THE INTEGRATIVE FUNCTIONS OF POST-INDUSTRIAL U.S. LABOR MARKET

FOR MARRIAGE FORMATION: THREE ESSAYS

Lijun Yang

A DISSERTATION

in

Sociology

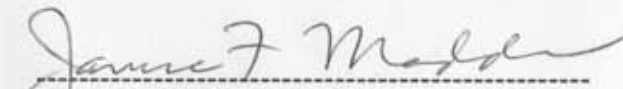Presented to the Faculties of the University of Pennsylvania

in

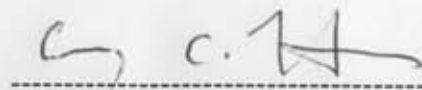Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

2010

Supervisor of Dissertation

Janice F. Madden
Professor of Regional Science, Sociology, Urban Studies, and Real Estate

Graduate Group Chairperson

Emily Hannum
Associate Professor of Sociology and Education

Dissertation Committee
Paul D. Allison, Professor of Sociology
Frank F. Furstenberg, The Zellerbach Family Professor of Sociology

Acknowledgements

I am thankful to a number of people who aided me in completing this dissertation. First of all, I want to give my thanks to my dedicated advisor Professor Janice F. Madden for her time, energy and intellectual inputs in this work, and to Professor Paul D. Allison and Professor Frank F. Furstenberg who have been great mentors in the past six years. I also want to thank my advisor Professor Cheryl S. Elman at the University of Akron. It is she who introduces me to sociology and inspires my interests in the life course studies. I have also benefited from being surrounded and protected by a number of true sociologists. Without their support, I wont be able to overcome a chain of incidents and stay at Penn to complete my doctoral study. Here I want to give my thanks to Drs. Emily Hannum, Grace Kao, Celia Lo, Kristen Harknett, Jerry Jacobs, Hyunjoon Park, David Grazian, Keith Brown, Yuping Zhang, and Faye Allard. Finally, I want to thank my families for their unconditional love, understanding, and support.

ABSTRACT

THE INTEGRATIVE FUNCTIONS OF POST-INDUSTRIAL U.S. LABOR MARKET

FOR MARRIAGE FORMATION: THREE ESSAYS

Lijun Yang

Janice F. Madden, Supervisor of Dissertation

The deteriorating labor market position of young men has arguably played an important

role in later and less frequent marriage since the 1970s. This dissertation examines the

relationship between men's socioeconomic characteristics and marriage formation and

the labor market causes of marriage declines since the 1970s. It is motivated by three

aspects of labor market changes that have characterized the post-industrial U.S. economy:

the historic shift in labor market returns to schooling, women's occupational integration

and changes in men's career entry. I find that: (1) Erosion in the employment

opportunities of noncollege educated black men is partly responsible for their faster rate

of marriage decrease. The effect of employment on educational differences in marriage

trends is small for whites. For both races, educational differences in the trends toward

lower marriage rates primarily arise from an economy-wide wage structure change that

increasingly decreases wages of noncollege educated men. (2) Women's occupational

integration has a positive effect on men's likelihood of marrying women employed in the

same occupation, but a negative effect on men's likelihood of marrying women employed

in different occupations. The negative relationship between the female proportion in an

iii

occupation and the likelihood of marrying for male workers is partly attributable to the marriage disincentives of underemployment and lower wages. On the whole, although working in more female occupations facilitates men's marriage formation, the effect is small and cannot compensate for the marriage disincentives of underemployment and lower wages when men work in more female intensive occupations. (3) Increased difficulties the recent cohort of noncollege educated men have encountered in career entry play an important role in marriage declines among them. For the recent cohort of men with some college education, however, marriage declines are mainly due to their extended patterns of school attendance. The recent cohort of college men also delayed marriage, but their marriage delays are not related to changes in career entry. For both college and noncollege educated men, marriage declines since the 1970s also reflect a shift in the economic foundations of marriage formation.

TABLE OF CONTENTS

LIST OF TABLES AND APPENDIXES

LIST OF FIGURES

INTRODUCTION

American men have increasingly delayed their first marriage over the past four decades. Between 1970 and 2003, the median age at first marriage has increased from 23 years to 27 years (U.S. Bureau of Census 2003). Although all schooling and racial groups have delayed marriage, the trend is greater among the less educated and blacks. For a segment of the black population, marriage delays have essentially become nonmarriage. For example, based on the experiences of women who come of age between 1945 and 1964, Goldstein and Kenny (2001) predict that the proportion who eventually marry declines moderately for college educated non-Hispanic white women, but declines by over twenty percentage points for noncollege educated black women. Marriage delays also influence other family patterns such as divorce, family size, birth timing, and birth spacing (Booth and Edwards 1985; Coale 1989; Marini 1981; Anderson 1986). More importantly, marriage delays, coupled with a high level of nonmarital fertility, have yielded large increases in the number of female-headed families with dependent children, the type of family that is most susceptible to poverty (McLanahan and Sandefur 1994; Levy 1995).

Social scientists have offered several explanations of this marital behavior change (see Espenshade 1985 for a summary), among which the economic perspective has received the most attention.[1] It is argued that later and less frequent marriage since the 1970s are due to the deteriorating labor market position of young men, which simultaneously decreases their marriage incentive and the supply of marriageable men

---

[1] Other demographic and social changes that have also been identified as important factors underlying the trend toward lower marriage rates include women's labor force participation and improvement of their socioeconomic standing relative to men, reductions in the normative imperative on people to marry and traditional gender roles, and increasing tolerance of premarital sex, nonmarital cohabitation, unmarried childbearing and childrearing.

(Becker 1981; Oppenheimer 1988; Wilson 1987). This dissertation is characterized as the economic perspective. The economic perspective examines the relationship between men's socioeconomic characteristics and marriage formation, and the labor market causes of marriage declines since the 1970s. To test this perspective, I develop three studies. Each study is motivated by one aspect of labor market changes that has characterized the post-industrial U.S. economy since the 1970s.

In the first study, I concentrate on the marriage gap between college educated and noncollege educated men, examining how changes in the marriage gap between these two educational groups are related to the historic shift in the labor market rewards of schooling which becomes increasingly unfavorable to noncollege educated men and blacks. Using data from the Cumulative Files of Current Population Survey March Surveys, my analyses show that erosion in the employment opportunities of noncollege educated black men are partly responsible for a faster rate of marriage decrease among them. The effect of employment on educational differences in marriage trends is small for whites, however. For both black and white men, educational differences in the trends toward lower marriage rates primarily arise from economy-wide wage structure changes that increasingly disfavor noncollege educated men. For blacks, an increased labor market "bias" towards schooling results in a divergence in marriage rates between the college educated and the noncollege educated; for whites, rises in labor market rewards to schooling result in a convergence in marriage rates between college educated and noncollege educated men.

In the second study, I link women's occupational integration to men's marriage formation. The primary objective of this investigation is to measure the extent to which

2

women's occupational integration and occupational propinquity between men and women at the workplace affect marriage rates. Although employment in a more female intensive occupation reduces the costs of assortative mating, this advantage is offset by the marriage disincentives of lower wages and underemployment. Based on the Current Population Survey June Surveys, I find that increases in the female proportion employed in a man's occupation has a positive effect on his likelihood of marrying a woman employed in the same occupation, but a negative effect on his likelihood of marrying a woman employed in a different occupation. The negative relationship between the female proportion of an occupation and the likelihood of marrying for male workers is partly attributable to the marriage disincentives of underemployment and lower wages for men working in more female occupations. On the whole, although working in more female occupations facilitates men's marriage formation, the effect is relatively small as only 4% of married men benefited from women's occupational integration by marrying women employed in the same occupation. The marriage disincentives of underemployment and lower wages for men who work in more female occupations are not fully compensated by their marriage market advantage of having more contact opportunities with women who have similar levels of educational and occupational statuses. On average, one percentage point increase in the female proportion of an occupation is associated with 26% reduction in the odds of marrying for male workers.

In the third study, I use two birth cohorts from the National Longitudinal Surveys and examine how changes in men's career entry over time affect marriage formation for men of varying educational attainment. My analyses show that the impacts of labor market restructuring on marriage declines vary across schooling groups. Increased

3

difficulties in career entry for the recent cohort of noncollege educated men play an important role in marriage declines. For the recent cohort of men with some college education, however, marriage declines are mainly due to their extended patterns of school attendance. Their marriage delays do not seem to suggest a permanent reduction in the proportion eventual marrying, however, as there is no evidence of significant changes in the lifetime earnings for the recent cohort of men with some college education. The recent cohort of men who have completed college also delayed marriage, but their marriage delays are not related to changes in career entry. In addition to labor market restructuring, marriage declines since the 1970s also reflect a shift in the economic foundations for marriage formation. For men who did not go beyond high school, labor market restructuring makes it increasingly difficult for their wage trajectories to cross the threshold of wages which are necessary to establish and maintain an independent household. To some extent, their marriage declines reflect a decrease in their response to their below-threshold wages when making decisions on the timing of marriage. Although the recent cohort of men with some college education did not experience a decline in their earnings trajectories, rising expectations about living standards, lifestyles and consumption have led to an increase in the importance they place on socioeconomic factors in their marital decisions. Their marriage delays probably reflect the tendency of the recent cohort of men with some college education to postpone marriage until they are able to afford a higher standard of living than was the case for earlier generations.

1. Marrying in an Increasingly Unequal Society: The Impact of Wage Structure Changes on Marriage Trends 1976-2004

Over the past four decades American men have increasingly delayed their first marriage. Between 1970 and 2003, the median age at first marriage has increased from 23 years to 27 years (U.S. Bureau of Census 2003). Although all schooling and racial groups have delayed marriage, the trend is greater among the less educated and blacks. For a segment of the black population, marriage delays have essentially become nonmarriage. For example, based on the experiences of women who come of age between 1945 and 1964, Goldstein and Kenny (2001) predict that the proportion who eventually marry declines moderately for college educated non-Hispanic white women, but declines by over twenty percentage points for noncollege educated black women. Marriage delays also influence other family patterns such as divorce, family size, birth timing, and birth spacing (Booth and Edwards 1985; Coale 1989; Marini 1981; Anderson 1986). More importantly, marriage delays, coupled with a high level of nonmarital fertility, have yielded large increases in the number of female-headed families with dependent children, the type of family that is most susceptible to poverty (McLanahan and Sandefur 1994; Levy 1995).

Social scientists have offered several explanations of this marital behavior change (see Espenshade 1985 for a summary), among which the economic perspective has received the most attention.[1] It is argued that marriage delays since the early 1970s are due to the deteriorating labor market position of young men, which simultaneously

---

[1] Other demographic and social changes that have also been identified as important factors underlying the trend toward lower marriage rates include women's labor force participation and improvement of their socioeconomic standing relative to men, reductions in the normative imperative on people to marry and traditional gender roles, and increasing tolerance of premarital sex, nonmarital cohabitation, unmarried childbearing and childrearing.

decreases their marriage incentive and the supply of marriageable men (Becker 1981;

Oppenheimer 1988; Wilson 1987). This economic explanation has motivated several

important studies on labor market causes of marriage declines (Wilson 1987; Mare and

Winship 1991; McLanahan and Casper 1995). The dependent variable of common

interest is the across-the-board marriage declines. Few studies, however, are designed to

examine educational differences in the trends of marriage decreases, limiting our

understanding of the structural and institutional roots of multiple pathways toward lower

marriage rates across schooling groups.

In the past three decades, changes in labor market institutions and in economic

conditions have worked jointly to create a historic shift in how the U.S. labor market

allocates its rewards among workers (Borjas 2003). This is reflected not only in the

widening wage inequality between schooling groups, but more seriously the divergence

in the economic fates between college educated and noncollege educated men. Although

both the college educated, a group that did not experience real wage loss, and the

noncollege educated, a group whose labor market position was greatly eroded, have

retreated from marriage, the trends are more precipitous for the noncollege educated.

Using the Cumulative Files of Current Population March Surveys, I examine how rises in

labor market rewards to schooling change the economic prospects of men by schooling

group, resulting in different rates of marriage declines since the late 1970s.

In the first part of analyses, I examine the trend measures of two indicators of

men's labor market position: men's annual earnings and men's weekly hours worked in

the year prior to the survey. I find that earnings inequality across schooling groups has

increased since the late 1970s. Noncollege educated young adult men experienced real

6

earnings losses. For whites, this widening earnings inequality across schooling groups mainly reflects a shift in labor market rewards to schooling that favor the college educated more than the noncollege educated. For blacks, the widening earnings inequality across schooling groups also are related to the erosion in employment opportunities for noncollege educated black men. In the second part of the analyses, I examine the trend measures of the proportions of young adult men who are married at the time of survey between 1976 and 2004. I find that both college educated and noncollege educated men have experienced marriage decreases since the late 1970s. The trends toward lower marriage rates are greater for noncollege educated men, especially noncollege educated black men. For blacks, the faster rate of marriage decrease among noncollege educated men results in a greater divergence in marriage rates between the college educated and the noncollege educated; for whites, the faster rate of marriage decrease among noncollege educated men results in a convergence in marriage rates between college educated and noncollege educated men.

In the final part of the analyses, I use a set of logistic regressions to measure the impacts of changes in men's employment opportunities and wage structures on differences in the trends toward lower marriage rates across educational groups. Two conclusions are reached. First, erosion in the employment opportunities of noncollege educated black men is partly responsible for a faster rate of marriage decrease among them. The effect of employment opportunities on educational differences in marriage trends is small for whites, however. Second, for both black and white men, educational differences in the trends toward lower marriage rates primarily arise from economy-wide

wage structure changes that increasingly lower the relative wages of noncollege educated men.

ECONOMIC OPPORTUNITIES AND MEN'S AGE AT FIRST MARRIAGE

According to the economic theory of marriage, men having a favorable labor market position are more likely to marry, because they are more attractive on the marriage market and have greater ability to set up independent households and to perform conventional breadwinner roles (Hajnal 1965; Easterlin 1978). Support for this hypothesis is fairly robust, using a wide range of measures of men's socioeconomic characteristics including employment status, earnings, career development, occupational prestige, and the level of educational attainment, and multiple data sources (Oppenheimer, Kalmijn, and Lim 1997; Sassler and Goldscheider 2004; Bennett, Bloom, and Craig 1989; Clarkberg 1999; Hogan 1978; Mare and Winship 1991). Local marriage markets that provide men greater economic opportunities are also found to promote marriage formation (Lichter et al. 1992). Black-white differentials in economic opportunities play an important role in black-white differences in marriage rates. For Wilson (1987), a shortage of economically attractive men is a serious structural impediment for black women to marry. Subsequent study by Lichter et al. (1992) provides additional evidence that compared to other covariates, indicators of the relative supply of economically attractive males account for the largest proportion of black-white differences in marriage rates. Racial differences in the pace of transition to steady employment are also found to relate to black-white differences in marriage timing (Oppenheimer, Kalmijn, and Lim 1997).

8

This economic perspective has been used to explain the labor market causes of marriage trends. An important work by Wilson's (1987) shows that the employment trends of black men paralleled their marriage trends, both declined rapidly in the 1970s. He therefore argued that marriage declines among blacks are principally due to a decrease in the number of employed men. The effects of employment on marriage trends are greatest for men age 25 and above, while declining numbers of employed black men younger than 25 are partly due to increases in men's school enrollment.

In an attempt to explain the labor market causes of marriage declines between 1960 and 1980, Mare and Winship (1991) used trends of average weekly earnings and employment rates to explain the overall trend of marriage declines. Their study shows that employment trends play an important role in the decrease of marriage rates for black men, but the effect is modest for white men. For both black and white men, significant marriage declines engendered by declining employment rates were more than offset by growth in real earnings between 1960 and 1980. In fact, for black men age 30-39 and white men age 24-29, the growth of earnings did more to increase marriage rates than reduced employment did to reduce them. Mare and Winship (1991) therefore concluded that due to the modest and sometimes offsetting effects of employment and earnings, labor market changes among men are unlikely to be the dominant forces of the trends of marriage decreases.

McLanahan and Casper (1995) reached a similar conclusion based on their analysis of the metropolitan areas in the Census data. Their study shows that the decline in men's earning powers and the supply of marriageable males explains about 12 percent of the decline in marriage among black women and 8 percent among white women

9

between 1970 and 1990. A more recent study (Hill and Holzer 2007) that uses individual-level data from the National Longitudinal Surveys verifies previous findings. It shows that the long-term declines in labor market opportunities for less educated young workers cannot account for much of their reduced tendency to marry.

There are two problems with previous studies on the economic causes of marriage declines. First, the common concern of previous studies of labor market causes of marriage decreases is the secular trend of marriage declines experienced by all schooling groups. This aggregate trend of marriage, however, masks substantial differences in the trend toward lower marriage rates by schooling group. Second, most previous studies on the economic causes of marriage declines assume a time invariant relationship between men's socioeconomic characteristics and marriage.[2] Marriage declines are assumed to arise from a downward shift in the average male's socioeconomic characteristics. These assumptions ignore the widening inequality across schooling groups and the diversity in the pathways toward lower marriage rates.

Marriage declines since the 1970s concurred with rises in labor market rewards to schooling. This dimension of changes in the wage structure[3] is reflected not only in the widening wage gaps between schooling groups (Levy 1995; Murphy and Welch 1992; Katz and Author 1999), but more seriously, the divergence in the economic fortunes

---

[2] Several studies have suggested that the assumption of time invariance in the relationship between socioeconomic characteristics and marriage is unlikely to hold in the United States (Mare 1991; Qian and Preston 1993; Sweeney 2002). Raymo's (2003) most recent study of the trend toward later and less frequent marriage among Japanese women shows an increasing negative effect of schooling on marriage accounts the large decline in the risk of marriage across cohorts. The decline has been the greatest for the most highly educated Japanese women versus lower-paying ones.

[3] Wage structure refers to the returns that the labor market offers for various skills and for employment in higher-paying industries or occupations versus lower-paying ones.

between college educated and noncollege educated men.[4] Compared to their white counterparts, noncollege educated black men are more vulnerable to the widening wage inequality. This arises partly because less educated black men are more likely to be at the lower end of wage distributions, and partly because the shift in labor market demand for skills is usually accompanied by other labor market changes that disproportionately affected less educated black men.[5]

Thus, although both college educated men and noncollege educated men have experienced declines in marriage since the 1970s, the decline in marriage that could be attributed to changes in men's labor market position probably vary across schooling groups. In fact, because there is no evidence of a decline in the labor market position of college educated men since the 1970s, the effects of labor market restructuring on marriage decreases probably mainly reflect educational differences in marriage trends, with noncollege educated men having a faster marriage decline relative to college educated men. In the analyses that follow, I first examine the trend measures of men's labor market position and educational differences in the trend toward lower marriage

---

[4] This arises because wage growth is greater for higher wage groups. So when wage growth stagnated such as in the 1980s, the decade that marriage declined the most, less educated male workers whose wages were below the median experienced significant real-wage losses (Smith 2000).

[5] Sectoral shifts between goods production and services industries reduce the employment opportunities for noncollege educated men. In addition, sectoral shifts are often accompanied by a decline in unionism, which have historically disproportionately benefited less educated black men both in employment opportunities and wage gains (Leonard 1985). The suburbanization of work, in conjunction with persisting residential segregation, creates additional employment barriers for poor black men (Wagmiller 2007). Furthermore, although affirmative action has improved the employment opportunities of black men, less-skilled black men still have great difficulty in finding and holding jobs (Leonard 1984), and the wage effect of affirmative action is weak (Leonard 1996). As federal enforcement of affirmative action and antidiscrimination laws and regulations weakened since the 1980s, the battle against employment discrimination has not yet progressed far enough to outweigh the adverse labor demand across industry and occupation with respect to minorities (Juhn, Murphy, and Pierce 1991). Rodger and Spriggs (1996) show that racial differentials in the market returns to test scores remain. Employers continue to be reluctant to hire blacks for jobs that require significant cognitive skills and credentials (Holzer 1996). Also, on the supply side, the recent increase in Hispanic immigrants, coupled with some employers' preference for hiring less educated Hispanics in low-level positions, poses another barrier to the socioeconomic advancement of less educated black men (Orfield 1992).

11

rates. In subsequent regression analyses, I then concentrate on the marriage gap between college educated and noncollege educated men, examining how changes in the marriage gap between college educated and noncollege educated men relate to the shifts in the labor market returns to education.

DATA AND DESCRIPTIVE STATISTICS

To investigate the labor market causes of educational differences in marriage trends, I use data from the Cumulative Files of Current Population March Surveys (CPMS), a national representative sample of civilian noninstitutionalized persons living in households. CPMS contain extensive information on men's socioeconomic characteristics and marital status. I use twenty-nine single year time periods from 1976 to 2004, during which marriage declines correspond to rises in labor market rewards to schooling. I restrict the analysis to men age 24-33 as previous studies have shown that the effects of labor markets on marriage declines are mainly observed on men older than 24 (Mare and Winship 1991). As financial hardship is also an important reason for marital dissolution (Hajnal 1965), I further restrict my analysis to men who are either currently married or never married in order not to bias down the estimation of the effects of men's socioeconomic characteristics on marriage formation. Measures of men's socioeconomic characteristics are based on two variables: men's weekly earnings and weekly hours worked in the year prior to the survey. For men who married more than two years ago before the survey year, the observed relationship between men's labor market positions and their current marital statuses reflects the marriage timing effects of men's long run economic statuses; for men who married in the survey year or the year prior to the survey

12

year, the observed relationship reflects the marriage timing effects of men's current economic statuses. However, because CPMS do not have time series information on men's age of first marriage, it is difficult to distinguish between these two interpretations. The observed relationship is therefore better interpreted as a combination of both effects.

WIDENING EARNINGS INEQUALITY ACROSS SCHOOLING GROUPS

Tables 1.1 to 1.4 present trend measures of men's labor market positions in the year prior to the survey. It can be seen that although the U.S. economy overall has been strong since the 1970s, noncollege educated men, especially noncollege educated black men, appear to benefit less from economic growth. Between 1976 and 2004, the annual earnings for college white men age 24-28 and age 29-33 (in constant 2009 dollars) increased by 10% and 16%, respectively, but decreased for other young adult white men. For black men, all educational and age groups experienced real wage losses since 1976 except college men age 29-33. The magnitudes of earnings losses were greatest for black high school dropouts. In 2004, for example, a black high school dropout man earned about half of his counterparts in 1976.

Earnings inequality between schooling groups widened over time. For example, a college graduate white man age 24-28 earned 56% more than a white high school dropout man in 1976. By 2004, a college graduate white man age 24-28 earned twice as much as a white high school dropout man. Changes in college/noncollege earnings ratios are larger for blacks. In 1976, a college graduate black man age 24-28 earned twice as much as a black high school dropout man age 24-28; by 2004 the college graduate/high school dropout earnings ratio increased to more than three times. For both blacks and whites,

13

earnings inequality between schooling groups increases as time spent in the labor market increases. For example, in 2004, a white college graduate man age 24-28 earned twice as much as a white high school dropout, whereas a white college graduate man age 29-33 earned three times as much as his high school dropout counterparts.

For whites, the widening earnings inequality across schooling groups mainly reflects a shift in labor market rewards to schooling that favors the college educated more than the noncollege educated. For blacks, the widening earnings inequality across schooling groups also is related to the erosion in employment opportunities for noncollege educated black men. As show in Table 1.3 and Table 1.4, the more educated work more hours per week than the less educated. The number of hours men worked per week fluctuates with business cycle. But on the whole white men's weekly working hours remained relatively stable since 1976. There are no noticeable changes in men's weekly working hours across schooling groups for white men. For blacks, educational differences in weekly working hours seemed to have increased over time. The increase primarily arises from the erosion in the employment opportunities for noncollege educated black men. An average black high school dropout man worked full-time most of the years between the late 1970s and the early 1980s, but worked part-time most of the years after the early 1980s.

[Table 1.1 is inserted here]

[Table 1.2 is inserted here]

[Table 1.3 is inserted here]

[Table 1.4 is inserted here]

EDUCATIONAL DIFFERENCES IN MARRIAGE TRENDS

Corresponding to the changing wage structures and divergent economic fates between the college educated and the noncollege educated are different trends of marriage declines across schooling groups. Table 1.5 presents the proportions of young adult men who are married at the time of survey between 1976 and 2004. As can been seen, the proportions of young adults who are married at the time of survey decreased for all schooling groups between 1976 and 2004. The trends, however, are greater for the noncollege educated, especially noncollege educated black men. For example, between the late 1970s and the early 2000s, the proportion of black men age 24-28 who are married at the time of survey dropped 25 percentage points for high school dropouts and 29 percentage points for high school graduates, compared to 23 percentage points for college graduates and men with some college education. For black men, educational differentials in the trends toward lower marriage rates are greater in late young adulthood. For black men age from 29 to 33, the percentage of high school dropouts who are married at the time of survey dropped from 64% in 1976 to 27% in the early 2000s, or 37 percentage points. For high school graduates, the percentage of black men who are married at the time of survey dropped from 69% in 1976 to 42% in 2004, or 27 percentage points. Consequently, although there were only 4 percentage points differences in marriage rates between black high school dropouts and black college graduates in their late young adulthood in the late 1970s, the faster rates of marriage declines among black high school dropouts have led to a divergence in the marriage rates in the early 2000s, with black high school dropouts the least likely to be married at the time of survey. The trends of marriage declines are less

15

severe for black high school graduates, but still far exceed those of black men with some college education or more.

Educational differences in the trends of marriage declines are larger for whites. Between the late 1970s and the early 2000s, the proportions of noncollege educated white men age 24-28 who are married at the time of survey dropped 24 to 26 percentage points, compared to 17 percentage points for men with some college education or more. In contrast to their black counterparts, noncollege educated young white men had been more likely to be married at the time of survey than their college counterparts. The gap had narrowed over time, however, due to a faster rate of marriage declines for noncollege educated white men. By the late 1990s, the marriage rates have converged across schooling groups in their late young adulthood; by the early 2000s, white men with some college education or more are more likely to be married at the time of survey than the two noncollege educated groups.

[Table 1.5 is inserted here]

MODEL AND ANALYTICAL STRATEGIES

The dependent variable in the regression analysis is a binary measure of men's marital status at the time of survey, with 1=currently married and 0=never married. The independent variables include schooling, average hours worked per week last year, average weekly earnings last year and the time period one comes of age. Following the practice of previous studies on marriage formation (e.g., Xie et al. 2003; Raymo 2003), schooling is coded as a four-category variable: a college degree or above, some college education, high school diploma, and less than high school. I use three dummy variables

16

to represent educational attainment. The reference group is college men. The average weekly earnings are deflated in constant 1983 dollars. The time period one comes of age is an interval variable, with 1=1976, 2=1977, 3=1978,...,29=2004.

Variables that have been found to affect marriage formation are included for statistical controls, including age, enrollment status, whether or not the respondent lives in the South, and veteran status. I also include age squares in the regression because men's likelihood of marriage does not increase monotonously with age. It decreases after certain ages either due to negative selection effect or a decrease in the supply of marriageable mates for older men. In addition, more educated men spend more time in school and career in their young adulthood. They are more likely to postpone their marriage till later age than less educated men. I therefore create several interactions between educational attainment and age in the regression analyses to reflect educational differential in the timetable for marriage.

I use several logistics regressions to examine educational differences in marriage trends. The first model takes the form:

$$\text{Log}\ [P_{it}/(1-P_{it})] = \beta_0 + \beta_1 T + \beta_2 X_{1it} + \beta_3\ (X_{it} \times T) + \mathbf{X'}_{it}\mathbf{\beta}, \tag{1}$$

Here, the dependent variable is the logit transformation of the binary measure of marital status. The independent variables and control variables are linear in $\text{Log}\ [P_{it}/(1-P_{it})]$, the log-odds of marriage for the ith man who comes of age at time period t (i.e., P is the probability of marriage). The independent variables and control variables include T=the time period one comes of age, X_{1it}=schooling, and the interaction term between schooling and the time period one comes of age $X_{it} \times T$. X_{it}=a vector of control variables (i.e., age, age square, interaction between age and educational attainment, enrollment status,

17

whether or not the respondent lives in the South, and veteran status). The subscripts i,t, refer to individuals and the time period, respectively, where i=1, 2,…,Ti and T=1, 2,…,29. The coefficients β_3 are expected to be negative.

In model (2), measures of men's employment status are added to model (1). If educational differences in marriage trends are due to the erosions in employment opportunities for noncollege educated men, the coefficients for the interaction between educational attainment and the time period one comes of age β_3 will become less negative. Finally, men's average weekly earnings are added in model (3). The coefficients for the interaction between educational attainment and the time period one comes of age β_3 are expected to become even less negative. The additional changes in coefficients β_3 reflect the impacts of a shift in labor market rewards to schooling which becomes increasingly unfavorable to the less educated, eroding their ability to establish and maintain an independent household.

The analysis is conducted separately by race. For each race, the analysis is conducted separately for each age group (age 24-28 or early young adulthood, age 29-33 or late young adulthood), as previous studies show that the effects of men's socioeconomic characteristics on marriage formation change over the life course (e.g., Mare and Winship 1991). Separating the analysis by age group also enables us to test the robustness of the findings.

[Table 1.6 is inserted here]

[Table 1.7 is inserted here]

[Appendix 1.1 is inserted here]

18

RESULTS

Tables 1.6 and 1.7 report the regression results for white men and black men, respectively. In both tables, Model 1 presents the coefficient estimates for the interaction effects between educational attainment and the time period one comes of age, controlling for men's demographic characteristics and other measures that affect men's likelihood of marriage. For both blacks and whites, the negative and statistically significant coefficient for the time period one comes of age suggests that men's likelihood of being married at the time of survey has decreased since the late 1970s.

Of more interest are the interaction effects between levels of educational attainment and the time period one comes of age. Consistent with the observation in Table 1.5 that noncollege educated men experienced a faster rate of marriage decreases than college educated men since 1976, the coefficients for the interactions between the time period one comes of age and high school and between the time period one comes of age and high school dropout are negative and statistically significant for white men. The patterns of the coefficients for the interactions between the time period one comes of age and high school and between the time period one comes of age and high school dropout for blacks are the same as for whites, but most of the coefficients are not statistically significant. The discussion that follows is therefore mainly based on the findings on white men. In their early young adulthood, high school dropout white men experienced the largest marriage declines, while the trend towards lower marriage rates are the least dramatic for white men with some college education. Educational differences in marriage trends increase as white men transition from early young adulthood to late

19

young adulthood.[6] This observation is consistent with the interpretation that college graduate men are more likely to delay marriage in the early young adulthood when they are probably enrolled in school or engaged in other human capital investment activities. Their transition to marriage is accelerated once they finish school and are more established in the labor market in the late young adulthood. There is a clear educational gradient in marriage trends among white men in their late young adulthood: college graduate white men experienced the least marriage decrease since 1976, while the trend toward lower marriage rates is the most dramatic among high school dropout white men.

Other findings in Model 1 are largely consistent with previous studies. For both blacks and whites, older men are more likely to be married at the time of survey than younger men. Men's likelihood of marriage does not increase monotonically. The negative and statistically significant coefficients for age squared in Table 1.5 suggest that men's likelihood of marriage decreases after they pass certain ages. This quadratic relationship between age and men's likelihood of marriage does not apply to blacks, however. When both age and age squared are included in the regression analyses, neither the coefficient for age nor the coefficient for age squared is statistically significant (see Appendix 1.1 to check the difference when age squared is a part of the Model specification.). Including age squared in the regression analyses does not improve the fit between Model and data too. I therefore exclude age squared from the regression analyses for blacks. Consistent with my expectation, the effect of age on marriage is

---

[6] In a formal one-tailed test based on white males, the coefficient for the interaction between time and high school in Model 1 for men age 24-28 is statistically significant different from the coefficient for the interaction between time and high school in Model 1 for men age 29-33 (t=3.5); the coefficient for the interaction between time and high school dropout in Model 1 for men age 24-28 is also found to be statistically significant different from the coefficient for the interaction between time and high school dropout in Model 1 for men age 29-33 (t=1.67).

larger for college educated men than for men who did not go beyond high school, as indicated by the negative and statistically significant coefficients for the interactions between age and high school dropout and between age and high school. This is largely attributed to educational differentials in the timing of marriage, with college educated men being more likely to delay marriage when they are in school in the early twenties. They accelerate their transition to marriage once they finish school and enter the labor market in the late twenties and early thirties. Men living in the South face greater normative pressures on marriage than men from other parts of the country, and thus are more likely to be married at the time of survey. Veterans are more likely to be married than non-veterans. This may reflect the fact that veterans have a more steady and dependable income and a family allowance, which makes marriage more affordable (Modell and Steffey 1988).

In Model 2, men's average hours worked per week is added. As expected, men who worked more hours per week are more likely to be married at the time of survey. Educational differences in the trends toward lower marriage rates that could be attributable to changes in employment opportunities are small, however. For both blacks and whites, the coefficients for the interaction between educational attainment and the time period one comes of age become less negative as we move from Model 1 to Model 2, but the magnitude of changes is rather small. For white men in their early young adulthood, for example, the coefficient for the interaction between high school dropouts and the time period one comes of age changes from $-.017$ to $-.015$, or decreases by 12% in absolute values. In other words, deterioration in men's employment opportunities

account for 12% of the differences in the trends toward lower marriage rates between high school dropout white men and college white men.

Employment plays a greater role in educational differences in the trends toward lower marriage rates for blacks. For black men who are in their early young adulthood, for example, when men's average hours worked per week is accounted for in Model 2, the coefficient for the interaction between high school dropouts and the time period one comes of age decreases by 27% in absolute values from $-.011$ to $-.008$. Similar patterns are also observed between high school graduates and college graduate men. The influences of employment on educational differences in marriage trends decrease as men make transition from early young adulthood to late young adult adulthood, however. For example, although employment accounts for 12% of the differences in marriage trends between college graduate white men and high school dropout white men in their early young adulthood, the corresponding figure is only 8% for men who are in their late young adulthood.

For both races, educational differences in marriage trends are attributable more to the adverse shifts in labor market rewards to schooling than to the deterioration in men's employment opportunities. When men's average weekly earnings are included in Model 3, the coefficients for the interaction between educational attainment and the time period one comes of age change substantially as we move from Model 2 to Model 3. For white men who are in their early young adulthood, for example, the coefficient for the interaction between high school dropouts and the time period one comes of age changes from $-.015$ to $-.009$ as we move from Model 2 to Model 3. In anther words, the adverse shifts in labor market rewards to schooling which become increasingly unfavorable to

noncollege educated men account for nearly 35% of the differences in the trends toward lower marriage rates between college white men and white men who did not graduate from high school, compared to 12% that could be attributed to the deterioration in men's employment opportunities since the late 1976. For men who are in their late young adulthood, the adverse shifts in labor market rewards to schooling accounts for 30% of the differences in the trends toward lower marriage rates between high school dropout white men and college graduate white men, compared to only 8% that is attributable to the deterioration in men's employment opportunities. Similar patterns are also observed between high school graduate white men and college graduate white men and between college graduate black men and noncollege educated black men.

In total, employment opportunities and labor market rewards to schooling account for 20%-50% of the differences in the trends toward lower marriage rates between college educated men and noncollege educated men. The effects are larger for white men and men who are in their early young adulthood. For white men, the coefficients for the interactions between educational attainment and the time period one comes of age remain statically significant after accounting for changes in men's average hours worked per week and average weekly earnings.

CONCLUSION AND DISCUSSION

Not being married is positively correlated with poverty status in America (McLanahan and Casper 1995). The retreat from marriage that is characterized by both later and less frequent marriage, coupled with increases in the single-mother family, have attracted substantial theoretical and policy debates on both its structural causes and directions of

23

future change. This study answered the question why noncollege educated men have a faster rate of marriage declines than college educated men. In doing so, it extended Wilson and Neckerman's (1986) thesis on "the pool of marriageable men" and showed that erosion in the employment opportunities of noncollege educated black men is partly responsible for a faster rate of marriage decrease among them. The effect of employment opportunities on educational differences in marriage trends is rather small for whites, however. For both black and white men, educational differences in the trends toward lower marriage rates primarily arise from economy-wide wage structure changes that increasingly bias against noncollege educated men. For blacks, an increased labor market "bias" towards schooling results in a divergence in marriage rates between the college educated and the noncollege educated; for whites, rises in labor market rewards to schooling result in a convergence in marriage rates between college educated and noncollege educated men.

The adverse shift in labor market returns to schooling and the resultant faster rates of marriage declines among the noncollege educated reveal several important structural properties of American society. Most important, in an era of rising returns to a college degree, it points to the insurmountable structural barriers for the economically disadvantaged to make educational advancement, especially for blacks. In the 1980s when marriage declines the most for the less educated, growth in the college enrollment of black men has actually slowed down relative to white men (Smith 2000). Between 1985 and 2007, the percentage of white men age 25 or above who had completed four years of college or more has increased by 24 percentage points, in contrast to only 7 percentage points for black men (U.S. Bureau of Census 2007). This slowdown of

24

college enrollment of black men is not only unable to overcome the impact of unfavorable shifts in wage structure, but as productivity growth slowed down and wages stagnate, the less educated experienced real wage loss.

In an economy that for a long time period has been dominated by demand shifts for skills and other economy wide forces such as technological innovation, increasing international trade, the decline in unionism, and the falling real value of the minimum wage, it is unlikely that a decrease in wage inequality by education will occur in the near future. The less educated will face increasing problems of securing a job to support a family. The economic prospects of less educated black men will be more difficult to predict. In the eyes of employers, they are a more marginal component of labor supply. Even in the growth sectors of the economy, black male unemployment rates are higher and wages are considerably lower than those of white men. Black men have a higher level of job insecurity (Manski and Straub 2000). As pointed out by Orfield and Ashkinaze (1991), for less well educated black men, the business cycle is one of long cycles of recessions interrupted only by brief periods of growing access to what often turn out to be marginal low-mobility jobs.

Looking toward the future of American marriage, the faster rate of decline in marriage among the noncollege educated is unlikely to slow down. Despite a persistently high level of value placed on the institution of marriage (Thornton 1989; Tucker 2000), marriage, an increasingly voluntary choice, appears increasingly tied to an individual's position in the wage structure. For low-income people, marriage becomes an increasingly unaffordable luxury consumer item (Furstenberg and Ten 1996). Given that cohabitation requires less economic resources than marriage (Clarkberg 1999), Cherlin

25

(1992) argued that poor men probably use cohabitation to substitute for traditional marriage. In an era of growing diversity in family and living arrangements and the deinstitutionalization of American marriage (Cherlin 2002), it remains to be seen whether or not, and to what extent, cohabitation and other nonmarital forms of living arrangement may fill up the gap between individual desires for marriage and structural impediments to marriage. It is not clear whether cohabitation will serve as an alternative union form of organizing individual lives for love, companionship and self-development.

Finally, because both college educated men and noncollege educated men have experienced a decline in marriage since the early 1970s and the magnitude of the decline is rather large, future study on the labor market causes of marriage declines might benefit from including other labor market forces which work jointly with the adverse shift in the wage structure.[7] For example, women's economic characteristics have been found to account for a great deal of marriage declines between 1970 and 1990 (McLanahan and Casper 1995). Because women's economic independence is a function of both the economic prospects of their potential mates and their own earnings power, as educational homogamy prevails in mate selections (Blossfeld and Timm 2003), future study on the trend toward lower marriage rates might consider combining the Becker thesis and the

---

[7] Despite the importance of the general trend of marriage decline experienced by all schooling-race groups, it is very difficult to pin down the factors that affect marriage trends because in spite of consistent findings on the effects of attitudes, values and beliefs on marriage, the past four decades have not seen noticeable declines in the importance Americans placed on marriage (Thornton 1989; Tucker 2000). Instead, what has changed is a reduction in the normative imperative on people to marry and in traditional gender role differentiation. Americans become increasingly tolerant to premarital sex, nonmarital cohabitation, unmarried childbearing and childrearing, which diminish the motives of marrying. But since these changes could be both the causes and consequences of marital behavior changes (England and Farkas 1986), it is inappropriate to use them to predict marriage trends. In addition, although women's improving labor market position relative to men may reduce their marriage incentives, Americans have grown less likely than before to believe that men should achieve in the workplace while women care for the home and family (Axinn and Thornton 2000). So although the rising female-male wage ratio corresponds to the trend of marriage declines, it is questionable whether this economic reality is enacted in marital behavior and leads to marriage declines since the early 1970s.

26

Wilson and Neckerman thesis and disaggregate the analysis by education. As pointed out

by McLanahan and Casper (1995), in spite of the same trend in independence, the source

of women's economic independence varies across schooling groups and between blacks

and whites, resulting in different pathways toward lower marriage rates.[8]

---

[8] For the college educated, reduced marriage incentive due to women's improving labor market position relative to college educated men is partly offset by the income effect of college educated men's real wage gain. For the noncollege educated, increases in women's economic position relative to noncollge educated men mainly arise from the real-wage loss of noncollege educated men, because in contrast to college educated women, noncollge educated women experienced wage stagnation (Bianchi and Spain 1996). As Moffitt (2000) noted, for the noncollege educated, marriage declines reflect the erosion of men's labor market position; whereas for the college educated, the relative improvement of women's labor market position appeared to increase their bargaining power in marriage, rather than lead them to buy out marriage.

Table 1.1 Mean Wages (in 2009 dollars) of Young Adult Men, 1976-2004, by Age and Levels of Educational Attainment, White Men

	White Men Age 24-28				Ratio		White Men Age 29-33				Ratio
Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
1976	36370	32105	33638	23214	1.57	1976	54223	44253	39855	28195	1.92
1977	35569	31440	33441	24150	1.47	1977	51456	43329	40041	30185	1.70
1978	34983	31153	32644	25075	1.40	1978	50169	41971	41008	29102	1.72
1979	34682	31522	32803	25255	1.37	1979	47568	41531	38703	27494	1.73
1980	33405	30382	31536	23747	1.41	1980	45165	39080	37625	26722	1.69
1981	32579	29301	29551	21860	1.49	1981	44316	36459	35712	23956	1.85
1982	33808	28708	29356	22186	1.52	1982	45621	35556	34210	23386	1.95
1983	34313	29186	27611	18798	1.83	1983	46917	36241	32611	22752	2.06
1984	34276	28219	27366	18739	1.83	1984	46729	34462	32879	21123	2.21
1985	35134	29379	29598	19980	1.76	1985	48722	38352	34745	22784	2.14
1986	39327	29795	29087	19508	2.02	1986	53991	40629	35001	22318	2.42
1987	38626	29735	29286	19443	1.99	1987	54250	40124	34232	22935	2.37
1988	39849	30351	29203	19481	2.05	1988	52261	38452	34704	23128	2.26
1989	37757	30246	28364	19687	1.92	1989	52916	38578	34512	23159	2.28
1990	39536	29502	28541	18629	2.12	1990	52764	39074	33430	20751	2.54
1991	37633	28387	27602	17853	2.11	1991	50788	38550	31529	20643	2.46
1992	34993	27539	25891	16496	2.12	1992	52729	36605	31187	19068	2.77
1993	35636	27307	24695	15302	2.33	1993	52861	35612	30316	18591	2.84
1994	33968	27208	24470	15749	2.16	1994	53662	34704	29752	18427	2.91
1995	34772	27092	25684	15737	2.21	1995	53485	36061	31195	19626	2.73
1996	35905	27192	26979	16907	2.12	1996	56723	36793	31526	20601	2.75
1997	38188	28785	26442	17334	2.20	1997	55021	40124	31995	18836	2.92
1998	39200	28936	27044	18943	2.07	1998	62236	40741	32848	20690	3.01
1999	40549	32191	28744	17115	2.37	1999	61171	40745	33319	20401	3.00
2000	41280	31176	27174	18932	2.18	2000	60061	39620	32336	19928	3.01

28

Table 1.1 Continued

| | | White Men Age 24-28 | | | Ratio |
Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5
2001	44879	31753	28884	18906	2.37
2002	44985	33607	29217	21125	2.13
2003	42135	30123	29803	20502	2.06
2004	40132	31777	27816	19111	2.10

| | | White Men Age 29-33 | | | Ratio |
Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
2001	62996	43317	32655	23236	2.71
2002	65585	43175	33149	22564	2.91
2003	64574	41216	34129	22900	2.82
2004	63077	39931	32534	20420	3.09

29

Table 1.2 Mean Wages (in 2009 dollars) of Young Adult Men, 1976-2004, by Age and Levels of Educational Attainment, Black Men

	Black Men Age 24-28				Ratio		Black Men Age 29-33				Ratio
Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Men with Some College Education	High School Diploma	High School Dropouts Column 7	Column 7/ Column 10
1976	34979	24918	26241	17632	1.98	1976	45510	35135	33060	23556	1.93
1977	35444	23426	25162	18838	1.88	1977	53164	37030	32267	23944	2.22
1978	32513	28121	24735	15984	2.03	1978	40861	35218	32498	22111	1.85
1979	33046	28946	25695	17198	1.92	1979	46956	35425	31546	22454	2.09
1980	23120	25038	23438	16850	1.37	1980	42171	31032	27300	19233	2.19
1981	27481	22978	22501	14982	1.83	1981	35098	30955	26978	15365	2.28
1982	27562	25529	21751	13411	2.06	1982	37938	28139	27208	18948	2.00
1983	26173	20724	20602	12036	2.17	1983	44973	29259	25934	16689	2.69
1984	24610	23031	19776	10574	2.33	1984	39353	30320	24787	11459	3.43
1985	33123	21126	18977	12165	2.72	1985	37500	26001	25563	12288	3.05
1986	38349	26235	21630	12567	3.05	1986	45417	31551	26001	15323	2.96
1987	30758	26576	21917	12605	2.44	1987	42351	32392	24578	14442	2.93
1988	28820	26308	21360	14206	2.03	1988	40294	32059	23652	18525	2.18
1989	37329	27771	22837	11314	3.30	1989	40881	35208	25483	14696	2.78
1990	33788	28683	22054	11885	2.84	1990	35755	31011	25053	12361	2.89
1991	26511	23353	22289	10379	2.55	1991	40705	29646	23562	14239	2.86
1992	26836	23429	19042	11772	2.28	1992	41811	29074	24818	12008	3.48
1993	37899	22649	17209	10035	3.78	1993	39057	30439	20569	11041	3.54
1994	31194	21825	19274	9893	3.15	1994	41238	29276	20289	10045	4.11
1995	25443	22233	17534	13040	1.95	1995	38431	31909	21547	7430	5.17
1996	29082	20877	19182	6261	4.64	1996	44818	33997	22301	13292	3.37
1997	28819	25036	22971	11602	2.48	1997	48173	33444	24199	13751	3.50
1998	32449	24291	19349	11024	2.94	1998	39481	35583	24942	17297	2.28
1999	30805	25834	20727	13667	2.25	1999	48354	31533	26183	17940	2.70
2000	36887	23629	23614	11521	3.20	2000	53613	34750	31923	14376	3.73

Table 1.2 Continued

		Black Men Age 24-28							Black Men Age 29-33		
		Men with							Men with		
					Ratio						Ratio
Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
2001	36741	26553	21950	12131	3.03	2001	50943	36241	30472	14111	3.61
2002	48144	26303	19666	10772	4.47	2002	48188	35347	26208	16167	2.98
2003	28709	27467	18835	11668	2.46	2003	52318	30938	27799	19145	2.73
2004	33466	22555	21463	9778	3.42	2004	52073	29586	23091	12714	4.10

Table 1.3 Mean Hours Worked Per Week for Young Adult Men, 1976-2004, by Age and Levels of Educational Attainment, White Men

	White Men Age 24-28 Men with				Ratio		White Men Age 29-33 Men with				Ratio
Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
1976	38.98	38.71	39.96	37.65	1.04	1976	43.39	42.04	41.68	38.75	1.12
1977	39.72	39.49	39.93	39.82	1.00	1977	43.01	42.49	42.59	40.13	1.07
1978	39.84	40.25	40.22	39.41	1.01	1978	42.75	42.30	42.42	40.10	1.07
1979	40.61	40.63	41.34	39.44	1.03	1979	43.53	42.32	42.02	40.29	1.08
1980	40.28	40.24	40.91	39.62	1.02	1980	43.40	42.19	42.33	39.86	1.09
1981	39.13	39.17	40.45	38.43	1.02	1981	43.86	41.86	41.59	38.33	1.14
1982	38.51	38.55	39.71	38.04	1.01	1982	42.19	41.34	40.92	38.43	1.10
1983	37.95	38.07	39.13	36.08	1.05	1983	42.17	41.06	39.48	37.75	1.12
1984	37.58	37.41	38.98	36.15	1.04	1984	42.36	40.50	40.23	36.09	1.17
1985	39.67	38.62	40.45	37.32	1.06	1985	42.45	41.45	41.15	37.97	1.12
1986	39.90	38.33	39.90	36.73	1.09	1986	42.86	41.23	41.06	37.18	1.15
1987	40.47	38.26	40.60	36.91	1.10	1987	43.57	42.25	41.61	38.40	1.13
1988	40.78	39.46	40.26	37.67	1.08	1988	43.33	41.93	42.07	37.22	1.16
1989	40.81	38.72	40.55	38.13	1.07	1989	44.03	42.36	42.22	38.27	1.15
1990	41.89	40.48	42.10	38.14	1.10	1990	44.84	43.32	42.46	37.90	1.18
1991	41.32	39.49	41.25	37.80	1.09	1991	44.04	42.94	42.00	37.79	1.17
1992	40.31	39.85	41.34	36.16	1.11	1992	44.10	42.86	41.71	36.08	1.22
1993	40.47	39.74	39.92	34.65	1.17	1993	44.43	42.53	41.53	36.73	1.21
1994	40.22	39.75	40.19	36.37	1.11	1994	44.81	42.45	41.31	36.83	1.22
1995	40.98	39.55	40.65	35.14	1.17	1995	45.22	42.80	42.02	36.55	1.24
1996	40.35	39.01	40.22	36.90	1.09	1996	44.69	43.10	41.74	37.00	1.21
1997	41.39	40.52	40.47	36.12	1.15	1997	44.55	43.39	41.82	37.70	1.18
1998	41.11	39.38	41.10	37.01	1.11	1998	44.97	43.49	41.43	37.31	1.21
1999	40.72	40.66	40.98	35.29	1.15	1999	45.26	42.78	41.50	37.12	1.22
2000	40.61	40.10	40.73	38.15	1.06	2000	45.02	43.14	40.76	36.93	1.22

Table 1.3 Continued

	White Men Age 24-28 Men with						White Men Age 29-33 Men with			
Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Ratio Column 2/ Column 5	Year College Degree	Some College Education	High School Diploma	High School Dropouts	Ratio Column 7/ Column 10
2001	39.47	39.81	41.19	35.87	1.10	2001 44.69	43.09	41.17	37.32	1.20
2002	41.14	40.12	39.78	38.03	1.08	2002 44.92	42.99	41.25	37.79	1.19
2003	39.42	38.35	39.22	36.25	1.09	2003 44.05	42.54	40.69	37.34	1.18
2004	39.64	38.78	38.41	36.35	1.09	2004 44.14	41.46	40.28	37.40	1.18

Table 1.4 Mean Hours Worked Per Week for Young Adult Men, 1976-2004, by Age and Levels of Educational Attainment, Black Men

| | Black Men Age 24-28 | | | | | | Black Men Age 29-33 | | | | |
| | Men with | | | | Ratio | | Men with | | | | Ratio |
Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
1976	36.39	32.97	35.09	33.19	1.10	1976	41.10	35.22	35.14	34.30	1.20
1977	36.98	30.76	33.80	34.27	1.08	1977	40.94	33.06	37.48	36.39	1.13
1978	37.00	33.49	35.00	32.61	1.13	1978	38.02	34.52	36.47	34.11	1.11
1979	33.57	33.76	36.75	33.62	1.00	1979	36.93	37.62	37.88	34.54	1.07
1980	30.45	34.60	34.35	31.94	0.95	1980	38.19	35.31	36.66	33.31	1.15
1981	35.51	33.00	33.63	30.89	1.15	1981	38.15	35.66	34.19	31.18	1.22
1982	35.07	34.99	31.80	29.07	1.21	1982	39.06	35.15	33.62	35.59	1.10
1983	31.65	30.00	28.84	24.62	1.29	1983	37.63	32.43	33.21	31.00	1.21
1984	36.25	30.93	31.24	25.80	1.40	1984	37.14	35.01	32.79	25.44	1.46
1985	31.41	31.30	31.50	30.01	1.05	1985	39.36	33.05	34.39	28.36	1.39
1986	33.77	34.01	32.74	31.14	1.08	1986	37.68	34.61	34.30	28.42	1.33
1987	34.51	33.17	34.09	28.28	1.22	1987	37.26	37.59	34.66	31.26	1.19
1988	35.77	32.87	35.36	29.22	1.22	1988	39.59	35.60	34.00	32.28	1.23
1989	39.05	36.14	36.14	25.93	1.51	1989	40.89	36.71	32.58	28.76	1.42
1990	40.69	40.35	37.81	28.92	1.41	1990	39.91	42.26	37.59	28.49	1.40
1991	36.20	35.64	36.74	26.18	1.38	1991	39.31	40.45	37.33	29.28	1.34
1992	37.52	37.55	35.04	27.86	1.35	1992	41.69	38.90	36.07	27.72	1.50
1993	39.49	35.75	34.12	28.25	1.40	1993	42.32	38.90	34.51	25.70	1.65
1994	36.10	34.49	33.78	23.84	1.51	1994	41.22	38.99	35.14	25.79	1.60
1995	36.63	35.51	34.48	23.90	1.53	1995	41.26	41.03	35.31	17.72	2.33
1996	37.77	35.03	34.71	23.75	1.59	1996	43.38	38.71	34.19	27.52	1.58
1997	39.00	35.92	33.42	26.33	1.48	1997	41.57	39.88	38.46	25.80	1.61
1998	38.04	35.33	33.57	30.23	1.26	1998	41.97	40.65	36.65	30.47	1.38
1999	38.36	36.95	34.78	29.18	1.31	1999	41.47	39.87	38.41	29.98	1.38
2000	37.73	35.93	34.43	25.30	1.49	2000	43.39	39.87	38.91	26.50	1.64

Table 1.4 Continued

| | Black Men Age 24-28 | | | | | | | Black Men Age 29-33 | | | |
| | | Men with | | | Ratio | | | | Men with | | | Ratio |
Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 2/ Column 5	Year	College Degree	Some College Education	High School Diploma	High School Dropouts	Column 7/ Column 10
2001	38.24	36.72	33.80	27.26	1.40	2001	38.83	38.73	37.36	19.20	2.02
2002	39.93	35.83	33.38	23.59	1.69	2002	41.26	39.84	34.70	29.29	1.41
2003	33.22	34.37	30.58	24.15	1.38	2003	37.80	37.55	33.68	28.95	1.31
2004	35.62	31.93	31.78	22.07	1.61	2004	39.99	36.74	33.03	24.27	1.65

35

Table 1.5 Proportions of Young Adult Men Who Are Currently Married, 1976-2004, by Age, Race, and Levels of Educational Attainment

White Men Age 24-28

Year	College Degree	Some College Education	High School Diploma	High School Dropouts
		Men with		
1976-1979	56.20	61.28	69.1	72.43
1980-1984	47.54	52.15	60.97	63.07
1985-1989	41.04	47.38	54.22	56.03
1990-1994	37.10	43.69	48.44	51.74
1995-1999	36.32	42.69	45.14	49.78
2000-2004	38.22	43.95	43.57	48.71
Total Drop	17.98	17.33	25.53	23.72

White Men Age 29-33

Year	College Degree	Some College Education	High School Diploma	High School Dropouts
		Men with		
1976-1979	77.70	78.19	82.19	78.92
1980-1984	70.63	72.48	75.70	74.31
1985-1989	67.97	69.70	69.62	67.58
1990-1994	66.36	65.04	65.54	62.56
1995-1999	63.93	64.60	62.18	63.72
2000-2004	68.64	66.24	60.70	62.38
Total Drop	9.06	11.95	21.49	16.54

Black Men Age 24-28

Year	College Degree	Some College Education	High School Diploma	High School Dropouts
		Men with		
1976-1979	46.58	51.58	54.03	45.66
1980-1984	38.27	42.21	47.05	34.19
1985-1989	36.04	34.08	36.99	25.63
1990-1994	28.75	34.92	33.97	22.72
1995-1999	26.04	30.00	29.72	20.55
2000-2004	23.95	28.50	25.37	20.67
Total Drop	22.63	23.08	28.66	24.99

Black Men Age 29-33

Year	College Degree	Some College Education	High School Diploma	High School Dropouts
		Men with		
1976-1979	68.12	70.07	68.83	64.44
1980-1984	62.14	55.97	59.01	49.49
1985-1989	57.14	53.26	56.14	40.77
1990-1994	49.29	51.12	44.69	33.86
1995-1999	44.19	51.72	42.42	30.45
2000-2004	47.85	48.76	41.66	26.69
Total Drop	20.27	21.31	27.17	37.75

36

Table 1.6 Logistic Regression Predicting Men's Likelihood of Marrying, White Men Age 24-33

Variable	White Men Age 24-28			White Men Age 29-33		
	Model 1 B	Model 2 B	Model 3 B	Model 1 B	Model 2 B	Model 3 B
Time	-.034 ***	-.035 ***	-.038 ***	-.021 ***	-.023 ***	-.027 ***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Some College (Reference=Four-year College)	1.123 ***	1.006 ***	.881 ***	.476	.529	.259
	(.328)	(.330)	(.332)	(.413)	(.416)	(.419)
High School	2.991 ***	2.522 ***	2.229 ***	2.021 ***	1.893 ***	1.546 ***
	(.300)	(.302)	(.305)	(.377)	(.380)	(.383)
High School Dropout	4.560 ***	4.104 ***	3.694 ***	2.257 ***	2.220 ***	1.912 ***
	(.392)	(.394)	(.396)	(.520)	(.523)	(.525)
Time X Some College	.004 *	.005 **	.009 ***	-.007 ***	-.006 **	-.0002
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Time X High School	-.014 ***	-.013 ***	-.007 ***	-.028 ***	-.027 ***	-.019 ***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Time X High School Dropout	-.017 ***	-.015 ***	-.009 ***	-.027 ***	-.025 ***	-.017 ***
	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)
Age	.885 ***	.727 ***	.560 ***	.952 ***	.951 ***	.895 ***
	(.191)	(.192)	(.194)	(.257)	(.259)	(.261)
Age Squared	-.010 ***	-.008 **	-.005	-.012 **	-.013 **	-.012 **
	(.004)	(.004)	(.004)	(.004)	(.004)	(.004)
Age X Some College	-.031 **	-.027 **	-.021 *	-.006	-.008	.003
	(.013)	(.013)	(.013)	(.013)	(.014)	(.014)
Age X High School	-.083 ***	-.065 ***	-.054 ***	-.042 ***	-.037 ***	-.024 **
	(.012)	(.012)	(.012)	(.012)	(.012)	(.012)
Age X High School Dropout	-.131 ***	-.113 ***	-.094 ***	-.048 ***	-.045 ***	-.030 *
	(.015)	(.015)	(.015)	(.017)	(.017)	(.017)
South (1=South)	.309 ***	.299 ***	.317 ***	.271 ***	.258 ***	.284 ***

Table 1.6 Continued

Variable	White Men Age 24-28			White Men Age 29-33		
	Model 1 B	Model 2 B	Model 3 B	Model 1 B	Model 2 B	Model 3 B
Veteran (1=Veteran)	.302***	.310***	.316***	.321***	.328***	.331***
	(.014)	(.014)	(.014)	(.016)	(.016)	(.016)
Enrollment (1=Enrolled)	-.471***	-.422***	-.383***	-.398***	-.356***	-.305***
	(.025)	(.025)	(.026)	(.029)	(.029)	(.029)
Average Hours Worked Per Week		.024***	.018***		.029***	.020***
		(.001)	(.001)		(.001)	(.0008)
Average Weekly Earnings			.001***			.001***
			(.00004)			(.00004)
Intercept	-15.842***	-14.513***	-12.163***	-16.322***	-17.466***	16.512***
	(2.497)	(2.512)	(2.525)	(3.981)	(4.005)	(4.033)
Log Likelihood	154446	153092	151865	127221	125896	124266
N	120537	120537	120537	120627	120627	120627

Notes: *P<.1 **P<.05 ***P<.01. Standard errors are in parenthesis.

38

Table 1.7 Logistic Regression Predicting Men's Likelihood of Marrying, Black Men Age 24-33

Variable	Black Men Age 24-28			Black Men Age 29-33		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B	B	B	B	B	B
Time	-.044***	-.046***	-.048***	-.044***	-.045***	-.049***
	(.007)	(.007)	(.007)	(.006)	(.006)	(.006)
Some College (Reference=Four-year College)	-.773	-.855	-.872	1.650	1.657	1.593
	(1.299)	(1.308)	(1.317)	(1.431)	(1.438)	(1.450)
High School	1.085	.678	.671	2.268*	2.238*	2.031
	(1.203)	(1.211)	(1.220)	(1.310)	(1.317)	(1.329)
High School Dropout	1.484	1.144	.942	3.116*	3.171*	3.028*
	(1.450)	(1.461)	(1.469)	(1.671)	(1.680)	(1.691)
Time X Some College	.001	.003	.005	.009	.009	.012
	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)
Time X High School	-.004	-.002	.001	-.010	-.009	-.005
	(.008)	(.008)	(.008)	(.007)	(.007)	(.007)
Time X High School Dropout	-.011	-.008	-.005	-.032***	-.030***	-.026***
	(.010)	(.010)	(.010)	(.010)	(.010)	(.010)
Age	.266***	.246***	.234***	.194***	.191***	.180***
	(.041)	(.041)	(.041)	(.036)	(.036)	(.036)
Age X Some College	.039	.042	.044	-.054	-.053	-.050
	(.050)	(.050)	(.050)	(.047)	(.047)	(.047)
Age X High School	-.030	-.014	-.013	-.068	-.066	-.056
	(.046)	(.046)	(.047)	(.043)	(.043)	(.043)
Age X High School Dropout	-.046	-.033	-.022	-.093*	-.093*	-.084
	(.056)	(.056)	(.056)	(.054)	(.054)	(.055)
South (1=South)	.311***	.287***	.328***	.182***	.170***	.212***
	(.041)	(.041)	(.042)	(.043)	(.043)	(.043)

Table 1.7 Continued

Variable	Black Men Age 24-28			Black Men Age 29-33		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B	B	B	B	B	B
Veteran (1=Veteran)	.401***	.395***	.388***	.461***	.443***	.430***
	(.058)	(.058)	(.058)	(.058)	(.058)	(.059)
Enrollment (1=Enrolled)	-.620***	-.579***	-.573***	-.504***	-.470***	-.428***
	(.084)	(.084)	(.085)	(.083)	(.084)	(.085)
Average Hours Worked Per Week		.026***	.022***		.024***	.016***
		(.002)	(.003)		(.003)	(.003)
Average Weekly Earnings			.001***			.001***
			(.0001)			(.0001)
Intercept	-7.130***	-7.630***	-7.471***	-5.028***	-5.912***	-5.726***
	(1.070)	(1.078)	(1.087)	(1.103)	(1.114)	(1.126)
Log Likelihood	14222	14095	14016	12948	12865	12756
N	11318	11318	11318	10205	10205	10205

Notes: *P<.1 **P<.05 ***P<.01. Standard errors are in parenthesis.

40

Appendix 1.1 Logistic Regression Predicting Men's Likelihood of Marrying, Black Men Age 24-33 (No Age Square)

Variable	Black Men Age 24-28			Black Men Age 29-33		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B	B	B	B	B	B
Time	-.044***	-.046***	-.048***	-.044***	-.045***	-.049***
	(.007)	(.007)	(.007)	(.006)	(.006)	(.006)
Some College (Reference=Four-year College)	-.761	-.862	-.888	1.649	1.656	1.592
	(1.301)	(1.308)	(1.317)	(1.432)	(1.439)	(1.451)
High School	1.098	.670	.652	2.273*	2.242*	2.034
	(1.205)	(1.212)	(1.220)	(1.310)	(1.318)	(1.329)
High School Dropout	1.500	1.135	.919	3.121*	3.174*	3.030*
	(1.452)	(1.462)	(1.469)	(1.672)	(1.681)	(1.692)
Time X Some College	.001	.003	.005	.009	.009	.012
	(.008)	(.008)	(.008)	(.008)	(.008)	(.008)
Time X High School	-.004	-.002	.001	-.010	-.009	-.005
	(.008)	(.008)	(.008)	(.007)	(.007)	(.007)
Time X High School Dropout	-.011	-.008	-.005	-.032***	-.030***	-.026***
	(.010)	(.010)	(.010)	(.010)	(.010)	(.010)
Age	.419	.159	.017	-.159	-.061	-.034
	(.631)	(.635)	(.637)	(.786)	(.789)	(.793)
Age Squared	-.003	.002	.004	.006	.004	.005
	(.012)	(.012)	(.012)	(.013)	(.013)	(.013)
Age X Some College	.038	.042	.044	-.054	-.053	-.049
	(.050)	(.050)	(.050)	(.047)	(.047)	(.047)
Age X High School	-.030	-.014	-.012	-.068*	-.066	-.056
	(.046)	(.046)	(.047)	(.043)	(.043)	(.043)
Age X High School Dropout	-.047	-.033	-.021	-.093*	-.093*	-.084
	(.056)	(.056)	(.056)	(.054)	(.054)	(.055)
South (1=South)	.311***	.287***	.328***	.182***	.170***	.212***
	(.041)	(.041)	(.042)	(.043)	(.043)	(.043)

Appendix 1.1 Continued

Variable	Black Men Age 24-28			Black Men Age 29-33		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B	B	B	B	B	B
Veteran (1=Veteran)	.401 ***	.395 ***	.388 ***	.461 ***	.443 ***	.430 ***
	(.058)	(.058)	(.058)	(.058)	(.058)	(.059)
Enrollment (1=Enrolled)	-.619 ***	-.579 ***	-.573 ***	-.504 ***	-.470 ***	-.429 ***
	(.084)	(.084)	(.085)	(.084)	(.084)	(.085)
Average Hours Worked Per Week		.026 ***	.022 ***		.024 ***	.016 ***
		(.002)	(.003)		(.003)	(.003)
Average Weekly Earnings			.001 ***			.001 ***
			(.0001)			(.0001)
Intercept	-9.112	-6.496	-4.641	.431	-2.026	-2.424
	(8.262)	(8.311)	(8.345)	(12.172)	(12.225)	(12.290)
Log Likelihood	14222	14095	14016	12948	12865	12756
N	11318	11318	11318	10205	10205	10205

Notes: *P<.1 **P<.05 ***P<.01. Standard errors are in parenthesis.

42

2. Women's Occupational Integration and Men's Marriage Formation: Is the Economic Disadvantage Compensated by Marriage Market Advantage?

Over the past four decades, American men have increasingly delayed their first marriage. The median age at first marriage has increased from 23 years to 27 years between 1970 and 2003 (U.S. Bureau of Census 2003). For a segment of the black population, marriage delays essentially lead to no marriage (Goldstein and Kenny 2001). Marriage delays also influence other family patterns such as divorce, family size, birth timing, and birth spacing (Booth and Edwards 1985; Coale 1989; Marini 1981; Anderson 1986). More importantly, marriage delays, coupled with a high level of nonmarital fertility, have yielded large increases in the number of female-headed families with dependent children, the type of family that is most susceptible to poverty (McLanahan and Sandefur 1994; Levy 1995).

Social scientists have offered several explanations of this change in marital behavior (see Espenshade 1985 for a summary). Labor market changes reflecting a decline in the sexual division of labor in marriage have long been considered important structural sources of later and less frequent marriages since the early 1970s. According to Becker (1981), for example, the retreat from marriage that is characterized by marriage delays and less frequent marriages since the early 1970s is due to the wage effect of women's labor force participation, which erodes the traditional sexual division of labor in marriage and women's economic gain to marriage and depresses their economic incentive to marry. Although the traditional sexual division of labor in marriage is reflected in the market economy not only in sex differences in labor force participation

43

patterns but also in the sex composition of jobs (Matthaei 1980), sexual integration in the workplace, the second aspect of decline in the sexual division of labor in marriage, has received little attention in studies of economic underpinnings of marriage formation and labor market causes of marriage declines since the early 1970s.

Occupation plays an important role in 'social groupings' and in the structure of individual lives in industrial societies (Durkheim 1933; Grusky and Sorensen 1998). Women's occupational integration combined with a high level of women's labor force participation increases contact opportunities between men and women in the workplace (South et al. 1983) and encourages married men to have an extramarital relationship with their female coworkers (South and Lloyd 1995). The percentages of female workers in their occupations are positively associated with the risk of divorce for married men (McKinnish 2004, 2007). Although sex integration in the workplace is particularly salient to the divorce decision (as opposed to the marriage decision) as searching for alternative mates outside the workplace is more costly for married individuals than for single (Becker et al. 1977), women's occupational integration inevitably expands the contact opportunities between men and women (McKinnish 2004). Moreover, because men and women employed in the same occupation are likely to have similar educational and occupational statuses and lifestyles and people prefer to marry their social equals (Hout 1982; Ramsoy 1966), occupational sex integration reduces the search costs for a marriageable mate and facilitates marriage formation.

On the other hand, men employed in more female occupations are more likely to work part-time and earn less. Because men's bread-winner role in traditional husband earner/wife homemaker marriage is contingent on a job that pays a "family wage"

44

(Esping-Andersen 1993), women's occupational integration, coupled with persistently lower wages and underemployment[1] that are attributable to the sex-typing of jobs (England et al. 1998), puts men employed in more female occupations at a disadvantaged position in the marriage market, reducing their abilities to perform economic roles within family and their likelihood of marrying (Becker 1981; Oppenheimer 1988; Wilson 1990; Easterlin 1987).

This study uses data set from the Current Population June Surveys to examine the relationship between the female proportion of an occupation and the likelihood of marrying for male workers. This focus on the marriage formation of men rather than women arises from two considerations: (1) most studies of marital timing focus on women's marital timing while largely overlooking men's marital timing, and (2) men benefit more from marriage than women.[2] In the first and second part of analysis, I classify those recently married men into two groups: men who married a woman employed in the same occupation and men who married a woman employed in a different occupation. I then use two sets of logistic regression to examine the effect of the proportions of female workers in an occupation on the likelihood of marrying for male workers. The sample for the first set of logistic regression includes men who married women employed in the same occupation and men who never marry; the sample for the second set of logistic regression includes men who married women employed in a different occupation and men who never marry. I find that the female proportion of an

---

[1] In economics, the term underemployment has three different distinct meanings and applications. Here it refers to "involuntary part-time" workers, that is, workers who could (and would like to) be working for a full work-week but can only find part-time work.

[2] For example, married men earn more than unmarried men (Gray 1997), while married women work underemployment and earn less than unmarried women (Waldfogel 1997).

occupation has a positive effect on men's likelihood of marrying women employed in the same occupation, but a negative effect on men's likelihood of marrying women employed in a different occupation. The negative relationship between the female proportion of an occupation and the likelihood of marrying for male workers is partly attributable to the marriage disincentives of underemployment and lower wages for men working in more female occupations. In the final step of analysis, I combine married men into one category regardless of whether they married women employed in the same occupation or not. The primary objective of the analysis is to measure the extent to which women's occupational integration, by reducing the cost of search for a marriageable mate, offsets the marriage disincentives of underemployment and lower wages for men working in more female occupations. My analysis shows that although working in more female occupations facilitates marriage formation for men because of the marriage market function of occupational propinquity between men and women, the effect is relatively small as only 4% of married men benefited from women's occupational integration and married women employed in the same occupation. The marriage disincentives of underemployment and lower wages for men working in more female occupations are not fully compensated by their marriage market advantage of having more contact opportunities with women who have similar educational and occupational statuses.

This study makes three contributions. First, according to the Becker (1981) theory, women's labor force participation and improved labor market position relative to men erode their economic incentives to marry. Because women's gain of economic independence relative to men is often accompanied by their integration into male occupations, this study, by examining the relationship between the sex composition of an

46

occupation and the likelihood of marrying for male workers, extends the Becker theory. Second, as most data lack information on partner's socioeconomic characteristics prior to marriage, linking women's patterns of occupational integration to men's marriage formation provides an alternative way of testing the linked nature of lives between men and women (Elder 1997). Finally, the relatively large marriage disincentives of underemployment and lower wages compared to the marriage incentives of having more contact opportunities with women at occupational situs for men working in more female occupations contributes to our understanding of marriage formation as a process of social stratification (Haller 1981).

THEORETICAL PERSPECTIVES

Marriage market conditions have important impacts on marriage outcomes. Three theoretical perspectives have been offered to explain the relationship between marriage market conditions and marriage outcomes. The first perspective is concerned with the sex ratio, which is defined as the proportion of males to females in a local marriage market. It initially arose from demographers' interest in the impacts of sex imbalances on marriage formation as baby boomers and baby busters entered adulthood. Subsequently, sex ratios of persons' sociodemographic characteristics have been used, recognizing that marriage outcomes depend not only on the quantity of potential mates, but also their qualities because the process of mate selection is also a mechanism of assortative mating (Haller 1981). The extent to which a surfeit of potential mates is translated into an earlier marriage is largely contingent on whether their

47

sociodemographic characteristics foster the realization of individual preferences to marry homogamously.

Empirical studies using the sex ratio perspective generally support the argument that marriage market conditions, especially the sociodemographic composition of potential mates, affect the timing of marriage (Schoen, Wooldredge, and Thomas 1989; Lichter et al. 1992). The effect of marriage market conditions on patterns of who marries whom, or assortative mating, is rather weak (Lichter, Anderson, and Hayward 1995). It is only observed for people who are in their late twenties and early thirties, the life stage that probably has allowed time for a compromise between individual preferences and marriage market conditions (Lewis and Oppenheimer 2000). In other words, although young adults adjust their preferences for a mate according to the marriage market conditions, this process takes time and does not occur until their late twenties.

One problem with the sex ratio perspective is that the marriage market is narrowly defined in terms of geographic propinquity. This is partly motivated by persistently observed spatial disparity in marriage rates (Heaton, Lichter, and Amoateng 1989), and partly by the assumption of geographic constraints on contact opportunities. Other structural dimensions of the population sex distribution that segregate the population according to cultural and socioeconomic characteristics, however, have yet to receive adequate attention, despite the acknowledgement that marriage market is an imprecise concept and exists in other functional settings such as workplaces (Kalmijn 1998).

The structural perspective broadens the study of marriage markets. It recognizes that in addition to geographical propinquity, other propinquitous situations between men and women also play an important role in marriage outcomes (Blau 1977). Women's

48

integration into male occupations is an important labor market change since the 1970s. It creates a propinquitous situation which increases contact opportunities between men and women at occupational situs and other work-related social settings, having important implications for marriage formation. French data show that the percentage of people who meet their spouse at their workplaces exceeds those who meet at traditionally defined marriage markets such as neighborhoods and schools (Bozon and Heran 1989). A recent U.S. survey on office romance provides additional evidence on the marriage market function of occupational situs, showing that 40% of full-time adult workers have dated an office colleague and 31% of them married (Wulfhorst 2009).

Although the structural perspective suggests that occupational propinquity between men and women increases men's chances of marrying women employed in the same occupation, it sheds little light on the influence of occupational propinquity between men and women on men's timing of marriage. In addition, empirical studies on the relationship between marriage market conditions and marriage outcomes using the structural perspective are exclusively concerned with the structural influences on the ultimate patterns of assortative mating (Blau, Blum, and Schwartz 1982) and risks of divorce (South and Llyod 1995), but largely ignore the influences of individual preferences in marriage outcomes. Although the patterns of who marries whom are subject to the influences of the sociodemographic characteristics of available mates (Kalmijn 1998), evidence on the effect of marriage market conditions on the patterns of assortative mating seems to suggest that most young adults accommodate an unfavorable marriage market by delaying marriage rather than by altering their mate selection standards to marriage market conditions. A recent study of marriage formation explicitly

49

measures men's preferences for a marriageable mate and shows that men who are less restrictive on mate selections face less competition in the marriage market and are more likely to marry. Their marriage probabilities are also enhanced when their preferences complement those of women (Raley and Bratter 2004).[3]

According to the search perspective, marriage formation is a process of assortative mating (England and Farkas 1986; Oppenheimer 1988). Despite population heterogeneity, most marriages are homogamous in age, race, religion, nationality, family background, education, and other sociodemographic characteristics (Kalmijn 1998). In fact, although propinquity is an important factor in itself on marriage formation, most of the observed relationship between propinquity and homogamy in marriage is attributable to cultural factors shared by persons living within prescribed ecological areas, occupational situs, or other propinquitous situations. From the search perspective, transition to marriage is accelerated when the distribution of individual characteristics facilitates realization of individual preferences for a spouse with similar cultural and sociodemographic characteristics, whereas marriage is delayed if the reverse is true (Lichter, LeClere, and McLaughlin 1991; Lloyd and South 1996; Wilson 1987).[4]

Men and women employed in the same occupations have similar educational and occupational statuses and lifestyles. They are also more likely to internalize a wide range of similar values, customs and beliefs and therefore find each other more attractive

---

[3] Women prefer to marry men who have more education and earn more than themselves. Men who are more willing to marry women with less education and earnings complement women's preferences and are, therefore, more likely to find a marriageable mate.

[4] Although there is a trade-off between the quality of the partner finally selected and the time spent on search, according to the search perspective, a favorable marriage market does not necessarily encourage longer search. People take the strategy of setting a level for the "reservation quality partner". They stop searching after they meet the first person reaching this level. Thus, the more favorable the marriage market is, the more efficient the search, and the earlier the age of marriage.

(Marini and Brinton 1984). Occupations, through their impacts on identity formation, values, customs and beliefs, have significant effects on the meaning of marital relationships for the persons involved (Haller 1981). Marrying somebody employed in the same occupation has been found to be positively correlated with the amount of time that husbands and wives spend together in marriage (Kalmijn and Bernasco 2001), which in turn increases marital satisfaction and marital stability (Reissman, Aron, and Bergen 1993). Thus, in contrast to other types of group integration that are usually accompanied by considerable group differences in hierarchy status and cultural values that discourage marriage in homogamy (Blau, Blum, and Schwartz 1982), women's occupational integration coincides with ingroup norms and individual preferences for homogamy in marriage.

Although there are no studies on the relationship between occupational sex composition and men's timing of marriage, research on marital dissolution suggests that women's occupational integration facilitates mate selection for men. The proportion of female workers in an occupation has been found to be positively associated with the likelihood of divorce for married male workers (South et al. 2001; South and Llyod 1995). Lichter's (1990) study on the relationship between the patterns of homogamy and the timing of marriage provides additional evidence which shows the availability of women who have similar socioeconomic characteristics as men encourages marriage formation for white men. I therefore hypothesize that men working in more female occupations are more likely to find satisfactory mates due to the increased contact opportunities with women who have similar educational and occupational statuses and therefore marry earlier (Hypothesis 1).

51

On the other hand, although women's occupational integration increases men's opportunities to meet their potential wives at occupational situs and facilitate marriage formation, women's occupational integration is accompanied by a gradual transition from a male occupation to a more feminine one, which is correlated with lower wages, underemployment and other labor market disadvantages (England et al. 1998; Macpherson and Hirsch 1995).[5] The wage effect of occupational gender composition is large and affects both men and women (Macpherson and Hirsch 1995). Furthermore, the occupational wage disadvantage of working in more female occupations is long run, cumulative[6] and involuntary.[7] Although women's labor force participation makes women's socioeconomic characteristics increasingly valued in mate selection (Sweeney and Cancian 2004), given persistent gender inequality in the labor market and less equitable division of labor within the household, husband's wages remain the primary income sources for the household (England and Farkas 1986). Men's labor market status determines their ability to perform economic roles within family and their likelihood of

---

[5]Note that over half of the relationship between gender composition and men's wages is due to worker endowments, preferences, and occupation and industry characteristics of female jobs (Macpherson and Hirsch 1995). In fact, according to the "quality" sorting hypothesis (Bergmann 1974), if women are crowded into low-paying occupations because of discriminatory barrier, the sex composition of a job becomes an index of labor quality for men. It therefore entails caution when interpreting the wage effect of occupational sex composition.

[6] Although Jacobs' (1993) study suggests that men employed in sex-atypical occupations tend to move back to sex-typical occupations because of normative pressures on men doing men's jobs, other studies show different results. Williams and Villemez (1993), for example, did not find evidence of extensive occupational mobility across sex types for men. In fact, Hall's (1982) study showed that although US workers are very mobile, most evidence suggests that jobs lasting more than twenty years are the rule rather than the exception. British data show that occupational mobility across sex types is rare for those employed in a heavily female occupation (Chan 1999).

[7] Both Jacobs (1993) and Williams and Villemez (1993) show that, in spite of an increase in the number of men employed in more female intensive occupations, the proportion of men who aspire for a female-dominated occupation is less than 6%. For a majority of men, the reason for working in a sex-atypical occupation is due to structural constraints on accessing male-dominated occupations. This is especially the case for minority males (Williams and Villemez 1993). In the aggregate, the over time increase in the proportion of men employed in sex-atypical occupations is largely a result of women entering previously male-dominated occupations. A case study of men in computer occupations shows that men did not leave their jobs when women entered in large numbers (Wright and Jacobs 1994).

marrying (Becker 1981; Oppenheimer 1988; Wilson 1990; Easterlin 1987). The labor market disadvantages associated with working in more female occupations then constitute a serious barrier to marriage formation for men. Therefore, I hypothesize that the economic effects of working in more female occupations delays men's marriage formation (Hypothesis 2).

In sum, although men working in more female occupations have more contact opportunities with women who have similar educational and occupational statuses that not only facilitates the realization of individual preferences to marry their social equals but also accelerates men's transition to marriage (Hypothesis 1), they are underemployed, have lower wages and other labor market disadvantages, placing them at a disadvantaged position in the marriage market (Hypothesis 2). Figure 2.1 presents the conceptual model that describes the relationship between the percentages of female workers in an occupation and the likelihood of marrying for male workers.

[Figure 2.1 is inserted here]

In the analysis that follows, I first classify recently married men into two groups: men who benefited from women's occupational integration because they married women employed in the same occupation and men who did not benefit from women's occupational integration because they married women employed in a different occupation. I then use two sets of logistic regressions to examine the effects of female proportion of an occupation on men's likelihood of marrying women employed in the same occupation versus being single and men's likelihood of marrying women employed in a different occupation versus being single. The effects of the percentages of females in an occupation on the likelihood of male workers to marry women employed in the same

occupation reflect both the marriage market function and the labor market function of the sex composition of an occupation. The effects of the percentages of females in an occupation on the likelihood of male workers to marry women employed in a different occupation reflect only the labor market function of the sex composition of an occupation. In the third step of analysis, I combine the two groups of recently married men and use logistic regression to examine the relationship between female proportion of an occupation and the likelihood of marriage for male workers. The objective of the last step of analysis is to determine whether increased contact opportunities with women who have similar educational and occupational statuses at occupational situs compensate for the marriage disincentives of underemployment and lower wages when men working in more female occupations.

DATA

I use data set from the Cumulative Files of the Current Population June Surveys (CPJS), a national representative sample of civilian noninstitutionalized persons living in households. CPJS is unique in that it contains extensive information on marital status, age at first marriage, fertility, occupation and other labor market characteristics at the time of survey, therefore allowing for examining the roles occupation play as both a marriage market and an indicator of men's socioeconomic standing in the relationship between the female proportion of an occupation and men's likelihood of marrying. However, due to the cross-sectional nature of CPJS, both men's occupation and their wives' occupation at the time of survey may not be the ones they have at the time of marrying. To maximize the probability that both men's occupation and their wives'

occupation at the time of survey are the ones they have when marriage occurs, I limit my analysis to young adult men age 20-35 who married within one year of the survey year or who never marry. Because all recent marriages that have information on both husband's and wife's occupation occurred in 1990, 1992 or 1994, I make the window of observations comparable between recently married men and men who never marry by including men who never marry from these three survey years. In total, CPJS have 2,107 marriages that occurred within one year of the survey year and 21,023 young adult men who never marry. Among those recently married men, 4% married women employed in the same occupation.

The female proportion of an occupation is the percentage of female workers of all workers age 20-35 in each 3-digit occupation. It is estimated using the 5% Public Use Microdata Samples (PUMS) of 1990 US Census. Compared to CPJS, PUMS has more observations for each 3-digit occupation and thus enables us to gain more reliable estimates of the female proportion of an occupation. In addition, because the sex composition of an occupation changes very slowly, especially in the 1990s (Blau 1998), the female proportion of an occupation in 1992 and 1994 is approximated using the female proportion of an occupation in PUMS of 1990.

Figure 2.2 describes the mean levels of the female proportion of the occupation for men who married women employed in the same occupation, men who married women employed in a different occupation, and men who never marry. Men who married women employed in the same occupation are most likely to work in more female occupations, while men who married women employed in an occupation that is different

55

from them are least likely to work in more female occupations, and the female proportion

of the occupation for men who never marry is in the middle.

[Figure 2.2 is inserted here]

MODEL AND RESULTS

To examine the effect of the proportions of female workers in an occupation on the

likelihood of marrying for male workers, I use a series of logistic regressions. The

dependent variable is a dummy variable that measures men's marital status at the time of

survey. The coding of the dependent variable varies depending on the purpose of the

analysis. In the first step of analysis, the sample includes men who benefited from

women's occupational integration by marring women employed in the same occupation

and men who never marry. The dependent variable is 1=for men who married women

employed in the same occupation and 0=for men who never marry. The relationship

between the proportions of female workers in an occupation and the likelihood of

marrying for male workers reflects both the marriage market effect and labor market

effect on marriage of working in more female occupations.

Table 2.1 reports the coefficient estimates for the regression models that are

created in a stepwise fashion. In the first model, only the female percentage of an

occupation is included in the regression. Consistent with my hypothesis, women's

occupational integration and increased contact opportunities with women who have

similar educational and occupational statuses at occupational situs encourage men to

marry women employed in the same occupation. One percentage point increase in the

56

female proportion of an occupation is associated with a six times $((e^{1.952}-1)\times100\%)$ increase in men's odds of marrying women employed in the same occupation.

In the second model, variables that have been found to affect men's likelihood of marrying are accounted for, including age, race, whether the respondent lives in the South, veteran status, educational attainment and the survey year. These sociodemographic characteristics also serve as statistical controls for potential confounders in the relationship between the female proportion of an occupation and men's likelihood of marrying women employed in the same occupation. As shown in Model 2 of Table 2.1, the coefficient for the female proportion of an occupation barely changes as we move from Model 1 to Model 2. In addition, except veteran status, other measures of men's sociodemographic characteristics and survey years are not statistically significant. Compared to nonveterans, veterans are nearly three times $((e^{1.356}-1)\times100\%)$ more likely to marry women employed in the same occupation.

Finally, because men employed in a more female occupation work less and earn less, the marriage disincentives that arise from the labor market disadvantages may suppress the marriage market function of increased contact opportunities with women who have similar educational and occupational statuses at occupational situs when working in more female occupations. Hence, I control for men's weekly wages and hours worked per week in Model 3. As expected, after taking into account these measures of men's labor market positions, the coefficient for the female proportion of an occupation increases from 1.943 in Model 2 to 2.123 in Model 3. One percentage point increase in the female proportion of an occupation is associated with more than seven

times (($e^{2.123}$-1)×100%) increase in the odds of marrying a woman employed in the same occupation.

[Table 2.1 is inserted here]

In the second step of analysis, the sample includes men who have never married and recently married men who did not benefit from women's occupational integration because they married a woman employed in a different occupation. The relationship between the proportions of female workers in an occupation and the likelihood of marrying for male workers therefore is primarily a function of the labor market rewards attributable to the sex composition of an occupation. The dependent variable is a dummy variable with 1=for men who married women employed in a different occupation and 0=for men who never marry. Table 2.2 presents the coefficient estimates for the regression models that are created in a stepwise fashion. Although women's occupational integration makes it easier for men to marry women employed in the same occupation, it depresses marriage formation when the marriage occurs between men and women employed in different occupations. This finding is fairly robust. For example, when men's sociodemographic characteristics and the survey year are controlled for in Model 2, the coefficient for the female proportion of an occupation remains largely unchanged. One percentage point increase in the female proportion of an occupation is associated with nearly 50% (($1-(e^{(-.678)}$-1))×100%) reduction in the odds of marrying women employed in different occupations.

Men working in more female occupations have a weaker labor market position. The negative relationship between the female proportion of an occupation and men's likelihood of marrying a woman employed in a different occupation may therefore be due

58

to the weaker labor market position of men working in more female occupations. In Model 3, when the labor market characteristics such as weekly hours worked and weekly wages are taken into account, the coefficient for the female proportion of an occupation becomes less negative and increases from -.678 to -.412, but remains statistically significant. One percentage point increase in the female proportion of an occupation is associated with more than 30% $((1-(e^{(-.612)}-1))\times100\%)$ decrease in the odds of marrying a woman employed in a different occupation. In addition, consistent with previous findings on marriage formation, older men, men who came of age earlier and who live in the South face more normative imperatives to marry and marry earlier. Men having a favorable labor market position have greater ability to establish an independent household and are more likely to marry. Compared to high school dropouts, men who have completed at least some college have better economic prospects and are therefore more likely to marry. Although the coefficients for race and veteran status are not statistically significant, their signs agree with previous findings. That is, blacks are less likely to marry than whites and the benefits that veterans enjoy make it easier for them to establish an independent household than nonveterans.

[Table 2.2 is inserted here]

Do the increased contact opportunities with women who have similar educational and occupational statuses compensate for the marriage disincentives of underemployment and lower wages when men working in more female occupations? To answer this question, in the last step of the analysis, I pool all recently married men into one category regardless of whether they married women employed in the same occupation or not. The dependent variable for the logistic regression is 1=for men who recently married and

59

0=for men who never marry. Table 2.3 reports the descriptive statistics for the variables used in the regression analysis and Table 2.4 reports the coefficient estimates for the regression models that are created in a stepwise fashion. Overall, the patterns of the coefficients are quite similar to those found in Table 2.2 with two exceptions. First, although working in more female occupations reduces men's likelihood of marrying, increased contact opportunities with women who have similar educational and occupational statuses at occupational situs partly compensate for the marriage disincentives of underemployment and lower wages. For example, for men who did not benefit from the marriage market function of women's occupational integration, one percentage point increase in the female proportion of an occupation is associated with more than 50% reduction in the odds of marrying for male workers. But when men who benefit from the increased contact opportunities with women at occupational situs and married women employed in the same occupation are taken into account in the analysis, the marriage disincentive effect of the female proportion of an occupation is reduced. As shown in Model 2 of Table 2.4, one percentage point increase in the female proportion of an occupation is associated with 43% $((1-(e^{(-.558)}-1))\times100\%)$ reduction in the odds of marrying for male workers, which is seven percentage points less than when men who benefited from the marriage market function of women's occupational integration and married women employed in the same occupation are not taken into account. Second, although men's weekly wages and weekly hours worked cannot completely explain why working in more female occupations depresses men's likelihood of marrying women employed in a different occupation, they completely account for the relationship between the female proportion of an occupation and the likelihood of marrying for male workers

60

when those men who benefited from women's occupational integration and married women employed in the same occupation are included in the analysis. The coefficient for the female proportion of an occupation becomes less negative and increases from -.558 to -.297 as we move from Model 2 to Model 3.

[Table 2.3 is inserted here]

[Table 2.4 is inserted here]

CONCLUSIONS

Women's labor force participation and occupational integration are important labor market changes occurring since the early 1970s. Previous studies on the economic underpinnings of marriage formation argued that women's changing labor market behaviors, which combined with the deterioration of young men's labor market positions and their declining ability to establish an independent household, eroded the division of labor within the household and women's economic incentives to marry. Occupational sex structures, the second aspect of the decline in the division of labor within the household that is reflected in the market economy, have received little attention in studies of the economic underpinnings of marriage formation. Instead, research on occupational sex structures is mainly concerned with the causes and economic consequences of occupational sex segregation.[8]

---

[8] For example, both men and women working in more female occupations have been found to work fewer hours, have lower wages and other labor market disadvantages. Despite these common economic experiences, both the reasons for working in more female occupations and their relationship to marriage outcomes vary by gender. According to human capital theory and socialization theory, for example, women's disproportionate representation in female-dominated occupations is partly due to their stronger disposition toward family life and partly due to less compatibility of work roles and family roles for women with a traditional gender division of labor within the household.

This study examines the relationship between the female proportion of an occupation and the likelihood of marrying for male workers. The objective of the study is to examine the extent to which the marriage disincentives of underemployment and lower wages when men working in a sex-atypical occupation are compensated by a marriage market advantage of having more contact opportunities with women who have similar education and occupational statuses, characteristics that foster the realization of individual preferences to marry their social equals.

I find that the female proportion of an occupation has a positive effect on men's likelihood of marrying women employed in the same occupation, but a negative effect on men's likelihood of marrying women employed in a different occupation. The negative relationship between the female proportion of an occupation and the likelihood of marrying for male workers is partly attributable to the marriage disincentives of underemployment and lower wages for men working in more female occupations. On the whole, however, although working in more female occupations facilitates men's marriage formation because of the marriage market function of occupational propinquity between men and women, the effect is relatively small as only 4% of married men married women employed in the same occupation. The marriage disincentives of underemployment and lower wages for men working in more female occupations are not fully compensated by their marriage market advantage of having more contact opportunities with women who have similar education and occupational statuses.

This study has several implications for future research on the economic underpinnings of marriage formation and labor market causes of marriage declines. First, the large and negative effect of greater female proportion in an occupation on men's

likelihood of marrying, found in Model 3 of Table 2.2, raises the concern of what the sex composition of an occupation is measuring in addition to employment status and wages. Although underemployment and lower wages are the most often cited disadvantages of working in more female occupations, occupational sex composition is also associated with other types of socioeconomic rewards. For example, female jobs are associated with a lower level of fringe benefits, authority and autonomy, and prestige (Jacobs and Powell 1984). Women's jobs are also more likely to be found in those types of occupations and industries which provide relative lower levels of firm-specific investment. Men working in a woman's job may then be considered as having less earning potential, making them less attractive in the marriage market. The negative association between the female proportion of an occupation and men's likelihood of marrying corresponds to Oppenheimer's (1982) study that shows that men employed in white-collar low-paid occupations, most of which are female occupations, are least likely to marry. In addition to economic factors, occupational sex composition may also reflect an individual's attitude toward gender roles and family lives and sexual orientation (Antecol, Jong, and Steinberger 2008). Men employed in female-dominated occupations may be more responsive to social changes with respect to marriage and internalize a liberal attitude toward gender roles and family lives. They are also more likely to be gay and thus choose cohabitation and other non-marital union forms to organize their personal lives (Antecol, Jong, and Steinberger 2008).

Second, the relatively large marriage disincentives of underemployment and lower wages compared to the marriage incentives of having more contact opportunities with women when men working in more female occupations provides us a new

63

perspective on the relationship between marriage formation and social stratification (Haller 1981). Despite recent changes in the meaning of marriage, the essential feature of marriage formation as a vertical stratification process does not seem to have changed. Marriage formation is still closely associated with class formation and reproduction of social inequality. Thus, although women's occupational integration increased contact opportunities between men and women, most of these cross-sex interactions at occupational situs seems role-based, and are not strong enough to cross class-based social boundaries that define the most fundamental type of association such as marriage.

In addition, compared to married men, unmarried men have more avenues to search for a marriageable mate. The marriage market function of occupational situs is limited compared to other class-based social groupings such as family background and neighborhood. Although people are more likely to marry their social equals, for a large segment of women, marriage remains an important mechanism of upward social mobility that involves economic transactions. Lower wages, underemployment and other pecuniary penalties associated with working in a woman's job, coupled with women's tendency to marry up, places men employed in female-dominated occupations at a disadvantaged position in the marriage market.

Finally, persistent gender divisions of labor within the household and gender inequality in the labor market suggest that the characteristics that define a desirable mate differ between men and women. The relationship between the female proportion of an occupation and the likelihood of marrying may therefore vary between men and women. Previous studies on the relationship between the sex composition of an occupation and family events show either a weak relationship, or no relationships between the female

64

proportion of an occupation and family events (Trappe and Rosenfeld 2004; Budig and England 2001; Desai and Waite 1991; England 1982; Glass and Camarigg 1992; Jacobs and Steinberg 1995; Okamoto and England 1999; Rosenfeld and Spenner 1995). But since these studies are concerned with other family events than the timing of marriage, future studies of the economic underpinnings of marriage formation and labor market causes of marriage declines should consider examining the relationship between the female proportion of an occupation and the likelihood of marrying for female workers. For example, the economic model of marriage (Becker 1981) posits that women's economic gain from participation in the paid labor force erodes traditional gender divisions of labor within the household, discouraging marriage formation. Because women's gain of economic independence relative to men is usually accompanied by their occupational integration, the neoclassical economic perspective then suggests women working in more female occupations are more likely to marry (Polachek 1981, 1985). On the other hand, it is also reasonable to believe that women working in more male occupations are more likely to marry, because they have more chances to meet their potential spouses at occupational situs. The findings on the relationship between the female proportion of an occupation and the likelihood of marrying for female workers will not only complement the findings in this study but also enhance our understandings of gender differences in marriage formation and labor market causes of marriage declines since the 1970s.

Figure 2.1 The conceptual model on the relationship between women's occupational integration and men's likelihood of marrying

Women's occupational integration

Contact opportunities with women at occupational situs

Employment Wages

Men's likelihood of marrying
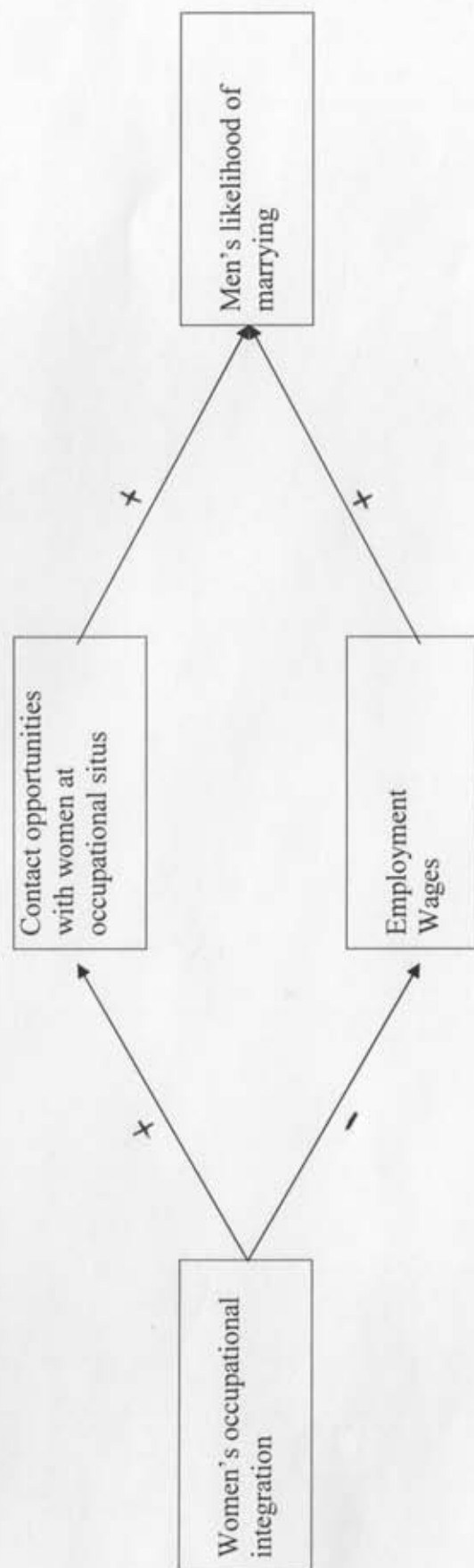
Figure 2.2 The female proportion of the occupation for men who married women employed in the same occupation, men who married women employed in a different occupation, and men who never marry
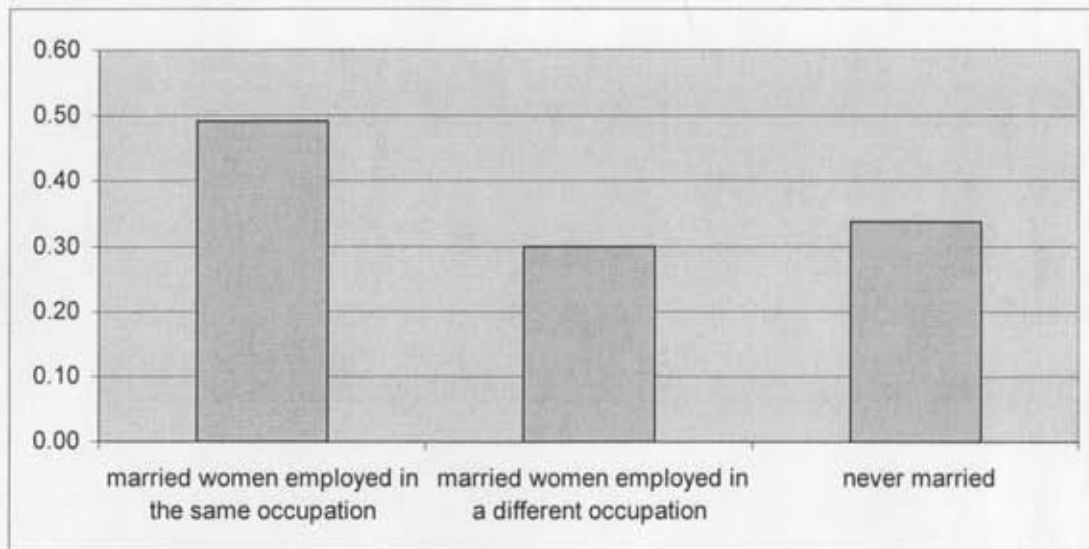
Table 2.1 Logistic regression predicting men's likelihood of marrying, men who married women employed in the same occupation and men who are never married

	Model 1			Model 2			Model 3		
	B		Odds Ratio	B		Odds Ratio	B		Odds Ratio
% female workers in the occupation	1.952 (.851)	**	7.044	1.943 (.909)	**	6.977	2.123 (.942)	**	8.354
Labor Market Characteristics									
Weekly wages							-.309 (.399)		.734
Weekly hours worked							.037 (.015)	**	1.037
Sociodemographic Characteristics									
Age				-.017 (.059)		.983	-.016 (.061)		.985
Race (1=Black)				.046 (.784)		1.047	.157 (.791)		1.17
Region (1=South)				-.259 (.532)		.772	-.271 (.533)		.762
Veteran Status (1=Veteran)				1.356 (.671)	**	3.88	1.294 (.533)	*	3.645
Educational Attainment (Reference= High School Dropouts)									
Four-year college				.507 (.388)		1.297	.483 (.420)		1.198
Some college				-.352 (.419)		.549	-.368 (.421)		.512
High school				-.402 (.418)		.522	-.417 (.420)		.487

Table 2.1 Continued

	Model 1		Model 2		Model 3	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
Survey Year (Reference=1994)						
year=1990			.309	1.213	.289	1.192
			(.309)		(.310)	
year=1992			-.425	.583	-.403	.596
			(.375)		(.376)	
Constant	-6.053 ***		-5.702 ***		-5.595 **	
	(.459)		(1.583)		(2.528)	
-2Log Likelihood	245		238		233	
N	3889		3889		3889	

Notes: * P<.1 ** P<.05 *** P<.01

69

Table 2.2 Logistic regression predicting men's likelihood of marrying, men who married women employed in a different occupation and men who are never married

	Model 1		Model 2		Model 3	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
% female workers in the occupation	-.688 ***	.502	-.678 ***	.508	-.412 *	.662
	.207		.217		.222	
Labor Market Characteristics						
Weekly wages					.590 ***	1.804
					.108	
Weekly hours worked					.010 **	1.009
					.005	
Sociodemographic Characteristics						
Age			.055 ***	1.056	.029 **	1.03
			.012		.013	
Race (1=Black)			-.195	.822	-.117	.889
			.175		.176	
Region (1=South)			.184 *	1.202	.218 **	1.243
			.109		.110	
Veteran Status (1=Veteran)			.136	1.145	.110	1.116
			.184		.186	
Educational Attainment (Reference= High School Dropouts)						
Four-year college			-.023	1.08	-.270 **	.681
			.100		.108	
Some college			.158 *	1.294	.154 *	1.04
			.085		.086	
High school			-.036	1.066	.002	.894
			.084		.084	

Table 2.2 Continued

Survey Year (Reference=1994)	Model 1			Model 2			Model 3		
	B		Odds Ratio	B		Odds Ratio	B		Odds Ratio
year=1990				.122	*	1.417	.126	*	1.455
				.069			.069		
year=1992				.106		1.394	.123	*	1.451
				.070			.070		
Constant	-1.910	***		-3.418	***		-6.709	***	
	.080			0.33			.608		
-2Log Likelihood	2920			2884			2833		
N	4329			4329			4329		

Notes: * P<.1 ** P<.05 *** P<.01

71

Table 2.3 Descriptive statistics and correlation matrix for dependent and independent variables

Variable	N	Mean	SE	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Marital Status (1=married)	4349	0.11	0.31	1.00												
2 Female % of an Occupation	4349	0.34	0.25	-0.04	1.00											
3 Age	4349	25.69	4.18	0.07	-0.02	1.00										
4 Race (1=Blacks)	4349	0.10	0.31	-0.01	0.05	0.04	1.00									
5 Region (1=South)	4349	0.30	0.46	0.02	0.00	-0.01	0.20	1.00								
6 Veteran Status (1=Veteran)	4349	0.07	0.25	0.03	-0.07	0.12	0.01	0.00	1.00							
7 Four-year College	4349	0.22	0.42	0.00	0.20	0.23	-0.11	0.00	-0.07	1.00						
8 Some College	4349	0.31	0.46	0.01	0.07	-0.15	0.00	-0.04	0.01	-0.36	1.00					
9 High school	4349	0.37	0.48	-0.01	-0.18	-0.03	0.10	0.02	0.09	-0.41	-0.52	1.00				
10 Survey Year=1990	4349	0.35	0.48	0.02	-0.02	-0.03	-0.01	-0.02	-0.01	0.01	-0.08	0.04	1.00			
11 Survey Year=1992	4349	0.33	0.47	0.02	-0.01	-0.01	0.00	-0.02	0.00	-0.02	0.03	0.00	-0.51	1.00		
12 Log Weekly Wages	4349	5.79	0.64	0.11	-0.09	0.33	-0.08	-0.05	0.05	0.32	-0.09	-0.08	-0.01	-0.01	1.00	
13 Weekly Hours Worked	4349	41.20	12.17	0.08	-0.11	0.11	-0.07	0.00	0.04	0.11	-0.04	-0.01	0.00	-0.02	0.46	1.00

72

Table 2.4 Logistic regression predicting men's likelihood of marrying

	Model 1			Model 2			Model 3		
	B		Odds Ratio	B		Odds Ratio	B		Odds Ratio
% female workers in the occupation	-.562	***	0.57	-.558	***	.573	-.297		.743
	(.201)			(.211)			(.216)		
Labor Market Characteristics									
Weekly wages							.544	***	1.722
							(.105)		
Weekly hours worked							.011	**	1.011
							(.004)		
Sociodemographic Characteristics									
Age				.052	***	1.053	.028	**	1.029
				(.012)			(.013)		
Race (1=Black)				-.185		.832	-.107		.899
				(.171)			(.172)		
Region (1=South)				.167		1.181	.195	*	1.215
				(.107)			(.108)		
Veteran Status (1=Veteran)				.191		1.21	.166		1.18
				(.179)			(.18)		
Educational Attainment (Reference= High School Dropouts)									
Four-year college				.001		1.095	-.234	**	.705
				(.097)			(.105)		
Some college				.139	*	1.257	.133		1.018
				(.084)			(.084)		
High school				-.050		1.041	-.015		.878
				(.082)			(.083)		
Survey Year (Reference=1994)									
year=1990				.127	*	1.405	.131	*	1.442
				(.067)			(.068)		

73

Table 2.4 Continued

	Model 1		Model 2		Model 3	
	B	Odds Ratio	B	Odds Ratio	B	Odds Ratio
year=1992			.086	1.35	.103	1.402
			(.069)		(.069)	
Constant	-1.906 ***		-3.340 ***		-6.458 ***	
	(.079)		(.324)		(.594)	
-2Log Likelihood	3012		2978		2927	
N	4349		4349		4349	

Notes: *P<.1 **P<.05 ***P<.01

3. Educational Differences in the Impacts of Labor Market Restructuring on Marriage Declines: Evidence from National Longitudinal Surveys

Over the past four decades, American men have increasingly delayed their first marriage. The median age at first marriage has increased from 23 years to 27 years between 1970 and 2003 (U.S. Bureau of Census 2003). Although men from all schooling and racial groups have delayed their marriages, the trend is stronger among the less educated and blacks. For a segment of the black population, marriage delays essentially lead to no marriage (Goldstein and Kenny 2001). Marriage delays also influence other family patterns such as divorce, family size, birth timing, and birth spacing (Booth and Edwards 1985; Coale 1989; Marini 1981; Anderson 1986).[1] More importantly, marriage delays, coupled with a high level of nonmarital fertility, have yielded large increases in the number of female-headed families with dependent children, the type of family that is most susceptible to poverty (McLanahan and Sandefur 1994; Levy 1995).

Social scientists have offered several explanations of this change in marital behavior (see Espenshade 1985 for a summary).[2] The economic perspective has received the most attention. It is argued that marriage declines that are characterized by later and less frequent marriages since the 1970s are due to labor market restructuring, which greatly erodes the labor market position of young adult men and increases the difficulties

---

[1] Delaying marriage could also provide many benefits. It allows more time to invest in education and work experience for both men and women, so that families they later form should be more secure, both financially and emotionally. Women who are older when they first marry are much less likely to divorce (Moor and Waite 1981).

[2] Other demographic and social changes that have also been identified as important factors underlying the trend toward lower marriage rates include women's labor force participation and improvement of socioeconomic standing relative to men, reductions in the normative imperative on people to marry and traditional gender role, and increasing tolerance of premarital sex, nonmarital cohabitation, unmarried childbearing and childrearing, and other factors diminishing the motives of marrying.

and time for the recent cohort of men to secure a career job that pays family-wages (Oppenheimer 1988). The time period from completing formal education to securing a career job is often associated with lower earnings, uncertain economic prospects and other disincentives and obstacles which discourage assortative mating and a commitment to a long run relationship (Oppenheimer 1988). This economic perspective is commonly known as the career-entry perspective. It has received strong empirical support in studies of educational differences in marriage formation (Oppenheimer, Kalmijn, and Lim 1997). However, the extent to which marriage declines among the recent cohort of men are related to changes in men's career entry is still unclear as studies of marriage formation that measure the effects of the career-entry virtually study only one birth cohort (Oppenheimer 2000, 2003; Oppenheimer, Kalmijn, and Lim 1997). In addition, as educational attainment has become an increasingly important determinant of labor market success since the 1970s, marriage declines that could be attributable to labor market restructuring and changes in men's career entry probably vary between the college educated and the noncollege educated, for which we know little.

In this study, I use the career-entry perspective to examine the implications of labor market restructuring and changes in men's career entry for the decline in marriage using two birth cohorts: early baby-boom cohorts who entered the labor market during the economic prosperity of the late 1960s and the early 1970s and late baby-boom cohorts who entered the labor market during the economic recession of the early1980s. In the first part of the analysis, I examine transition to marriage after men complete a degree and enter the labor market. I find that the recent cohort of men entered the labor market at older ages. But marriage declines among the recent cohort of men are mainly due to

their slower rates of transition to marriage after completing formal education. For noncollege educated men in the recent cohort, marriage delays are likely to lead to no marriage. In the second part of the analysis, I examine educational differences in the impacts of changes in men's career entry on marriage declines. I find that measures of men's career entry play a larger role in marriage delays for noncollege educated men and men with some college education than for men who have completed college. The wage trajectories for the two noncollege educated groups have changed consistent with permanent reductions in lifetime income and the proportion eventually marrying. Although the recent cohort of men who have completed college also delayed their marriages, there is no evidence of significant changes in their wage trajectories and other patterns of socioeconomic attainment. For them, marriage delays do not seem to reduce the proportion eventual marrying.

EXPLANATIONS FOR MARRIAGE DECLINES

Social scientists have offered several theoretical perspectives to explain marriage declines since the 1970s. They disagree on which sex should be the focus of analysis in studies of marriage declines. One of the most influential theoretical perspectives is the Becker theory (1981). According to Becker, a high level of division of labor between men and women underlies a stable family system. Marriage is more likely to occur when the size of wage advantage of men relative to their potential wives is large. Expansion of women's employment opportunities and women's economic independence relative to men, then, erodes the fundamental basis for marriage and discourages women from marriage (England and Farkas 1986).

Becker's theory of marriage and comparative advantage has substantially enhanced our understanding of the U.S. patterns of marital and family change since the 1970s. However, the theory provides a less satisfying explanation of the timing of marriage when individual-level data, rather than aggregate-level data, are examined. For Oppenheimer (1994), the Becker theory is a theory of nonmarriage; but the nature of observed change in marital behavior since the early 1970s are marriage delays rather than permanent decreases in marriage. A reduction in women's economic incentives to marry may directly contribute to a decrease in marriage, but perhaps is less relevant to the timing of marriage, because the correlation between the timing and prevalence of marriage varies depending on cultures, economics and other conditions (Dixon 1971).[3] In addition, although almost all demographic groups have delayed marriage since the 1970s, there is no evidence of significant changes in the proportion eventual marrying among white women and college-educated black women (Goldstein and Kenny 2001). Recent increases in the proportion of two-earner families, combined with persistent evidence from attitudinal data (Thornton 1989), further show no rejection of marriage by economically independent women.

Moreover, although women's labor market positions have improved substantially since the 1970s, gender differences in wages and promotion opportunities remain large. These persistent sex differences in labor market positions cast doubt on whether the majority of women have a genuine substitute for a husband's economic support, allowing them to remain unmarried while maintaining a living standard comparable to married

---

[3]Japanese marries late but almost everyone eventually gets married; Irish marry at the same ages as Japanese, but the portions of Irish who were never married by age 45 are much higher than Japanese (Dixon 1978).

women. The social isolation and stigma frequently experienced by single women also make it less likely that women's improved labor market positions allow them easily to achieve sufficient independence to avoid marriage. Moreover, because the decision to create a marriage involves both sexes, overemphasizing the importance of women's economic incentives to marry obscures the mutual dependence between men and women in the occurrence of a marriage and the fact that men remain the primary breadwinners for most households. In fact, Rodger and Thornton (1985) and Oppenheimer (1988) argued that the strong correlations between factors affecting women's socioeconomic status in the Becker theory and those affecting men's labor market positions suggest that the socioeconomic status of women is probably being given more credit than it deserves in explaining marriage declines. Empirical study using the Becker theory to account for marriage trends generally shows that the trends in employment and earnings among women had little effect on marriage rates (Mare and Winship 1991).

The second perspective sees later and less frequent marriage arising from more time spent in school for the recent cohort of young adults. Most students are financially dependent on the state or their parents. The majority of students delay their marriages until completing formal schooling (Thornton, Axinn, and Teachman 1995). Increases in enrollment are, therefore, likely to reduce marriage rates among the recent cohort of young adults. Recent increases in the likelihood of reenrolling in school after completing a degree and entering the workforce further extend the time that the recent cohort of young adults spend in student roles, which, in combination with work roles, creates role burden, making it more difficult to assume a spousal role. In addition, although reenrollment may improve the labor market prospects for some young adults, they do not

79

necessarily do so for all. In fact, for a large proportion of young adults, reenrollment after completing a degree and entering the workforce means job experimentation, weaker attachment to current employers, or other signs of career immaturity. The total effect of rising enrollment on marriage trends is hard to assess, however. Although enrollment delays marriage, it leads to increased educational attainment which makes marriage more affordable if men base their marriage decision on their future labor market positions.

The third perspective is the career-entry perspective proposed by Oppenheimer (1988). According to Oppenheimer, marriage formation is a process of assortative mating. People choose to marry those with similar or complementary traits that they both value. When the transition to a career job that enables young adults to make sufficient income to establish an independent household and to support a family occurs later, the information necessary to selecting the right mate is also available only at later ages. Uncertainty about socioeconomic characteristics affects not only young adults' marriage-market positions, but also their own desires to marry because an early marriage would threaten the completion of important training and prevent job experimentation (Furstenberg 1974). The marriage delaying effect of uncertainty about one's, as well as one's potential partner's, socioeconomic characteristics may have increased over time because with the rise in the risk of marital dissolution, the recent cohort of young adults perhaps relies more on premarital selection than post-marital socialization to achieve a good match (Oppenheimer 1988).

From the career-entry perspective, both men's and women's career entries influence the timing of marriage. Transition to marriage increasingly entails negotiating two careers for young adults in the recent cohort. But since men's earnings are still the

primary financial resource for households headed by married couples, men's career entry plays a larger role in marriage formation. A number of important studies using the career-entry perspective are based on men. Their findings provide strong empirical support for the career-entry explanation of marriage delays. Young men entering the labor force unemployed or in stopgap jobs often take longer to transition to their career jobs. The transition to a career job is often associated with lower wages, inadequate amounts of employment and high degrees of uncertainty about future economic prospects, which inhibits assortative mating and marriage formation (Oppenheimer, Kalmijn, and Lim 1997). The economic consequences of a less successful work transition are larger for the less educated and for blacks (Oppenheimer, Kalmijn, and Lim 1997). The relatively slower rates of marriage transition after completing schooling for the less educated are partly attributed to the longer time that the less educated use to find a career job that pays family-wages.

Given its centrality in marriage formation and sensitiveness to macro economic changes, the increasing problems the recent cohort of young adult men have with upward mobility and career development arguably play a central role in later and less frequent marriages among them. The time spent between school completion and marriage has increased for the recent cohort of young adults (Mare 1991). Research on the labor market shows that an increasing proportion of young men in the recent cohort spend more time in the economic circumstances that are characterized by lower earnings and employment instability that hinder the establishment of an independent household and commitment to a long term relationship. The impacts of labor market changes on men's career entry and labor market mobility are greater for men who do not complete college.

81

Because more than 60% of men's lifetime wage growth occurs over the first decade and a half of their career (Murphy and Welch 1990), a downward shift in the wage trajectories due to a lack of upward mobility during this life stage translates into even larger lifetime wage losses. Because men's long run economic prospects play a large role in marriage formation, marriage declines since the 1970s could be a direct consequence of labor market restructuring. The estimated increases in the rates of nonmarriage among less educated men (Goldstein and Kenny 2001) perhaps are due to a permanent loss in their lifetime earnings leading to a reduction in their ability to set up an independent household.

Although the timing of the shift toward later and less frequent marriage corresponds to labor market restructuring which not only delays labor market entry for young men but also prolongs their transition to a career job, there are few studies using the career-entry perspective to examine the labor market causes of marriage declines. In fact, virtually all studies of marriage trends among men rely on cross-sectional data which, though good for assessing longer trends, cannot evaluate the long term effects of men's labor market characteristics on marriage, which arguably play a much more important role in marriage formation than men's socioeconomic characteristics at a particular point of time. Moreover, because the effects of labor market restructuring on men's socioeconomic status are most likely to be reflected in their labor market mobility, using cross-sectional data to examine marriage trends sheds little light on the effects of labor market restructuring on marriage declines. In addition, previous analyses of marriage trends do not examine differences by education. Because the timing of labor market entry and the pattern of mobility process vary by education, and labor market

restructuring has a larger effect on the less educated, the aggregate trends of marriage declines mask any educational differences in lower marriage rates and their relationship to labor market restructuring. In fact, Moffitt (2000) argued that marriage declines that could be attributed to the effects of labor market restructuring on men's career entry and their ability to establish an independent household vary by schooling groups. In the analyses that follow, I use longitudinal data which follow two birth cohorts in their transition to adulthood to examine the effects of labor market restructuring and changes in men's career entry on the shift toward later and less frequent marriage among the recent cohort of men. I first examine changes in the transition to marriage after men complete formal education and enter the labor market. I then assess educational differences in the influences of labor market restructuring and changes in men's career entry on the shift toward later and less frequent marriage among the recent cohort of men.

DATA AND MEASUREMENT

The analyses are based on data from two birth cohorts: The National Longitudinal Surveys of Young Men (NLSYM) and the National Longitudinal Surveys of Youth 1979 (NLSY79). The NLSYM began in 1966 for 5,225 nationally representative civilian young men, ages 14 to 24. These young men were interviewed 12 times until the survey ended in 1981. The NLSY79 is a nationally representative sample of 6,308 young men who were 14-22 years old when they were first interviewed in 1979. In the following years, these young men were interviewed annually through 1994 and biennially thereafter. This study uses information collected between 1979 and 1994 to make the length of observation comparable between these two cohorts, both covering the life stage

83

during which young adult men move from school into labor markets, build careers and enter into marriage. The two cohorts of young adult men came of age in different economic contexts. The older cohort came of age at the tail of the economic boom since World War Two, while the younger cohort came of age during the economic restructuring of the late 1970s and the 1980s.

Both surveys contain detailed and comparable information on demographic characteristics, educational experiences, marital and fertility histories, work histories, and other labor force information such as hours worked, earnings, occupation, industry, benefits, and other job characteristics, allowing for examination of the relationship between the timing of marriage and labor market mobility outcomes. In addition, because the two birth cohorts came of age in different economic contexts and because the recent cohort of young adult workers are the first generation that experience the economic restructuring in full length, according to the career-entry perspective, the later and less frequent marriage among the recent cohort of men partly reflects the impacts of economic restructuring, which makes it increasingly difficult for the recent cohort of men to securing a job that pays sufficient income to enable them to establish an independent household and to support a family.

These data are collected in an event history format, with dates collected for the beginning and ending of each life course event that mark the transition to adulthood. The goal of the study is to examine the impacts of labor market restructuring on the shift towards later and less frequent marriage among the recent cohort of men. The time dimension that is used to measure labor mobility outcomes and career development is the

84

number of years since completing formal education for the first time.[4] The timing of

marriage is measured in terms of years between formal school completion and first

marriage. I impose three restrictions on the full NLSY79 and NLSYM samples. First, I

limit my analysis to blacks and non-Hispanic whites, because the numbers of cases for

Asians, Hispanics and other minorities are too small to obtain reliable statistical

estimation and their marital behaviors probably are different from blacks and non-

Hispanic whites. Second, because it is difficult to identify the year of marriage when it

happened before the first interview, young men who were already married when the

survey started are excluded from the analyses, including 458 men from the NLSY79 and

992 males from the NLSYM. Third, young adult men whose marriage occurred before

they entered the labor market are also excluded from the analyses, because their timing of

marriage is probably based on their expectations on future labor market outcomes rather

than their actual labor market mobility outcomes. This includes 138 young men from the

recent cohort and 234 young men from the older cohort. These young adult men are

more likely to live in the South and be whites.[5] Their parents receive more education

than the parents of those who married after completing formal education.[6] The final

---

[4] If the number of years of schooling is the same for three consecutive years, the respondents are considered to have completed formal schooling and formally entered the labor market in the first year. For young men who entered the labor market before the first interview, the year they completed formal schooling is the year they achieved the highest level of schooling.

[5] For the older cohort of men who married before they complete formal schooling, 17% are blacks and 43% live in the South, while the respective figures are 30% and 42% for those who married (if at all) after completing formal education. For the recent cohort of men who married before completing formal schooling, 12% are blacks and 38% live in the South, while for those who married (if at all) after completing formal schooling, 28% are blacks and 36% live in the South.

[6] For the older cohort of men, the mean numbers of years of schooling are 11 for both mother and father for those who married before they complete formal schooling, while the respective figures are 10 for both mother and father for those who married (if at all) after they complete formal schooling. For the recent cohort of men, the mean numbers of years of education are 13 for father and 12 for mother for those who married before they complete formal schooling, while the respective figures are 11 for both mother and father for those who married (if at all) after completing formal education.

sample includes 5,442 black and white men from NLSY79 and 3,946 black and white

men from NLSYM.

TRANSITION TO MARRIAGE

To examine changes in the timing of marriage, the data are arranged in a person-year file.

The time dimension that is used to measure the timing of marriage is the number of years

out of school. Each year out of school is a risk set that includes individuals who are

neither married nor censored. The full data set is made up of all the risk sets. The unit of

analysis is the person-year rather than the individual respondent. Those who marry

during a year are coded as 1 for that year and those who do not marry during the year are

coded as 0 for that year. The number of observations that each individual respondent

contributes to the data is equal to the number of years they are observed between

completing formal schooling and the year they get married or are censored.[7] Because

each educational group entered the labor market at different points in their life course and

followed different patterns of labor market mobility, to examine educational differences

in the relationship between labor market restructuring and marriage declines, I divide the

sample into four educational groups: high school dropouts, high school graduates, men

with some college education, and men who have completed college. In this study, I focus

on men's transition to marriage in the first fifteen years following their completions of

formal schooling for two reasons. First, because most marriages occur in the first fifteen

---

[7] The pooling of person-years results in a number of person-periods for analysis that is much higher than the original number of respondents. The increased number of observations does not affect our measures of statistical significance (Peterson 1986). Using person-years as the unit of analysis produces an accurate, unbiased representation of the discrete time hazard of marrying (Allison 1982). This discrete time approach creates no special disadvantages relative to a continuous time approach (Allison 1982).

years or so since men complete schooling (Oppenheimer 2000), if labor market restructuring is responsible for marriage declines among the recent cohort of men, this labor market delaying effect is most likely observed in this time period. Second, because nearly two-thirds of men's wage growth is concentrated on the first fifteen years of men's career, if labor market restructuring means a permanent reduction in men's lifetime earnings, observed marriage delays among the recent cohort of men imply an increase in the proportion of men who will never marry.

Reflecting an increase in the flexibility offered to students (Fitzpatrick and Turner 2007), men in the recent cohort use more time to finish school, but the age differences between the cohorts at completion are less than one year.[8] The main reason for later and less frequent marriage among the recent cohort of men is their slower pace of transition to marriage after completing formal schooling. Figure 3.1 presents the life table estimates of the changes in the proportion of young adult men who are ever married by year out of school. Marriage is almost universal among the older cohort of men. Nearly 95% of white male high school graduates and men with some college education and 90% of white male high school dropouts and men with four-year college or more education in the older cohort have ever married by the fifteenth year or so of their career times. But this pattern of nearly universal marriage does not hold for the recent cohort of men. As can be seen from the figures, young adult men of all schooling groups in the recent cohort have delayed their marriages, and the magnitude of marriage delays is greatest among

---

[8] The mean ages of completing formal education are 17.91 for high school dropouts in older cohort and 18.72 for high school dropouts in the recent cohort, 18.10 for high school graduates in older cohort and 18.79 for high school graduates in the recent cohort, 20.11 for men with some college education in older cohort and 20.94 for men with some college education in the recent cohort, and 22.81 for four-year college educated men in older cohort and 23.41 for four-year college educated men in the recent cohort.

high school dropouts and blacks. For some segments of noncollege educated men in the recent cohort, marriage delays are likely nonmarriage. This especially applies to noncollege educated black men. For example, the proportion of high school dropouts in the recent cohort who have ever married by the fifteenth year of their career times has deceased from 93% to 73% for white men, and decreased from 84% to 38% for black men. For the recent cohort of young men who have completed college, marriage transition is slowing over the early career. But this marriage postponement does not seem to result in a decrease in the proportion ever marrying. By the fourteenth year of their career times, differences in the proportion of young adult men who are ever married between the older cohort and the recent cohort virtually disappear. For both cohorts, about 90% men who have completed college have married at least once fifteen years or so after they completed formal schooling for the first time.

Consistent with previous study (Oppenheimer, Kalmijn, and Lim 1997), more educated men make the transition to marriage at a faster speed than less educated men. As changes in labor market returns to education since the late 1970s become increasingly unfavorable to the career development of the less educated, educational differences in men's pace of transition to marriage have increased. Less educated black men are more vulnerable to the adverse shift in labor market opportunities for the less educated (Holzer 2009). Thus, although white men are more likely than black men to be ever married within each educational group, this black-white difference has dramatically increased among the recent cohort of men, leaving noncollege educated black men the least likely to be ever married among all demographic groups.

[Figure 3.1 is inserted here]

MEASUREMENTS AND STRATEGY OF ANALYSES

To examine the impacts of labor market restructuring on the shift in the timing of

marriage, I use a discrete-time-event-history methodology (Allison 1995). The data

format is the same as that used for the life-table estimates of the changes in the proportion

of young adult men who are ever married by years out of school. The time dimension

that is used to measure men's transition to marriage is the number of years between when

they complete formal schooling for the first time and when they get married or are

censored. This specification of the time dimension has two advantages for studying the

relationship between labor market restructuring and marriage declines. First, using men's

years out of school as the time dimension is substantively more appealing than age,[9]

because from the career-entry perspective, marriage is a social event whose timing is

largely a function of men's career entry.[10] Marriage declines since the 1970s arguably

arise from labor market restructuring which reduces young adult men's ability to secure a

career job enabling them to establish an independent household. The second advantage is

statistical. When the time dimension that is used to measure the timing of marriage is

defined in terms of the number of years young adult men spend in the labor market, the

estimated effect of time absorbs all dimensions of changes in men's socioeconomic status

---

[9] Previous studies on the economic causes of marriage declines use age as the measure of time to examine
the relationship between men's socioeconomic characteristics and marriage formation. The stage of career
is defined in terms of school enrollment, hours and weeks worked, employment status, earnings, and job
stability. The underlying assumption is that age-related differentials in these measures of men's
socioeconomic status lead to age differences in the timing of marriage.

[10] Although men's probabilities of marrying increase with age at young adulthood, they increase much
faster after men enter the labor force because men usually marry after they completed formal schooling and
entered the labor force (Hogan 1980). For example, marriage rate is highest for high school dropouts in
their early twenties but then declines in later ages. For high school and college graduates, however,
marriage rate is low at younger ages, and then rises and surpasses that of high school dropouts by age 30
(Moffitt 2000).

in the career entry. It can be used as a baseline against which to measure the marital

timing effects of particular dimensions of men's career entry.

The dependent variable is a dummy. Those who marry during a year are coded as

1 for that year and those who do not marry during the year are coded as 0 for that year.

The independent variables are cohort, years out of school and four time-dependent

measures of men's career cycles, including enrollment, employment status, weekly hours

worked, and annual earnings. I use eight dummy variables to capture the effect of career

time for men who have not completed college at the time of entering the labor market and

seven dummy variables for men who have completed college. This specification enables

me to have sufficient numbers of observations for any given year out of school to obtain

reliable estimates of the coefficients of interest, while adequately accounting for the

effects of the years out of school. Parental educational attainment,[11] race, age and

whether or not the respondent lives in the South have been found to affect men's timing

of marriage. I include these variables as statistical controls, so that the relationship

between labor market restructuring and the shift in the timing of marriage will not be

confounded due to changes in the distributions of these control variables.

I use a set of logistic regressions to examine the impacts of labor market

restructuring and changes in men's career entry on later and less frequent marriage

---

[11] In their study of the effects of parental educational attainment on their children's timing of marriage, Axinn and Thornton (1992) added father's educational attainment and mother's educational attainment together to estimate the effect of the total levels of parental educational attainment. This specification, though avoids the collinearity problem that may arise from the high correlation between father's educational attainment and mother's educational attainment, it prevents us from testing the possibility that the effect of father's educational attainment on men's timing of marriage differs from that of mother's educational attainment. In this study, the correlation between mother's educational attainment and father's educational attainment is less than .6, so collinearity is less problematic. I therefore include both mother's educational attainment and father's educational attainment in the regression to test the possibility their effects on men's timing of marriage are probably different.

among the recent cohort of men. The analyses are conducted separately by levels of educational attainment. In Model 1, cohort, years out of school, race, parental educational attainment, and whether or not the respondent lives in the South are included in the model. For the noncollege educated, I also include an interaction term between cohort and race to account for the fact that less educated blacks are more vulnerable to labor market restructuring and experience greater marriage declines since the 1970s. If the timing of marriage has shifted toward later age, the coefficient for cohort is expected to be statistically significant. In Model 2, a series of interactions between cohort and years out of school are included to account for the possibility that the effects of career time on the timing of marriage vary between the older and the recent cohort. From Model 3 to Model 5, I gradually add measures of men's career cycles. Table 3.5 reports the labor market mobility outcomes for the first fifteen years or so of men's careers. If later and less frequent marriage that are observed among the recent cohort of men are due to the increasing difficulties men in the recent cohort have in career entry and labor market mobility, the coefficients for the interactions between cohort and career time are expected to become less negative as we move from Model 2 to Model 5. Because the goal of this study is to measure the total effects of labor market restructuring on marriage declines, I do not consider the possibility that the marriage timing effects of measures of men's career entry vary across the life course.[12] In other words, the estimated effects of

---

[12] One common feature of the economic models of marriage is that age is the matrix of time. The relationship between socioeconomic resources and marriage formation is examined separately for early, middle, and late ages at marriage. The underlying assumption is that the relationship between men's socioeconomic characteristics and marriage formation is conditional on the normative pressure on marriage, which varies over the life course (Waite and Spitze 1981). Changes in the effects of men's socioeconomic characteristics on marriage across the life course are used to examine the extent to which marriage declines since the 1970s represents marriage delays or nonmarriage (Raymo 2003). With gradual erosion in the normative imperatives for men to marry, this analytical approach to studying the relationship

men's socioeconomic characteristics are the average effects of men's socioeconomic characteristics over the first fifteen years or so of their work careers. In Model 6, I include the interactions between cohort and measures of men's career entry. This is motivated by previous study which shows that the marriage timing effects of men's socioeconomic characteristics have changed over time (Sweeney 2002). The changes in the coefficients for the interactions between cohort and career times from Model 5 to Model 6 are due to changes in the marriage timing effects of men's socioeconomic characteristics over time. Table 3.1 and Table 3.2 present the regression results for high school dropouts and high school graduates, respectively, and Table 3.3 and Table 3.4 for men with some college education and men who have completed college, respectively.

RESULTS

Consistent with previous studies, white men are more likely to marry than black men. For noncollege educated men, this black-white difference in the timing of marriage has increased over time, as indicated by the negative and statistically significant coefficients for the interaction between race and cohort in Model 1 of Table 3.1 and Table 3.2. Noncollege educated black men in the recent cohort becomes increasingly less likely to marry relative to their white counterparts. Older men and men living in the South face more social imperatives to marry and thus marry earlier. The age effect, however, is only statistically significant for noncollege educated men. The effects of parental educational attainment on the timing of marriage vary by schooling groups. Neither father's

---

between men's socioeconomic characteristics and marriage formation may not be justified. Moreover, the breakdown of marriage ages in these analyses is based on an ideal age of marriage, which may become less relevant as men's age of first marriage has increased considerably since the early 1970s.

educational attainment nor mother's educational attainment is associated with the likelihood of marrying for men who have some college education or more. These findings are consistent with the interpretation that college educated men are more mature and independent and therefore less likely to be affected by their parents when making their martial decisions. They are also more likely to live away from their parents, which further reduces parents' ability to influence their timing of marriage. In contrast, noncollege educated men seem to be less mature and more dependent on their parents. Father's educational attainment is negatively associated with men's likelihood of marrying. This marriage delaying effect of father's educational attainment is consistent with the interpretations that more educated parents have higher expectations for their children; they will use their resources to encourage them to delay marriages (Axinn and Thornton 1992). Children from a more advantaged family background are also more likely to internalize higher consumption aspirations and delay their marriages until they are more established in the labor market (Axinn and Thornton 1992). In contrast, as noted by Goldscheider and Waite (1991), mother's educational attainment likely reflects the marriage market positions of noncollege educated men. More educated mothers probably are being able to bring more resources to their less educated sons, which broadens men's marriage market to include both modern and traditional women, facilitating marriage formation. Consistent with the previous finding of a reverted-U shape relationship between time to marriage and men's likelihood of marriage (Xie et al. 2003), men's probability of marriage first increases after they complete formal education and then decreases. The rate of decrease is greatest for men who have completed college.

In Model 2, a set of interactions between cohort and years out of school are added to Model 1 to account for the possibility that changes in men's career entry and labor market mobility have changed the timetables for the transition to marriage. Among men who did not complete college, the recent cohort of men has a lower likelihood of marriage in any given year of their first fifteen years of career, as suggested by the negative coefficients for cohort and the interactions between cohort and years out of school. In contrast, although the recent cohort of men who have completed college follows a slower pace of transition to marriage in early career, as suggested by the negative and statistically significant coefficient for cohort in Table 3.4, the speeds of transition to marriage are accelerated as time spent in the labor market increases. The latter point is indicated by the positive and statistically significant coefficients for the interactions between cohort and years out of school, which increase with the time spent in the labor market. So if most marriages continue to occur in the first fifteen years of men's career, the slower pace of transition to marriage for the recent cohort of noncollege educated men implies a permanent reduction in the proportion eventual marrying. For college graduates, to the contrary, there seems no evidence of changes in the percentages eventual marrying over time.

In the following models, I progressively add measures of men's career cycles. If the postponement of marriage among the recent cohort of men is due to the difficulties they encountered in career entry, the negative coefficients for the interactions between cohort and career times are expected to become less negative in subsequent models.

In Model 3, I add men's enrollment status. Consistent with previous findings, men who are enrolled in school are less likely to marry. Reenrollment is more common

94

among the recent cohort of men who have not graduated from college, as can be seen from Table 3.5. It plays an important role in marriage postponement for noncollege educated men in the recent cohort. When men's enrollment status is taken into account in Model 3, the coefficients for the interactions between cohort and career times become somewhat less negative for all educational groups except for men who have completed college. In other words, financial costs and the efforts that are associated with school enrollment partly explain why the recent cohort of men has a slower transition to marriage.

In addition, despite more time spent on human capital investment after entering the workforce, the wage trajectories for noncollege educated men in the recent cohort suggest a permanent wage loss due to lower wage appreciation relative to older cohort. Figure 3.2 presents the growth curve estimates of the wage trajectories for young adult men who did not go beyond high school. Their frequent reenrollment in school after having completed a degree and entering the workforce, though partly reflecting an expansion of high educational opportunities and an increasing awareness of the importance of educational attainment for labor market success, most likely reflects their unhappy labor market experiences and a weak attachment to an unrewarding low-wage labor market.

[Figure 3.2 is inserted here]

Men who returned to school are more likely to be part-time students. In order to estimate the impact of changes in men's employment opportunity on marriage postponement for the recent cohort of men, employment status and hours worked per week are included in Model 4. As expected, men who have a job and work more hours

95

per week are more likely to be married. Deterioration in men's employment opportunities partly explains why the recent cohort postpones their marriages. For all educational groups except men who have completed college, the negative coefficients for the interactions between cohort and career times decrease in their absolute values as we move from Model 3 to Model 4. The magnitudes of the decreases are greatest for the two noncollege educated groups. In fact, as shown in Model 4 of Table 3.1, after controlling for men's employment status and hours worked per week, none of the coefficients for the interaction between cohort and career times are statistically significant for high school dropouts. In addition, due to the high correlations between school enrollment and employment status, the coefficient for school enrollment greatly decreases and becomes statistically insignificant for nearly all regression equations. For the recent cohort of men who have completed college, however, reenrollment and employment status are unrelated to their postponement of marriage. As we move from Model 3 to Model 4, the coefficients for the interaction between cohort and career times barely change. In fact, as shown in Table 3.5, the recent cohort of men who have completed college are more likely to have a job and work more hours in any given year of their first fifteen years of career.

Reenrollment, unemployment and underemployment are negatively associated with men's likelihood of marriage partly because they depress earnings. So when I include men's annual earnings in Model 5, the coefficients for employment status greatly decrease, but remain statistically significant. This remaining effect of men's employment status is consistent with the interpretation that in addition to resources needed for forming and maintaining an independent household, employment also indicates the beginning of a lifetime of essentially continuous employment for men (Goldscheider and Waite 1991).

96

The coefficients for the interactions between cohort and career times become less negative, implying that in addition to the deterioration of young men's employment opportunity, other labor market changes which depress the wage growth for the less educated and the young also play an important role in the postponement of marriage for the recent cohort of men.[13]

In addition to the increasing difficulties of career entry, marriage declines since the 1970s could also arise from changes in the marriage timing effects of men's socioeconomic characteristics. I therefore include a series of interactions between measures of men's career cycles and cohort in Model 6. As expected, except for men who have completed college, the coefficients for the interactions between cohort and career times become less negative as we move from Model 5 to Model 6. For the noncollege educated, this is mainly due to a reduction in the effects of wages on the timing of marriage as suggested by the negative and statistically significant coefficient for the interaction between log(annual wages) and cohort in Model 6 of Tables 3.1 and 3.2; for men who have some college education, it is due to an increase in the importance they place on financial status when making marital decisions as indicated by the positive and statistically significant coefficient for the interaction between log(annual wages) and cohort in Model 6 of Table 3.3. This observation of educational differentials is consistent with the interpretation that there is a threshold wage effect on the timing of marriage (Blau, Kahn, and Waldfogel 2000). For men who did not go beyond high school, labor

---

[13] Indeed as shown in both Table 3.5 and Figure 3.2, noncollege educated men in the recent cohort have experienced permanent wage loss. In any given year of their first fifteen years of career, noncollege educated men in the recent cohort earn less than their older cohort counterparts. For high school graduates, in addition to a lower level of wages, the rate of wage growth seems to have slowed down. Although there is no evidence of changes in lifetime wages for college educated men in the recent cohort, the quality of entry-level jobs seems to have deteriorated. College educated men in the recent cohort earn less when they first enter the labor market.

market restructuring makes it increasingly difficult for their wage trajectories to cross the threshold of wages which are necessary to establish and maintain an independent household. To some extent, their marriage declines reflect a decrease in their response to their below-threshold wages when making decisions on the timing of marriage. For men who have some college education, to the contrary, the marriage timing effects of men's socioeconomic characteristics become more important, a finding that is consistent with previous study (Sweeney 2002). In another words, although the recent cohort of men with some college education did not experience a decline in their earnings trajectories, rising expectations about living standards, lifestyles and consumption have led to an increase in the importance they place on socioeconomic factors in their marital decision. Their marriage delays then probably reflect the tendency of the recent cohort of men with some college education to postpone their marriage until they are more able to afford certain standards of livings.

Nevertheless, although career-cycle variables account for a substantial proportion of marriage delays and less frequent marriage among men in the recent cohort, especially for the noncollege educated, they cannot completely account for why the recent cohort of men postponed their marriages. Except for high school dropouts, some of the coefficients for the interaction between cohort and career times remain statistically significant.

[Table 3.1 is inserted here]

[Table 3.2 is inserted here]

[Table 3.3 is inserted here]

[Table 3.4 is inserted here]

98

[Table 3.5 is inserted here]

DISCUSSION

Labor market restructuring that lengthens men's career entry has long been considered one of the most important factors responsible for marriage declines since the 1970s. In this study, I use two birth cohorts from the National Longitudinal Surveys and examine how changes in men's career entry over time affect marriage formation and its educational differentials. My analyses show that increased difficulties the recent cohort of noncollege educated men have encountered in career entry play an important role in marriage declines among them. Shifts in labor market rewards to education are increasingly unfavorable to men without any college education, making their transition from student to worker incomplete. Noncollege educated men in the recent cohort are more likely to reenroll in school in response to an unrewarding labor market. They earn less than their older cohort counterparts in nearly every single year of their first fifteen years of career. Because nearly 60% of men's lifetime earnings are concentrated on the first fifteen years of career (Murphy and Welch 1990), a flatter and lower earnings profile mean a permanent reduction in lifetime earnings. For a large segment of noncollege educated men in the recent cohort, this permanent loss of lifetime earnings probably leads marriage delays to be nonmarriage.

For the recent cohort of men with some college education, marriage delays are mainly due to extended schooling. Although reenrollment depresses current earnings, in contrast to the noncollege educated, however, rises in labor market rewards to higher education warrant long-term economic payoffs. There is no evidence of significant

99

changes in men's lifetime earnings for the recent cohort of men with some college education. So if men's long run economic potentials determine their likelihood of eventual marrying, frequent reenrollment among the recent cohort of men with some college education, though delaying marriage, will not necessarily decrease the proportion eventual marrying among them. The recent cohort of men who have completed college also delayed marriage, but the proportion eventually marrying has not decreased. In contrast to the other three educational groups, marriage delays for college educated men in the recent cohort are not related to changes in men's career entry.

In addition to labor market restructuring, marriage declines since the 1970s also reflect a shift in the effects of socioeconomic characteristics on marriage formation. For men who did not go beyond high school, labor market restructuring makes it increasingly difficult for their wage trajectories to cross the threshold of wages which are necessary to establish and maintain an independent household. To some extent, their marriage declines reflect a decrease in their response to their below-threshold wages when making decisions on the timing of marriage. For men who have some college education, to the contrary, rising expectations about living standards, lifestyles and consumption have led to an increase in the importance of men's socioeconomic characteristics for marriage formation. They are more likely to delay marriage until they are being able to afford certain standards of living.

For both college educated and noncollege educated men, the remaining significant coefficients for the interaction between cohort and career times suggest that it is quite possible that my measures of career entry do not fully capture the effects of changes in labor market opportunities for young adult men. One noticeable change in young men's

100

labor market activity is shorter job tenure, more frequent job shifting, and less mobility (Fitzpatrick and Turner 2007). This more fluid pattern of labor market mobility has been observed for both college and noncollege educated men. It partly reflects a change in employment relationship which becomes increasingly unfavorable to young workers, and partly reflects an increase in job expectations among the recent cohort of young adult men which necessarily requires more job experimentation and sometimes returning to school to retrain labor market skills. Other aspects of changes in economic conditions such as rises of housing and transportation costs (Yelowitz 2007), combined with a rise in the expectation about the standard of living, add additional barriers for the recent cohort of young adults to establish and maintain an independent household.

But given that Hill and Holzer (2007) also found labor market restructuring plays a less important role in marriage declines, future studies of marriage declines should consider noneconomic factors. There are several noneconomic factors that are particularly worth mentioning. First, the pervasiveness of divorce greatly challenged the traditional meaning of marriage as a lifetime guarantee of emotional security. It erodes the confidence in the survival of one's marriage and deters marriage for a portion of children growing up in a single parent family (Goldscheider and Waite 1991). The protracted transition to marriage for the recent cohort of men then reflects not only the difficulties the recent cohort of men have encountered in career entry, but also the possibility that men in the recent cohort spend more time searching for a mate in order to improve the quality of the match. Given that men benefit more from marriage and lose less when it dissolves, women are particularly aware of the risks of marital dissolution. Observed marriage declines may reflect the increasing reluctance of the recent cohort of

101

women to marry when they are not established in the labor market. Indeed, the low-income single mothers in Edin's (2000) ethnographic study explicitly express their worries that an earlier marriage will lead them to lose the opportunities to accumulate labor market experiences and skills that are necessary to support themselves and their children in case their marriage dissolves. For these low-income women, motherhood is a more secure route to obtain adult status than a risky marriage.[14]

Second, cohabitation complicates the process of marriage formation. Social scientists disagree on the role cohabitation plays in later and less frequent marriage since the 1970s. Their disagreements partly reflect the heterogeneous nature of cohabiting unions. Some scholars argued that since cohabitation emerges on the boundary of marriage in the context of marriage deinstitutionalization (Cherlin 2004), cohabitation should be interpreted an alternative form, or a substitution, for formal, legal marriage.[15] Declining marriage rates since the 1970s are an artifact of one form of marriage (legal marriage) being replaced by another form (cohabitation) (Schoen 1989).[16] This interpretation probably most applies to noncollege educated men, as they are the segment of population who are more likely to use cohabitation to replace early marriage (Bumpass, Sweet, and Cherlin 1991). In the 1980s, the era when marriage rates declined

---

[14] In a recently published Time magazine article, 22% of young adults in the most recent cohort consider having a child as a marker of adulthood, while only 14% consider getting marriage as a marker of adulthood.

[15] A variety of factors has been emphasized to lead cohabitation to substitute for marriage, including increasing individualism (Lesthaeghe 1995; Thornton, Axinn, and Hill 1992), gender-role liberation which makes traditionally defined marriage less attractive to women (Clarkberg, Stolzenberg, and Waite 1995), and reducing gains to marriage arising from women's rising employment (Becker 1981).

[16] Declining marriage rates temporally coincide with the rises in cohabitating unions so that the sharp declines in marriage rates have been largely offset by increasing cohabitation. Between 1970 and 1980, cohabitating unions compensate for 60% and 67% of marriage declines for young adults aged twenty and twenty-five, respectively (Bumpass, Sweet, and Cherlin 1991).

the most, sharp increases in cohabitation offset the declines in first marriage rates the most for noncollege educated men (Bumpass, Sweet, and Cherlin 1991).

Several other scholars, to the contrary, contended that cohabitation is a stage in the mate-selection process rather than a substitute for marriage (Seltzer 2000).[17] Cohabitation has not reduced the desirability of marriage (Hill and Yeung 1997; Thornton 1989). What perhaps has changed is the meaning of marriage, leading to an enhanced status of marriage. For the recent cohort of young adults, marriage is no longer a mere marker of adulthood, but increasingly represents a milestone that incorporates several dimensions of human development. Young adults enter cohabitation for a variety of reasons. Some young adults use cohabitations to "try out" marriage in response to uncertainties about personal compatibility and the socioeconomic characteristics of one or both partners (Oppenheimer 2003), while other types of cohabitations may signify an engagement. In the latter case, the rise in cohabitation simply represents an increasing tendency for the recent cohort of young adults to start cohabitation once they become engaged, which inevitably lengths the transition to marriage. Given that cohabitation has also declined after the early 1980s (Sweet, Bumpass, and Call 1988), Bumpass (1990) argued that the parallel changes in cohabitation and marriage imply that cohabitation is part of, and contributes to marriage delays.

---

[17] Several pieces of evidence have been used to argue against treating cohabitation as a substitute for marriage. (1) Except for periodic interruptions, the baby boom, marriage rates have declined monotonously historically, starting much earlier than the increases in cohabiting unions (Oppenheimer 1994). (2) Marriage rate declines far exceed cohabitation increases, so cohabitation cannot fully compensate for marriage rate declines. (3) Despite the many similarities between engagement-related cohabiting unions and marital unions, cohabitors resemble singles in many characteristics that have been found to negatively predict entry into marriage (Sweet, Bumpass, and Call 1988). Cohabitors are also more likely to identify themselves as never married and less likely to identify their cohabiting partners as spouses (Rinfuss and VandenHeuvel 1990). Most cohabiting couples expect and eventually marry their cohabiting partners (Lichter et al. 1992).

Finally, observed marriage declines since the 1970s could also reflect a shift in social norms about women's work and family roles. The post-1970 years represent an era of an ongoing revolution that has fundamentally transformed women's employment, education, and family (Goldin 2006). Social stigma about married women working outside home is gradually removed. The recent cohort of young women more accurately anticipates their future work lives and takes their formal education more seriously. They place greater values on economic independence and perceive the costs of an earlier marriage for them to acquire market-relevant skills. Occupation and employment are important determinants of their identity and social worth. Women's decisions to work for pay are not only a function of wages and the incomes of their potential spouses, but also a function of their identity. For the recent cohort of young adults, marriage increasingly entails negotiations between two careers. This shift of women's locus of identity toward work and career is facilitated by the diffusion of contraceptive "pill" to single women and a decline in employer discrimination against women and singles. Moreover, with a larger group of single individuals and increasing values placed on women's labor market potentials in mate selection, it perhaps becomes desirable for the recent cohort of young adult women to delay marriages until they form identities in the market place.

CONCLUSION

This study uses two birth cohorts from the National Longitudinal Surveys to examine how changes in men's career entry over time affect marriage formation and whether the patterns differ across educational groups. My analyses show that the impacts of labor market restructuring on marriage declines vary across schooling groups. The greater

104

difficulties the recent cohort of noncollege educated men have encountered in career entry play an important role in marriage declines among them. For the recent cohort of men with some college education, however, marriage declines are mainly due to their more frequent reenrollment in schooling after having completed a degree and entered the workforce. The recent cohort of men who have completed college also delayed marriage, but their marriage delays are not related to changes in career entry. For both college and noncollege educated men, marriage declines since the 1970s also reflect a shift in the economic foundation of marriage formation, but the reasons vary by educational groups. For men who did not go beyond high school, labor market restructuring makes it increasingly difficult for their wage trajectories to cross the threshold of wages which are necessary to establish and maintain an independent household. To some extent, their marriage declines reflect a decrease in their response to their below-threshold wages when making decisions on the timing of marriage. Although the recent cohort of men with some college education did not experience a decline in their earnings trajectories, rising expectations about living standards, lifestyles and consumption have led to an increase in the importance they place on socioeconomic factors in their marital decision. Their marriage delays probably also reflect the tendency of the recent cohort of men with some college education to postpone marriage until they are more able to afford a higher standard of living.

Figure 3.1. Percentage ever married, by race and cohort

High School Dropouts

High School Graduates

Figure 3.1. Continued

Men with Some College Education

Legend:
— Older Cohort, White – – – Younger Cohort, White
······ Older Cohort, Black –··–· Younger Cohort, Black

Men with Four-year College Education

Legend:
— Older Cohort, White ······ Older Cohort, Black
–··–· Younger Cohort, Black – – – Younger Cohort, White

107
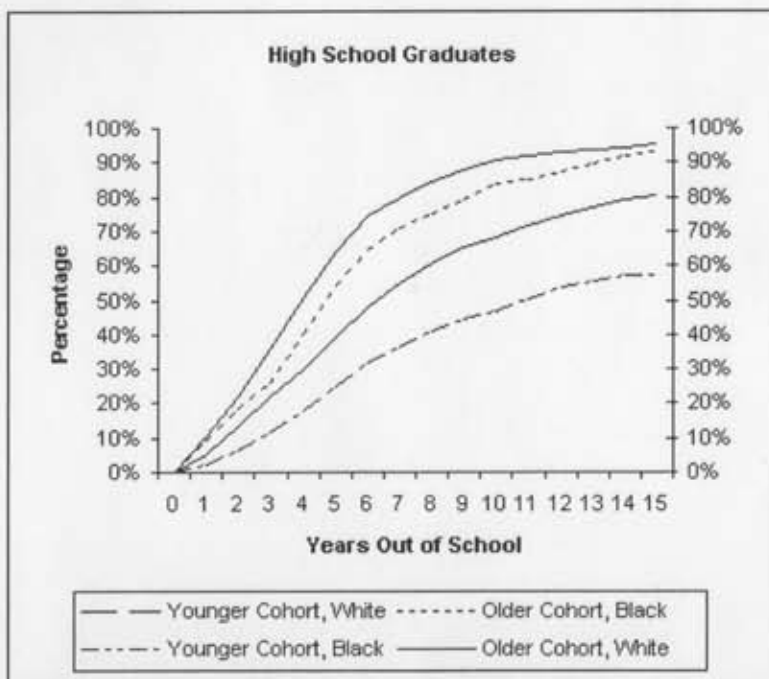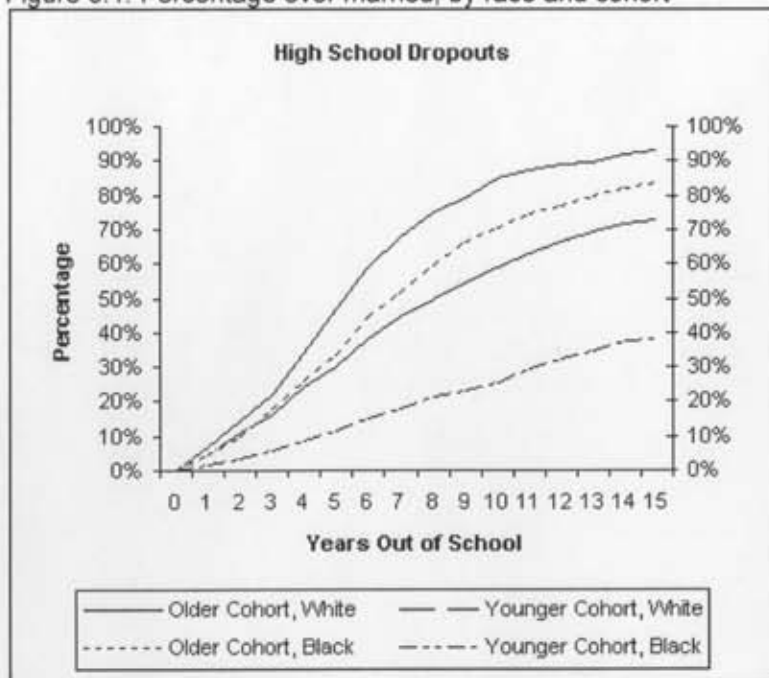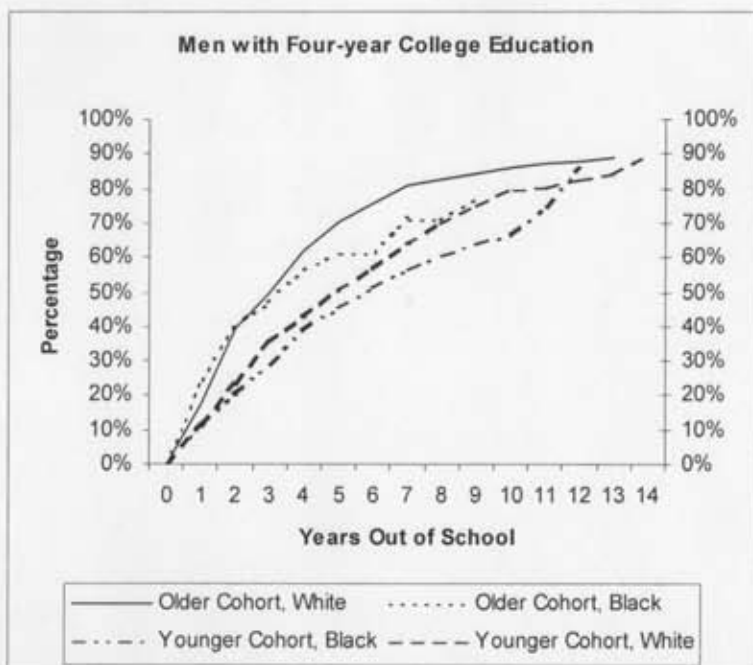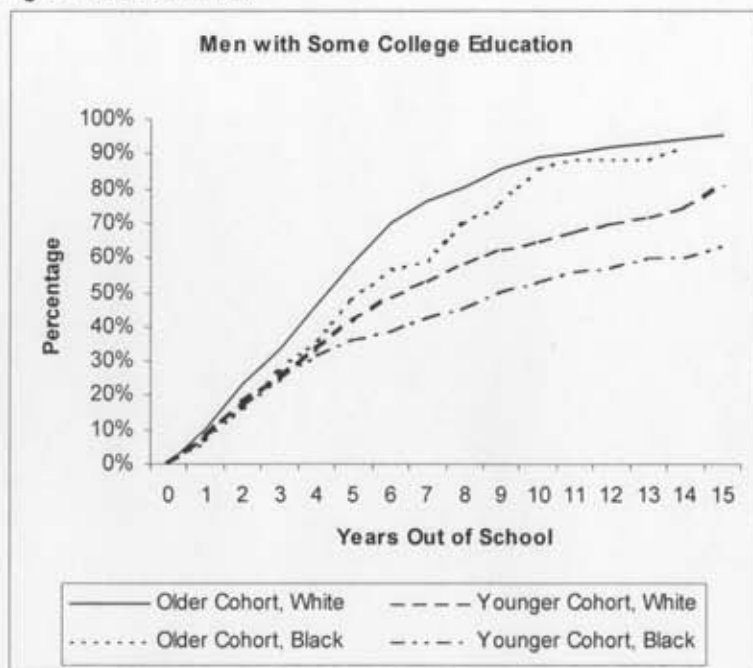
Figure 3.2 Growth Curve Estimates of the Wage Trajectories for Non-College Educated Men

Growth Curve Estimates of the Wage Trajectories for High School Dropouts

Figure 3.2 Continued

Growth Curve Estimates of the Wage Trajectories for High School Graduates

Annual earnings (in 1983 dollars) vs. Years out of school. Older cohort and Recent cohort.

Table 3.1 Logistic Regression Predicting the Probability of Marriage and the Impacts of Changes in Men's Career Entry on Marriage Declines, High School Dropouts

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Cohort (1=recent cohort)	-.804***	-.302	-.332	-.457	-.387	5.149***
	(.108)	(.339)	(.340)	(.345)	(.345)	(1.045)
Race (1=black)	-.619***	-.611***	-.614***	-.587***	-.562***	-.417***
	(.151)	(.152)	(.152)	(.153)	(.154)	(.158)
Race X Cohort	-.418**	-.427**	-.391*	-.390*	-.381*	-.532**
	(.206)	(.207)	(.207)	(.208)	(.208)	(.211)
Years Out of School (0-1=reference group)						
2-3	.629***	.648***	.554**	.413*	.376	.195
	(.197)	(.251)	(.254)	(.256)	(.256)	(.266)
4-5	.709***	.999***	.893***	.751***	.733***	.596**
	(.198)	(.253)	(.256)	(.258)	(.258)	(.270)
6-7	.820***	1.013***	.916***	.812***	.797***	.610**
	(.212)	(.264)	(.266)	(.277)	(.268)	(.277)
8-9	.401*	.782***	.681**	.531*	.525*	.319
	(.243)	(.299)	(.301)	(.302)	(.303)	(.311)
10-11	.337	.427	.324	.203	.219	.050
	(.276)	(.348)	(.350)	(.350)	(.350)	(.359)
12-13	-.188	-.740	-.837*	-.893*	-.829*	-.855*
	(.329)	(.497)	(.498)	(.495)	(.496)	(.503)
14-15	-.125	.072	-.032	-.157	-.097	-.169
	(.376)	(.481)	(.481)	(.481)	(.480)	(.490)
Years Out of School X Cohort						
2-3 X Cohort		-.264	-.190	-.086	-.110	.143
		(.407)	(.408)	(.410)	(.410)	(.418)
4-5 X Cohort		-.750**	-.672*	-.555	-.578	-.340
		(.393)	(.394)	(.397)	(.397)	(.406)

Table 3.1 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
6-7 X Cohort		-.581	-.525	-.436	-.452	-.116
		(.385)	(.386)	(.389)	(.389)	(.399)
8-9 X Cohort		-.858**	-.802**	-.645	-.667*	-.264
		(.407)	(.407)	(.411)	(.411)	(.422)
10-11 X Cohort		-.417	-.355	-.225	-.246	.168
		(.433)	(.434)	(.437)	(.438)	(.450)
12-13 X Cohort		.441	.481	.585	.509	.825
		(.554)	(.554)	(.556)	(.557)	(.566)
14-15 X Cohort		-.565	-.545	-.321	-.338	.021
		(.559)	(.559)	(.563)	(.563)	(.572)
Measures of Career Cycles						
Reenrollment (1=yes)			-.321**	-.214	-.213	.187
			(.135)	(.137)	(.137)	(.330)
Employment (1=yes)				.585***	.511**	.471*
				(.203)	(.204)	(.289)
Weekly hours worked				.014***	.013***	.014**
				(.004)	(.004)	(.007)
Log annual earnings					.103***	.643***
					(.030)	(.105)
Measures of Career Cycles X Cohort						
Reenrollment (1=yes) X Cohort						-.449
						(.362)
Employment (1=yes) X Cohort						-.268
						(.419)
Weekly hours worked X Cohort						-.001
						(.009)

111

Table 3.1 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Log annual earnings X Cohort						-.606 ***
						(.108)
Control variables						
Age	.084 ***	.082 ***	.083 ***	.072 ***	.062 **	.039
	(.024)	(.024)	(.024)	(.024)	(.025)	(.025)
Region (1=South)	.385 ***	.382 ***	.378 ***	.355 ***	.349 ***	.369 ***
	(.094)	(.094)	(.094)	(.095)	(.095)	(.095)
Father's years of schooling	-.026 *	-.026 *	-.025 *	-.026 *	-.026 *	-.025 *
	(.014)	(.014)	(.014)	(.014)	(.014)	(.014)
Mother's years of schooling	.027 *	.026	.029 *	.031 *	.031 *	.029 *
	(.016)	(.016)	(.016)	(.017)	(.017)	(.017)
Constant	-3.713 ***	-3.802 ***	-3.76 ***	-4.534 ***	-5.093 ***	-9.344 ***
	(.460)	(.473)	(.474)	(.510)	(.538)	(.969)
Numbers of Person-Years	5034	5034	5034	5034	5034	5034
-2 Log L	3658	3646	3640	3613	3598	3555

Notes: *p<.1   **p<.05   ***p<.01 (two-tailed tests)

112
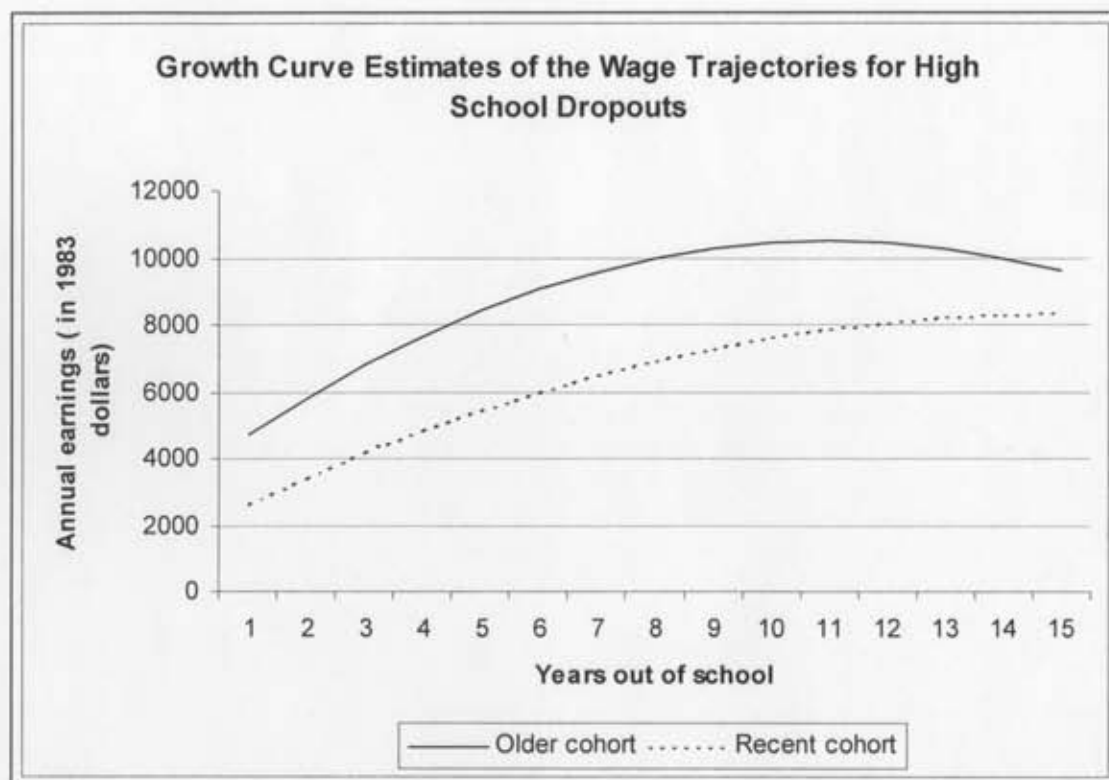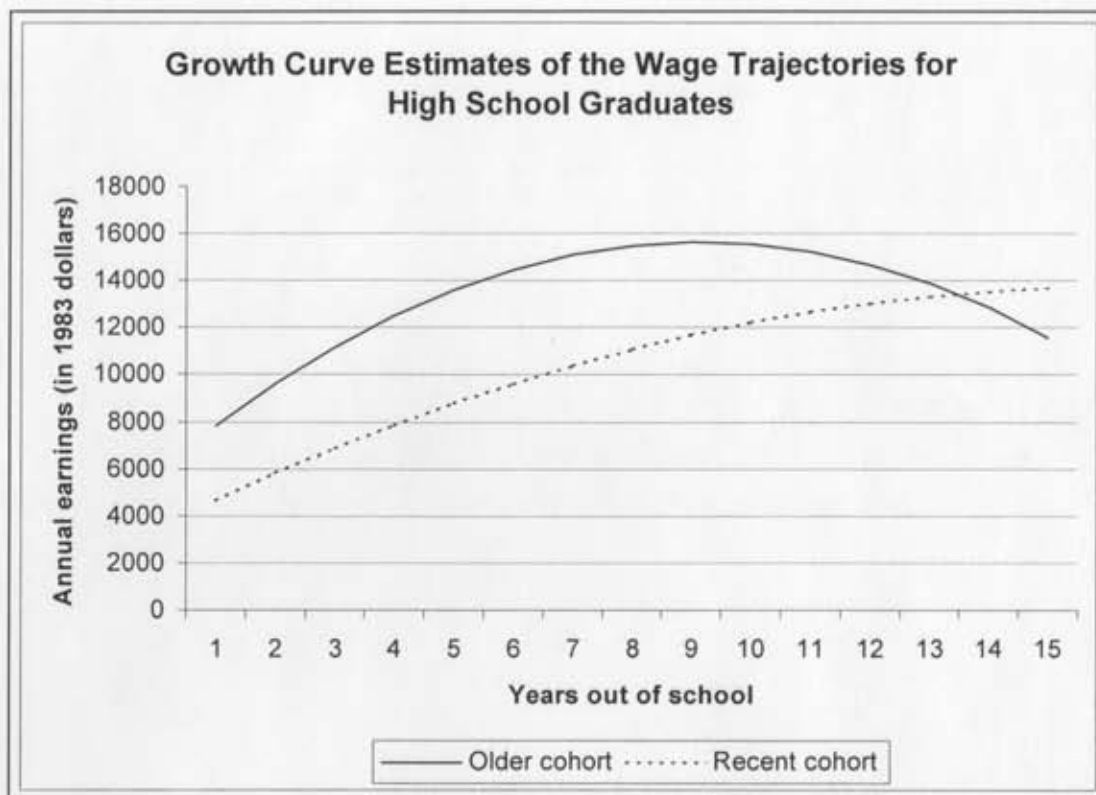
Table 3.2 Logistic Regression Predicting the Probability of Marriage and the Impacts of Changes in Men's Career Entry on Marriage Declines, High School Graduates

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Cohort (1=recent cohort)	-.958***	-.735***	-.742***	-.761***	-.719***	.445
	(.067)	(.157)	(.157)	(.158)	(.158)	(.579)
Race(1=black)	-.287**	-.293**	-.292**	-.276**	-.270**	-.255**
	(.121)	(.122)	(.122)	(.122)	(.122)	(.123)
Race X Cohort	-.589***	-.584***	-.587***	-.582***	-.564***	-.585***
	(.149)	(.150)	(.150)	(.150)	(.150)	(.151)
Years Out of School (0-1=reference group)						
2-3	.667***	.695***	.674***	.633***	.582***	.541***
	(.112)	(.150)	(.150)	(.150)	(.151)	(.152)
4-5	.859***	1.180***	1.163***	1.118***	1.074***	1.035***
	(.145)	(.179)	(.179)	(.179)	(.180)	(.182)
6-7	.865***	1.014***	.991***	.950***	.913***	.875***
	(.190)	(.227)	(.227)	(.227)	(.228)	(.229)
8-9	.547**	.571*	.550*	.547*	.534*	.516*
	(.246)	(.292)	(.293)	(.293)	(.294)	(.295)
10-11	.236	.277	.245	.216	.206	.179
	(.305)	(.370)	(.371)	(.371)	(.372)	(.373)
12-13	-.114	-.211	-.263	-.270	-.254	-.272
	(.368)	(.441)	(.442)	(.442)	(.443)	(.444)
14-15	-.609	-1.028	-1.087	-1.123	-1.065	-1.077
	(.471)	(.733)	(.733)	(.735)	(.735)	(.737)
Years Out of School X Cohort						
2-3 X Cohort		-.117	-.099	-.084	-.077	-.018
		(.197)	(.197)	(.198)	(.198)	(.200)
4-5 X Cohort		-.556***	-.546***	-.524***	-.517***	-.453**
		(.193)	(.193)	(.194)	(.194)	(.197)

113

Table 3.2 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
6-7 X Cohort		-.285	-.266	-.240	-.248	-.177
		(.204)	(.204)	(.205)	(.205)	(.208)
8-9 X Cohort		-.107	-.097	-.102	-.134	-.073
		(.237)	(.238)	(.238)	(.239)	(.241)
10-11 X Cohort		-.121	-.108	-.074	-.103	-.026
		(.286)	(.286)	(.287)	(.288)	(.291)
12-13 X Cohort		.107	.131	.142	.080	.157
		(.349)	(.349)	(.350)	(.350)	(.352)
14-15 X Cohort		.504	.538	.603	.495	.573
		(.696)	(.696)	(.697)	(.698)	(.700)
Measures of Career Cycles						
Reenrollment (1=yes)			-.346***	-.224**	-.226**	-.309
			(.093)	(.095)	(.095)	(.198)
Employment (1=yes)				.443***	.363**	.407*
				(.149)	(.150)	(.229)
Weekly hours worked				.015***	.014***	.017***
				(.003)	(.003)	(.005)
Log annual earnings					.119***	.198***
					(.021)	(.048)
Measures of Career Cycles X Cohort						
Reenrollment (1=yes) X Cohort						.122
						(.225)
Employment (1=yes) X Cohort						-.156
						(.304)
Weekly hours worked X Cohort						-.004
						(.006)

114

Table 3.2 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Log annual earnings X Cohort						-.101 *
						(.053)
Control variables						
Age	.064 **	.061 **	.063 **	.057 **	.053 *	.050 *
	(.028)	(.028)	(.028)	(.029)	(.029)	(.029)
Region (1=South)	.251 ***	.252 ***	.253 ***	.251 ***	.258 ***	.260 ***
	(.060)	(.061)	(.061)	(.061)	(.061)	(.061)
Father's years of schooling	-.031 ***	-.032 ***	-.030 ***	-.031 ***	-.034 ***	-.033 ***
	(.010)	(.010)	(.010)	(.010)	(.011)	(.011)
Mother's years of schooling	.024 *	.025 *	.027 **	.028 **	.029 **	.029 **
	(.013)	(.013)	(.013)	(.013)	(.013)	(.013)
Constant	-3.100 ***	-3.121 ***	-3.160 ***	-4.048 ***	-4.9 ***	-5.673 ***
	(.550)	(.553)	(.554)	(.575)	(.597)	(.724)
Numbers of Person-Years	12173	12173	12173	12173	12173	12173
-2 Log L	9086	9072	9057	9011	8971	8966

Notes: *p<.1 **p<.05 ***p<.01 (two-tailed tests)

115

Table 3.3. Logistic Regression Predicting the Probability of Marriage and the Impacts of Changes in Men's Career Entry on Marriage Declines, Men with Some College Education

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Cohort (1=recent cohort)	-.942***	-.477**	-.512***	-.650***	-.624***	-1.518**
	(.091)	(.193)	(.193)	(.197)	(.198)	(.752)
Race(1=black)	-.511***	-.504***	-.500***	-.455***	-.451***	-.444***
	(.122)	(.123)	(.123)	(.124)	(.124)	(.124)
Years Out of School (0-1=reference group)						
2-3	.592***	.807***	.731***	.596***	.558***	.492**
	(.142)	(.198)	(.200)	(.203)	(.204)	(.206)
4-5	.749***	.976***	.909***	.783***	.760***	.702***
	(.174)	(.232)	(.234)	(.236)	(.236)	(.238)
6-7	.735***	1.252***	1.186***	1.058***	1.049***	.994***
	(.221)	(.276)	(.277)	(.278)	(.279)	(.280)
8-9	.724***	1.169***	1.102***	.970***	.935***	.894**
	(.277)	(.347)	(.347)	(.348)	(.349)	(.351)
10-11	.417	.628	.554	.445	.422	.360
	(.353)	(.445)	(.446)	(.447)	(.448)	(.450)
12-13	.335	.673	.607	.497	.472	.435
	(.443)	(.542)	(.543)	(.544)	(.546)	(.547)
14-15	.849	.623	.527	.472	.541	.415
	(.534)	(.707)	(.708)	(.709)	(.711)	(.711)
Years Out of School X Cohort						
2-3 X Cohort		-.464*	-.390	-.291	-.277	-.216
		(.259)	(.260)	(.263)	(.264)	(.267)
4-5 X Cohort		-.472*	-.412	-.330	-.331	-.278
		(.267)	(.268)	(.272)	(.272)	(.275)
6-7 X Cohort		-.948***	-.901***	-.824***	-.854***	-.792***
		(.293)	(.293)	(.296)	(.297)	(.301)

116

Table 3.3. Continued

Variable	Model 1 B	Model 2 B	Model 3 B	Model 4 B	Model 5 B	Model 6 B
8-9 X Cohort		-.782 **	-.732 **	-.634 *	-.632 *	-.583 *
		(.333)	(.334)	(.336)	(.337)	(.342)
10-11 X Cohort		-.411	-.362	-.254	-.264	-.191
		(.440)	(.441)	(.443)	(.444)	(.449)
12-13 X Cohort		-.634	-.588	-.497	-.482	-.427
		(.591)	(.591)	(.594)	(.595)	(.598)
14-15 X Cohort		.437	.567	.562	.474	.582
		(.741)	(.742)	(.745)	(.746)	(.747)
Measures of Career Cycles						
Reenrollment (1=yes)			-.267 ***	-.054	-.049	-.423 **
			(.102)	(.107)	(.107)	(.197)
Employment (1=yes)				.578 ***	.479 **	.581 **
				(.200)	(.202)	(.272)
Weekly hours worked				.018 ***	.018 ***	.016 **
				(.004)	(.004)	(.007)
Log annual earnings					.115 ***	.054
					(.033)	(.046)
Measures of Career Cycles X Cohort						
Reenrollment (1=yes) X Cohort						.555 **
						(.235)
Employment (1=yes) X Cohort						-.453
						(.406)
Weekly hours worked X Cohort						.003
						(.008)
Log annual earnings X Cohort						.113 *
						(.067)

117

Table 3.3. Continued

Variable	Model 1 B	Model 2 B	Model 3 B	Model 4 B	Model 5 B	Model 6 B
Control variables						
Age	-.001	-.005	-.008	-.014	-.017	-.018
	(.029)	(.029)	(.029)	(.029)	(.029)	(.029)
Region (1=South)	.331***	.328***	.319***	.308***	.314***	.306***
	(.093)	(.094)	(.094)	(.094)	(.094)	(.095)
Father's years of schooling	-.012	-.012	-.010	-.007	-.009	-.010
	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)
Mother's years of schooling	-.016	-.017	-.017	-.020	-.020	-.020
	(.019)	(.019)	(.019)	(.019)	(.019)	(.019)
Constant	-1.463**	-1.587**	-1.426**	-2.480***	-3.332***	-2.607***
	(.622)	(.627)	(.630)	(.659)	(.703)	(.819)
Numbers of Person-Years	5125	5125	5125	5125	5125	5125
-2 Log L	3754	3740	3733	3694	3679	3668

Notes: *p<.1 **p<.05 ***p<.01 (two-tailed tests)

118

Table 3.4 Logistic Regression Predicting the Probability of Marriage and the Impacts of Changes in Men's Career Entry on Marriage Declines, College Men

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Cohort (1=recent cohort)	-.696***	-1.083***	-1.098***	-1.124***	-1.094***	-.468
	(.089)	(.140)	(.140)	(.141)	(.141)	(.820)
Race(1=black)	-.311**	-.326**	-.324**	-.325**	-.322**	-.317**
	(.140)	(.141)	(.141)	(.141)	(.141)	(.141)
Years Out of School (0-1=reference group)						
2-3	.079	-.214	-.220	-.244	-.283*	-.310*
	(.115)	(.168)	(.168)	(.169)	(.169)	(.171)
4-5	-.019	-.151	-.160	-.189	-.209	-.238
	(.163)	(.235)	(.235)	(.236)	(.236)	(.238)
6-7	-.322	-.745**	-.759**	-.763**	-.766**	-.793**
	(.218)	(.314)	(.314)	(.315)	(.316)	(.317)
8-9	-.464*	-1.884***	-1.899***	-1.893***	-1.939***	-1.982***
	(.290)	(.519)	(.519)	(.520)	(.521)	(.522)
10-11	-.707*	-1.959***	-1.980***	-1.997***	-2.024***	-2.070***
	(.399)	(.658)	(.658)	(.659)	(.660)	(.661)
12-15	-1.556**	-1.979***	-2.012***	-1.963***	-1.981***	-2.017***
	(.621)	(.695)	(.696)	(.696)	(.698)	(.698)
Years Out of School X Cohort						
2-3 X Cohort		.523**	.532**	.534**	.505**	.548**
		(.209)	(.210)	(.210)	(.210)	(.215)
4-5 X Cohort		.267	.279	.302	.256	.302
		(.256)	(.256)	(.257)	(.257)	(.261)
6-7 X Cohort		.681**	.691**	.696**	.631*	.665**
		(.324)	(.324)	(.324)	(.325)	(.329)
8-9 X Cohort		2.064***	2.066***	2.063***	2.043***	2.077***
		(.527)	(.527)	(.528)	(.528)	(.531)

Table 3.4 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
10-11 X Cohort		2.078 ***	2.090 ***	2.116 ***	2.098 ***	2.136 ***
		(.704)	(.704)	(.704)	(.705)	(.707)
12-15 X Cohort		1.411	1.445	1.380	1.380	1.412
		(1.218)	(1.219)	(1.220)	(1.220)	(1.222)
Measures of Career Cycles						
Reenrollment (1=yes)			-.212 *	-.070	-.066	.274
			(.119)	(.126)	(.126)	(.195)
Employment (1=yes)				.559 **	.491 **	.441
				(.221)	(.221)	(.293)
Weekly hours worked				.005	.004	.005
				(.004)	(.004)	(.006)
Log annual earnings					.102 ***	.158 **
					(.034)	(.066)
Measures of Career Cycles X Cohort						
Reenrollment (1=yes) X Cohort						-.608 **
						(.261)
Employment (1=yes) X Cohort						.310
						(.480)
Weekly hours worked X Cohort						-.002
						(.008)
Log annual earnings X Cohort						-.081
						(.077)
Control Variables						
Age	.026	.029	.029	.025	.021	.023
	(.028)	(.028)	(.028)	(.028)	(.029)	(.029)
Region (1=South)	.220 **	.224 **	.225 **	.221 **	.236 **	.237 **
	(.092)	(.093)	(.093)	(.093)	(.093)	(.093)

Table 3.4 Continued

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	B	B	B	B	B	B
Father's years of schooling	-.017	-.019	-.019	-.019	-.018	-.018
	(.015)	(.015)	(.015)	(.015)	(.015)	(.015)
Mother's years of schooling	.004	.006	.007	.009	.009	.009
	(.019)	(.019)	(.019)	(.019)	(.019)	(.019)
Constant	-1.621**	-1.499**	-1.489**	-2.126***	-2.883***	-3.525***
	(.667)	(.672)	(.672)	(.704)	(.751)	(.895)
Numbers of Person-Years	4381	4381	4381	4381	4381	4381
-2 Log L	3823	3791	3787	3777	3766	3758

Notes: *p<.1   **p<.05   ***p<.01 (two-tailed tests)

121

Table 3.5. Patterns of career entry, by education and cohort

Years out of School	% Enrolled		% Employed		Weekly Hours Worked		Annual Earnings	
	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort
High School Dropouts								
0-1	0.37	0.32	0.53	0.88	36.72	36.26	4527.30	4698.07
2-3	0.05	0.26	0.83	0.96	42.33	38.81	8123.05	6837.13
4-5	0.01	0.23	0.89	0.95	42.31	39.27	8586.61	7027.45
6-7	0.05	0.20	0.90	0.96	40.66	40.52	9695.81	8562.11
8-9	0.04	0.21	0.95	0.95	43.52	40.01	10644.51	9001.11
10-11	0.03	0.23	0.93	0.96	43.31	41.22	10117.33	9737.92
12-13	0.05	0.19	0.86	0.93	42.69	40.68	7734.55	10069.63
14-15	0.04	0.10	0.90	0.92	47.08	39.35	9922.13	9057.69
High School Graduates								
0-1	0.13	0.13	0.80	0.93	39.76	38.40	7243.30	6469.12
2-3	0.08	0.13	0.94	0.95	41.34	40.90	12131.84	9694.46
4-5	0.09	0.13	0.96	0.95	42.05	41.36	14088.30	10938.81
6-7	0.09	0.14	0.96	0.95	42.57	41.66	14571.80	12229.42
8-9	0.10	0.14	0.94	0.96	40.96	41.66	14312.45	13120.71
10-11	0.09	0.13	0.94	0.96	43.73	41.44	15592.23	13981.50
12-13	0.04	0.12	0.92	0.95	43.76	42.10	15254.21	14805.60
14-15	0.03	0.12	0.97	0.98	44.84	40.47	15666.58	14651.27
Men with Some College Education								
0-1	0.50	0.37	0.60	0.88	35.87	37.13	8165.81	8517.66
2-3	0.19	0.35	0.91	0.93	40.16	39.88	13887.24	11536.50
4-5	0.21	0.31	0.93	0.94	40.01	41.05	15201.53	13807.90
6-7	0.19	0.25	0.93	0.97	41.29	42.14	16978.73	20629.08
8-9	0.17	0.22	0.93	0.97	42.60	42.27	18613.05	24785.10
10-11	0.12	0.17	0.91	0.97	42.47	41.74	18730.88	30097.10

Table 3.5. Continued

Years out of School	% Enrolled		% Employed		Weekly Hours Worked		Annual Earnings	
	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort	Older Cohort	Recent Cohort
12-13	0.08	0.23	0.90	0.96	43.54	42.95	20877.78	16182.18
14-15	0.00	0.36	0.91	0.97	42.77	44.11	20285.91	15788.06
Four-year College Educated Men								
0-1	0.20	0.14	0.87	0.93	40.23	41.26	12591.48	11289.51
2-3	0.18	0.15	0.93	0.97	41.61	43.53	19168.64	19423.34
4-5	0.17	0.16	0.96	0.95	42.24	43.21	20346.22	28316.21
6-7	0.15	0.14	0.92	0.97	42.53	42.97	20243.54	32563.52
8-9	0.15	0.09	0.92	0.98	41.26	44.09	23293.41	24906.67
10-11	0.13	0.13	1.00	0.98	41.67	44.17	23220.63	23751.22
12-15	0.07	0.18	0.90	1.00	41.71	46.73	24273.90	20300.40

123

REFERENCES

Allison, Paul D. 1982. "Discrete-time Methods for the Analysis of Event Histories." *Sociological Methodology* 13:61–98.

Allison, Paul D. 1995. *Survival Analysis Using the SAS System: A Practical Guide*. Cary, NC: SAS Institute.

Anderson, Douglas L. 1986. "Urbanization, Secularization, and Birth Spacing: A Case Study of an Historical Fertility Transition." *Sociological Quarterly* 27:43–62.

Axinn, William G. and Arland Thornton. 2000. "The Transformation of the Meaning of Marriage." Pp. 147–165 in *The Ties That Bind: Perspectives on Marriage and Cohabitation*, edited by Linda Waite, Christine Bachrach, Michelle Hindin, Elizabeth Thomson, and Arland Thornton. New York: Aldine De Gruyter.

Becker, Gary S., Elisabeth M. Landes, and Robert T. Michael. 1977. "An Economic Analysis of Marital Instability." *Journal of Political Economy* 85:1141–1188.

Becker, Gary S. 1981. *A Treatise on the Family*. Cambridge: Harvard University Press.

Bennett, Neil G., David E. Bloom, and Patricia H. Craig. 1989. "The Divergence of Black and White Marriage Patterns." *American Journal of Sociology* 95:692–722.

Bergmann, Barbara R. 1974. "Occupational Segregation, Wages and Profits Where Employers Discriminate by Race and Sex." *Eastern Economic Journal* 1:103–110.

Bianchi, Suzanne and Daphne Spain. 1996. *American Women in Transition*. New York: Russell Sage Foundation.

Blau, Peter M. 1977. *Inequality and Heterogeneity: A primitive Theory of Social Structure*. New York: Free Press.

124

Blau, Peter M., Terry C. Blum, and Joseph E. Schwartz. 1982. "Heterogeneity and Intermarriage." *American Sociological Review* 47:45–62.

Blau, Francine D. 1998. "Trends in the Well-Being of American Women." *Journal of Economic Literature* 36:112–165.

Blau, Francine D., Lawrence M. Kahn, and Jane Waldfogel. 2000. "Understanding Young Women's Marriage Decisions: The Role of Labor and Marriage Market Conditions." *Industrial and Labor Relations Review* 53:624–647.

Blau, Francine D., Marianne A. Ferber, and Anne E. Winkler. 2005. *Economics of Women, Men, and Work*. Prentice Hall.

Blossfeld, Hans-Peter and Addreas Timm. 2003. "Educational Systems as Marriage Markets in Modern Societies: A Conceptual Framework." Pp. 1–18 in *Who Marries Whom? Educational Systems as Marriage Markets in Modern Societies*, edited by Hans-Peter Blossfeld and Andreas Timm. Kluwer Academic Publishers.

Booth, Alan and John N. Edwards. 1985. "Age at Marriage and Marriage Instability." *Journal of Marriage and the Family* 47:67–75.

Borjas, George J. 2003. *Labor Economics*. New York, NY: McGraw-Hill Irwin.

Bozon, Michel and Francois Heran. 1989. "Finding a Spouse: A Survey of How French Couples Meet." Population: An English Selection 44:91–121.

Budig, Michelle J. and Paula England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review* 66:204–225.

Bumpass, Larry L. 1990. "What's Happening to the Family? Interactions Between Demographic and Institutional Change." *Demography* 27:483–498.

Bumpass, L.L., James A. Sweet, and Andrew Cherlin. 1991. "The Role of Cohabitation in Declining Rates of Marriage." *Journal of Marriage and the Family* 53:913–927.

Burtless, Gary. 2003. "Has Widening Inequality Promoted or Retarded US Growth?" *Canadian Public Policy* 29:S185–S201.

Chan, Tak W. 1999. "Revolving Doors Reexamined: Occupational Sex Segregation Over the Life Course." *American Sociological Review* 64:86–96.

Cherlin, Andrew J. 1992. "*Marriage, Divorce, and Remarriage.*" Cambridge, MA: Harvard University Press.

------. 2004. "The Deinstitutionalization of American Marriage. " *Journal of Marriage and Family* 66:848–861.

Clarkberg, M., R.M. Stolzenberg, and L.J. Waite. 1995. "Attitudes, Values, and Entrance into Cohabitational Versus Marital Unions." *Social Forces* 74:609–634.

Clarkberg, Marin. 1999. "The Price of Partnering: The Role of Economic Well-being in Young Adults' First Union Experiences." *Social Forces* 77:945–968.

Coale, Ansley J. 1989. "Marriage and Childbearing in China Since 1940." *Social Forces* 67:833–850.

Desai, S., and Linda J. Waite. 1991. "Women's Employment during Pregnancy and after the First Child Birth: Occupational Characteristics and Work Commitment." *American Sociological Review* 56:551–566.

Dixon, Ruth B. 1971. "Explaining Cross-Cultural Variations in Age at Marriage and Proportions Never Marrying." *Population Studies* 25:215–233.

Dixon, Ruth B. 1978. "Late Marriage and Non-Marriage as Demographic Responses: Are They Similar?" *Population Studies* 32:449–466.

Durkheim, Emile. 1933. *The Division of Labor in Society.* New York: Macmillan.

Easternlin, Richard A. 1978. "What Will 1984 Be Like? Socioeconomic Implications of Recent Twists in Age Structure." *Demography* 15:397–432.

Easterlin, Richard A. 1987. *Birth and Fortune: The Impact of Numbers on Personal Welfare.* 2nd ed. Chicago: University of Chicago Press.

Edin, Kathryn. 2000. "What Do Low-Income Single Mothers Say about Marriage?" *Social Problems* 47:112–133.

Elder, G. H., Jr. 1997. "The Life Course and Human Development." Pp. 939–991 in *Handbook of Child Psychology I: Theoretical Models of Human Development,* edited by R. M. Lerner. New York: Wiley.

England, Paula and George Farkas. 1986. *Households, Employment, and Gender: A Social, Economic, and Demographic View.* Aldine Transaction.

England, Paula. 1982. "The Failure of Human Capital Theory to Explain Occupational Sex Segregation." *Journal of Human Resources* 17:358–370.

England, Paula, George Farkas, Barbara S. Kilbourne, and Thomas Dou. 1998. "Explaining Occupational Sex Segregation and Wages: Findings from a Model with Fixed Effects." *American Sociological Review* 53:544–558.

Espenshade, Thomas J. 1985. "Marriage Trends in America: Estimates, Implications, and Underlying Causes." *Population and Development Review* 11:193–245.

Esping-Andersen, Gosta. 1993. "Mobility Regimes and Class Formation." Pp. 225–241 in *Changing Classes: Stratification and Mobility in Post-Industrial Societies,* Vol. 46, edited by Gosta Esping-Andersen. Sage Publications.

127

Fitzpatrick, Maria D. and Sarah E. Turner. 2007. "Blurring the Boundary: Changes in Collegiate Participation and the Transition to Adulthood." Pp.107–137 in *The Price of Independence: The Economics of Early Adulthood*, edited by Sheldon Danziger and Cecilia Elena Rouse. Russell Sage Foundation: New York.

Furstenberg, Frank F., Jr. and Nancy Ten. 1996. "The Future of Marriage." *American Demographics* June:34–40.

Glass, Jennifer and Valerie Camarigg 1992. "Gender, Parenthood, and Job-Family Compatibility." *American Journal of Sociology* 98:131–151.

Goldin, Claudia. 2006. "The Quiet Revolution that Transformed Women's Employment, Education, and Family." *American Economic Review* 96:1–21.

Goldscheider, Frances K. and Linda J. Waite. 1986. "Sex Differences in the Entry Into Marriage." *American Journal of Sociology* 92:91–109.

Goldscheider, Frances K. and Linda J. Waite. 1991. *New Families, No Families? The Transformation of the American Home*. University of California Press.

Goldscheider, Joshua R. and Catherine T. Kenney. 2001. "Marriage Delayed or Marriage Forgone? New Cohort Forecasts of First Marriage for U.S. Women." *American Sociological Review* 66:506–519.

Gray, Jeffery A. 1997. "The Fall in Men's Return to Marriage." *Journal of Human Resources* 32:481–503.

Grusky, David P. and Jesper B. Sorensen. 1998. "Can Class Analysis Be Salvaged?" *American Journal of Sociology* 103:1187–1234.

Heaton, Tim B., Daniel T. Lichter, and Acheampong Amoateng. 1989. "The Timing of Family Formation: Rural-Urban Differentials in First Intercourse, Childbirth, and Marriage." *Rural Sociology* 54:1–16.

Hall, Robert E. 1982. "The Importance of Lifetime Jobs in the U.S. Economy." *American Economic Review* 72:716–724.

Haller, Max. 1981. "Marriage, Women, and Social Stratification: A Theoretical Critique." *American Journal of Sociology* 86:766–795.

Hajnal, John. 1965. "European Marriage Patterns in Perspective." Pp.101–138 in *Population in History*, edited by D.V. Glass and D.E.C. Eversley. Chicago: Aldine.

Hill, M.S. and W.J. Yeung. 1997. "How Have Alterations in the Structure of Opportunity Affected Transition to Adulthood?" Pp. 3–39 in *Transitions to Adulthood in a Changing Economy: No Work, No Family, No Future?*, edited by A. Booth, A.C. Crouter, and M.J. Shanahan. Westport, CT: Praeger.

Hill, Carolyn J. and Harry Holzer. 2007. "Labor Market Experiences and Transitions to Adulthood." Pp. 141–169 in *The Price of Independence: The Economics of Early Adulthood*, edited by Sheldon Danziger and Cecilia Elena Rouse. Russell Sage Foundation: New York.

Hogan, Dennis P. 1978. "The Effects of Demographic Factors, Family Background, and Early Job Achievement on Age at Marriage." *Demography* 15:161–175.

Hogan, Dennis P. 1980. "The Transition to Adulthood as a Career Contingency." *American Sociological Review* 45:261–276.

Holzer, Harry. 1996. *What Employers Want: Job Prospects for Less-Educated Workers*. New York: Russell Sage.

Holzer, Harry J. 2009. "The Labor Market and Young Black Men: Updating Moynihan's

    Perspective." *The Annals of the American Academy of Political and Social*

    Science 621:47–69.

Hout, Michael. 1982. "Association between Husband's and Wife's Occupations in Two-

    Earner Families." *American Journal of Sociology* 88:397–409.

Jacobs, Jerry A. 1993. "Men in Female-Dominated Fields: Trends and Turnover." Pp.

    49–63 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by

    Christine L. Williams. Newbury Park, CA: Sage.

Jacobs, Jerry A. and Robert J. Steinberg. 1995. "Further Evidence on Compensating

    Differentials and the Gender Gap in Wages." Pp. 93–124 in *Gender Inequality at*

    Work, edited by Jerry A. Jacobs. Thousand Oaks, CA: Sage.

Juhn, Chinhui, Kevin M. Murphy and Brooks Pierce. 1991. "Accounting for the

    Slowdown in Black-White Convergence." Pp. 107–143 in *Workers and Their*

    Wages, edited by M. Kosters. Washington, DC: AEI Press.

Kalmijn, Matthijs. 1998. "Intermarriage and Homogamy: Causes, Patterns, Trends."

    Annual Review of Sociology 24:395–421.

Kalmijn, Matthijs and Wim Bernasco. 2001. "Joint and Separated Lifestyles in Couple

    Relationships." *Journal of Marriage and the Family* 63:639–654.

Katz, Lawrence F. and David H. Autor. 1999. "Changes in Wage Structure and Earnings

    Inequality." Pp. 1463–1555 in *Handbook of Labor Economics*, Volume 3A, edited

    by Orley Ashenfelter and David Card. Amsterdam: Elsevier.

Leonard, Jonathan S. 1984. "The Impact of Affirmative Action on Employment." *Journal*

    of Labor Economics 2:439–463.

------. 1985. "The Effect of Unions on the Employment of Blacks, Hispanics, and Women." *Industrial and Labor Relations Review* 39:115–132.

------. 1996. "Wage Disparities and Affirmative Actions in the 1980's." *American Economic Review* 86:285–289.

Lesthaeghe, R. 1995. "The Second Demographic Transition in Western Countries: An Interpretation." Pp.17–62 in *Gender and Family Change in Industrialized Countries*, edited by K.O. Mason and A. Jensen. Oxford: Clarendon Press.

Levy, Frank S. and Richard C. Michel. 1986. "Work for Welfare: How Much Good Will It Do?" *American Economic Review* 76:399–404.

Levy, Frank S. 1995. "Incomes and Income Inequality." Pp.1–58 in *State of the Union: America in the 1990s: Economic Trends*, edited by R. Farley. New York: Russell Sage Foundation.

Lewis, Susan K and Valerie K. Oppenheimer. 2000. "Educational Assortative Mating across Marriage Markets: Non-Hispanic Whites in the United States." *Demography* 37:29–40.

Lichter, Daniel T. 1990. "Delayed Marriage, Marital Homogamy, and the Mate Selection Process among White Women." *Social Science Quarterly* 71:802–811.

Lichter, Daniel T., Felicia B. LeClere, and Diane K. McLaughlin. 1991. "Local Marriage Market Conditions and the Marital Behavior of Black and White Women." *American Journal of Sociology* 96:843–867.

Lichter, D.T., G.K. McLaughlin, G. Kephart, and D.J. Landry. 1992. "Race and the Retreat from Marriageable Men?" *American Sociological Review* 57:781–799.

Lichter, Daniel T., Robert N. Anderson, and Mark D. Hayward. 1995. "Marriage Markets and Marital Choice." *Journal of Family Issues* 16:412–131.

Lloyd, Kim M and Scott J. South. 1996. "Contextual Influences on Young Men's Transition to First Marriage." *Social Forces* 74:1097–1119.

Macpherson, David A. and Barry T. Hirsch. 1995 "Wages and Gender Composition: Why Do Women's Jobs Pay Less?" *Journal of Labor Economics* 13:426–471.

Manski, Charles F. and John D. Straub. 2000. "Worker Perceptions of Job Insecurity in the Mid-1990s." *Journal of Human Resources* 35:447–479.

Mare, Robert D. and Christopher Winship. 1991. "Socioeconomic Change and the Decline of Marriage for Blacks and Whites." Pp. 175–202 in *The Urban Underclass*, edited by C. Jencks and P. Peterson. Washington, DC: Brookings Institution.

Mare, Robert D. 1991. "Five Decades of Educational Assortative Mating." *American Sociological Review* 56:15–32.

Marini, Mooney M. 1981. "Measuring the Effects of the Timing of Marriage and First Birth." *Journal of Marriage and the Family* 43:19–26.

Marini, Mooney M. and Marry C. Brinton. 1984. "Sex-Typing in Occupational Socialization." Pp.192–232 in *Sex Segregation in the Workplace,* edited by B. F. Reskin. Washington, DC: National Academy Press.

Matthaei, Julie A. 1980. "Consequences of the Rise of the Two-Earner Family: The Breakdown of the Sexual Division of Labor." *American Economic Review* 70:198–202.

McKinnish, Terra G. 2004. "Occupation, Sex-Integration, and Divorce." *Gender in Policy and the Labor Market* 94:322–325.

McKinnish, Terra G. 2007. "Sexually Integrated Workplaces and Divorce: Another Form of On-the-Job Search." *Journal of Human Resources* 42:331–352.

McLanahan, Sara and Gary Sandefur. 1994. *Growing Up With a Single Parent: What Hurts, What Helps*. Cambridge, MA: Harvard University Press.

McLanahan, Sara and Lynne Casper. 1995. "Growing Diversity and Inequality in the American Family." Pp. 1–45 in *State of the Union: America in the 1990s, Volume Two: Social Trends*, edited by Reynolds Farley. New York: Russell Sage Foundation.

Modell, John and Duane Steffey. 1988. "Waging War and Marriage: Military service and family formation, 1940-1950." *Journal of Family History* 13:195–218.

Moffitt, Robert. 2000. "Female Wages, Male Wages, and the Economic Model of Marriage: The Basic Evidence." Pp. 302–319 in *The Ties That Bind: Perspectives on Marriage and Cohabitation*, edited by Linda Waite, Christine Bachrach, Michelle Hindin, Elizabeth Thomson, and Arland Thornton. New York: Aldine De Gruyter.

Moore, Kristin A. and Linda J. Waite. 1981. "Marital Dissolution, Early Motherhood and Early Marriage." *Social Forces* 60:20–40.

Murphy, Kevin M. and Finis Welch. 1992. "The Structure of Wages." *Quarterly Journal of Economics* 107:285–326.

Okamoto, Dina and Paula England. 1999. "Is There a Supply Side to Occupational Sex Segregation?" *Sociological Perspectives* 42:557–582.

Oppenheimer, Valerie K. 1982. *"Work and the Family: A Study in Social Demography."* New York, NY: Academic Press.

------. 1988. "A Theory of Marriage Timing." *American Journal of Sociology* 94:563–591.

------. 1994. "Women's Rising Employment and the Future of the Family in Industrial Societies." *Population and Development Review* 20:293–342.

------. 2000. "The Continuing Importance of Men's Economic Position in Marriage Formation." Pp. 283–301 in *The Ties That Bind: Perspectives on Marriage and Cohabitation*, edited by Linda Waite, Christine Bachrach, Michelle Hindin, Elizabeth Thomson, and Arland Thornton. New York: Aldine De Gruyter.

------. 2003. "Cohabitating and Marriage During Young Men's Career-Development Process." *Demography* 40:127–149.

Oppenheimer, Valerie K., Matthijs Kalmijn, and Nelson Lim. 1997. "Men's Career Development and Marriage Timing during a Period of Rising Inequality." *Demography* 34:311–330.

Orfield, Gary and Carole Ashkinaze. 1991. *The Closing Door: Conservative Policy and Black Opportunity.* Chicago, IL: University of Chicago Press.

Orfield, Gary. 1992. "Urban Schooling and the Perpetuation of Job Inequality in Metropolitan Chicago." Pp. 161–191 in *Urban Labor Markets and Job Opportunity,* edited by George E. Peterson and Wayne Vroman. Washington, D.C.: The Urban Institute Press.

Peterson, Trond. 1986. "Estimating Fully Parametric Hazard Rate Models with Time-
dependent Covariates: Use of Maximum Likelihood." *Sociological Methods and
Research* 14:219–246.

Polachek, Solomon. 1981. Occupational Self-selection: A Human Capital Approach to
Sex Differences in Occupational Structure." *Review of Economics and Statistics*
63:60–69.

------. 1985. Occupational Segregation: A Defense of Human Capital Predictions."
Journal of Human Resources 20:437–440.

Qian, Zhenchao and Samuel H. Preston. 1993. "Changes in American Marriage, 1972 to
1987: Availability and Forces of Attraction by Age and Education." *American
Sociological Review* 58:482–495.

Raley, R. Kelly and Jennifer Bratter. 2004. "Not Even If You Were the Last Person on
Earth! How Marital Search Constraints Affect the Likelihood of Marriage." *Journal
of Family Issues* 25:167–181.

Ramsoy, Natalie R. 1966. "Assortative Mating and the Structure of the Cities." *American
Sociological Review* 31:773–786.

Raymo, James M. 2003. " Educational Attainment and the Transition to First Marriage
among Japanese Women." *Demography* 40:83–103.

Reissman, C., Aron, A., and M. R. Bergen. 1993. "Shared Activities and Marital
Satisfaction: Causal Direction and Self-Explanation versus Boredom." *Journal of
Social and Personal Relationships* 10:243–254.

Rindfuss, Ronald R. and Audrey VandenHeuvel. 1990. "Cohabitation: A Precursor to Marriage or An Alternative to Being Single?" *Population and Development Review* 16:703–726.

Rodgers, Willard L. and Arland Thornton. 1985. "Changing Patterns of First Marriage in the United States." *Demography* 22:265–279.

Roders, William M. and William E. Spriggs. 1996. "What Does AFQT Really Measure? Race, Wages, Schooling and the AFQT Score." *Review of Black Political Economy* 24:13–46.

Rosenfeld, Rachel A. and K. Spenner. 1995. "Occupational Sex Segregation and Women's Early Career Job Shifts." Pp. 231–258 in *Gender Inequality at Work*, edited by Jerry A. Jacobs. Thousand Oaks, CA: Sage.

Sassler, Sharon and Frances Goldscheider. 2004. "Revisiting Jane Austen's Theory of Marriage Timing: Changes in Union Formation among American Men in the Late 20th century." *Journal of Family Issues* 25:139–166.

Schoen, Robert. 1989. "American Families and Households." *Contemporary Sociology* 18:618–620.

Schoen, Robert and John Wooldredge. 1989. "Marriage Choices in North Carolina and Virginia, 1969-71 and 1979-81." *Journal of Marriage and the Family* 51:465–481.

Seltzer, J.A. 2000. "Families Formed Outside of Marriage." *Journal of Marriage and Family* 62:1247–1268.

Smith, James P. 2000. "Race and Ethnicity in the Labor Market: Trends Over the Short and Long Term." Pp. 58–97, in *America Becoming: Racial Trends and Their*

Consequences Volume II, edited by Neil J. Smelser, William J. Wilson, and Faith Mitchell. National Research Council.

South, Scott J., Charles M. Bonjean, William T. Markham, and Judy Corder. 1983. "Female Labor Force Participation and the Organizational Experiences of Male Workers." *The Sociological Quarterly* 24:367–380.

South, Scott J. and Kim M. Llyod. 1995. "Spousal Alternatives and Marital Dissolution." *American Sociological Review* 60:21–35.

South, Scott J., Katherine Trent, and Yang Shen. 2001. "Changing Partners: Toward a Macrostructural-Opportunity Theory of Marital Dissolution." *Journal of Marriage and the Family* 63:743–754.

Sweeney, Megan M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review* 67:132–147.

Sweet, J., Bumpass, L., and V. Call. 1988. "The Design and Content of The National Survey of Families and Households." Center for Demography and Ecology, University of Wisconsin-Madison, NSFH Working Paper #1.

Thornton, Arland. 1989. "Changing Attitudes towards Family Issues in the United States." *Journal of Marriage and the Family* 51:873–893.

Thornton, A., W.G. Axinn, and D.H. Hill. 1992. "Reciprocal Effects of Religiosity, Cohabitation, and Marriage." *American Journal of Sociology* 98:628–651.

Thornton, Arland, William G. Axinn, and Jay D. Teachman. 1995. "The Influence of School Enrollment and Accumulation on Cohabitation and Marriage in Early Adulthood." *American Sociological Review* 60:762–774.

Tucker, Belinda. 2000. "Marital Values and Expectations in Context: Results from a 21-city Survey." Pp.166–187 in *The Ties That Bind: Perspectives on Marriage and Cohabitation*, edited by Linda Waite, Christine Bachrach, Michelle Hindin, Elizabeth Thomson, and Arland Thornton. New York: Aldine De Gruyter.

U.S. Bureau of the Census. 2003. Families and Living Arrangements, Current Population Survey (CPS) Reports, March 2003. Washington, DC: U.S. Government Printing Office.

U.S. Bureau of the Census. 2007. Washington, DC: U.S. Government Printing Office.

Wagmiller, Robert. 2007. "Race and the Spatial Segregation of Jobless Men in Urban America." *Demography* 44: 539–562.

Waite, Linda J. 2000. "Trends in Men's and Women's Well-Being in Marriage," pp. 368–392 in *The Ties that Bind: Perspectives on Marriage and Cohabitation*, edited by Linda Waite, C. Bachrach, M. Hindin, E. Thomson and A. Thornton. New York: Aldine de Gruyter.

Waldfogel, Jane. 1997. "The Effect of Children on Women's Wages." *American Sociological Review* 62:209–217.

Williams, Susan and Wayne J. Villemez. 1993. "Seekers and Finders: Male Entry and Exit in Female-Dominated Jobs." Pp. 64–90 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by Christine L. Williams. Newbury Park, CA: Sage.

Wilson, William J. and Kathryn M. Neckerman. 1986. "Poverty and Family Structure: The Widening Gap between Evidence and Public Policy Issues." Pp. 232–259 in

138

Fighting Poverty: What Works and What Doesn't, edited by S.H. Danziger and
D.H. Weinberg. Cambridge, MA: Harvard University Press.

Wilson, William J. 1987. *"The Truly Disadvantaged: The Inner City, the Underclass,
and Public Policy."* The University of Chicago Press.

Wright, Rosemary and Jerry A. Jacobs. 1994. "Male Flight From Computer Work: A
New Look at Occupational Resegregation and Ghettoization." *American
Sociological Review* 59:511–536.

Wulfhorst, Ellen. Reuters. 2009. "Romance Blooms at the Office, US Survey Says." New
York, Feb 10, 2009.

(http://www.reuters.com/article/domesticNews/idUSTRE5197GD20090211)

Xie, Yu, James M. Raymo, Kimberley Goyette, and Arland Thornton. 2003. "Economic
Potential and Entry Into Marriage and Cohabitation." *Demography* 40:351–367.

Yelowitz, Aaron S. 2007. "Young Adults Leaving the Nest: The Role of the Cost of
Living." Pp. 170–206 in *The Price of Independence: The Economics of Early
Adulthood*, edited by Sheldon Danziger and Cecilia Elena Rouse. Russell Sage
Foundation: New York.