

Title: Job autonomy and marriage formation: A comparison between Men and Women

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Abstract

Using data from the NLSY 97, this paper investigates how work-related assets (income, status, and autonomy) shape young adults' transition to first marriage. We hypothesize that the relationship between work-related assets and marriage varies by age as well as gender and find that for women income is a stronger positive predictor of marriage in the mid-to late-20s than at earlier ages. Additionally, non-monetary aspects of work also matter. Occupational autonomy—being able to structure one's own work—facilitates entry into first marriage for women in their mid-to late-20s but not in their late teens and early 20s. In contrast, for men, job autonomy has no effect on marriage formation at these ages. When job autonomy and income are taken into account, occupational status does not have a statistically significant association with marriage formation for either women or men.

INTRODUCTION

A large interdisciplinary theoretical and empirical literature connects work characteristics to family life. One well-developed branch of this body of research investigates the role of earnings in family formation and how this varies by gender. Becker's New Home Economics (1981) and Oppenheimer's Theory of Marriage Timing (1988; 1994; 1997) have provided competing theoretical frameworks for understanding how the growth in women's employment opportunities has contributed to delays in marriage. New Home Economics expects growth in women's earnings to decrease the incentives for men and women to marry. The Theory of Marriage Timing anticipates that women's growing economic opportunities increases uncertainty about their future in early adulthood, but suggests that women's earnings should also facilitate marriage, especially as their future work roles become clearer. Previous research provides support for the Oppenheimer's perspective in that women's earnings are positively associated with marriage and this association is strengthening over time (Sweeney 2002).

Another branch of research investigates ways that non-monetary aspects of work shape family life. For example, non-standard work schedules are associated with an increased risk of divorce (Presser 2000) and job autonomy is associated with lower work-family conflict (Bakker and Geurts 2004; Clark 2001). Although previous research has not investigated how non-monetary aspects of work might facilitate or impede marriage, the Theory of Marriage Timing as well as other theories based in a life-course framework (e.g., Arnett 2004; Swidler 2001) anticipates that work shapes marriage for other reasons in addition to income effects.

Using data from the first thirteen waves of the National Longitudinal Survey of Youth 1997, this study extends previous research by broadening the measurement of people's work-role related assets from simply focusing on earnings to incorporating two nonmonetary aspects of work, occupational status, and job autonomy. We argue that transition to work roles during the transition to adulthood is important for young people's transitions to first marriage not only because these roles equip them financially for marriage (e.g., Gibson-Davis 2009) but also because these roles

provide other assets (i.e., status and autonomy) that enhance their desirability on the marriage market and/or make them (feel) more capable of fulfilling anticipated family obligations. Additionally, because of gender differences in family obligations we expect that the aspects of work that matter for marriage may differ for men and women. Moreover, based on theory as well as previous findings suggesting that the predictors of marriage varies across life stages (SEE Goldscheider and Waite 1986; Oppenheimer 1988; Oppenheimer 1994; Oppenheimer and Lewin 1999), we estimate models separately for two age periods—late teens and early 20s (between the ages of 18 and 23) and mid- to late-20s (between the ages of 24 and 30).

BACKGROUND

Despite the decline in marriage, marriage still retains its special and highly valued place in the family system and its symbolic significance as a marker of prestige and personal achievement even has become stronger (Cherlin 2004) ; in addition, it is still a relationship requires individuals to meet culturally specified obligations, including meeting the social, emotional, and material needs of its members. Moreover, despite the increasing labor force participation of women, particularly married women (Juhn and Potter 2006), and the gradual increase in time that men spent with children and domestic work (Bianchi et al. 2000; Bianchi, Robinson and Milkie 2006; Sayer 2005), many of the family obligations still remain gender-specific. For example, married women still spend more time than married men taking care of children and married men still spend more time than married women at work and leisure times (Bianchi et al. 2000; Bianchi, Robinson and Milkie 2006; Sandberg and Hofferth 2001; Sandberg and Hofferth 2005; Sayer 2005; Shelton 1992).

In pursuit of marriage, young people need to cultivate capacities for fulfilling these criteria for marriage. Through a transition to regular employment and gradually settling into long-term full-time career, young adults begin to accumulate economic resources, establish identifies as independent adults with increasing degrees of control and independence, and obtain greater confidence in their ability to provide their future families. Work-related assets, like income, status, and autonomy, not only increase

one's own capacity for marriage, they can also make a person more attractive on the marriage market. Below, we develop hypotheses about how each of these three aspects of work might shape the transition to first marriage and how their relationship to marriage differs by gender as well as age.

Income

Normatively, married households should be financially independent (Oppenheimer 1988; Oppenheimer 1994; Oppenheimer 1997; Oppenheimer, Kalmijn and Lim 1997) so that the timing of transition to marriage is strongly determined by the timing of the transition into stable employment (Oppenheimer 1988). This association between employment and marriage has historically been stronger for men. Men with higher income are more confident in their ability to meet the obligations of marriage and are also more attractive on the marriage market. On the other hand, whether employment and earnings facilitate marriage for women as well has been a matter of debate.

Becker (1981) suggested that the gain in women's economic independence through increasing participation in the labor force weakens women's reliance on marriage financial support, leading to a retreat from marriage. Thus, increases in married women's labor force participation led to declines in the proportion of women married since the 1960s. Despite its popularity, the independence hypothesis derived from Becker's specialization and trading model of marriage has been criticized in recent years because increases in women's employment have not led women to never marry, even if it has led them to delay marriage (Oppenheimer 1994; Oppenheimer 1997).

Oppenheimer's Theory of Marriage Timing (1988), in contrast, suggests that increases in women's economic opportunities have changed mate selection processes. In short, women now spend their early adult years investing in career development. Marriage has been delayed in part to get more education and in part because there is greater uncertainty about what her future work roles will be. Yet, Oppenheimer argues, women's economic contributions can facilitate marriage formation, especially after

they have completed school, started a job, and uncertainty about her future work roles has declined.

Researchers consistently find support for Oppenheimer's thesis, showing that earnings are positively associated with first marriages for men (Oppenheimer 2003; Schwartz and Mare 2005; Xie et al. 2003) and have become more important for women in determining their position in the marriage market (Oppenheimer 1994; Schwartz and Mare 2005; Sweeney 2002; Sweeney and Cancian 2004). We expect to find that income is positively associated with marriage for both men and women, although because men's marriage continues to be gendered we expect that income is more strongly associated with marriage for men than women.

Although earnings ability is a necessary prerequisite for marriage, it may not be the only thing that young people need and acquire from their work roles to get them ready for transitioning to marriage. Particularly, in the face of the fact that young adults have gradually placed more emphasis on the role that work plays in shaping their identities as adults (Arnett 2004; Mortimer et al. 2008b), it is hard to believe that the significance of transition to work roles in young people's marriage formation rests solely on its provision of monetary resources in the form of earnings or wages.

Social recognition of young adults' jobs (occupational status)

Working in a job with higher social recognition may facilitate young people's transition into adult work roles, which in turn facilitates their transition to marriage through both subjective and objective mechanisms. Subjectively, working in an occupation with higher social status can help young people establish the identity as adults through recognizing a job as a "career", which is an important subject marker of transition to adulthood (Mortimer et al. 2008a). Objectively, working in a higher-status occupation makes people more attractive in the marriage market.

Despite the fact that almost all adolescents in the United States are employed at some time while they are attending high school (Csikszentmihalyi and Schneider 2000; Mortimer 2003), work does not take on as much significance in the adolescence as it

does in the life stage of becoming an adult (Arnett 2004) . Employment in early teens often have little to do with preparing adolescents for a future occupations or equipping them with skills that will form the basis for the work they will/will want to do as adults. This is partly because jobs available for them in early teens are more concentrated in part-time, low-wage, and low-status service sector of economy. However, on the way to establish the identity as adults, young people begin to expect more from their work and consider jobs as more than financing, for example, their school or dating expenses. They have a need to find a “real” job that they can be settled into long-term careers (Livingstone 1998). The attainment of a “career job” have special significance because of its relevance to becoming an adult (Mortimer et al. 2008a). For example, working in a restaurant as a waiter/ waitress may be acceptable and even desirable for people in their early teens or while they are still in school; however, for young people who seek to establish their identity as adults and try to build long-term careers, it is unlikely for them to identify it as a career-like job to pursue. Low wage is a reason and lack of socially acknowledged recognition is probably another. On the other hand, Working in a socially valued occupation with higher status and recognition, young people are more likely to become satisfied with their work, and are more likely to consider it as a long-term career. The attainment of a “career job” helps settle their roles as adults. Therefore, working in a job with higher social recognition and status helps young adults establish their work roles and thus also facilitates their transition to marriage subsequently.

In addition, one’s occupation-based economic status per se may serve as an preferable characteristic in the mate selection process (Kalmijn 1994). Since both men and women can contribute to the overall socioeconomic status of their families through their own social status defined by what type of work they do, we hypothesize that having a higher occupation-based social status will positively contribute to both men’s and women’ transition to marriage. However, given the fact that it has been more socially acceptable to determine women’s socioeconomic status based on their husbands’ and culturally acceptable for men to marry women who are economically less promising, we hypothesize that occupational status may have greater effects on marriage formation for men than for women.

Occupational autonomy

In addition to occupational status, working in an occupation that gives its workers autonomy at work, which is often referred to as the degree of discretion that workers have to determine how, when, and whether they get their work done (SEE Bailyn 1993; Bailyn 1997; Breugh 1985) can be conducive to young people's experience of the transition to work roles through acquisition of a sense of control over the life, which in turn, facilitates the transition to marriage. To our knowledge, in the literature on marriage formation, none has considered autonomy that people are allowed at work an asset that may be used to construct the perception of their readiness for marriage.

In the literature that addresses the association between work characteristics and workers' well-being, autonomy, especially the ability to determine the work process, is a central resource for reducing the negative effects of work demands on employees' health and psychological (e.g., burnout, SEE Bakker, Demerouti and Euwema 2005). Moreover, workers who have control over their own work processes tend to have higher levels of work engagement (Bakker, Demerouti and Euwema 2005; Parker, Wall and Jackson 1997), have greater job satisfaction (Bakker, Demerouti and Euwema 2005; Clark 2001; Hackman and Oldham 1976; Parker, Wall and Jackson 1997), and which may in turn lead to, for both female and male workers, positive work-home interface (Bakker and Geurts 2004; Clark 2001; Grzywacz and Marks 2000; Voydanoff 2004), and higher levels of work-to-family facilitation (Grzywacz and Butler 2005) and family wellbeing (Bailyn 1993; Bailyn 1997; Clark 2001).

Despite the positive effects of job autonomy (control over work process) on a variety of employees' wellbeing and work-family interface outcomes, previous studies also pointed out that job autonomy in the form of schedule control, *control over the timing of their work, the number of hours spent at work, and the location where they work*, is very likely to increase the permeability of work into family and personal life and therefore creates more work-family conflict (Blair-Loy 2009; Chesley 2005). This maybe even more so for men who are more likely than women to bring work home or receive work-related contact outside of normal work hours (Schieman and Glavin 2008).

In this study, due to lack of measurement, we are unable to investigate whether or not job autonomy in the form schedule control may impede young adults' transition to first marriage by increasing the interference between work and private life domains. Nonetheless, we are able to define job autonomy as workers taking control over their work process. That is, we construct job autonomy as the freedom workers have to determine the tasks, goals, and priorities in the work process, rather than following strictly-structured work instructions.

Batt and Valcour (2003), for example, found that job autonomy could increase employees' perceptions of having control over their jobs. They further suggest that if employees have control over their jobs, it seems likely that they would, in turn, have more control over other aspects of their lives. Acquisition of the sense of control could be very important for young people, both men and women, in the early years of transition to adulthood, a life period they need to become independent and have some extent of certainty for the future. Therefore, we hypothesize that for both men and women employment in a job with higher autonomy should accelerate marriage more than employment in a job with lower autonomy

Additionally, as autonomy at work appears to enable workers to balance their work and personal life, and prevent the negative spillover of job demands into personal relationships outside of work domains, gender differences in the impact of autonomy may arise because marriage continues to be a strongly gendered institution. This is because husbands have primary responsibility for financially supporting the family, while wives have primary responsibility for child care, emotion work, and household maintenance. Consequently, having a job that allows workers to adjust the way of getting work done and allows workers to be more responsive to family needs may have stronger impact on work-family conflict for women than men. Thus, we hypothesize that the benefits of occupational autonomy are greater for women than men.

Variations by age periods of young adulthood

The experience of transitioning to adulthood for young people today are very different from that for young people of older generations in many regards (SEE Arnett 2004; Cherlin 2005; Settersten and Ray 2010a; Settersten and Ray 2010b; Shanahan 2000). The most prominent difference is the lengthening process of transition to adulthood. For example, as early as 1970s, a person in his/her late teens or early 20s normally was done with education, married or about to be married, expecting or raising a new-born child, settled into a long-term job, and assuming the role of a full-time worker/mother. Today, the central marriage ages have been postponed to the mid-to late 20s. Median age at first marriage today is over 27 for men and 26 for women (Cherlin 2005; Furstenberg 2010). This postponement of marriage largely results from the fact that it takes longer for young people today to finish the education or training that is necessary for a decent standard of living and it gets harder to secure a full-time job that pay well to support a family in the early years of transitioning to adulthood.

Today young people in their late teens and early 20s, many of them may be still enrolled in schools, continuing their higher education or professional training for better economic prospects in the future; some may have been already out of school (for quite a bit of time), shifting from one job to another, searching for jobs that can turn to long-term careers; however, still others may be neither in school nor performing economic activities (Danziger and Ratner 2010; Powers 1994). Early years of young adulthood for some people may be still a time for investment in human capital but for those who have left schools, is a time with fewer promising job opportunities. Job opportunities available for people at younger ages are more likely to be the so-called “bad” jobs, which are nonstandard employment and characterized by lower hourly wages, and smaller likelihood of having health insurance or pension benefits (Kalleberg, Reskin and Hudson 2000). Arnett (2000; 2004; 2007), for example, coins the term *emerging adulthood* to distinct the age period of late teens to mid 20s from the life stages of adolescence and young adulthood, emphasizing the variable, transient, uncertain,

vulnerable nature of the early years that young people are faced in the transition to adulthood.

Given the fact that for young people particularly in the early years of transition to adulthood, the economic opportunities available for young people are more limited and less promising, and uncertainty of life is greater than later in twenties, we thus expect that work characteristics should become more important in the mid-to late-20s, once young people have done with education that is necessary for a career-type job and the work roles start to become/feel more permanent.

DATA and METHODS

Data for this analysis come from Rounds 1-13 of the 1997 National Longitudinal Survey of Youth (NLSY), 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 is designed to be nationally representative. Although samples from this data set are still very young and many of them have not yet married, the NLSY 97 still serves as an excellent source of data for researchers interested in understanding the association between labor-market participation and marriage formation among the younger American cohorts, due to its collection of detailed information on employment and union formation.

The sample for our analysis is restricted to the respondents who had not experienced their first marriage by the time they reached age 18.. Moreover, those respondents who have missing data on the date of first marriages or whose last interviews occurred before age 18 are also excluded from the sample. This leaves us with 8,665 NLSY respondents, almost half female and half male. Among them, 1,694 female respondents (N=4,189) and 1,394 male respondents (N=4,476) have made the transition to first marriage as of their last NLSY interviews or the latest interview, Round 13 in 2009.

In addition to the NLSY 97, where we derive information on respondents' spells of employment, number of hours worked each week of a given month, and annual

income, we add an additional data source—the O*NET—for information on job autonomy and occupational status. The O*NET, created by the Occupation Information Network, contains detailed information on occupational characteristics, including indicators of worker autonomy, described below. We merge these indicators onto the NLSY data using 2000 Census occupation codes, after creating a crosswalk between the census codes and the occupation codes that O*NET employs. (The O*NET occupation categories are more detailed than census categories and thus we had to collapse categories and create an average score for those census categories that contain more than one O*NET category).

Using birthdates and dates of first marriage, we converted the data into a person-month data set. This person-month data set includes up to 147 months of observations per individual with first month indicating the month when respondents turned 18 years old. We include all person-months up to first marriage or last interviews.

Measures

The variables that we use in the analysis can be classified into two groups: the first group of variables includes the major explanatory variables, which are time-varying variables changing across months. In addition, the models control for factors that affect marriage and are correlated with work-related characteristics.

Time varying work-related variables

Our focus in this research is on how the two nonmonetary work-related assets—*the level of social recognition and the degree of autonomy of individuals' occupations*—predict the transition to first marriage. These two concepts are operationalized as occupational status and job autonomy. These variables can change on a monthly basis to reflect job changes or shifts in employment status.

*Occupational status from the O*NET*

To measure the nonmaterial work-role related asset, occupational status, we employ a variable as a proxy of occupational status from the O*NET, the indicator of recognition. It is a 1-to-7 scaled indicator. The O*NET constructs the indicator of recognition on the basis of four occupational characteristics: workers on this occupation have opportunities for advancement, receive recognition from the work they do, give directions and instructions to others, and are looked up to by others in their company and their community. Higher scores on recognition indicate higher occupational status.

*Autonomy at work from the O*NET*

To measure autonomy at work we use an indicator from the O*NET database—*freedom to structure one's own work*. This autonomy indicator shows the level of freedom workers in the occupation have to determine tasks, priorities, and goals. It is measured on a 1-to-5 scale, with 1 indicating having little to no autonomy at work and 5 indicating having a high level of autonomy at work. This is an indicator that fits our conceptualization of job autonomy as the latitude workers have in deciding how to get work done by determining tasks, priorities, and goals.

Annual Income and Monthly Employment Status from the NLSY

Since the primary goal of this study is to investigate the influence on marriage of two nonmonetary assets that individuals obtain from their work roles—occupational status, and job autonomy, and given the fact these two nonmonetary resources may be highly correlated with individuals' earnings ability and employment status as full-time or part-time workers so that their effects on marriage formation are very likely to be confounded by the effects of earnings ability and employment status, we therefore also take into account earnings ability and employment status as controls in the models. Employment status variable is constructed based on an NLSY-created variable describing the number of work hours each week. We average the weekly variables to create monthly indicators and recode this variable into 3 categories: not

employed, part-time employment (working fewer than 35 hours a week), and full-time employment (working at least 35 hours a week). The not employed are the reference category. To measure young adults' earnings ability, we use the yearly-based income reports from the respondents, indicating the total income they receive from wages, salary, commissions, or tips from all jobs. We created two dummy variables indicating the missing data on employment status and income.

Last, due to the fact that unemployed individuals do not have valid values on the measures of occupational status and occupational autonomy, we therefore center the values of occupational status and autonomy around the sample means for the employed and assign zeros on these two variables to those who are not employed. Thus, in the models with status and autonomy included, the employment variables indicate the effects of employment at the average status and average level of autonomy. The status and autonomy variables indicate how this association between employment and marriage changes as autonomy or status increases or decreases.

Other covariates as controls

Earlier research shows that family background affects individuals' labor-market performance and marriage formation. Therefore, in the analysis, control variables include respondents' race- ethnicity (non-Hispanic White, non-Hispanic Black, Hispanics, and other), family structure when respondents were at age 12 (two-biological parent, single mother, stepparent, and other), and education level of the respondents most highly educated parent (less than high school, high school graduate or GED, some college, and college graduate or more).

In addition to the above time-invariant variables, we also include other control variables that vary on either a monthly or a yearly basis. We construct variables based on yearly information on respondents' regional and metropolitan area of residence (Northeast Metropolitan, Northeast non-metropolitan, North Central Metropolitan, North Central non-metropolitan, West metropolitan, West non-metropolitan, South metropolitan, South non-metropolitan, and out of country), current educational attainment on a yearly basis (less than high school, high school graduate

or GED, some college, and college graduate or more), and a dummy variable, indicating whether or not respondents were currently enrolled in school in the given month.

Previous studies have suggested that individuals' education attainment and school enrollment can shape one's employment history and path of entering marriage (e.g., 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 were more likely to marry at earlier ages but also had lower earnings.

An increasing proportion of births is to unmarried women in the United States (Hamilton, Martin and Ventura 2006). Furthermore, given the fact that premarital childbearing experience can influence parents' subsequent opportunity to marry (Bennett, Bloom and Miller 1995; Manning 1993; Upchurch and Lillard 2001) and that having young children at home often influence parents' employment arrangement, particularly mothers (Arun, Arun and Borooah 2004; Dex et al. 1998; Paull 2008), in the analysis we therefore take into account whether young people are pregnant with or have had their first child. Since the likelihood of transition to marriage for unmarried parents can vary by children's life stages (Manning 1993), in the person-month data we constructed three variables representing different stages of the first-born children's life courses. The first variable indicates the gestation 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 first year of the child's life, and the third variable indicates life time of the child since his/her first year birthday. For respondents who do not have valid information on birthdates of first births, a dummy variable is used to indicate missing data.

Analysis plan

Overall, this study approaches the analysis of men's and women's transition to first marriage from a life course perspective with a focus on the experience of transitioning to first marriages within two age periods of young adulthood, that is,

between the ages of 18 and 23 and between ages of 24 and 30, for a recent cohort who were born between 1980-1984. The research design is for us to observe the effects of work-related assets on marriage formation behavior and to compare the patterns between men and women by two age periods in young adulthood.

First, we present the demographic characteristics of the respondents in our sample. Second, we employ logistic regression to estimate discrete-time event history models of transition to first marriage, separately for men and women, and within each sex, separately for two age periods of young adulthood—late teens and early 20s (between ages 18 and 23) and mid-to late-20s (between ages 24 and 30). Here we estimate a series of models, starting with a baseline model that includes respondents' ages, race/ethnicity, family structure, parental education, own educational attainment, school enrollment, employment status (full-time or part-time employment with no work as the reference group), and income. These baseline models allow us to compare the results with previous findings and to see whether association between income, as a proxy for one's earnings capacity, and the risk of marriage continues to be positive for both women and men. Within each sex, we further test whether the effects of the control variables on marriage transition vary across the two age periods under study. Next we add measures of occupational status and job autonomy to the gender-and age period-specific models to investigate the potential influence of these two nonmonetary assets that individuals obtain from their work roles on marriage formation. Finally, we test for gender differences in the effects of work-role related assets on marriage within each age period of the young adulthood under study.

RESULTS

Table 1 displays, separately for women and men, descriptive statistics for all time-invariant variables used in the multivariate analysis, namely race/ethnicity, family background, and parental education of individual respondents. Both female and male samples have similar racial and ethnic, family structure, and parental education compositions. Non-Hispanic whites comprise 66% and 67% of the female and male samples, respectively; non-Hispanic blacks comprise 16% and 15.5% of the female and male samples; Hispanics comprise 12% of the female sample and 14 % of the

male sample; the rest 5% of female and male samples are from other the racial/ethnic groups other than the previous three racial/ethnic groups. More than half of our female and male samples lived in two-biological parent-families when they were at the age of 12; 22.7% of the female sample and 20.3% of the male sample were in single-mother families; 16% and 14.8% of female and male samples, respectively, lived in step-parent families; the rest 8.4% of female and male samples lived in families of other structures. Lastly, 27.5 % of our female sample and 28.2 % of the male sample have parents who have at least a college degree, 25.1% of the female sample and 24.2% of the male sample have parents with some college education, 31.6% of the female sample and 30.5% of the male sample have parents who are high school graduates, and 11.1% of the female sample and 12.5% of the male sample have parents who do not have a high school diploma.

[Table 1 inserted here]

Figure 1 presents the results of life-table estimates of men's and women's cumulative survival to first marriage. Overall, there are notable gender differences in age at first marriage. At age 24, 73% of the women are never-married and before reaching the age of 31, 45% of the women remain never-married. In contrast, at age 24, 81% of the men are never-married and before reaching the age of 31, 56% of them remain never-married.

[Figure 1 inserted here]

[Table 2 inserted here]

Table 2 presents the descriptive information of time-varying control variables. Both men and women in the analysis samples spent more time with a high school diploma in the late teens and early 20s than in the mid-to late-20s; however, in the mid-to late-20s, both men and women spent more time with at least a college degree in their mid-to late-20s than in the late teens and early 20s, which indicates increases in education by age. Additionally, it also shows that in both age periods, women seem to be more likely than men to have at least a college degree. A finding mirrors the recent trend

showing that women on average have educational advantages over men in college completion (e.g., Buchmann and DiPrete 2006). Both men and women in the analysis samples spent more time being enrolled in school in their late teens and early 20s than in the mid-to late-20s. However, in both age periods, women seem to spend more time in school than men. In addition, both female and male samples spent majority of their early young adulthood without childbearing experience. As for those who had first births, ages of first-born children tend to be older when respondents were at older ages.

The labor force participation rates, full-time employment in particular, and both monetary and nonmonetary work assets increase with age. In the late teens and early 20s, both men and women spent a sizable amount of their young adulthood without employment; when they worked, women tended to work for part-time jobs, and men, however, tended to work for full-time jobs. Moreover, despite the fact that full-time employment increased as the female and male samples moved to older ages, men still spent more of their young adulthood during the mid-to late-20s working for full-time jobs as opposed to part-time jobs than did women. With respect to the monetary gains from work roles, for both female and male samples, their income increases with age. Additionally, the result also shows a persistent income disadvantage among women compared to men; however, the gender gap in income seems to be smaller in the mid-to late-20s. Last, although women are disadvantaged in terms of income compared to men, women seem to have advantage in terms of occupational status and autonomy over men. Despite the fact that jobs that women and men held in their late teens and early 20s tend to have lower status and lower levels of autonomy than the jobs they held in their mid-to late-20s, the jobs that women had, in both late teens to early 20s and mid-to late-20s, on average have higher occupational status and autonomy than men's jobs

Women's transition to first marriage during the early age periods of young adulthood

In Table 3, Model 1 is the baseline model containing all the control variables. The left panel of Model 1 shows the coefficients and standard errors from the logistic regression model estimating marriage transition during the early 20s (between the

ages of 18 and 23); the right panel shows the estimates from the logistic model estimating marriage transition during the mid-to late-20s (between the ages of 24 and 30). Results from both panels in the baseline model are largely consistent with findings from previous studies. In both life stages of early and mid 20s, non-Hispanic black women are significantly less likely to transition to first marriages compared with the non-Hispanic white counterparts. In the life stage of the ages between 18 and 23 women with less than a high school degree have a significantly lower risk of marriage than do women with a high school diploma. Moreover, women in their late teens and early 20s with at least some college education are more likely to transition to first marriages compared with women only with a high school diploma. In the mid-to late-20s, however, only women who have at least a college degree demonstrate a statistically significant advantage over female high school graduates in transitioning to first marriages. Different from being in the late teens and early 20s, women in their mid-to late-20s with some college education demonstrate only a marginally significant advantage over female high school graduates in transitioning to first marriages. Women with only a high school diploma at this life stage are as unlikely to transition to first marriages as their female counterparts who have no high school diplomas. A one-tailed t-test ($p < .05$) suggests a statistically significant gain in the importance of having at least a college degree in transitioning to marriage for women in the mid-to late-20s.

[Table 3 inserted here]

For women in their late teens and early 20s, the presence of first children statistically increases the likelihood to marry despite the fact that the risk of marriage decreases as children age. In contrast, in the mid-to late-20s, only during the pregnancy can the presence of first children statistically increase the risk of marriage. The significance t-test evidences that the effect that the presence of first-born children has on women's transition to first marriage is significantly contingent on the life stages (results not shown). That is, for women in their mid-to late-20s, the positive significant effect of first childbearing on transitioning to first marriages is largely reduced in magnitude and becomes insignificant right at the birth of the child.

In the late teens and early 20s, the chance for currently enrolled women to marry is lower than that for their non-enrolled peers. The statistically significant preventative effect of being enrolled in school from marriage is reduced in the magnitude and becomes insignificant for women in their mid-to late-20s. The decline in the negative effects of school enrollment on marriage as people age can be found is consistent with the finding in Goldscheider and Waite's (1986) study.

In the baseline model, part-time employment and full-time employment do not exhibit statistically distinct effects on marriage transition from the effects of being unemployed for women either in their early or in the mid-to late-20s. Income, on the other hand, as it appears to have a marginal positive effect on marriage transition for women in their late teens to early-20s, has significantly positive effects on the transition to first marriage for women in their mid-to late-20s. The gain in the relative importance of income in facilitating transition to first marriage in women's mid-to late-20s is statistically significant at $p < .05$ in a one-tailed t-test.

In Model 2, we add the primary explanatory measures of occupational status and job autonomy. The left panel, again, presents the coefficients and standard errors for women in their late teens and early 20s, and the right panel presents corresponding estimates for women in their mid-to late-20s. Adding occupational status and job autonomy variables in Model 2 does not yield much change in the effects of control variables on women's marriage formation in the two studied age periods that we found in Model 1, in terms of both magnitudes and patterns. Rather, in Model 2, after adding occupational status and job autonomy measures, patterns of changes in the relative importance of control variables for marriage formation in the early and mid-to late-20s remain unchanged: as compared with the effects on marriage transitions in the late teens to early 20s, the effects of school enrollment and of the presence of first births on the transition to marriage have significantly declined and became insignificant in the mid-to late-20s at $p < .05$ in one-tailed tests, and effects of at least a college degree and income on marriage transition are significantly stronger for women in their mid-to late-20s than in their late teens to early-20s at $p < .05$ in one-tailed tests.

Further, in Model 2, we found that net of ages, race/ethnicity, family backgrounds, parental education, regions of residence, women's educational attainments, school enrollment status, fertility history, employment status, and income, in women's late teens and early 20s, occupational status and job autonomy do not play a statistically significant role in facilitating the transition to first marriage. In contrast, in the mid-to late-20s, despite the fact that occupational status does not display a statistically significant effect on women's transitioning to first marriages, a one-unit gain in autonomy at work significantly increases the odds of marriage by 89% (the antilog of 0.604). We further test the life-stage product term with job autonomy and the result suggests that the gain in the relative importance of job autonomy in facilitating transition to marriage is significantly greater in the mid-to late-20s than in the late teens and early-20s at $p < .05$ s in a one-tailed test (two-tailed test suggests the same). Notably, in the late teens and early 20s, the addition of work characteristics to the baseline model does not account for much of the educational effects; however, in the mid-to late-20s, although having at least a college degree still remains statistically significant, the addition of work characteristics account for 27% of the effect of having at least a college degree on the transition to first marriage. This seems to suggest that returns to education in terms of marriage formation are more feasible in mid-to late-20s than in the early years of young adulthood.

Last, in addition to employment status—whether people are employed or not, and whether they are employed full-time or part-time—researchers (e.g., Oppenheimer, Kalmijn and Lim 1997) may consider that the continuity of full-time employment, as an indicator of settling into long-term careers, may make positive and distinguishable effects on young people's marriage formation. In testing this underlying hypothesis, we constructed three variables measuring the length of each spell of full-time employment: less than a year, one to two years, and more than two years, to test whether the persistence of full-time employment contributes additional influence on marriage formation. The results (not shown) did not provide support for it.

Men's transition to first marriage during the early age periods of young adulthood

Table 4 shows the results for men. Again, model 1 is the baseline model containing all the control variables. The left panel of Model 1 shows the results from the logistic regression models estimating men's transition to first marriage in their late teens and early-20s (between the ages of 18 and 23); the right panel shows the results from the logistic regression models estimating men's marriage transition in their mid-to late-20s (between the ages of 24 and 30). Results from both panels in the baseline model are, to a large extent, consistent with findings from previous studies. In both late teens to early 20s and mid-to late-20s, non-Hispanic black men are significantly less likely to transition to first marriages compared with their non-Hispanic white counterparts. Similarly to the female counterparts, men in their late teens and early-20s with at least some college education are more likely to transition to marriage, and men who do not have a high school diploma, however, have a significantly lower risk of marriage compared with men who have a high school diploma. In contrast, in the mid-to late-20s, education appears to have no statistically significant effects on men's transitioning to marriage, whereas the significantly positive effects of income on the transition to marriage for men in their late teens to early-20s continue to be found in their mid-to late-20s. Notably, the reduction in the magnitude of the effects of having at least some college education on men's marriage transition in the mid-to late-20s relative to the effects found in the late teens to early-20s, appears to be statistically significant at $p < .05$ in a one-tailed test.

[Table 4 inserted here]

For men in both early and mid-to-late 20s, the presence of first children statistically increases the likelihood to marry despite the fact that the risk of marriage decreases as children age. A one-tailed significance t-test of the product terms between men's life stages and age stages of the first-born children indicate, however, the decreases in the positive effects of first children on men's transitioning to first marriages in the mid-to late-20s are statistically significant at $p < .05$.

In the late teens to early-20s, the chance for currently enrolled men to marry is significantly lower than that for their non-enrolled peers. Similarly to women, the statistically significant preventative effect of being enrolled in school from marriage is reduced in the magnitude and becomes statistically insignificant for men in their mid-to late-20s. The statistically significant declined effects of school enrollment on the transition to marriage for men in their mid –to late-20s can be found in Goldscheider and Waite’s (1986) study.

In the baseline model where school enrollment, along with other control variables, is taken into account and the comparison group is “the unemployed” the statistically significant negative value for part-time employment coefficient for men in their late teens and early-20s may, at first glance, seem puzzling. However, in view of the fact that in the younger age period, while a sizable number of young people may still be enrolled in schools, which may further prevent them from being employed, the effect of unemployment on marriage transition, to a large extent, might be explained by the effect of being enrolled in school. Therefore, the significant negative effects of men being employed part-time on the transition to marriage in the late teens and early 20s may actually reflect their relative disadvantage in the marriage market as compared with full-time employed men. As the effect of school enrollment on the transition to marriage becomes statistically insignificant for men in their mid-to late-20s and the effects of being unemployed have begun to be more distinguishable from the effects of school enrollment on marriage transition, men with at least a part-time employment appear to be less disadvantaged and even become advantageous in comparison to unemployed men in the transition to marriage. The effects of employment status, however, are not statistically significant in the mid-to late-20s. Income, in contrast, has statistically significant effects on the transition to marriage for men in their late teens to early-20s and continues to have a statistically significant positive effect on men’s transition to first marriage in their mid-to late-20s.

In Model 2, we add the primary explanatory measures of occupational status and job autonomy. The left panel, again, presents the estimated coefficients and standard errors for men in their late teens and early-20s, and the right panel presents

corresponding estimates for men in their mid-to late-20s. Adding occupational status and job autonomy variables in Model 2 does not yield much change in the effects of control variables on men's transition to first marriage in the two studied age periods we found in Model 1, in terms of both magnitudes and patterns. Rather, in Model 2, after adding occupational status and job autonomy measures, the patterns of relative importance of control variables in influencing marriage formation in the late teens to early-20s and mid-to late-20s remain unchanged. That is, as compared with the effects on marriage formation in the late teens and early 20s, the effects of educational attainments and school enrollment on the transition to marriage significantly decline in the mid-to late-20s and became insignificant, and the reduction in the effect of ages of first born children on marriage formation in the mid-to late-20s is statistically significant although the effects remain statistically significant. Notably, unlike the way income works for women's transition to first marriage, the effects that income has on men's marriage formation do not differ between the late teens to early - 20s and mid-to late-20s.

In Model 2, we found that net of ages, race/ethnicity, family backgrounds, parental education, regions of residence, men's own educational attainments, school enrollment status, fertility history, employment status, and income, occupational status and job autonomy do not play a statistically significant role in facilitating men's transition to first marriage in either late teens to early20s or mid- to late-20s. Despite the education effect on marriage formation is not statistically significant for men in their mid-to late-20s (probably most of education effect has been explained by income), we note that the addition of work characteristics—occupational status and autonomy still reduces the magnitude of the coefficient for at least a college degree, in particular, by 23%.

Again, we use three dummy variables to categorize the duration of each spell of full-time employment—less than one year, one to two years, and more than two years—to test for the hypothesis that the duration of continuous full-time employment may make positive and distinguishable effects on marriage formation. Like the results

for women, we found no support for the “duration matters” hypothesis for men (results now shown).

Gender differences in the importance of work-related assets in facilitating marriage formation

We further test the hypotheses regarding whether there exist significant gender differences in the association of the risk of first marriage with two measures of work-related assets—job autonomy and income—demonstrate significant effects on men’s and women’s transition to first marriage in the full models (Model 2s in Table 3 and Table 4). The significance tests of gender differences are conducted separately for the two life stages under study: the late teens and early-20s (between the ages of 18 and 23) and mid-to late-20s (between the ages of 24 and 30).

In Table 3, Model 2 shows that for women in their mid-to late-20s, job autonomy has a statistically significant effect on facilitating women’s transition to first marriage; in the parallel model for men (Model 2 in Table 4), job autonomy does not demonstrate such an effect on their transition to marriage. The two-tailed significance test further evidences that the gender difference in the effect of job autonomy on the transition to first marriage is statistically significant at $p < .05$. The 95 % confidence interval (.192 to .83) of the gender (i.e., female) interaction with job autonomy in the mid-to late-20s indicate that the positive effect of job autonomy is significantly greater for women.

In addition to job autonomy, which has been proven to be important in facilitating women’s transition to marriage in their mid-to late-20s, income appears to play a crucial role in facilitating both women (marginally) and men’s transition to first marriage, a result which has been constantly found in previous studies. A one-tailed significance t-test further suggests that in the late teens and early-20s the positive effect of income on the risk of marriage is significantly greater for men than for women at $p < .05$. In the mid-to late-20s, income still has a statistically significant effect on facilitating marriage formation for both men and women and, again, the effect of income on the marriage transition is significantly greater for men than for women at $p < .05$.

CONCLUSION and DISCUSSION

In this study, to have a more comprehensive understanding of how young adults' transitions to work roles shape the timing of first marriages, we adopted additional measures to capture the characteristics of such transitions. Previous research on marriage has narrowly constructed the ways that work roles influences marriage, focusing mostly on earnings. Moreover, they often considered money as the only asset that individuals obtain and cumulate from labor force participation to influence their positions in the marriage market. In this study, we broadened the measurement of two alternative assets that people may obtain and cumulate from their work roles — occupational status and job autonomy—to further understand how young people's work roles shape their entries into first marriages during two age periods of young adulthood—late teens and early 20s and mid-to late-20s—for the recent cohort who were born between 1980 to 1984. Before moving to discussing our findings, it is worth noting that data for the analysis are from a relatively younger cohort of Americans. Majority of them, especially those with college degrees, have not made such a transition to first marriage. Therefore, it is possible to observe a different relationship of work-related assets to marriage formation in the 30s or at even older ages.

Taking into account income and job autonomy in the models, the results show that occupational status seem to have positive effects on the transition to marriage for both men and women in both early or mid-to-late 20s. However, the effects do not appear statistically significant. Despite that, we find that net of the effects of income and occupational status, job autonomy in the form of freedom to determine one's own tasks, priorities, and goals is positively associated with marriage for women in their mid-to late-20s but has no statistically significant effects on the transition to marriage in the late teens to early-20s (between the ages of 18 and 23). For men, job autonomy does not have statistically significant effects on the transition to marriage either in their late teens and early-20s or mid-to late 20s. This may be because women's in the mid-to late-20s are more likely to work for jobs with higher demands, for example, for time, than in their late teens and early-20s, the ability to structure one's own work becomes more important for them to better meet both work and family demands. We did find

this effect in the model for men and a t-test for the gender difference in the coefficients is significant, suggesting that in the mid-to late-20s, the ability to structure one's own work facilitates marriage more for women in their mid-to late-20s than men.

Furthermore, our findings support findings from previous research (e.g., Sweeney 2002; Sweeney and Cancian 2004; Xie et al. 2003) that men and women are growing to resemble one another with respect to the relationship between economic prospects, in terms of earnings, and marriage. Our finding suggests that greater earnings capacity, measured by income, does not prevent women from entering into marriages; instead, it increases the risk of marriage for women in both early and mid-to-late 20s; moreover, income effect becomes stronger in women's mid-to late-20s. In addition, our findings suggest that while income facilitates both men's and women's transition to first marriage, the effect of income on the transition to marriage is significantly greater for men than for women in both age periods under study (Xie et al. 2003). All these findings provide support for Oppenheimer's marriage theory (1986; 1988; 1997; Oppenheimer and Lewin 1999) suggesting that men's economic outcomes continue to be important in shaping the overall trend of the timing of marriage formation, whereas women's increasing economic independence does not prevent them from marriages. The rise in women's work roles can help facilitate marriage formation when men are still on the way to settle into a long-term career. The hypothesis of retreats from marriage due to the rise in the economic independence is not supported here.

Finally, we found the result regarding the effect of education on the transition to marriage intriguing. Within each sex, in the full models where we account for the effects on the marriage formation of three work-related assets—occupational status, job autonomy, and income—education appears to have stronger power in predicting marriage formation in the late teens and early 20s than in the mid-to late 20s for both men and women. That is, the effect of education is significantly greater in the late teens to early-20s, an age period that Arnett has termed as “emerging adulthood”, which is often featured by frequent job changes, and for some/many people, pursuit of postsecondary education or training (Arnett 2004; Arnett 2007; Settersten and Ray 2010a) than in the mid-to late 20s. During this early age period of young adulthood,

young people may not have enough time or opportunities to maximize their education returns in the job market, education itself, however, becomes a relatively informative indicator of future economic outcomes to evaluate the readiness for marriage.

In the mid-to late-20s, however, as young adults are gradually able to cash in their human capital through the labor force participation, the effect of education on the transition to marriage can, to some extent, be explained by work-related assets. Only women who have at least a college degree have the advantage in marriage formation, and are able to distinguish them from women without a college degree, net of the effects of job autonomy, occupational status, and income. For men in their mid-to late-20s, on the other hand, net of the effects of job autonomy, occupational status, and income, education appears to have no direct effect on the transition to marriage.

To conclude, educational disparity in marriage formation displays since the early years of young adulthood. That is, given the possibility that economic opportunities are often limited and less promising in the late teens to early-20s, education attainment per se works as a powerful predictor of future economic prospects. However, in the mid-to late-20s, despite the fact that women with a least college still show a significant advantage in marriage formation, most of educational disparity in marriage is explained by young people's work characteristics, especially income, and for women, work autonomy as well. The relevance of work characteristics to marriage formation becomes more prominent for both men and women later in the twenties.

Table 1. Individual Time-Invariant Characteristics				
	Women		Men	
	%	N	%	N
<i>Race/Ethnicity</i>				
Non-Hispanic White	66.8	2,799	66.0	2,954
Non-Hispanic Black	16.0	669	15.5	693
Hispanic	12.0	503	13.6	607
Other races	5.2	219	5.0	222
<i>Family structures (at age 12)</i>				
Two biological-parent family	52.9	2,218	56.5	2,528
Single-mother family	22.7	951	20.3	909
Step-parent family	16.0	670	14.8	663
Other types of families	8.4	350	8.4	375
<i>Parental educational attainments</i>				
Less than high school	11.1	463	12.5	561
High school	31.6	1,326	30.5	1,366
Some college	25.1	1,053	24.2	1,081
College or more	27.5	1,152	28.2	1,263
Missing information	4.7	196	4.6	205
Total	100	4,189	100	4,476
Note: Data are weighted.				

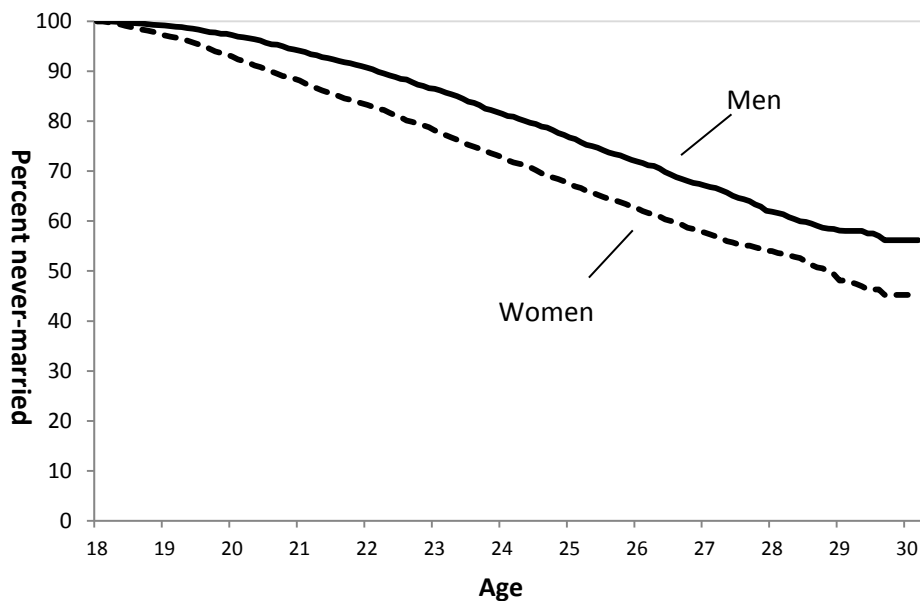


Figure 1 Life-Table Estimates of Age at First Marriage for men and women, separately (weighted results)

Note: 4,189 women and 4,476 men ages 18 up to 30 from NLSY97.

	Women				Men			
	Age 18-23		Age 24-30		Age 18-23		Age 24-30	
	Mean (%)	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
# of person-months:	254,978		99,837		287,163		115,690	
<i>Education</i>								
Less than high school	14.78		8.90		18.99		10.53	
High school	72.30		48.94		70.86		58.83	
Some college	2.41		6.16		2.24		5.19	
College or more	7.37		32.97		4.20		22.27	
Missing information	3.14		3.03		3.71		3.18	
<i>Enrollment</i>								
Enrolled	47.32		17.77		37.94		13.23	
Not enrolled	52.49		82.14		61.93		86.74	
Missing enrollment status	0.18		0.09		0.13		0.03	
<i>Fertility History of first births</i>								
No first births	75.99		61.68		84.47		73.08	
Pregnancies	2.44		1.25		1.75		1.46	
1st year of the child's life	4.13		2.33		2.68		2.68	
2nd year or beyond of the child's life	14.56		32.46		7.00		20.02	
Missing fertility information	2.88		2.28		4.09		2.77	
<i>Employment</i>								
Unemployed	28.17		19.89		31.77		20.81	
Part-time	37.48		21.04		26.41		15.92	
Full-Time	32.80		56.87		40.11		61.02	
Missing information	1.55		2.21		1.71		2.25	
<i>Work-related assets</i>								
Annual Income (ln \$)	7.18	(3.53)	8.41	(3.36)	7.46	(3.60)	8.61	(3.39)
Status (of those employed months)	2.81	(0.81)	3.22	(1.01)	2.71	(0.83)	3.07	(1.06)
Autonomy (of those employed months)	3.86	(0.36)	3.97	(0.37)	3.81	(0.35)	3.90	(0.39)

Note: Data are weighted. Standard deviations are shown in parentheses for continuous variables.

Table 3. Coefficients from logistic models of transition into first marriage for women: late teens and early 20s (between the ages 18 and 23) and mid-to late-20s (between the ages 24 and 30), separately

	Model 1				Model 2			
	Age 18-23		Age 24-30		Age 18-23		Age 24-30	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Age (ref: 18)								
age 19	0.197	(0.13)			0.193	(0.13)		
age 20	0.329*	(0.14)			0.326*	(0.14)		
age 21	0.382**	(0.14)			0.378**	(0.14)		
age 22	0.373*	(0.14)			0.369*	(0.15)		
age 23	0.399**	(0.15)			0.391*	(0.15)		
Age (ref: 24)								
age 25			-0.003	(0.12)			-0.007	(0.12)
age 26			0.057	(0.13)			0.046	(0.13)
age 27			-0.082	(0.17)			-0.106	(0.17)
age 28			0.291	(0.19)			0.270	(0.19)
age 29 -30			-0.047	(0.46)			-0.055	(0.46)
Race/ethnicity (ref: whites)								
Black	-1.265***	(0.12)	-1.128***	(0.15)	-1.261***	(0.12)	-1.126***	(0.15)
Hispanic	-0.182+	(0.10)	-0.285+	(0.15)	-0.185+	(0.10)	-0.285+	(0.15)
Other racial/ethnic groups	-0.730***	(0.22)	-0.655*	(0.26)	-0.735***	(0.22)	-0.662*	(0.26)
Educational attainments (ref: high school)^b								
Less than high school	-0.387***	(0.11)	-0.251	(0.24)	-0.384***	(0.11)	-0.237	(0.24)
Some college	0.893***	(0.21)	0.332+	(0.19)	0.863***	(0.20)	0.292	(0.19)
College or more	0.427**	(0.15)	0.388**	(0.13)	0.389**	(0.15)	0.283*	(0.13)
First births (ref: no first births)^c								
Gestational period	1.528***	(0.13)	1.499***	(0.24)	1.531***	(0.13)	1.507***	(0.24)
First year of life	0.835***	(0.14)	0.232	(0.34)	0.837***	(0.14)	0.243	(0.34)
Second year and beyond	0.602***	(0.10)	0.206+	(0.12)	0.604***	(0.10)	0.229+	(0.13)
Enrollment status (ref: not enrolled)^d								
Enrolled	-0.710***	(0.10)	-0.174	(0.13)	-0.713***	(0.10)	-0.185	(0.14)
Part-time /Full-time employment (ref: unemployed)^e								
Part-time (< 35 hours a week)	-0.126	(0.10)	0.062	(0.17)	-0.108	(0.10)	0.047	(0.18)
Full-time (>=35 hours a week)	-0.126	(0.10)	-0.020	(0.16)	-0.129	(0.10)	-0.106	(0.17)
Income (log)^f								
Income	0.023+	(0.01)	0.057**	(0.02)	0.023+	(0.01) ^h	0.054*	(0.02) ^h
Occupation status (mean-centered)^a								
Recognition					0.082	(0.06)	0.010	(0.06)
Autonomy (mean-centered)^a								
Freedom to structure one's own work ^g					-0.073	(0.12)	0.604***	(0.15) ⁱ
Constant	-6.151***	(0.35)	-5.586***	(0.74)	-6.128***	(0.35)	-5.521***	(0.74)
N of person-months	254978		99837		254978		99837	

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001

Note--Parental educational attainments, childhood family structures (at age 12), regional and metropolitan residence variables, and dummy variables indicating missing data categories are included across models as control variables.

a. Occupational status is centered around the mean at 2.90; Occupational status is centered around the mean at 3.89

b. A one-tailed t-test suggests a statistically significant increase in the effect of having at least a college degree on the transition to marriage in the mid-to late-20s (p<.05). The finding holds true in both baseline and full models.

c. A one-tailed t-test suggests that the effect of having first births on the transition to marriage significantly decline in the mid-to late-20s (p <.05). The finding holds true in both baseline and full models.

d. A one-tailed t-test suggests a statistically significant decline in the effect of school enrollment on the transition to marriage in the mid-to late-20s (p<.05). The finding holds true in both baseline and full models.

e. No significance test is performed for nonsignificant coefficients for employment status.

f. A one-tailed t-test suggests a statistically significant increase in the effect of income on the transition to marriage for women in their mid-to late-20s (p<.05). The finding holds true in both baseline and full models.

g. A one-tailed (and two-tailed) t-test suggests a statistically significant increase in the effect of occupational autonomy on the transition to marriage for women in their mid-to late-20s (p<.05).

h. A one-tailed t-test suggests that the effect of income on marriage transition is significantly greater for men than for women in both age periods (p<.05). The finding holds true in baseline model as well.

i. A one-tailed t-test suggests that the effect of occupational autonomy on the transition to marriage is significantly greater for women than for men in their mid-to late-20s (p<.05).

Table 4. Coefficients from logistic models of transition into first marriage for men late teens and early 20s (between the ages 18 and 23) and mid-to late-20s (between the ages 24 and 30), separately

	Model 1				Model 2			
	Age 18-23		Age 24-30		Age 18-23		Age 24-30	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Age (ref: 18)								
age 19	0.473*	(0.22)			0.469*	(0.22)		
age 20	0.856***	(0.21)			0.846***	(0.21)		
age 21	0.916***	(0.21)			0.905***	(0.21)		
age 22	1.024***	(0.21)			1.010***	(0.21)		
age 23	1.123***	(0.21)			1.106***	(0.21)		
Age (ref: 24)								
age 25			0.055	(0.12)			0.054	(0.12)
age 26			0.104	(0.13)			0.101	(0.13)
age 27			0.209	(0.15)			0.203	(0.15)
age 28			-0.014	(0.20)			-0.018	(0.20)
age 29 -30			-0.881	(0.56)			-0.883	(0.56)
Race/ethnicity (ref: whites)								
Black	-1.221***	(0.15)	-0.390**	(0.14)	-1.218***	(0.15)	-0.387**	(0.14)
Hispanic	-0.243*	(0.12)	-0.045	(0.17)	-0.244*	(0.12)	-0.046	(0.17)
Other racial/ethnic groups	-0.485*	(0.24)	-0.887**	(0.31)	-0.489*	(0.24)	-0.884**	(0.31)
Educational attainments (ref: high school)^b								
Less than high school	-0.321**	(0.12)	-0.196	(0.19)	-0.302*	(0.12)	-0.186	(0.19)
Some college	0.570**	(0.21)	0.017	(0.22)	0.545*	(0.21)	-0.006	(0.23)
College or more	0.712***	(0.17)	0.187	(0.13)	0.626***	(0.18)	0.144	(0.14)
First births (ref: no first births)^c								
Gestational period	2.214***	(0.14)	1.410***	(0.22)	2.226***	(0.14)	1.411***	(0.22)
First year of life	1.327***	(0.17)	0.929***	(0.21)	1.332***	(0.17)	0.935***	(0.21)
Second year and beyond	1.047***	(0.13)	0.335*	(0.13)	1.056***	(0.13)	0.339*	(0.13)
Enrollment status (ref: not enrolled)^d								
Enrolled	-0.413***	(0.12)	0.029	(0.16)	-0.420***	(0.12)	0.029	(0.16)
Part-time /Full-time employment (ref: unemployed)^e								
Part-time (< 35 hours a week)	-0.626***	(0.14)	0.024	(0.21)	-0.613***	(0.14)	0.008	(0.21)
Full-time (>=35 hours a week)	-0.072	(0.11)	0.273	(0.18)	-0.078	(0.11)	0.245	(0.18)
Income (log)^f								
Income	0.092***	(0.02)	0.109***	(0.03)	0.091***	(0.02) ^h	0.108***	(0.03) ^h
Occupation status (mean-centered)^a								
Recognition					0.073	(0.06)	0.048	(0.06)
Autonomy (mean-centered)^a								
Freedom to structure one's own work ^g					0.132	(0.15)	0.013	(0.15) ⁱ
Constant	-8.068***	(0.51)	-7.508***	(1.06)	-8.032***	(0.51)	-7.475***	(1.06)
N of person-months	287163		115690		287163		115690	

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001

Note--Parental educational attainments, childhood family structures (at age 12), regional and metropolitan residence variables, and dummy variables indicating missing data categories are included across models as control variables.

a. Occupational status is centered around the mean at 2.77 ; occupational autonomy is centered around the mean at 3.83

b. A one-tailed t-test suggests a statistically significant decline in the effect of education on the transition to marriage for men in the mid-to late-20s (p< .05). The finding holds true in both baseline and full models.

c. A one-tailed t-test suggests that the effect of having first births on the transition to marriage significantly decline in the mid-to late-20s (p <.05). The finding holds true in both baseline and full models.

d. A one-tailed t-test suggests a statistically significant decline in the effect of school enrollment on the transition to marriage in the mid-to late-20s (p<.05). The finding holds true in both baseline and full models.

e. No significance test is performed for employment status.

f. A one-tailed t-test suggests the income effect is equivalently important in both age periods. The finding holds true in both baseline and full models.

g. No significance test is performed for nonsignificant coefficients for occupational autonomy.

h. A one-tailed t-test suggests that effect of income on the transition to marriage is significantly greater for men than for women in both age periods (p< .05). The finding holds true in baseline model as well.

i. A one-tailed t-test suggests that the effect of occupational autonomy on the transition to marriage is significantly greater for women than for men in their mid-to late-20s (p<.05).

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