Opportunities to Meet: Occupational Education and Marriage Formation in Young Adulthood

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Abstract

Explanations for the positive association between education and marriage in the United States
emphasize the economic and cultural attractiveness of having a college degree in the marriage
market. However, educational attainment may also shape the opportunities that men and women
have to meet other college-educated partners, particularly in contexts with significant educational
stratification. We focus on work—and the social ties that it supports—and consider whether the
educational composition of occupations is important for marriage formation during young
adulthood. Employing discrete-time event-history methods using the NLSY-97, we find that
occupational education is positively associated with transitioning to first marriage and with
marrying a college-educated partner for women but not for men. Moreover, occupational
education is positively associated with marriage over cohabitation as a first union for women. Our
findings call attention to an unexplored, indirect link between education and marriage that, we
argue, offers insight into why college-educated women in the United States enjoy better marriage
prospects.

Keywords

Marriage formation; Marriage markets; Transition to adulthood; Work and occupations

Introduction

Education is now positively associated with marriage for both men and women in the United
States, a trend that family scholars have argued arises because education is a marker of
young adults' earnings potential and cultural attractiveness on the marriage market (Cherlin
2004; Goldstein and Kenney 2001; Oppenheimer 1988; Press 2004; Raley and Bratter 2004;
Sweeney 2002; Sweeney and Cancian 2004). Yet, this interpretation underappreciates how
education also shapes the opportunities that women and men have to meet certain kinds of
partners, particularly those who are college-educated (England 2004). With the expansion of
higher education and its tight connection with social class, many college-educated young
adults are on a different economic and social trajectory from their less-educated peers
(Goldin and Katz 2008). College graduates have different friends, work at better jobs, and

live in wealthier and more-highly educated cities and neighborhoods—social networks and environments that are ever more homogenous with respect to education and income (Domina 2006; Florida 2002; Jargowsky 1996; McPherson et al. 2001). As a result, young adults with a college degree are not only more attractive on the marriage market but also have greater access to potential spouses with preferred characteristics (e.g., a college degree). The latter likely improves their prospects for marrying quickly by increasing the odds that they will find a good or more desirable match sooner.

We focus on work as one important domain of social life where this dynamic likely operates in order to better understand educational stratification in the pace of marriage following school completion. For many young adults, work—and the network of ties that it supports— is a common social context for meeting potential spouses, even in the era of online dating (Laumann et al. 1994; Rosenfeld and Thomas 2012). This may be especially true for more-recent cohorts of young adults who now are delaying marriage until well after they finish school (Mare 1991; U.S. Census Bureau 2009). At the same time, work is also characterized by significant educational stratification. In today's highly skilled labor market, college graduates not only make more money and enjoy greater job security but also are more likely to work in more prestigious occupations with higher occupational education (Hauser and Warren 1997; Hout 2012). Thus, the college-educated tend to work in occupations that are more heavily populated by other college-educated workers.

In our analysis, we treat occupational education—measured as the proportion of young-adult workers with a college degree in a given occupation—as a marriage market characteristic that reflects the potential pool of college-educated partners that young adults have access to through their occupation. We use the 2000 census and the O*NET databases to create national-level measures of occupational education and other occupational characteristics (based on the 1998 Standard Occupational Classification (SOC) system; see Salmon 1999 for details). Because our measure of occupational education is not geographically specific, it is best thought of as indicating the potential for network ties to educated partners. We merge this occupational information onto individual-level data from Rounds 1–13 of the 1997 National Longitudinal Study of Youth (NLSY-97) and apply a discrete-time event-history approach to test whether being employed in an occupation with a higher proportion of college-educated workers is associated with an increased risk of first marriage and of marrying a college-educated partner among never-married young adults, ages 24–29. In keeping with previous research, we also test whether this association differs for men and women, varies by educational attainment, and matters differently for entry into cohabitation. We argue that attending to education's influence on the opportunities potential marriage partners have to meet one another—in this case, through the social networks supported by their occupations—improves our understanding the marriage gap between the college-educated and the non-college-educated.

Background

Education as an Individual Attribute Influencing Marriage Timing

The job search theory of marriage formation sees the transition to first marriage as resulting from two types of influences: (1) micro-level factors—measured and conceptualized as

characteristics of the individual—that shape young adults' readiness to marry, their partner preferences, and their attractiveness to potential spouses; and (2) macro-structural factors related to the demographic composition of local marriage markets and the availability of partners (Lichter et al. 1995; Oppenheimer 1988; South et al. 2001). Education's influence on marital timing has been understood primarily in micro-level terms as an individual attribute that improves both men's and (now) women's chances of attracting a partner and getting married. However, this advantage varies over the life course. Initially, young adults who are attending college are delaying marriage as they complete their degree. However, by the mid- to late-20s, marriage rates among the college-educated begin exceeding those of the less-educated (Martin 2004). Among recent cohorts, this positive educational gradient appears to persist into middle adulthood, with college-educated men and women being the most likely to ever marry (Goldstein and Kenney 2001; Torr 2011).

One explanation for this trend relates to changes in the institution of marriage. No longer seen as the foundation upon which other adult accomplishments are based, marriage is now viewed by many Americans as a "capstone" achievement that both signals and celebrates a successful transition to independent adulthood (Cherlin 2004). Graduating from college has become a crucial component of a successful transition and, as a result, acts as a prerequisite for marriage for many young adults (Thornton et al. 1995). Having a college degree can also indirectly affect marriage readiness through its influence on earnings, job quality, and job security (Fussell 2002; Oppenheimer et al 1997; Sweeney 2002). Moreover, in an era when cohabitation is more acceptable and prevalent, job insecurity and economic uncertainty appear to be important for men and women's decisions about whether to marry or cohabit as well as when (and if) to transition from cohabitation to marriage (Gibson-Davis et al. 2005; Kennedy and Bumpass 2011; Oppenheimer 2003; Smock et al. 2005).

Education is also viewed as a major component of a person's attractiveness on the marriage market. Both women and men report that they are most willing to marry someone who is better educated (and has higher income) than themselves, although men are more willing to marry someone with less education. Both sexes also report being least willing to marry a partner who cannot hold a steady job (Raley and Bratter 2004; South 1991). From a job search theory perspective, these preferences reflect the recent turn toward greater consideration among men of their partners' long-term economic characteristics prior to marriage (Oppenheimer 1988). Earnings are now positively associated with marriage for both men and women and have become increasingly important for women's overall position in the marriage market (Sweeney 2002; Sweeney and Cancian 2004). In this view, a college education is an important signal to potential partners about an individual's economic prospects, especially for young adults who have yet to establish their long-term labor market positions.

Others have argued that education is also attractive for reasons that are more cultural than financial (Arum et al. 2008; DiMaggio and Mohr 1985; Press 2004; Swidler 2001). For instance, the college-educated tend to have greater social and cultural capital and express greater support for gender equality (Kingston et al. 2003). It is these attributes, attitudes, and experiences that prospective partners, especially college-educated women, may find the most attractive as they contemplate not just earnings potential but also personal qualities

related to household responsibilities, parenting, and overall lifestyle. In fact, this might help explain why education, net of earnings, has become more important for men's marriage prospects among recent cohorts (Sweeney 2002). What is most important, however, is that education, for financial and/or cultural reasons, is understood as a marker of attractiveness for both men and women in today's marriage market.

Education and Marriage Markets

This micro-level understanding of education's influence on marriage formation informs studies of marriage market dynamics. To find a good marital match, young adults must not only want to marry and be attractive to potential spouses but must also have access to available and desirable partners (Lichter et al. 1992). Thus, demographic characteristics of the local marriage market—for example, the sex ratio (segmented by age and race)—are important for marriage timing and patterns of assortative mating. Young adults in markets with a surplus of potential partners are expected both to marry more quickly and to more easily realize their preferences, while those facing a shortage of partners are expected to either extend their search and delay marriage or lower their "reservation quality" and choose a less-preferable partner (England and Farkas 1986; Oppenheimer 1988). For example, Lichter et al. (1995) found that women in marriage markets with a favorable sex ratio (that is, in markets with more men than women) were more likely to marry high-status, better-educated men. In contrast, women—especially highly educated women—in tight marriage markets characterized by fewer available men were more likely to postpone marriage rather than "marry down" to someone with less education than themselves. Of course, not all men and women prioritize their partner's education so highly. Using longitudinal data from the National Survey of Families and Households (NSFH), Raley and Bratter (2004) found that men who reported in Wave 1 that they were willing to marry a woman with less education were more likely to be married by Wave 2. The authors posited that this may reflect "complementary preferences" in the marriage market: given that the majority of women report a preference for a better-educated partner, men who wish to marry down potentially have a larger pool of partners from which to choose.

A few studies have incorporated education directly into the operationalization of marriage markets, but most have focused on patterns of assortative mating rather than the timing of marriage. The education-specific sex ratio—that is, the number of highly educated unmarried men relative to the number of highly educated unmarried women—appears to be unrelated to the probability of marriage or assortative mating patterns; some evidence, though, suggests that the relative supply of economically attractive partners, measured using employment- and income-specific sex ratios, is important for these processes (Lichter et al. 1992; Lichter et al. 1995; Lloyd and South 1996). Lewis and Oppenheimer (2000) took a different approach and measured the educational concentration of opposite-sex partners, or the number of same- or better-educated partners relative to the number of less-educated ones. They found that men and women in educationally favorable areas are more likely to marry a partner with their level of education or higher rather than marry down. Furthermore, women in educationally unfavorable areas are more likely to marry down the longer they wait to marry.

Most studies define marriage markets by local geographic boundaries, typically census labor market areas (LMAs), under the reasonable assumption that geographic propinquity matters for meeting potential spouses. Although important, this focus may miss the social settings where people actually meet, interact, and form relationships (Kalmijn and Flap 2001; Mare 1991; South et al. 2001). Settings and contexts such as work, school, and voluntary associations not only provide direct opportunities to meet new partners, but they also support the formation of broader social ties that men and women draw from and rely on to find romantic partners (Feld 1981; Laumann 1994). Moreover, many of these social settings are stratified by education and tend to encourage more educationally homogeneous friendship networks (McPherson et al. 2001). From a macro-structural perspective (Blau 1977; South et al. 2001), access to college-educated partners varies across social as well as geographic space. We draw on this "supply-side" perspective to build on the existing literature on marriage markets and examine how occupations, by structuring access to college-educated partners, shape marriage formation among young adults.

Current Analysis: Occupational Education and Opportunities to Meet

We propose an alternative conception of marriage markets that centers on the educational composition of occupations—"occupational education"—which we argue reflects the extent of access or potential access that young men and women have to college-educated partners through the social ties supported by their jobs. Like school during adolescence and early adulthood (Mare 1991), work acts as a major organizing focus around which friendship ties and networks are generated and maintained throughout young and middle adulthood (Feld 1981; Kalmijn and Flap 2001). Ties formed at work also tend to be strongly segregated by occupation (Brass 1985; Ibarra 1992, 1995). Because of the significant amount of time and energy spent on work and among coworkers (Gauthier and Furstenberg 2002), the workplace itself may serve as a setting for meeting romantic partners (Kalmijn and Flap 2001; South et al. 2001). However, we argue that occupational education captures not just the educational composition of the work environment (albeit imperfectly) but also of the larger set of ties, contacts, and networks associated with occupations that young adults make use of (intentionally or not) to find new partners. Young adults in occupations dominated by workers with a college degree should not only have more college-educated colleagues, but those colleagues should also have more college-educated friends, contacts, and acquaintances of both sexes.

Greater contact with and access to college-educated young adults, in turn, should improve men and women's marriage prospects for two reasons. First, as in the case of geographic propinquity (Lewis and Oppenheimer 2000), access to more college-educated partners should allow men and women to more easily realize their preferences (for a college-educated partner) and find a desirable match more quickly (Raley and Bratter 2004; South 1991). Second, as one reviewer has pointed out, given that college completion is now associated with marriage readiness (Cherlin 2004), young adults in highly educated occupations should also have access to more potential partners who themselves are ready to marry, further facilitating marriage formation.

We focus specifically on the mid- and late-20s (ages 24–29), when most young adults are completing school and entering the workforce full-time. Although schools continue to be a significant source of friendship and romantic ties at these ages (Arum et al. 2008; Mare 1991), nonschool environments (such as work) are becoming an important influence on social networks and, as we argue, provide opportunities to meet romantic partners. Although the first decade of the 2000s has seen a substantial rise in the use of the Internet to meet partners (Rosenfeld and Thomas 2012), this trend has been more pronounced among middle-aged and older heterosexual adults and sexual minorities, which comprise groups that face tighter dating markets and that benefit the most from the improved search efficiency of the Internet. Younger heterosexual adults, in contrast, continue to rely on more traditional sources—schools, friends, and work—when searching for romantic partners (Rosenfeld and Thomas 2012). Therefore, we argue that the compositional characteristics of occupations are likely to be an especially salient influence on marital formation at this stage in the life course among contemporary young adults.

At the same time, we recognize that occupational education may also be associated with marriage formation for reasons that are incidental to the educational composition of the marriage partner pool. Occupational education was originally conceptualized as a measure of occupational status, which may be an important component of men and women's attractiveness on the marriage market (Hauser and Warren 1997). More generally, occupations with more college-educated workers are likely to be better jobs, characterized by more generous benefits, greater job security, and more autonomy and scheduling flexibility (Kuo and Raley 2014; Lim 2013). Occupational education might be measuring these other job characteristics that women and men use—along with more commonly measured attributes, such as income—to evaluate a potential partner's long-term economic attractiveness as well as their own marriage readiness (Xie et al. 2003). We attempt to account for these potential confounders in our analysis. In keeping with previous studies on marriage markets that emphasize the availability of opposite-sex partners (Lichter et al. 1992; South et al. 2001), we also include the occupational sex composition. This may be important given that some highly educated occupations—for example, science and technology fields—tend to be disproportionately male (Xie and Shaumann 2005) and may influence men and women's marriage prospects differently.

Given our theoretical framework about the importance of the educational composition of occupations for marriage formation, we propose the following hypothesis about the relationship between occupational education and the transition to first marriage:

Hypothesis 1: Young adults in highly educated occupations should be more likely to make the transition to first marriage than those in less-educated occupations, net of their own educational attainment and overall economic attractiveness.

The effect of occupational education may also be expected to vary by respondent's own educational attainment. Educational homogamy has grown substantially in recent decades (Schwartz and Mare 2005), leading Cherlin (2010:405) to remark that the marriage market appears to be divided into three submarkets: "one for the college educated, one for the least educated, and one for those with a high school diploma and perhaps a few years of college." Although a college education might be attractive to

everyone regardless of educational attainment, young adults without a college degree may still be unable to compete for a college-educated partner despite having greater access to them through their occupations.

Hypotheses 2: Occupational education should be more strongly associated with first marriage for respondents with a college degree than for those with less education.

Third, the relationship between occupational education and marriage formation is likely to differ for men and women. Although both sexes report a preference for better-educated partners, men express a greater willingness to marry someone with less education than themselves (Raley and Bratter 2004; South 1991). Although the reasons for these differences are not fully understood, a number of studies that have found sex differences in marriage market effects suggest that educational and economic characteristics may be less important, on average, for men's marital decisions compared with other traits, such as physical attractiveness (Lewis and Oppenheimer 2000; South et al. 2001; Stewart et al. 2000).

Hypothesis 3: Occupational education should be more strongly associated with the transition to first marriage for women than for men.

Fourth, if indeed occupational education is important for the transition to marriage and reflects the educational composition of the pool of available partners, it should also increase the probability of marrying a partner who has a college degree.

Hypothesis 4: When they marry, young adults in highly educated occupations should be more likely to marry a college-educated partner.

Finally, although our focus is on the transition to first marriage, we also consider how occupational education might influence the transition into cohabitation. Cohabitation has become an increasingly common arrangement in young adulthood, accounting for 73 % of all first unions during 2001–2007 (Kennedy and Bumpass 2011). However, evidence suggests that marriage remains distinct from cohabitation in the United States, with the degree of difference varying by race and class (Smock 2000; Sweeney 2010; Wildsmith and Raley 2006). Most cohabiting unions are relatively short-lived (median 14 months), and only one-half lead to marriage (Kennedy and Bumpass 2008). Thus, perhaps cohabitation may act as an alternative to being single or dating rather than marriage, especially given the markedly lower rates of childbearing (Heuveline and Timberlake 2004; Musick 2002; Raley 2001; Rindfuss and VandenHuevel 1990). The decision to cohabit is often made out of economic convenience and relationship inertia and, consequently, may depend less on partners' long-term economic potential (Sassler 2004; Stanley et al. 2006; Xie et al. 2003). Cohabiting unions are also characterized by less educational and racial homogamy (Blackwell and Lichter 2004; Joyner and Kao 2005; Sassler and Joyner 2011). Given these differences, access to a higher concentration of educated partners should be less important for the transition to cohabitation.

Hypothesis 5: Occupational education should be more strongly associated with the transition to first marriage than to first cohabitation.

Data and Methods

Data for this analysis come from Rounds 1–13 of the 1997 National Longitudinal Survey of Youth (NLSY-97), a national sample survey of 8,984 youth born between January 1980 and December 1984. With the use of the sampling weights provided, the NLSY-97 is designed to be nationally representative. In this study, we used sampling weights from the first round of the NLSY-97 for all analyses. Respondents have been interviewed annually since 1997. Between September 2009 and April 2010, at which time the 13th survey round was taking place, respondents were just exiting their 20s. Although respondents were still young and many of them had not yet married, the NLSY-97 contains detailed information on employment and union formation histories that make it an excellent data source for researchers interested in understanding the relationship between work characteristics and family formation behavior among the most recent cohort to pass through young adulthood.

The sample for our analysis was restricted to respondents who had never been married by age 24—the majority of respondents in the NLSY-97 cohort. Our analysis focuses on ages 24–29 because most young adults have completed their formal education by this time, making it a period in the life course when marriage is common and work is likely to be a relevant context in the marital search process (Laumann et al. 1994). Prior studies have found that the factors influencing marriage formation vary over the life course (e.g., Goldscheider and Waite 1986; Raymo and Iwasawa 2005), so other factors may be important at earlier and later ages. Those respondents who had missing data on the date of first marriage or whose last interview occurred before age 24 were also excluded from the sample. This left us with 6,337 NLSY-97 respondents,[1] almost one-half female ($N = 2,932$) and one-half male ($N = 3,405$). Table 1 shows that our analytical sample overrepresented non-Hispanic blacks and was slightly more advantaged with regard to parental education than the full sample, although these differences are small.

In addition to the NLSY-97, we have two data sources on occupational characteristics. From the 2000 census 1 % microdata sample, we compiled information on the educational composition and sex composition (i.e., proportion of men) of occupations using the 1998 Standard Occupational Classification (SOC) system (Salmon 1999). From the O*NET, created by the Occupation Information Network (found online at http://www.onetcodeconnector.org/oca/step1) to replace the Dictionary of Occupational Titles, we obtained information on occupational autonomy and occupational status. More detail on these occupational characteristics is presented herein.

Using birth dates and dates of first unions (i.e., marriage and cohabitation), we converted the data into person-years. These person-year data sets included as many as six observations per individual starting with each respondent's 24th birthday. We included all person-years up to the year of first marriage[2] or last interview. In models predicting the transition to marriage,

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[1]In the multinomial regression analysis for marriage timing by spouse's education, we exclude 102 ever-married respondents with missing information on their spouses' education attainments, which leaves us with 6,235 NLSY-97 respondents: 2,892 females and 3,343 males. Additionally, in the multinomial regression analysis for the competing-risk model of first union type, we further exclude respondents who had ever cohabited before age 24 or have missing data on the date of first cohabitation, which leaves us with 3,815 NLSY-97 respondents. Among them, 1,575 are female, and 2,240 are male.

we used respondents' characteristics at their birthday month in one year (e.g., age 24) to predict their probability of having married by the following year (e.g., age 25). Because marriage formation can be lengthy process, a person-year file—as opposed to a shorter one-month or six-month lag—provides a more robust test of our hypotheses concerning the opportunities that occupations provide for meeting potential marriage partners, especially given that some young adults may change jobs in anticipation of getting married to a partner whom they have already met.

Dependent Variables

To test our hypotheses about the influence of occupational education on the timing of first marriage, the educational characteristics of spouses, and first union type (marriage vs. cohabitation), we constructed three outcome variables. Our first outcome was a dummy variable that measured the transition into first marriage, equal to 0 prior to first marriage and 1 in the first year of marriage. In our sample ($N = 6,337$), 524 female respondents and 541 male respondents had married as of their last NLSY-97 interview. The second outcome was a three-category variable measuring the type of first marriage based on the educational attainment of the spouse at the time of marriage (i.e., spouses with at least a college degree and spouses without a college degree), as opposed to remaining unmarried. Information on spouse's education is from the NLSY-97 household roster, which collected information on spouses even in the rare case that they were not living with the respondent. Among the married female respondents, 326 married spouses without a college degree, and 158 married spouses with at least a college degree ($N = 2,892$). The corresponding figures for married male respondents are 313 and 166, respectively ($N = 3,343$). The third outcome variable was a three-category variable measuring the transition into cohabitation or marriage as first union type, as opposed to remaining unpartnered. By the latest NLSY-97 interview, among female respondents who had entered their first union, 407 cohabited, and 125 married (no prior cohabitation) ($N = 1,575$). The respective corresponding numbers for the male respondents are 538 and 170 ($N = 2,240$). Overall, during this life stage (ages 24–29), men were less likely than women to marry or cohabit. In addition, both men and women were more likely to cohabit than to marry; and if they married, they were more likely to marry a spouse without a college degree.

Independent Variables

The independent variables for our analysis included the major explanatory variable—occupational education—and other occupation- and work-related variables, all of which were time varying. In addition, the models controlled for factors that influence marriage formation and are correlated with these work characteristics.

Time-Varying Work Characteristics—We constructed our indicator of the educational composition of occupations using the 2000 census, focusing on the population ages 25–29 and calculating the proportion in each occupation with a college degree. Values of "occupational education" ranged from 0 to 1. We chose not to create separate sex-specific

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[2]In the person-year data set used for estimating multinomial logistic regression models of transition to first union by union type (cohabitation or marriage), we include all person-years up to first union (either cohabitation or marriage) or last interview.

measures for men and women (which would reflect the composition of opposite-sex partners only) because our theory is that occupational education describes the broader set of social ties that are acquired and maintained through work, via both male and female colleagues. Moreover, sex-specific measures of occupational education were highly correlated ($r > .90$) with the less-restrictive measure we used.

Table 2 provides a brief descriptive portrait of occupational education for men and women by level of education. The types of occupations at the median (0.14, which indicates that 14 % of workers age 25–29 have a college degree) included bartenders, file clerks, and medical technicians; at the 25th percentile (0.05), food preparation workers and grounds maintenance workers; at the 75th percentile (0.38), insurance sales agents and tax preparers; and at the 90th percentile (0.71), counselors, computer programmers, and marketing/sales managers. As expected, men and women with more education had much higher mean and median levels of occupational education. College-educated young adults, in particular, were much more likely to be in highly educated occupations than their less-educated peers. More interesting is that the variation also increased with educational attainment. Although the middle 50 % of person-years by female respondents with a high school diploma were spent in occupations in which 7 % to 20 % of workers had a college degree (IQ range = 0.16 for men), the interquartile range for respondents with a college degree went from 20 % all the way to 80 % college-educated workers (IQ range = 0.57 for men). This finding indicates that although having a college degree certainly improves one's chances, it does not appear to guarantee access to a highly educated occupation or, as we argue, access to the highly educated pools of potential partners that such occupations provide and support.

We used the same data and approach to calculate the occupational sex composition, which reflects the proportion of the population ages 25–29 in a given occupation that is male. We adopted this age restriction for both census-derived measures to better capture the characteristics of those in the same age range as the NLSY-97 respondents—that is, young adults (and their friends) whom respondents are most likely to view as potential marriage partners. If we had broadened our age range to include older adults, occupational education or the sex composition might also reflect generational differences in education and gender segregation across occupations. We merged these variables onto the NLSY-97 using 2000 census SOC occupation codes and the primary job reported by NLSY-97 respondents.[3] Both measures represent the national average for each occupation and, consequently, do not necessarily reflect the composition of NLSY-97 respondents' actual workplace environments. In that sense, our measures of occupational characteristics are conservative and capture (what we believe to be) the potential opportunities to meet desirable romantic partners through work-related social networks.

In addition, we took into account two other occupational characteristics that may be associated with the educational compositions of individuals' occupations and also influence marriage formation. We obtained indicators of occupational autonomy and occupational

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[3]The NLSY-97 asks respondents about jobs and employers during each week in the year prior to each interview, which we then aggregated to a monthly measure. Primary jobs are those in which respondents reported spending the most time being employed in a given month. In the aggregated monthly data, only a small proportion of analytic person-month data (1.48 %) reported two or more "primary" jobs (i.e., experiencing changes in employers).

status from the O*NET. The O*NET database, based on the 2000 SOC system, classifies approximately 1,000 occupation categories (National Center for O*NET Development n.d.) and provides detailed information on occupational characteristics, including indicators of worker autonomy and status. Because the O*NET occupation categories are more detailed than the census categories (only 509 occupational categories in the 2000 census) (Fronczek and Johnson 2003), we aggregated the O*NET more-detailed occupation categories using the crosswalk between census 2000 and SOC 2000 occupation codes provided by the National Crosswalk Service Center (NCSC; available online at http://www.xwalkcenter.org). We were then able to match 505 occupation categories and merge the occupational indicators compiled from the O*NET onto the NLSY-97.

From the O*NET database, we used the indicator "freedom to structure one's own work" to measure occupational autonomy. This variable indicates the level of freedom workers in a given occupation have to determine tasks, priorities, and goals. It is measured on a scale from 1 to 5, with 1 indicating little to no autonomy at work and 5 indicating a high level of autonomy. Our measure of occupational status comes from the O*NET as well. The O*NET constructs this indicator based on four occupational characteristics: opportunities for advancement, recognition workers receive for the work they do, degree of authority, and the extent to which workers are looked up to by others in their company and their community.

The NLSY-97 also collects information regarding whether an array of fringe benefits are available to respondents through their current employers (or through self-employment). Among these benefits, we selected those that may be related to job quality and may promote marriage, thereby confounding the relationship between occupational education and marriage. We controlled for a set of dichotomous variables indicating whether respondents had (1) paid vacation; (2) paid sick leave; (3) maternity/paternity leave (paid or unpaid); (4) medical, surgical, or hospitalization insurance that covered injuries or major illnesses off the job; and (5) work schedule flexibility available through their current jobs. All occupational characteristics and job benefits can change on a yearly basis in the person-year data sets to reflect changes in respondents' occupations or shifts in their employment status.

To measure young adults' earnings, we used the annual earnings reports from respondents on the total income they received from wages, salary, commissions, or tips from all jobs they had in the year prior to interview. Thus, we used reported earnings in the previous year to predict marriage in the following year. In doing this, we conceptualized earnings as a more general indicator of economic resources. Mean (logged) annual earnings were higher for men than for women (Table 3). Measures of employment hours were constructed based on an NLSY-97–created variable describing the number of work hours each week. We averaged the weekly variables to create monthly indicators and recoded this variable into three categories: not employed, part-time employment (working fewer than 35 hours per week), and full-time employment (working at least 35 hours per week). The "not employed" are the reference category. Table 3 shows that most men and women were employed at these ages, and the large majority of those who were employed worked full-time.

Because respondents who were not employed do not have valid values on occupational education (and other occupational characteristics), we centered occupational education on

the sample mean for the employed and assigned zeros for those who were not employed. Thus, in the models with occupational education included, the employment variables indicate the influence of employment on marriage at the average level of occupational education. The occupational education variable indicates how this relationship between employment and marriage changes as occupational education increases or decreases. Our measures of occupational autonomy, status, and the sex composition were also mean-centered. Other methods of imputation for unemployed respondents (e.g., using the educational composition of respondent's most recent occupation) produced substantively similar results. For consistency across occupational characteristics, we present models with mean-centered occupational education.

Other Controls—Prior research shows that family background affects individuals' labor-market performance and marriage formation. Therefore, we controlled for respondents' race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, and other), family structure at age 12 (two biological parents, single mother, stepparent, and other), and the educational level of the respondent's most highly educated parent (less than high school, high school diploma or GED, some college, and college degree or more). See Table 1 for the distributions on these variables for the analytical sample (both before and after multiple imputation was employed for missing data).

We also included other control variables that vary on a yearly basis in our data set. Previous studies have found that educational attainment and school enrollment can shape one's employment history and path to marriage (Oppenheimer 2003; Raley 1996; Xie et al. 2003). Young people are less likely to marry and participate in the labor force actively and extensively when they are currently enrolled in school. Moreover, those living in the South and nonmetropolitan areas are more likely to marry at earlier ages but also have lower earnings. To account for these factors, we constructed variables based on yearly information on respondents' regional (i.e., Northeast, North Central, West, and South) and metropolitan area of residence; current educational attainment (less than high school, high school diploma or GED, some college, and college degree or more); and a dummy variable indicating whether respondents were currently enrolled in school (see Table 3).

An increasing proportion of births is to unmarried women in the United States (Hamilton et al. 2006). Given that premarital childbearing experience can influence parents' subsequent opportunities to marry (Bennett et al. 1995; Manning 1993; Upchurch et al. 2001) and that having young children at home often influences parents' employment, particularly mothers' (Arun et al. 2004; Dex et al. 1998; Paull 2008), we also took into account whether respondents were pregnant with or had their first child. Because the likelihood of marriage for unmarried parents can vary by children's life stages (Manning 1993), we constructed three variables representing different stages of a first-born child's life course. The first variable indicates the gestational period starting from the seventh month prior to the birth of the child to the month prior to the child's birth. The second variable indicates the first year of the child's life, and the third indicates the lifetime of the child since his/her first year birthday.

To correct for potential bias in our estimates resulting from the exclusion of respondents who married (or cohabited in the first union analysis) prior to age 24, all analyses were corrected for sample selection using the two-stage procedure described by Heckman (1979). First, a probit model was constructed to predict selection into the sample using all time-invariant characteristics. A hazard rate for exclusion from the sample was then constructed based on the predicted values from this model (see Berk 1983). The hazard rate was then entered as a control into the equations predicting marriage timing, spouse education, or type of first union.

Finally, we employed the multiple imputation technique in STATA 12, using the chained equations in the *mi* command (White et al. 2011). We generated five imputed data sets to impute missing data on all the categorical and continuous independent variables included in the analysis. (Tables 1 and 3 provide information on missing data.) Five imputations in the multiple imputation process are considered sufficient to make good inferences and to get parameter estimates that are close to being fully efficient (Allison 2009). Results before and after employing multiple imputation technique were substantively equivalent. Results presented here are based on the multiply imputed data.

Analysis Plan

Our central focus is on the role that occupational education plays in shaping young adults' transition to first marriage. In line with prior studies indicating that the predictors of marriage differ for men and women (e.g., Lewis and Oppenheimer 2000; Lichter et al. 1995; Raley and Bratter 2004), we estimated all models separately for men and women. We employed logistic and multinomial regression to estimate discrete-time event-history models, where time is measured by a series of dummy variables indicating respondent age (in years) (Allison 1982, 2012). First, we employed logistic regression to estimate discrete-time event-history models of the transition to first marriage, starting with a baseline model that includes respondent's age in years, race/ethnicity, family structure, parental education, own educational attainment, school enrollment, area of residence, childbearing experience, employment status (full-time or part-time employment, with not employed as the reference group), earnings, and occupational characteristics (except occupational education). This baseline model allows us to compare our results with prior research findings and to see how marriage formation varies by educational attainment, controlling for earnings and employment status. Next, we added occupational education to the baseline model (Hypothesis 1). We performed *t* tests for interaction terms between occupational education and respondents' educational attainment and between occupational education and gender to see whether the relationship between occupational education and marriage formation varied by education or gender (Hypotheses 2 and 3).

After establishing the relationship between occupational education and the transition to first marriage for women and men, we employed multinomial logistic regression to estimate competing risk models that distinguish marriage to a college-educated spouse from marriage to a spouse without a college degree. We expected occupational education to be positively associated only with marriage to a college-educated spouse (Hypothesis 4). Finally, we

estimated competing risk models to identify whether occupational education is associated more strongly with first marriage than with first cohabitation (Hypothesis 5).

Results

First, we estimated discrete-time event-history models of the transition to first marriage, running separate models for men and women. In the left panel of Table 4, Model 1 shows that for women ages 24–29, earnings, maternal leave, and occupational autonomy were positively associated with first marriage. The occupational sex composition—the proportion of male young-adult workers—was negatively associated with first marriage. In contrast, employment status, education, and other job-related benefits were not significantly associated with first marriage, net of earnings and other occupational characteristics. Although education was not significant in Model 1, educational differences were significant for women in models that did not include occupational and job benefit characteristics (not shown), with the college-educated having a greater risk of first marriage than those with a high school diploma.

Model 2 includes occupational education. In support of Hypothesis 1, occupational education was strongly and significantly associated with marriage timing, indicating that the association between employment status and occupation varied significantly by this occupational characteristic. Furthermore, occupational education was significant net of other occupational and job characteristics that are associated with occupational education and that influence individuals' attractiveness and readiness for marriage. This bolsters our claim that occupational education measures the opportunities that women have to meet marriage partners. We tested whether occupational education mattered differently for full-time and part-time employed respondents, and it did not. The coefficient for occupational education indicates that a 10 percentage point increase in occupational education increases the relative risk of marriage by 7.5 % ($\exp(.10 \times .722) = 1.075$), net of other factors. We tested alternative specifications of this variable, including adding a squared term and using a categorical version of the variable. The results indicated that the linear term produced the best model fit. We also ran a model with an interaction between occupational education and educational attainment (Hypothesis 2). The interaction was not in the expected direction, nor was it statistically significant. Thus, we did not find support for the idea that the educational composition of occupations is more relevant for college-educated women's opportunities to meet potential spouses than for less-educated women.

The right panel of Table 4 presents the same analysis for men. The baseline model shows that the association between education and marriage at this stage in the life course was not significant (net of earnings and occupational characteristics). Earnings were positively associated with marriage, but other occupational and job benefit characteristics were not significant. Model 2 shows that occupational education was not significantly associated with men's opportunities to meet potential partners. Supporting Hypothesis 3, the interaction term between occupational education and sex in pooled models (which included both women and men) indicated that the coefficient for occupational education was significantly larger for women than for men.

In Table 5, we present results from multinomial logistic regressions. The first pair of columns in each set contrast marriage to a college-educated spouse with marriage to a spouse without a college degree. The second pair of columns contrast remaining single (never-married) to marrying someone without a college degree. Not surprisingly, women's own educational attainment was positively associated with spouses' education. Consistent with Hypothesis 4, women in occupations with more college-educated workers were more likely to marry a spouse who had a college degree. This supports our argument that college-educated women marry more quickly during this stage in the life course in part because they are in occupations that provide greater access to men with a college degree. The right side of Table 5 shows that for men, just as for women, educational attainment is associated with spouses' education, but occupational education is not significantly associated with spouses' education. An interaction between occupational education and sex in pooled models was not statistically significant. Therefore, although women's risk of marriage was more sensitive to their occupational characteristics than was the case for men, we cannot definitively say that occupational characteristics are stronger predictors of spouse's educational attainment for women than for men.

We also predicted first-union formation for men and women, contrasting marriage to cohabitation. As stated in Hypothesis 5, we expected that opportunities to meet the most marriageable partners would increase the risk of marriage over cohabitation. The results in Table 6 support this hypothesis. For women, occupational education was strongly associated with marriage over cohabitation. Interestingly, occupational education was also associated with remaining unpartnered over cohabitation for women, net of other characteristics. For men, occupational education was not associated with marriage versus cohabitation. The lack of findings for men's occupational education might arise because men's mate selection preferences are more open to less-educated women. Additionally, at this age, a higher proportion of women than men married. Thus, men's marriage appears less dependent on their opportunities to meet women with a college degree.

Although all models in Tables 4–6 controlled for a selection correction described in the previous section, we also performed all analyses on ages 18–23 as an additional check on the external validity of our findings. Consistent with previous studies on how factors associated with marriage formation vary over the life course (Goldscheider and Waite 1986; Raymo and Iwasawa 2005), occupational education was not significantly associated with marriage at these younger ages. In addition, our results hold in models with no age restriction (18- to 29-year-olds).

Discussion

In our analysis of first marriage during the early years following school completion (ages 24–29), we found that the educational composition of occupations (occupational education) was an important marriage market characteristic associated with both marriage timing and partner choice for women but not for men. Building on previous research on marriage markets and the importance of work for structuring social networks, we expected highly educated occupations to facilitate marriage formation at this stage in the life course by improving young adults' opportunities to meet college-educated partners. In support of

Hypotheses 1 and 4, women's occupational education was positively associated with the transition to first marriage and with marriage to a college-educated partner. In support of Hypothesis 5, occupational education was also associated with marriage over cohabitation as a first union, which is consistent with prior research on differences between marriage and cohabitation formation processes in the United States (e.g., Xie et al. 2003).

We did not find support for Hypothesis 2, which predicted that the returns to a highly educated occupation would be more pronounced among college-educated women. It is important to keep in mind, however, that college-educated women were much more likely to be in highly educated occupations than their less-educated peers. Moreover, occupational characteristics, in general, accounted for much of the educational divide in women's first marriage timing. Together, these findings draw attention to work as an underappreciated indirect link between education and marriage. In an educationally stratified society like the United States, education is not only a measure of attractiveness on the marriage market but also sorts people into different social environments and networks that act as important contexts through which many young adults meet marriage partners. In this way, our results support calls within the literature on marriage markets to focus not just on the geographic area in which people live but also on the social settings where they actually meet (Kalmijn and Flap 2001; Mare 1991; South et al. 2001). Marriage formation requires not just proximity but also interaction, and our findings support the idea that the opportunities for those interactions are socially structured.

In contrast to our findings for women, occupational education was unrelated to men's marriage prospects at these ages (supporting Hypothesis 3), which may reflect their tendency to marry later than women. Young-adult men, especially those in higher-status occupations with greater long-term career opportunities, may also be more likely to delay marriage to focus on career development. This dynamic could also help explain the negative association found between the occupational sex composition (proportion of male workers) and marriage among women, with career demands in these occupations perhaps taking greater precedence during this life stage. Another possibility, drawing on South and colleagues' (2001) finding that women in male-dominated occupations have a greater risk of divorce, is that young-adult women facing a surplus of male partners at work may evaluate their marital prospects differently and be less inclined to marry quickly. Consequently, we emphasize that this study is restricted to ages 24–29 and, therefore, describes factors that facilitate what is still relatively early marriage for today's young adults, especially for college graduates (Cherlin 2010). Future analyses with these and other data should consider whether and how the educational composition of occupations (as well as other demographic characteristics and social contexts) might continue to be relevant for marriage formation later in the life course for both women and men.

Although we focused on first-marriage timing, our findings speak to the assortative mating literature as well. Mare (1991) argued that trends in educational homogamy are largely shaped by the timing of marriage relative to schooling: because schools are such an important source of social and romantic ties, educational homogamy should be more common when marriage occurs soon after young adults complete their education. As both men and women delay marriage later into adulthood, they should begin choosing romantic

partners from more educationally diverse contexts, such as work, which should lead to fewer educationally homogamous marriages. Since the 1970s, however, the college-educated have been more likely to marry each other, despite substantial increases in the average age at first marriage (Schwartz and Mare 2005). Our results suggest that work and occupations, rather than being a source of greater educational diversity in the marriage market, may actually be contributing to this trend by continuing to stratify the opportunities that young adults have to meet college-educated partners.

This study has a few important limitations. First, we were unable to account for unmeasured characteristics that may be leading some individuals to both work in highly educated occupations and marry before age 30. Our results, therefore, are necessarily correlational. However, we argue that occupational education is not simply measuring unobserved characteristics related to job quality and long-term economic prospects. Occupational education remained robust after controlling for other work characteristics—income, employment status, job benefits, occupational sex composition, occupational autonomy, and even status—that are associated with highly educated occupations and also influence marriage formation.

Second, our measure of occupational education represents the national average of each occupation's educational composition. Although this is an improvement over subjective assessments of marriage market characteristics by respondents, substantial variation still exists within occupations regarding the educational composition of specific jobs and workplaces (South et al. 2001). Capitalizing on geographic variation in occupational education, specific to particular labor markets, or variation across industries may provide better estimates going forward. For now, we emphasize that occupational education is best thought of as a measure of the educational composition of the larger network of social ties and friend groups that work and occupations support.

In conclusion, this study addresses the broader historical changes in the educational gradient in women's marriage in the United States. Today's marriage advantage for college-educated women is a relatively recent phenomenon: in fact, during the first half of the twentieth century, college-educated women were less likely to marry than women without college degrees (Torr 2011). To explain this reversal, family scholars have focused on how the entrance of more women into higher education and the labor force and cultural changes toward gender equality have made women's earnings potential (signaled by their education level) more important for their marriage prospects, in ways that were previously relevant for only men's marriage (Goldstein and Kenney 2001; Oppenheimer 1988; Sweeney 2002; Torr 2011). Our analysis complements this explanation by turning attention to macro-structural factors related to access and the supply of partners. The findings suggest that educational stratification in the job market has an important influence on the opportunities that young-adult women have to meet college-educated men and find a suitable marriage partner. This greater access through occupational and work-related networks appears to contribute to the marriage advantage enjoyed by college-educated women in the United States.

Acknowledgments

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Table 1

Sample fixed characteristics (weighted %).

	Total (*N* = 8,984)		Analytical Sample (*N* = 6,337)		Analytical Sample (based on multiply imputed person-year data)	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**
Parental Education (%)						
Less than high school	11.31	12.33	10.17	11.52	12.25	12.30
High school diploma/GED	31.56	30.50	30.57	30.33	32.84	32.38
Some college	25.13	24.37	25.15	23.61	25.50	24.53
College degree or more	27.05	28.15	29.04	29.99	29.42	30.78
Missing on parental education	4.95	4.65	5.06	4.55	—	—
Race/Ethnicity (%)						
Non-Hispanic white	67.02	66.29	62.72	63.9	60.57	62.77
Non-Hispanic black	15.53	15.31	19.66	17.71	21.37	18.45
Hispanic	12.25	13.43	11.71	13.00	12.03	13.08
Other	5.19	4.98	5.91	5.39	6.03	5.70
Family Structure at Age 12 (%)						
Two biological parents	52.98	56.55	53.15	55.47	51.41	53.87
Single mother	22.54	20.20	23.58	21.24	24.51	22.58
Stepparent	16.15	14.77	14.51	15.10	14.28	14.95
Other	8.33	8.48	8.76	8.19	9.80	8.60
Ever Married at Last Observation (%)	39.81	29.95	20.74	17.59		
Ever Cohabited at Last Observation (%)	58.93	48.10	62.17	50.30		
Among Ever-Married (%)						
College-educated spouse	18.99	22.01	34.42	34.48		
Missing on spouse education	7.10	5.97	5.64	8.27		
Unweighted Sample Size	4,385	4,599	2,932	3,405		

Note: An additional 102 respondents were excluded because they have missing data on spouses' education.

Table 2

Descriptive statistics for occupational education by educational attainment for men and women, person-years from ages 24 to 29 (weighted means and standard deviations)

	Mean	SD	25th Percentile	Median	75th Percentile	IQ Range
Women						
Overall	0.31	0.28	0.09	0.19	0.46	0.36
Educational attainment						
Less than high school	0.11	0.10	0.05	0.07	0.13	0.08
High school diploma/GED	0.19	0.17	0.07	0.13	0.20	0.13
Some college	0.23	0.18	0.11	0.18	0.34	0.22
College degree or more	0.51	0.30	0.20	0.53	0.80	0.60
Men						
Overall	0.23	0.26	0.03	0.09	0.27	0.24
Educational attainment						
Less than high school	0.07	0.10	0.03	0.03	0.06	0.03
High school diploma/GED	0.15	0.19	0.03	0.06	0.19	0.16
Some college	0.25	0.23	0.04	0.18	0.41	0.37
College degree or more	0.48	0.31	0.19	0.49	0.76	0.57

Table 3

Time-varying characteristics, person-years from ages 24 to 29 (weighted)

	Women				Men			
	Person-Year Data	Multiply Imputed Person-Year Data			Person-Year Data	Multiply Imputed Person-Year Data		
	Mean	SD	Mean	SE	Mean	SD	Mean	SE
Annual Earnings (logged dollars)[a]	8.18	3.73	8.05	0.02	8.38	3.74	8.23	0.02
Occupational Education (proportion)[b]	0.31	0.28	0.29	0.00	0.23	0.26	0.22	0.00
Occupational Sex Composition (proportion of men)[b]	0.34	0.21	0.33	0.00	0.65	0.26	0.65	0.00
Occupational Autonomy (1–5)[c]	3.98	0.42	3.96	0.00	3.92	0.45	3.90	0.00
Occupational Status (1–7)[d]	3.26	1.11	3.14	0.01	3.10	1.18	3.01	0.01
Among Employed Person-Years (%)								
Availability of paid vacation	57.42		61.02		56.05		58.90	
Missing	4.86		—		3.92		—	
Availability of paid sick leave	40.64		46.09		35.30		39.54	
Missing	8.54		—		7.46		—	
Availability of medical insurance	61.22		62.73		58.73		60.68	
Missing	8.27		—		10.81		—	
Availability of schedule flexibility	37.09		38.78		31.16		32.93	
Missing	8.27		—		10.81		—	
Availability of paid/unpaid maternal/paternal leave	45.33		40.46		28.02		24.29	
Missing	12.28		—		6.62		—	
Employment Status (%)								
Not employed	20.77		21.61		21.33		21.99	
Full-time	54.07		54.07		59.93		59.93	
Part-time	24.32		24.32		18.08		18.08	
Missing	0.84		—		0.67		—	
School Enrollment (%)								
Enrollment	18.42		18.43		13.74		13.75	
Missing	0.08		—		0.04		—	
Educational Attainment (%)								

	Women				Men			
	Person-Year Data		Multiply Imputed Person-Year Data		Person-Year Data		Multiply Imputed Person-Year Data	
	Mean	SD	Mean	SE	Mean	SD	Mean	SE
Less than high school	8.68		9.22		9.99		10.92	
High school diploma/GED	46.83		50.35		56.46		61.04	
Some college	6.03		6.51		5.02		5.40	
College degree or more	31.76		33.93		21.37		22.64	
Missing	6.70		—		7.16		—	
Unweighted Person-Years		9,982				11,547		

[a] 19.08 % of data on annual earnings are missing for men, and 20.99 % are missing for women.

[b] For men, 0.75 % of data are missing invalidly on these two variables (i.e., not due to unemployed); for women, 0.51 %.

[c] For men, 3.13 % of data are missing invalidly on occupational autonomy (i.e., not due to unemployed); for women, 2.59 %.

[d] For men, 2.69 % of data are missing invalidly on occupational status (i.e., not due to unemployed); for women, 2.20 %.

Table 4

Coefficients from logistic regression models of transition into first marriage for women and men, ages 24–29, weighted

	Women				Men			
	Model 1		Model 2		Model 1		Model 2	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Occupational Characteristics (mean-centered)								
Occupational education			0.722*	(0.31)			0.440	(0.35)
Sex composition (% male)	−0.833**	(0.30)	−0.768*	(0.30)	0.240	(0.22)	0.334	(0.23)
Autonomy	0.354*	(0.17)	0.349*	(0.17)	0.022	(0.17)	0.027	(0.17)
Status	0.093	(0.07)	−0.044	(0.10)	0.006	(0.07)	−0.064	(0.09)
Job-Related Benefits (1 = available)								
Paid vacation	−0.256	(0.19)	−0.197	(0.19)	−0.004	(0.18)	0.013	(0.18)
Paid sick leave	−0.072	(0.14)	−0.110	(0.14)	−0.070	(0.15)	−0.082	(0.15)
Maternal/paternal leave	0.397*	(0.16)	0.383*	(0.16)	0.147	(0.15)	0.146	(0.15)
Medical insurance	0.341†	(0.20)	0.319	(0.20)	0.312†	(0.18)	0.306†	(0.18)
Work schedule flexibility	0.001	(0.12)	0.034	(0.12)	0.049	(0.12)	0.053	(0.12)
Educational Attainment (ref. = high school diploma/GED)								
Less than high school	−0.193	(0.26)	−0.202	(0.26)	−0.207	(0.20)	−0.213	(0.20)
Some college	0.285	(0.21)	0.310	(0.21)	0.068	(0.25)	0.062	(0.25)
College degree or more	0.225	(0.14)	0.136	(0.15)	0.209	(0.15)	0.161	(0.15)
Enrollment Status (ref. = not enrolled)	−0.129	(0.14)	−0.141	(0.14)	0.247	(0.15)	0.241	(0.15)
Annual Earnings (logged)	0.053*	(0.02)	0.054**	(0.02)	0.058*	(0.02)	0.057*	(0.02)
Employment Status (ref. = not employed)								
Part-time (<35 hours per week)	−0.214	(0.18)	−0.222	(0.18)	−0.232	(0.21)	−0.243	(0.21)
Full-time (35 hours per week)	−0.296	(0.20)	−0.304	(0.20)	0.142	(0.21)	0.141	(0.21)
Constant	−4.265**	(1.50)	−4.130**	(1.49)	−4.459***	(1.11)	−4.489***	(1.11)
Number of Person-Years	9,982		9,982		11,547		11,547	

Notes: All models control for age, race/ethnicity, first birth status, parental education attainment, childhood family structures (at age 12), and regional and metropolitan residence, and a selection correction hazard rate. Results are based on multiply imputed data.

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p < .10;

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$p < .05$;

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$p < .01$;

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$p < .001$

Table 5

Coefficients from multinomial logistic regression models of spouse's educational attainment for women and men, ages 24–29, weighted (reference category = married to spouse without a college degree)

	Women				Men			
	Married to Spouse With BA vs. to Spouse Without BA		Unmarried vs. Married to Spouse Without BA		Married to Spouse With BA vs. to Spouse Without BA		Unmarried vs. Married to Spouse Without BA	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Occupational Characteristics (mean-centered)								
Occupational education	1.110*	(0.55)	−0.272	(0.38)	0.419	(0.65)	−0.212	(0.48)
Sex composition (% male)	−0.555	(0.54)	0.611*	(0.31)	−0.577	(0.44)	−0.632*	(0.28)
Autonomy	0.571	(0.37)	−0.117	(0.20)	0.183	(0.32)	−0.000	(0.19)
Status	−0.029	(0.17)	0.030	(0.10)	−0.060	(0.17)	0.034	(0.11)
Job-Related Benefits (1 = available)								
Paid vacation	−0.066	(0.31)	0.116	(0.20)	−0.682*	(0.32)	−0.281	(0.19)
Paid sick leave	0.084	(0.27)	0.208	(0.16)	0.252	(0.26)	0.227	(0.15)
Maternal/paternal leave	−0.469	(0.34)	−0.461*	(0.20)	−0.109	(0.26)	−0.203	(0.19)
Medical insurance availability	−0.229	(0.35)	−0.400†	(0.21)	0.280	(0.34)	−0.250	(0.19)
Work schedule flexibility	0.347	(0.21)	0.122	(0.14)	0.241	(0.21)	0.107	(0.15)
Educational Attainment (ref. = high school diploma/GED)								
Less than high school	−10.654	(548.23)	0.214	(0.24)	−0.687	(0.68)	0.267	(0.22)
Some college	0.813*	(0.41)	−0.169	(0.22)	−0.169	(0.47)	−0.150	(0.23)
College degree or more	1.021***	(0.31)	0.160	(0.17)	1.251***	(0.31)	0.492*	(0.22)
Enrollment Status (ref. = not enrolled)	0.297	(0.24)	0.339*	(0.16)	0.085	(0.27)	−0.153	(0.18)
Annual Earnings (logged)	−0.094*	(0.04)	−0.091***	(0.02)	0.006	(0.04)	−0.062**	(0.02)
Employment Status (ref. = not employed)								
Part-time (<35 hours per week)	0.347	(0.36)	0.333†	(0.19)	−0.274	(0.39)	0.097	(0.22)
Full-time (≥35 hours per week)	0.697†	(0.39)	0.485*	(0.21)	0.303	(0.37)	−0.010	(0.21)
Constant	−3.866	(677.34)	5.818***	(1.54)	−3.063	(2.61)	4.084†	(2.27)

	Women						Men					
	Married to Spouse With BA vs. to Spouse Without BA		Unmarried vs. Married to Spouse Without BA		Married to Spouse With BA vs. to Spouse Without BA			Unmarried vs. Married to Spouse Without BA	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Number of Person-Years	9,884						11,390			

Notes: All models control for age, race/ethnicity, first birth status, parental education attainment, childhood family structures (at age 12), regional and metropolitan residence, and a selection correction hazard rate. Results are based on multiply imputed data. Among 524 ever-married women, 40 have missing data on spouses' educational attainment, and among 541 ever-married men, 62 have missing data on spouses' educational attainment. The results presented in the table are based on the sample that excludes those ever-married respondents who have missing data on spouses' educational attainments, although the findings do not change if we classify these spouses with missing data on educational attainments as college-educated spouses or as spouses without a college degree.

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p < .10;

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p < .05;

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p < .01;

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p < .001

Table 6

Coefficients from multinomial logistic regression models of transition for first union by union type for women and men, ages 24–29, weighted (reference category = first union is cohabitation)

	Women				Men			
	Married vs. Cohabiting		Unpartnered vs. Cohabiting		Married vs. Cohabiting		Unpartnered vs. Cohabiting	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Occupational Characteristics (mean-centered)								
Occupational education	1.879**	(0.69)	0.808*	(0.40)	0.334	(0.70)	−0.305	(0.37)
Sex composition (% male)	−0.901	(0.72)	−0.384	(0.30)	0.307	(0.48)	−0.298	(0.24)
Autonomy	0.799†	(0.48)	0.034	(0.20)	0.525	(0.37)	0.059	(0.18)
Status	−0.395†	(0.22)	−0.187	(0.12)	−0.243	(0.19)	−0.022	(0.10)
Job-Related Benefits (1 = available)								
Paid vacation	−0.875*	(0.39)	0.140	(0.22)	−0.195	(0.34)	0.067	(0.16)
Paid sick leave	0.517	(0.35)	0.167	(0.18)	−0.082	(0.30)	0.137	(0.15)
Maternal/paternal leave	0.076	(0.39)	−0.101	(0.20)	0.561†	(0.31)	0.050	(0.17)
Medical insurance availability	0.497	(0.47)	−0.236	(0.22)	0.426	(0.36)	−0.255	(0.16)
Work schedule flexibility	0.248	(0.27)	−0.008	(0.14)	0.228	(0.23)	0.190	(0.13)
Educational Attainment (ref. = high school diploma/GED)								
Less than high school	0.244	(0.82)	0.235	(0.35)	−0.774	(0.54)	0.349	(0.23)
Some college	0.339	(0.51)	−0.142	(0.27)	−0.034	(0.43)	0.032	(0.24)
College degree or more	−0.235	(0.32)	−0.223	(0.17)	0.212	(0.28)	0.062	(0.15)
Enrollment Status (ref. = not enrolled)	0.217	(0.30)	0.241	(0.16)	0.779**	(0.27)	0.009	(0.16)
Annual Earnings (logged)	0.068	(0.05)	0.007	(0.02)	0.024	(0.04)	−0.007	(0.02)
Employment Status (ref. = not employed)								
Part-time (<35 hours per week)	−0.465	(0.45)	−0.117	(0.20)	−0.818*	(0.41)	−0.330†	(0.20)
Full-time (35 hours per week)	−0.045	(0.47)	−0.121	(0.24)	−0.694	(0.42)	−0.670***	(0.19)
Constant	−3.085	(3.27)	1.530	(1.79)	−0.773	(3.07)	4.271***	(1.18)
Number of Person-Years	4,842				6,755			

Notes: All models control for age, race/ethnicity, first birth status, parental education attainment, childhood family structures (at age 12), regional and metropolitan residence, and a selection correction hazard rate. Results are based on multiply imputed data.

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p < .10;

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p < .05;

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p < .01;

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p < .001