of their union. More important, among those people who formed co-residential unions with their unmarried partners, the likelihood of their establishing stable families through marriage is unevenly distributed among people from different socioeconomic backgrounds—defined broadly by race-ethnicity and education. Compared with non-Hispanic white and college-educated cohabitors, African American and non-college educated cohabitors are less likely to marry but more likely to break up with their cohabiting partners. The overarching goal of my dissertation is to understand why cohabitors in the United States take these different paths (i.e. marriage or break-up) upon exiting their cohabiting relationships based on their racial and educational backgrounds.

People may agree that the rise of cohabitation (along with the decline of marriage) in the US family system has its root in society-wide ideational changes, where the cultural acceptance of premarital sex and non-marital childbearing have greatly increased (e.g., Bumpass 1990; Cherlin 2004; Oppenheimer 1988). It is unlikely, however, that an ideational explanation would still hold true for the divergent patterns of cohabitors' union transition behavior across educational and racial groups. That is, the differences in the odds of transitioning to marriage from cohabitation between college-educated people or non-Hispanic whites and their less-educated and African American peers are due to the fact that there are differences in family attitudes between them. Results from Chapter 2 show us why.

In Chapter 2, using data on two cohabiting cohorts from the NSFG 1995 and 2006-2010, I find that the trends of cohabitors' union transitions diverge particularly among educational groups, with the decline in the odds of transitioning into marriage primarily concentrated among those with no college degrees, resulting in a growing disparity in marriage between college-educated and non-college educated over time. Moreover, with the recent cohabiting cohort showing significant and enlarged educational differences in cohabitors' union transition patterns, I find no differences in marital intentions by education (or race-ethnicity). Also, the differences in transitioning to marriage across educational or race-ethnic groups cannot be explained by differences in marital intentions.

In this chapter, I also show that a general decline in the odds of transitioning to marriage for cohabitors may suggest the importance of ideational changes in shaping family behavior in the US over time. Yet, the diverging trend of cohabitation outcomes among educational groups points out that economic and other institutional forces could condition the influences of such ideational change and thereby profoundly and differently shape the relative chances for people from different educational backgrounds to end their cohabiting relationships (by marriage or breaking up). As many scholars have noticed, in the US, education increasingly has become an important predictor for people's economic opportunities and abilities to raise a family in contemporary society (Cherlin 2014; Kalleberg 2011; Sweet and Meiksins 2008). Findings in Chapter 2 on the growing educational disparities in cohabitors' chances of entering into marriage appear to echo the changing role of education in the American stratification system.

Race, on the other hand, has been an important marker for people's social and economic status. Its history of shaping the stratifications of US opportunity structure is longer than that of education's. As American society changed, the structure of US economy and the

way Americans perceive and treat race as well as enact racial boundaries have also changed. Given that the historical contexts where race and education rose as makers for social status and economic resources are different, we may argue that the paths for racial and educational differences shaping cohabitors' union outcomes could be different.

In Chapters 3 and 4, I, therefore, take different approaches to discovering the potential pathways through which racial (Chapter 3) and educational (Chapter 4) disparities in cohabitors' union transitions emerge for a recent cohort of young people derived from the NLSY97. To better understand the racial disparities in the union transitions among cohabitors in recent cohorts, in Chapter 3, I focus on racial variation in first union formation shaped by socioeconomic and demographic characteristics—measured by one's own education, employment condition, earnings, non-marital childbearing status, and indicators for their family of origin, including parental education and income levels. I examine whether the odds of entering into cohabitation, as opposed to staying single or marrying a partner, based on one's socioeconomic background vary between African Americans and non-Hispanic whites. These results help us better understand the pattern of racial differences in union transitions among recent cohorts of cohabitors.

As found consistently in prior studies, I note that young people from disadvantaged socioeconomic backgrounds—from disrupted families and born to low-educated parents—or having non-marital births are associated with a higher chance of entering into cohabiting unions, as opposed to staying single (or entering into marriage). Moreover the family socioeconomic (as well as childbearing status) influences on entry into cohabitating unions are stronger in a person's late teens and early twenties and decline as people grow into their mid-to-late twenties. More important, I find that first union formation differs between African Americans and non-Hispanic whites, with African Americans having lower odds of entering

into a union of any sort (i.e. cohabitation or marriage) but having higher odds of entering into cohabitation if they formed first unions.

Moreover, I also find that there are racial differences in the socioeconomic backgrounds that shape entry into cohabitation (as opposed to staying single) and the differences exist primarily in the late teens and early twenties. Specifically, I find that it is more common for non-Hispanic whites who come from disadvantaged family backgrounds (i.e. low-educated parents) or who have births outside of marriage to form cohabiting unions, relative to remaining single, as compared with similarly disadvantaged African Americans. The pattern of racial differences in cohabitation processes shown in Chapter 3, I argue, suggests that the divergence in cohabitors' union outcomes, shown in Chapter 2, could be driven more by class than by race.

In Chapter 4, I focus on union transition behavior of cohabitors from a representative sample of a recent cohort (NLSY 97) to explore the roles that parental wealth, cohabitors' assets, and debts play in shaping cohabitors' odds of transitioning to marriage. Additionally, I also examine the extent to which educational differences in the odds of transitioning to marriage can be attributed to the differentials in these economic resources among educational groups. Results in Chapter 4 show that parental wealth is an important resource for cohabitors' transition to marriage, but only for women. Homeownership, among all other different forms of assets, is the most important resource for both female and male cohabitors' odds of marrying their cohabiting partners. The influence of indebtedness on cohabitors' marital decisions is arbitrary, however, depending on its source—whether the debt derived from purchasing a home or a car. Cohabitors' current employment characteristics seem to play an important role in shaping union outcomes, for women in particular, and the inclusion of measures for young people's wealth also helps explain a substantial amount of educational

differences in the odds of transitioning from cohabitation to marriage. Implications of these findings are discussed from the life-course and stratification perspectives at the end of Chapter 4.

Altogether, my dissertation updates our knowledge of how the socioeconomic—educational and racial—divides in cohabitors' union transition behavior play out in American history and of which factors—beyond employment characteristics, the frequently explored factors—contribute to the disparities in union transitions for the recent cohort of cohabitors based on their socioeconomic characteristics. Although some researchers speculate that ideational differences could contribute to the divides in cohabitors' marital behavior based on their education or race, findings in this dissertation suggest that the paths (i.e. transitioning to marriage and cohabitation) that cohabitors of different socioeconomic backgrounds take upon exiting their current unions are probably more contingent upon the chances for people to access economic resources required by marriage; these chances are not equally distributed among the American population. In line with Cherlin's argument (2014) suggesting that the divides in family behavior in contemporary US society are a story of class divides, increasingly shaped by education, findings in my dissertation point to the importance of exploring the institutional mechanisms for educational differences in family behavior and investigating the racial differences in family behavior through the lens of class.

APPENDIX A.

A.1 Life-table estimates: proportions of cohabiting unions end in marriage or separation within three years following the start of unions: by education and race-ethnicity for 1990-1995 and 2005-2010 cohabiting cohorts, separately

	1990-	1995	2005-2	2010
	SEPARATE	MARRY	SEPARATE	MARRY
All sample	BEITHUTTE	- IVII II II II	BEITHUITE	1/12 HUCT
1 year	0.21	0.23	0.22	0.10
2 year	0.30	0.36	0.36	0.17
3 year	0.35	0.41	0.41	0.24
•	By	education		
College or more				
1 year	0.17	0.24	0.13	0.18
2 year	0.25	0.37	0.20	0.37
3 year	0.29	0.47	0.24	0.46
Some college				
1 year	0.24	0.24	0.24	0.10
2 year	0.33	0.37	0.41	0.14
3 year	0.37	0.41	0.48	0.21
High school				
1 year	0.20	0.23	0.24	0.07
2 year	0.30	0.39	0.39	0.11
3 year	0.36	0.43	0.43	0.17
Less than high sch	ool			
1 year	0.22	0.18	0.28	0.05
2 year	0.33	0.29	0.41	0.07
3 year	0.38	0.31	0.48	0.13
	-	ce-ethnicity		
Non-Hispanic Whit	tes			
1 year	0.20	0.24	0.22	0.10
2 year	0.28	0.40	0.35	0.19
3 year	0.31	0.45	0.40	0.28
African Americans				
1 year	0.25	0.18	0.25	0.12
2 year	0.42	0.27	0.38	0.16
3 year	0.52	0.31	0.46	0.22
TT: .				
Hispanics	0.10	0.22	0.22	0.07
1 year	0.18	0.22	0.22	0.07
2 year	0.24	0.30	0.35	0.12
3 year	0.32	0.36	0.39	0.16
Other race-ethnic g	groups			
1 year	0.30	0.13	0.20	0.09
2 year	0.56	0.33	0.40	0.12
3 year	0.56	0.39	0.47	0.12

A.2 TABLE OF AVERAGE MARGINAL EFFECTS (AME) FROM MULTINOMIAL LOGISTIC REGRESSION MODELS ESTIMATING COHABITORS' TRANSITIONS TO MARRIAGE OR BREAKING UP, AS OPPOSED TO STAYING IN COHABITATION

		Basel	ine	M	intention	tion		
	Marry vs.	. Stay	Break	up vs.	Marry vs.	. Stay	Break	up vs.
	Cohabi	ting	Stay co	habiting	Cohabi	ting	Stay col	nabiting
Duration (Ref. Year=2)								
Year 1	-0.002	(0.00)	0.000	(0.00)	-0.003	(0.00)	0.001	(0.00)
Year 3	0.010*	(0.00)	-0.007	(0.01)	0.010*	(0.00)	-0.007	(0.01)
Year 4	0.005	(0.01)	0.004	(0.01)	0.005	(0.01)	0.004	(0.01)
Year 5 or more	-0.252***	(0.02)	0.015	(0.02)	-0.266***	(0.03)	0.015	(0.02)
Age at the start of cohabitation	0.005*	(0.00)	-0.003	(0.00)	0.004+	(0.00)	-0.003	(0.00)
Quadratic term of age at cohabitation	-0.000	(0.00)	0.000	(0.00)	-0.000	(0.00)	0.000	(0.00)
Race-ethnicity (Ref. Non-Hispanic Whites)								
African Americans	-0.002	(0.00)	0.004	(0.00)	-0.003	(0.00)	0.003	(0.00)
Hispanics	-0.007	(0.00)	-0.006	(0.00)	-0.007	(0.00)	-0.006	(0.01)
Other race-ethnic groups	-0.011	(0.01)	0.000	(0.01)	-0.009	(0.01)	-0.001	(0.01)
Educational attainment (Ref. College +)								
Some college	-0.005+	(0.00)	0.009+	(0.01)	-0.007*	(0.00)	0.010+	(0.01)
High school	-0.007*	(0.00)	0.006	(0.01)	-0.010**	(0.00)	0.007	(0.01)
Less than high school	-0.004	(0.00)	0.009	(0.01)	-0.005	(0.00)	0.010	(0.01)
Having intention to marry (engaged) at the								
start of cohabitation (dummy=1)					0.012***	(0.00)	-0.007*	(0.00)
Number of person-months		2979	93			297	93	

Standard errors are in parentheses. *** p < .001 ** p < .01 * p < .05 + p < .10

A.3 TABLE OF COEFFICIENTS FROM MULTINOMIAL LOGISTIC REGRESSION MODELS ESTIMATING COHABITORS' UNION TRANSITIONS (MARRIAGE OR BREAK UP, AS OPPOSED TO STAY TOGETHER) WITH INTERACTION TERMS BETWEEN MARITAL INTENTION AND EDUCATION (OR RACE-ETHNICITY)

		Base	eline		Marit	al intentio	n X Educatio	on	Marital intention X Race-ethnicity				
	Marry vs	. Stay	Break up	vs. Stay	Marry vs	. Stay	Break up	vs. Stay	Marry vs	. Stay	Break up	vs. Stay	
	Cohabiting		coha	biting	Cohabi	iting	cohal	oiting	Cohab	iting	cohabiting		
Duration (Ref. Year=2)													
Year 1	-0.228	(0.22)	0.027	(0.15)	-0.243	(0.22)	0.036	(0.15)	-0.241	(0.22)	0.023	(0.16)	
Year 3	0.809*	(0.36)	-0.307	(0.24)	0.818*	(0.36)	-0.313	(0.24)	0.843*	(0.36)	-0.293	(0.24)	
Year 4	0.407	(0.63)	0.193	(0.43)	0.394	(0.63)	0.202	(0.43)	0.464	(0.64)	0.217	(0.43)	
Year 5 or more	-21.532***	(0.49)	0.466	(0.68)	-20.607***	(0.50)	0.474	(0.68)	-20.715***	(0.49)	0.449	(0.68)	
Age at the start of cohabitation	0.332+	(0.20)	-0.144	(0.14)	0.317	(0.19)	-0.155	(0.14)	0.321	(0.20)	-0.146	(0.14)	
Quadratic term of age at cohabitation	-0.005	(0.00)	0.001	(0.00)	-0.004	(0.00)	0.001	(0.00)	-0.005	(0.00)	0.001	(0.00)	
Race-ethnicity (Ref. non-Hispanic Whites)													
African Americans	-0.209	(0.27)	0.152	(0.19)	-0.225	(0.28)	0.163	(0.19)	0.003	(0.47)	0.138	(0.21)	
Hispanics	-0.576	(0.38)	-0.286	(0.23)	-0.614+	(0.37)	-0.284	(0.23)	-0.096	(0.58)	-0.404	(0.29)	
Other race-ethnic groups	-0.747	(0.59)	-0.038	(0.30)	-0.728	(0.57)	-0.058	(0.32)	-2.671*	(1.13)	-0.255	(0.37)	
Education (Ref. College +)													
Some college	-0.534*	(0.23)	0.428 +	(0.24)	-0.549	(0.47)	0.189	(0.30)	-0.573*	(0.23)	0.412 +	(0.24)	
High school	-0.793**	(0.29)	0.329	(0.27)	-0.418	(0.56)	0.157	(0.31)	-0.839**	(0.29)	0.324	(0.27)	
Less than high school	-0.381	(0.37)	0.434	(0.29)	0.020	(0.47)	0.218	(0.34)	-0.513	(0.35)	0.434	(0.29)	
marrplanatcoh	0.999***	(0.20)	-0.329*	(0.14)									
Marital intention					1.183***	(0.27)	-1.203**	(0.43)	1.084***	(0.25)	-0.447*	(0.20)	
Marital intention X Education													
Marital intention X Some college					-0.007	(0.51)	1.061+	(0.54)					
Marital intention X High school					-0.572	(0.64)	0.862 +	(0.48)					
Marital intention X Less than high school					-0.719	(0.67)	0.981+	(0.52)					
Marital intention X Race-ethnicity													
Marital intention X African American									-0.297	(0.51)	0.042	(0.26)	
Marital intention X Hispanics									-0.755	(0.70)	0.332	(0.33)	
Marital intention X Other race-ethnic groups									2.744*	(1.27)	0.788	(0.62)	
Constant	-9.304***	(2.64)	-1.476	(1.63)	-9.209***	(2.59)	-1.181	(1.67)	-9.156***	(2.61)	-1.404	(1.62)	
Number of person-months		297	93			297	93			297	93		

Standard errors are in parentheses. *** p < .001 ** p < .01 * p < .05 + p < .10

A.4 TABLE OF WEIGHTED COEFFICIENTS FROM MULTINOMIAL LOGISTIC REGRESSION MODELS ESTIMATING AGE VARIATION IN THE ASSOCIATIONS BETWEEN COVARIATES AND FIRST UNION FORMATION

			MODI			MODEL 2 Childhood family structure X Age (mid-to-late twenties)							
	Marr vs.		ucation X Age Coh. Vs.		-late twenties) Coh. Vs		Childh Marr vs.		ily structure X Coh. Vs.		twenties) n. Vs. Marr		
Age (ref. 23)	Marr vs.	Single	Con. vs.	Single	Con. vs	. Marr	Mair vs.	Single	Con. vs.	Single	COIL VS	. Marr	
Age 16	-2.562***	(0.33)	-2.175***	(0.13)	0.388	(0.36)	-2.817***	(0.31)	-2.603***	(0.12)	0.214	(0.34)	
Age 17	-1.562***	(0.32)	-0.554***		1.008**	(0.34)	-1.842***	(0.30)	-0.960***	(0.11)		(0.32)	
Age 18	-0.491*	(0.20)	0.082		0.573**	(0.22)	-0.764***	(0.18)	-0.326***	(0.09)	0.438*	(0.20)	
Age 19	-0.414*	(0.19)	0.090	(0.09)	0.503*	(0.21)	-0.682***	(0.16)	-0.321***	(0.08)	0.362+	(0.19)	
Age 20	-0.090	(0.18)	0.062	(0.09)	0.152	(0.20)	-0.351*	(0.15)	-0.353***	(0.09)	-0.002	(0.17)	
Age 21	-0.077	(0.18)	0.025	(0.09)	0.103	(0.20)	-0.333*	(0.15)	-0.393***	(0.09)	-0.060	(0.18)	
Age 22	0.060	(0.17)		(0.09)	0.059	(0.19)	-0.201	(0.15)	-0.307***	(0.08)	-0.106	(0.17)	
Age 24	-0.103	(0.14)	-0.056	(0.08)	0.047	(0.16)	-0.102	(0.14)	-0.058	(0.08)	0.044	(0.16)	
Age 25	-0.291+	(0.16)	-0.080	(0.08)	0.210	(0.18)	-0.289+	(0.16)	-0.080	(0.08)	0.209	(0.18)	
Age 26	-0.315+	(0.17)	-0.088	(0.09)	0.227	(0.19)	-0.315+	(0.17)	-0.086	(0.09)	0.229	(0.19)	
Age 27	-0.471*	(0.18)	-0.350***	(0.10)		(0.21)	-0.474*	(0.18)	-0.349***	(0.10)	0.125	(0.21)	
Age 28	-0.371+	(0.21)	-0.325**	(0.12)		(0.25)	-0.377+	(0.21)	-0.318*	(0.12)	0.059	(0.24)	
Age 29	-0.600*	(0.29)	-0.360*	(0.15)		(0.33)	-0.607*	(0.29)	-0.340*	(0.15)	0.267	(0.33)	
Age 30 or older	-0.612	(0.40)	-0.490*	(0.21)	0.122	(0.45)	-0.610	(0.40)	-0.448*	(0.21)	0.162	(0.45)	
Region of residence (ref. North East)		(/		,		((/		, ,		()	
West	0.744***	(0.13)	0.133*	(0.06)	-0.611***	(0.14)	0.623***	(0.11)	0.191***	(0.05)	-0.432***	(0.12)	
South	0.990***		0.147**	(0.05)	-0.843***	(0.13)	0.865***	(0.10)	0.210***	(0.05)	-0.655***	(0.11)	
North Central	0.642***	(0.13)	0.170**	(0.05)	-0.472***	(0.14)	0.517***	(0.11)	0.230***	(0.05)	-0.287*	(0.12)	
Missing region information	0.514*	(0.21)	-0.315**	(0.10)	-0.829***	(0.23)		/		/		(=/	
Female	0.494***		0.497***		0.003	(0.08)	0.492***	(0.07)	0.490***	(0.03)	-0.002	(0.08)	
MSA area	-0.213+	(0.12)	-0.214***	(0.05)	-0.001	(0.13)	-0.345***	(0.10)	-0.146**	(0.05)	0.199+	(0.11)	
Race-Ethinicity (Ref. Non-Hispanic Whites)		,		()		(/		(/		()		,	
African Americans	-0.877***	(0.11)	-0.672***	(0.05)	0.204+	(0.12)	-0.870***	(0.11)	-0.675***	(0.05)	0.195+	(0.12)	
Hispanics	0.175*	(0.09)	-0.220***	(0.05)	-0.395***	(0.10)	0.191*	(0.09)	-0.232***	(0.05)	-0.423***	(0.10)	
Family Structure at age 12 (Ref. two-biological-pare	ent family)	(/		()		(/		()		()		(,	
Single-mother	-0.195*	(0.08)	0.370***	(0.04)	0.565***	(0.09)	-0.025	(0.10)	0.570***	(0.05)	0.596***	(0.11)	
Step family	-0.277+	(0.17)	0.410***	(0.07)	0.687***	(0.18)	-0.153	(0.22)	0.637***	(0.08)	0.790***	(0.23)	
Other family type	-0.429**	(0.14)	0.441***	(0.06)	0.870***	(0.16)	-0.279	(0.18)	0.578***	(0.07)	0.857***	(0.19)	
Missing family structure	-0.458	(0.33)		(0.13)	0.593+	(0.36)	-0.355	(0.43)	0.187	(0.17)	0.542	(0.46)	
Parental education (ref. high school)		(0.000)		(0110)		()		(01.10)		()		()	
Less than high school	0.282*	(0.13)	0.224***	(0.06)	-0.058	(0.15)	0.158	(0.11)	0.137**	(0.05)	-0.021	(0.12)	
Some college	-0.157	(0.12)	-0.130*	(0.05)	0.027	(0.13)	-0.101	(0.09)	-0.091*	(0.04)	0.010	(0.10)	
College +	-0.364**	(0.13)	-0.475***	(0.06)	-0.111	(0.14)	-0.151	(0.10)	-0.263***	(0.05)	-0.112	(0.11)	
Missing parental education	0.157	(0.22)	-0.067	(0.10)	-0.225	(0.24)	0.108	(0.18)	-0.046	(0.09)	-0.154	(0.20)	
Parental income from 1997 (logged)	-0.004	(0.01)	-0.003		0.001	(0.01)	-0.003	(0.01)	-0.002	(0.01)	0.001	(0.01)	
Missing parental income	0.205*	(0.09)	-0.131**	(0.05)	-0.336***	(0.10)	0.207*	(0.09)	-0.129**	(0.05)	-0.336***	(0.10)	
Have at least one kid (dummy=1)	0.283*	(0.12)	0.503***	(0.05)	0.220+	(0.13)	0.277*	(0.12)	0.498***	(0.05)	0.221+	(0.13)	
Own education (ref. high school)		()		(0.00)		(0.110)		()		(0102)		(0110)	
Less than high school	-0.515***	(0.15)	0.102+	(0.06)	0.617***	(0.16)	-0.503***	(0.14)	0.109+	(0.06)	0.611***	(0.16)	
Some college	0.151	(0.10)	0.009	(0.05)	-0.142	(0.11)	0.152	(0.10)	0.012	(0.05)	-0.140	(0.11)	
College +	0.439***	(0.13)	0.040	(0.03)	-0.399**	(0.11)	0.478***	(0.13)	0.012	(0.07)	-0.391**	(0.11)	
Employment status (ref. not employed)	0.157	(0.15)	0.0.0	(0.07)	0.577	(0.15)	0.170	(0.13)	0.007	(0.07)	0.571	(0.1.)	
Full-time employment (>=35 hrs a week)	-0.078	(0.09)	0.372***	(0.04)	0.450***	(0.10)	-0.072	(0.09)	0.370***	(0.04)	0.442***	(0.10)	
Part-time employment (>=35 his a week)	-0.349***	(0.10)	0.057	(0.04)	0.406***	(0.11)	-0.346***	(0.09)	0.065	(0.04)	0.411***	(0.10)	
Missing employment status	-0.349	(0.10)	0.037	(0.03)	0.457	(0.11)	-0.340	(0.51)	0.003	(0.03)	0.411	(0.11)	
Enrolled in school (dummy=1)	-0.505***	(0.10)	-0.568***	(0.26)	-0.063	(0.11)	-0.524***	(0.10)	-0.574***	(0.26)	-0.050	(0.11)	
Annual earnings (logged)	0.089*	(0.10)	0.072***	(0.03)	-0.003	(0.11)	0.091*	(0.10)	0.075***	(0.03)	-0.030	(0.11)	
Missing information on earnings	-0.050	(0.04) (0.08)	0.072	(0.02)	0.074	(0.04)	-0.012	(0.04) (0.08)	0.073	(0.04)	0.022	(0.04)	
Parental education X Mid-to-late Twenties	0.050	(0.00)	J.U2-4	(0.04)	J.07-	(0.03)	0.012	(0.00)	5.010	(0.04)	5.022	(0.03)	
Yarental education X Mid-to-late Twenties < HS X Mid-to-late Twenties	-0.394+	(0.22)	-0.335**	(0.11)	0.059	(0.25)							
Some college X Mid-to-late Twenties	0.124	(0.22)	0.151+	(0.11)	0.039	(0.23)							
College+ X Mid-to-late Twenties	0.124	(0.19)		, ,	0.027	(0.21)							
Missing Parental edu. X Mid-to-late Twenties	-0.158	(0.18)	0.383****		0.136	(0.40)							
-		(0.57)	0.070	(0.17)	0.237	(0.40)							
Childhood family structure X Mid-to-Late Twenties Single-mother X Mid-to-late Twenties							-0.426**	(0.16)	-0.571***	(0.08)	-0.146	(0.18)	
									-0.5/1***				
Step family X Mid-to-late Twenties Other family X Mid-to-late Twenties							-0.263	(0.34)		(0.15)	-0.429	(0.37)	
Other family X Mid-to-late Twenties							-0.386			(0.12)		(0.31)	
Missing family structure X Mid-to-late Twenties	5.014***	(0.44)	5 500±::	(0.20)	1 11 000	(0.40)	-0.148	(0.66)	-0.172	(0.27)	-0.024	(0.71)	
Constant	-7.014***	(0.44)	-5.598***	(0.20)	1.416**	(0.48)	-6.679***	(0.42)	-5.476***	(0.19)	1.203**	(0.46)	
Number of person-months	812630								8126				
* 19 19 1													
Log likelihood Chi-squared	-7.44e+09 3549.215								-7.44e 3527.				

(continued)

	MODEL 3 Parental income X Age (mid-to-late twenties)								MODEL 4 Parenthood status X Age (mid-to-late twenties)									
	Marr vs.		ncome X Age Coh. Vs.	`	(Coh. Vs	Marr	Marr vs.		1 status X Age Coh. Vs.	_	-late twenties) Coh. Vs							
Age (ref. 23)	IVIAII VS.	Bilgic	COIL VS.	. Sligic	COIL VS	. iviaii	iviaii vs.	Billgic	Con. vs.	Sligic	Con. vs	. iviaii						
Age 16	-2.494***	(0.37)	-2.145***	(0.16)	0.349	(0.40)	-2.719***	(0.31)	-2.369***	(0.12)	0.349	(0.33)						
Age 17	-1.514***	(0.36)	-0.499***	(0.14)	1.014**	(0.39)	-1.754***	(0.30)	-0.738***	(0.11)	1.016**	(0.32)						
Age 18	-0.436+	(0.25)	0.133	(0.12)	0.569*	(0.28)	-0.687***	(0.17)	-0.111	(0.08)	0.576**	(0.19)						
Age 19	-0.354	(0.25)	0.136	(0.12)	0.490+	(0.28)	-0.610***	(0.16)	-0.111	(0.08)	0.499**	(0.17)						
Age 20	-0.024	(0.24)	0.099		0.123	(0.27)	-0.287+		-0.153*	(0.08)	0.135	(0.17)						
Age 21	-0.010	(0.23)	0.054	(0.12)	0.064	(0.26)	-0.278+	(0.15)	-0.202*	(0.08)	0.077	(0.17						
Age 22	0.110	(0.23)	0.127	(0.12)	0.017	(0.26)	-0.153	(0.14)	-0.126	(0.08)	0.026	(0.16						
Age 24	-0.106	(0.14)	-0.062	(0.08)	0.043	(0.16)	-0.097	(0.14)	-0.054	(0.08)	0.043	(0.16						
Age 25	-0.297+	(0.16)	-0.091	(0.08)	0.206	(0.18)	-0.283+	(0.16)	-0.077	(0.08)	0.206	(0.18						
Age 26	-0.326*	(0.17)	-0.102	(0.09)	0.223	(0.19)	-0.306+	(0.17)	-0.082	(0.09)	0.224	(0.19						
Age 27	-0.485**	(0.18)	-0.367***	(0.10)	0.119	(0.21)	-0.461*	(0.18)	-0.341***	(0.10)	0.120	(0.21						
Age 28	-0.397+	(0.21)	-0.342**	(0.12)	0.055	(0.24)	-0.364+		-0.316*	(0.12)	0.047	(0.25						
Age 29	-0.636*	(0.29)	-0.371*		0.265	(0.33)	-0.597*	(0.29)	-0.344*	(0.15)	0.253	(0.33						
Age 30 or older	-0.644	(0.40)	-0.479*		0.165	(0.45)	-0.600	(0.40)			0.149	(0.45						
Region of residence (ref. North East)		(/		(/		()		(/		(/		(
West	0.629***	(0.11)	0.188***	(0.05)	-0.441***	(0.12)	0.623***	(0.11)	0.191***	(0.05)	-0.432***	(0.12						
South	0.874***	(0.10)		(0.05)	-0.663***	(0.11)	0.869***	(0.10)			-0.654***	(0.11						
North Central	0.520***	, ,	0.230***	, ,	-0.291*	(0.12)	0.522***	, ,	0.235***	()	-0.287*	(0.12						
Missing region information		(*****)		(0.00)		(011-)		(0.11)		(0.00)		(****						
Female	0.493***	(0.07)	0.490***	(0.03)	-0.003	(0.08)	0.496***	(0.07)	0.495***	(0.03)	-0.001	(0.08						
MSA area	-0.347***	(0.10)	-0.144**	(0.05)		(0.11)	-0.339***	(0.10)	-0.140**	` /	0.199+	(0.11						
Race-Ethinicity (Ref. Non-Hispanic Whites)	0.5 17	(0.10)	0.1	(0.00)	0.205	(0.11)	0.009	(0.10)	01110	(0.00)	0.1777	(0.11						
African Americans	-0.877***	(0.11)	-0.677***	(0.05)	0.200+	(0.12)	-0.866***	(0.11)	-0.672***	(0.05)	0.194+	(0.12						
Hispanics	0.195*	(0.09)	-0.228***	(0.05)	-0.423***	(0.12)	0.189*	(0.09)	-0.232***	(0.05)	-0.420***	(0.10						
Family Structure at age 12 (Ref. two-biological-p		(0.0)	0.220	(0.05)	0.123	(0.10)	0.10)	(0.07)	0.232	(0.05)	0.120	(0.10						
Single-mother	-0.200*	(0.08)	0.371***	(0.04)	0.570***	(0.09)	-0.202*	(0.08)	0.368***	(0.04)	0.569***	(0.09						
Step family	-0.276+	(0.17)	0.398***	(0.07)		(0.18)	-0.266	(0.17)	0.401***	(0.07)	0.667***	(0.18						
Other family type	-0.439**	(0.17)	0.440***	, ,	0.880***	(0.15)	-0.437**	(0.17)		(0.06)	0.875***	(0.15						
Missing family structure	-0.426	(0.14)	0.107		0.532	(0.36)	-0.427	(0.33)		` ′	0.536	(0.13						
Parental education (ref. high school)	0.120	(0.55)	0.107	(0.13)	0.552	(0.50)	0.127	(0.55)	0.10)	(0.13)	0.550	(0.50						
Less than high school	0.160	(0.11)	0.138**	(0.05)	-0.021	(0.12)	0.155	(0.11)	0.137**	(0.05)	-0.018	(0.12						
Some college	-0.097	(0.09)	-0.094*	, ,	0.003	(0.12)	-0.102	(0.09)		, ,	0.008	(0.12						
College +	-0.145	(0.10)	-0.255***		-0.110	(0.11)	-0.102	(0.10)		` ′	-0.112	(0.10						
Missing parental education	0.103	(0.10)	-0.233	, ,	-0.110	(0.11)	0.106	` /	-0.200	, ,	-0.112	(0.11						
Parental income from 1997 (logged)	-0.007	(0.13)			-0.131	(0.20)	-0.003		-0.002	` ′	0.001	(0.20						
	-0.032	(0.01)	-0.053		-0.002	(0.14)	0.203*	(0.01)	-0.131**	(0.01)	-0.334***	(0.10						
Missing parental income Have at least one kid (dummy=1)	0.269*	, ,	0.487***		0.218+	(0.14)	0.623***	` ′	0.728***	` /	0.105	(0.16						
• •	0.209	(0.12)	0.407	(0.03)	0.210+	(0.13)	0.023	(0.13)	0.726	(0.00)	0.105	(0.10						
Own education (ref. high school)	-0.490***	(0.14)	0.117*	(0.04)	0.607***	(0.16)	-0.508***	(0.14)	0.111	(0.06)	0.619***	(0.16						
Less than high school		` ′		(0.06)		(0.16)			0.111+	(0.06)		(0.16						
Some college	0.151 0.511***		0.013		-0.139	(0.11)	0.144 0.459***	(0.10)			-0.137	(0.11						
College +	0.511***	(0.13)	0.149*	(0.06)	-0.363*	(0.14)	0.439****	(0.13)	0.092	(0.06)	-0.367**	(0.14						
Employment status (ref. not employed)	0.070	(0.00)	0.270***	(0.04)	0.451***	(0.10)	0.065	(0.00)	0.277***	(0.04)	0.440***	(0.10						
Full-time employment (>=35 hrs a week)	-0.072		0.379***		0.451***	(0.10)	-0.065		0.377***		0.442***	(0.10						
Part-time employment	-0.348***		0.058		0.407***	(0.10)	-0.344***		0.062		0.406***	(0.10						
Missing employment status	-0.371	(0.51)	0.066		0.437	(0.57)	-0.350	(0.51)			0.441	(0.57						
Enrolled in school (dummy=1)	-0.534***	(0.10)	-0.586***		-0.052	(0.11)	-0.517***	(0.10)	-0.574***	(0.05)	-0.057	(0.11						
Annual earnings (logged)	0.098*	(0.04)	0.078***		-0.019	(0.04)	0.093*	(0.04)	0.076***	(0.02)	-0.017	(0.04						
Parental education X Mid-to-late Twenties	0.009	(0.02)			0.010	(0.02)												
Missing parental inc. X Mid-to-late Twenties	0.473**	(0.17)	-0.213*	(0.09)	-0.686***	(0.20)				(0	0.405							
Having kid X Mid-to-late Twenties				(0	4.46:		-0.765***		-0.573***		0.192	(0.23						
Constant	-6.918***	(0.40)	-5.778***	,	1.140*	(0.44)	-6.737***	(0.38)	-5.604***	(0.18)	1.133**	(0.42						
Number of person-months			8126						8126									
Log likelihood			-7.45e						-7.44e									
Chi-squared			3527.	356					3568.	911								

(continued)

	MODEL 5					MODEL 6							MODEL 7 Earnings X Age (mid-to-late twenties)					
			ion X Age								to-late twe							
1 (6.22)	Marr vs.	Single	Coh. Vs.	Single	Coh. Vs	. Marr	Marr vs.	Single	Coh. Vs.	Single	Coh. Vs.	Marr	Marr vs.	Single	Coh. Vs.	Single	Coh. Vs	. Ma
Age (ref. 23)	2 400888	k (0.25)	-2.227***	: (0.12)	0.271	(0.27)	2 471***	: (0.22)	2 222***	(0.12)	0.129	(0.26)	2 122**	(0.66)	2 220***	(0.21)	0.107	(0.7
Age 16		. ,		. ,			-2.471***	. ,					-2.123**		-2.230***			(0.7
Age 17			-0.602***				-1.438***						-1.144+		-0.584+	(0.30)		(0.7
Age 18	-0.382+		0.068	. ,	0.450*		-0.352+		-0.080		0.272		-0.058		0.051	(0.30)		(0.6
Age 19	-0.247		0.121	. ,	0.369+		-0.265		-0.084	(0.10)			0.036		0.055	(0.30)		(0.0
Age 20	0.092		0.106	(0.09)		(0.21)			-0.120		-0.180		0.375		0.019	(0.30)		(0.
Age 21	0.111	. ,	0.077		-0.033		0.073		-0.163		-0.236		0.398	. ,	-0.025	(0.31)		(0.
Age 22	0.248		0.194*		-0.054		0.195		-0.095		-0.290		0.524		0.047	(0.31)		(0.
Age 24	-0.103		-0.061	(0.08)			-0.111		-0.057	(0.08)			-0.114	. ,	-0.065	(0.08)		(0.
Age 25	-0.294+		-0.088	(0.08)			-0.301+	. ,	-0.085	(0.08)			-0.314+		-0.096	(0.08)		(0.
Age 26	-0.321+		-0.100	(0.09)			-0.329*		-0.097	(0.09)			-0.349*		-0.108	(0.09)		(0.
Age 27	-0.480**		-0.366***	. ,			-0.489**	. ,	-0.364***	. ,			-0.512**		-0.374***			(0.
Age 28	-0.378+		-0.347**	(0.12)			-0.388+		-0.347**	(0.12)			-0.421*		-0.352**	(0.12)		(0.
Age 29	-0.606*		-0.381*	(0.15)			-0.618*		-0.380*	(0.15)			-0.657*		-0.384*	(0.15)		(0.
Age 30 or older	-0.597	(0.40)	-0.488*	(0.21)	0.110	(0.45)	-0.619	(0.40)	-0.499*	(0.21)	0.120	(0.45)	-0.661+	(0.40)	-0.491*	(0.21)	0.170	(0.
Region of residence (ref. North Ea																		
West	0.732***		0.134*	. ,			0.749***	. ,	0.131*	. ,	-0.619***	. ,		. ,			-0.434***	
South	0.980***			. ,			0.995***	. ,	0.153**	. ,	-0.843***	. ,		. ,				
North Central			0.176***	. ,			0.646***	. ,			-0.477***		0.519***	(0.11)	0.230***	(0.05)	-0.289*	(0.
Missing region information	0.511*		-0.323***					. ,			-0.832***							
Female	0.492***		0.491***	. ,		(0.08)	0.487***	(0.07)	0.495***	(0.03)	0.008				0.490***	(0.03)	0.001	(0.
MSA area	-0.209+	(0.12)	-0.217***	(0.05)	-0.007	(0.13)	-0.220+	(0.12)	-0.220***	(0.05)	-0.000	(0.13)	-0.349***	(0.10)	-0.145**	(0.05)	0.204+	(0.
Race-Ethinicity (Ref. Non-Hispanio	Whites)																	
African Americans	-0.870***	(0.11)	-0.690***	(0.05)	0.180	(0.12)	-0.881***	(0.11)	-0.676***	(0.05)	0.205+	(0.12)	-0.875***	(0.11)	-0.678***	(0.05)	0.196 +	(0.
Hispanics	0.170+	(0.09)	-0.225***	(0.05)	-0.395***	(0.10)	0.175*	(0.09)	-0.217***	(0.05)	-0.391***	(0.10)	0.194*	(0.09)	-0.227***	(0.05)	-0.421***	(0.
Family Structure at age 12 (Ref. tw	o-biologic	al-par	ent family)														
Single-mother	-0.197*	(0.08)	0.369***	(0.04)	0.566***	(0.09)	-0.195*	(0.08)	0.366***	(0.04)	0.561***	(0.09)	-0.197*	(0.08)	0.371***	(0.04)	0.568***	(0.
Step family	-0.279+	(0.17)	0.405***	(0.07)	0.684***	(0.18)	-0.277+	(0.17)	0.400***	(0.07)	0.677***	(0.18)	-0.268	(0.17)	0.399***	(0.07)	0.667***	(0.
Other family type	-0.441**	(0.14)	0.430***	(0.06)	0.871***	(0.15)	-0.436**	(0.14)	0.434***	(0.06)	0.870***	(0.15)	-0.436**	(0.14)	0.439***	(0.06)	0.875***	(0.
Missing family structure	-0.487	(0.33)	0.140	(0.13)	0.627+	(0.36)	-0.455	(0.34)	0.133	(0.13)	0.588	(0.36)	-0.422	(0.33)	0.111	(0.13)	0.533	(0.
Parental education (ref. high schoo	1)																	
ess than high school	0.161	(0.11)	0.140**	(0.05)	-0.021	(0.12)	0.155	(0.11)	0.137**	(0.05)	-0.018	(0.12)	0.159	(0.11)	0.139**	(0.05)	-0.020	(0.
Some college	-0.116		-0.085+	(0.04)			-0.111	(0.09)	-0.086+	(0.04)			-0.101		-0.092*	(0.04)		(0.
College +	-0.152		-0.249***				-0.163+		-0.243***	(0.05)	-0.080		-0.147		-0.254***			(0.
Missing parental education	0.127		-0.064		-0.192		0.094		-0.040		-0.134		0.106		-0.047		-0.153	(0.
Parental income from 1997 (logged			-0.002	(0.01)			-0.003		-0.003	(0.01)			-0.004		-0.002	(0.01)		(0.
Missing parental income	,	(/		(/		()	0.202*		-0.129**		-0.331***				-0.131**		-0.336***	
Have at least one kid (dummy=1)	0.287*	(0.12)	0.499***	(0.05)	0.212	(0.13)	0.277*	. ,	0.482***				0.271*	. ,	0.486***			(0.
Own education (ref. high school)	0.207	(0.12)	0.1,,,	(0.05)	0.212	(0.10)	0.277	(0.12)	0.102	(0.05)	0.200	(0.10)	0.271	(0.12)	0.100	(0.05)	0.210	(0.
Less than high school	-0.496**	(0.17)	0.139*	(0.06)	0.635***	(0.18)	-0.498***	(0.15)	0.124*	(0.06)	0.622***	(0.16)	-0.493***	(0.14)	0.121*	(0.06)	0.615***	(0.
Some college	-0.037		-0.124*		-0.087		0.137		0.022		-0.114		0.145		0.013		-0.132	(0.
College +	0.272		-0.124		-0.600+		0.492***		0.171**		-0.321*		0.505***		0.156*		-0.132	(0.
Employment status (ref. not employ		(0.20)	-0.527+	(0.17)	-0.000+	(0.54)	0.472	(0.13)	0.171	(0.07)	-0.321	(0.14)	0.505	(0.13)	0.150	(0.00)	-0.547	(0.
Full-time employment (>=35 hrs a wee		(0.00)	0.368***	(0.04)	0.445***	(0.10)	-0.187+	(0.11)	0.442***	(0.05)	0.629***	(0.12)	-0.069	(0.00)	0.376***	(0.04)	0.444***	(0.
		. ,		. ,			-0.167± -0.452***	. ,		()								
Part-time employment	-0.347*** -0.382		0.056	(0.05)	0.403***		-0.452****	. ,	-0.049		0.481*** 0.109		-0.348*** -0.369	. ,	0.057		0.405***	(0.
Missing employment status				. ,				. ,							-0.590***	(0.26)		
Enrolled in school (dummy=1)	0.091*		-0.569***				-0.528***		0.081***		-0.038	. ,		. ,	0.076**			(0.
Annual earnings (logged)			0.072***				0.093*	((0.05)	0.001	(0.00)	0.070**	(0.02)	0.013	(0.
Missing information on earnings	-0.035	(0.08)	0.029	(0.04)	0.064	(0.09)	-0.038	(0.08)	0.031	(0.04)	0.069	(0.09)						
Own education X Mid-to-late Twee		(0.22)	0.240	(0.14)	0.075	(0.25)												
ess than high school X Mid-to-late T		. ,	-0.240+	. ,	-0.075	(0.35)												
Some college X Mid-to-late Twenties			0.350***			(0.20)												
College + X Mid-to-late Twenties	0.433	(0.31)	0.634**	(0.20)	0.201	(0.37)												
Employment status X Mid-to-late T	wenties																	
Full-time X Mid-to-late Twenties							0.325+		-0.153+		-0.478*	(0.20)						
Part-time X Mid-to-late Twenties							0.350+		0.095		-0.255	(0.23)						
Missing emp. Status X Mid-to-late Tw							-0.350	(1.05)	0.191	(0.53)	0.542	(1.17)						
Annual earnings X Mid-to-late Two													0.067		0.008	(0.03)		(0.
Constant	-7.118***	(0.44)	-5.645***	(0.20)	1.473**	(0.48)	-7.163***	(0.45)			1.602**	(0.49)	-7.078***	(0.47)	-5.732***	(0.24)	1.346*	(0.
Number of person-months			8126	30					8126	30					8126			
Log likelihood			-7.44e	+09					-7.45e	+09					-7.45e	+09		
Chi-squared			3597.	187					3554.	295					3499.	180		

Standard errors are in parentheses. *** p < .001 ** p < .01 * p < .05 + p < .10

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