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The Changing Relationship between Education and Marriage in the United States, 1940–2000

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RAND **LABOR AND POPULATION**

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Abstract

This analysis examines the changing relationship between education and marital status between 1940 and 2000 for black and white women. In 1940, when gender specialization was high, there was a negative relationship between education and marital status for women. College-educated women were least likely to be currently married and most likely to be never married. By 2000, when gender specialization was low, there was a positive relationship between education and marriage for women. The change in the relationship between education and marriage was observed for both black and white women. However, the transition occurred earlier for black women, consistent with black women's earlier mass entry into the labor force. In addition, the transition was observed across all marital statuses for black women, but only among the currently married for white women. These changes suggest that the relationship between education and marriage is dependent on the gender-role context.

THE CHANGING RELATIONSHIP BETWEEN EDUCATION AND MARRIAGE IN THE UNITED STATES, 1940–2000

INTRODUCTION

Over the last 60 years there have been dramatic changes in union formation and living arrangements, gender roles, and work in the United States. Between 1940 and 1960, first marriage rates rose along with fertility rates, creating the high-marriage, high-fertility baby-boom years. After 1960 (and continuing through the present), marriage rates and marital fertility began to fall, while age at first marriage and rates of divorce, cohabitation, living alone, and nonmarital childbearing all rose (Axinn and Thornton 2000; Cherlin 1992). Declines in marriage rates have been especially dramatic for blacks and those with less education and income. These changes in family formation behaviors were accompanied by the expansion of education and significant changes in gender roles and in the economy. Of particular note is the movement of women, particularly married women and mothers of young children, into the labor force (Goldin 1990). The dramatic increase in women's labor force participation led to an increase in women's economic status.

There has been much debate about the consequences of women's increased economic status, or independence, on family formation. Specialization and exchange theorists argue that greater economic status should decrease the likelihood of marriage for women, but increase it for men. Thus, observed declines in marriage rates result from women's increased status and independence (e.g., Becker 1982). In contrast, theorists who focus exclusively on the current similarity of men and women in the labor market argue that, since men and women now have similar roles in the labor market, they should also have a similar (positive) relationship between economic status and marriage (e.g., Oppenheimer 1988; Sweeney 2002). This approach suggests

that declining marriage rates result from increases in economic disadvantage, especially among men, rather than increases in independence. While empirical research consistently finds a positive relationship between economic status and marriage for men, the evidence for women is mixed. Previous research has reported a negative relationship (e.g., Bennett, Bloom, and Craig 1989; Raymo and Iwasawa 2006), no relationship (e.g., Bloom and Bennett 1990), and a positive relationship (e.g., Goldstein and Kenney 2001; Sweeney 2002) between economic status and marriage for women.

Rather than treating these two theories as oppositional (as is often the case in the literature), it may make more sense to think of them as complementary theories that can be combined to create a more dynamic theory of marriage, in which the relationship between economic status and marriage for women varies depending on the gender-role context. Recent work on gender equity and fertility suggests that the relationship between women's labor force participation and fertility varies depending on the gender-role context (e.g., Chesnais 1998; McDonald 2000; Torr and Short 2004). This may be a useful concept for theories of marriage as well. If this is the case, then we would expect the relationship between education and marriage for women in the U.S. to change over time as women's roles became more similar to men's. Not only does this make sense theoretically, but as I describe in this study, this provides a better explanation for the changes in the relationship between education and marriage for women over the last 60 years.

This study examines changes in the relationship between education and marital status for women between 1940 and 2000 and whether these changes were coincident with changes in gender roles. While a large body of literature has examined the relationship between economic status and marriage, most of this research has focused on one point in time, with only a handful

assessing change across periods (Fitch 2005; Fitch and Ruggles 2000) or cohorts (Goldstein and

Kenney 2001; Sassler and Goldscheider 2004; Sweeney 2002). Using IPUMS data, this study

extends the analysis to include census data for 1940 to 2000. This allows an examination of the

relationship between education and marital status before, during, and after the baby boom, which

has not previously been done in a multivariate context. These data allow the examination of the

relationship between education and marital status for women born as early as 1901 and as late as

1982. And they allow an examination of how period changes in the gender-role context may alter

the relationship between education and marital status.

This analysis also complements previous work by examining marital status more

generally, including the never, currently, and previously married. Most previous work has

focused on the relationship between economic status and first marriages, marriage timing, or

ever-marriage rates. As a result, divorce and remarriage are largely ignored in discussion of the

changing relationship between education and marriage. Given the dramatic rise in divorce and

remarriage in the recent past, it is important to asses the role that economic status may play not

just in getting married, but also in staying married.

BACKGROUND

Theory

The coincident timing of changes in marriage and family life, along with changes in gender roles

and the expansion of economic opportunity for women, has led many social scientists to theorize

a connection between the two. Specialization and exchange theories draw on Becker's

([1981]1992) discussion of "New Home Economics," which outlines how gendered role

specialization and exchange shape what makes a person an attractive marriage partner. Becker

argues that people utilize a rational decision-making approach to marriage and marry in order to

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maximize their mutual economic benefit (or utility). Thus, individuals make attractive marriage partners if they can provide something that the other person wants or needs. Exchanges need not be limited to income or housework and reproductive activities, but these are generally the most relevant factors for discussions of marriage.

In this framework, the decline in specialization that accompanied increases in women's economic status has two important consequences for marriage. First, higher-status women make less attractive marriage partners because they are less focused on tasks of home production. Second, women themselves derive less benefit from marriage since they have less need of a husband's income for financial support. That is, economic independence affords women the financial freedom to opt out of marriage. Demographic constraints on the availability of normatively appropriate (e.g., higher-status) potential spouses for high-status women may play an additional role in reducing marriage rates (Bernard [1972]1982; Raymo and Iwasawa 2006). As a result, specialization and exchange theory suggests a gendered relationship between economic status and marriage. Greater economic status increases the marriage chances of men, but decreases the marriage chances of women. This is often referred to as the "independence hypothesis." Since higher-status women are less likely to marry, macro-level increases in women's status, such as those that accompanied increases in women's education and labor force participation in the latter half of the twentieth century, will cause macro-level declines in marriage rates overall, and particularly for women with higher status.

In contrast, Oppenheimer (1988, 1994, 1997, 2000) argues that women's mass entry into the labor force, and especially the increase in labor force participation among married women in the recent period, fundamentally altered what makes women attractive marriage partners. As women become more like men in the labor market, so too should they become more like men in

the marriage market. Oppenheimer also points out that, at the same time that women's economic status was increasing, men experienced substantial declines in real wages. As a result, the gap between men's and women's relative status narrowed considerably, and the marriage search process was reshaped to adjust to the new economic reality. The shift in gender roles fundamentally altered the marriage bargain (Oppenheimer 1988, 2000; Sweeney 2002). As a result, greater economic status not only increases the marriage chances for men, but also for women. Thus, observed declines in marriage are the result of increasingly poor economic prospects for men, rather than increases in women's independence.

No discussion of changes in marriage in the United States can ignore the substantial differences in marriage patterns by race over the last 60 years. Prior to 1940, blacks had higher marriage rates and earlier ages at first marriage than whites. Between 1940 and 1960, whites experienced a substantial marriage and baby boom, which was experienced to a much smaller extent by blacks. As a result, by 1960, there was a racial crossover in marriage rates and whites now had higher marriage rates and earlier ages at first marriage (Fitch 2005; Fitch and Ruggles 2000; Koball 1998). Marriage rates declined for all women after 1960, but declined much more dramatically for black women, resulting in what is often called "the retreat from marriage" for black women.

Specialization and exchange theory would suggest that declines in marriage among black women are a result of black women's increased status. In contrast, focusing on the changes in the relative economic status of men and women suggests that the race differences in marriage rates emerging over the period, including the retreat from marriage for black women, might be tied to the differential economic position of blacks and whites. Fitch and Ruggles (2000) argue that the lack of a marriage boom for blacks was due to the poor employment prospects for black men as

the economy shifted away from agriculture. Similarly, Oppenheimer (2000) finds that declines in economic status among men (concurrent with women's mass entry into the labor force) were particularly acute for black men and less educated men. In the more recent period, demographic constraints, including unfavorable sex ratios due to high incarceration and mortality rates among young black males, may also play a role (Wilson and Neckerman 1987).

Rather than considering these two theories as oppositional, it may be more useful to consider them complementary. Combining these approaches yields a more dynamic and flexible theory of marriage that results in different predictions for the relationship between economic status and marriage under different gender role contexts. Thus, in a context where gender specialization is high, we might expect a gendered relationship between economic status and marriage. Specifically, we would anticipate an inverse relationship between education and marriage for women. But, where gender specialization is low, we might expect a similar, positive relationship between economic status and marriage for both men and women. In addition, if declines in specialization alter the relationship between economic status and marriage, then we might expect black women's earlier entry into the labor force to alter the relationship between economic status and marriage earlier for black women than for white women. This integrated approach may allow us to better understand variation in marriage patterns over time, across groups, and across countries.

Prior Research

As predicted by both theories, empirical research consistently finds a consistent and positive relationship between socioeconomic status and marriage for men, both historically and today (e.g., Bennett, Bloom, and Craig 1989; Fitch and Ruggles 2000; Goldscheider and Waite 1986; Oppenheimer 2003; Raley 2000; Sweeney 2002), regardless of whether economic status is

measured as income, education, or employment. Although some recent evidence suggests that the effect of economic status on the likelihood of marriage for men has declined slightly across baby-boom cohorts (Sassler and Goldscheider 2004; Sweeney 2002), economic status remains a strong predictor of men's marriage.

In contrast, the evidence on the relationship between economic status and marriage for women is quite mixed. In keeping with theories of specialization and exchange, a few studies have found a negative effect of greater education on marriage both historically (Cookingham 1984; Fitch 2005) and in the more recent period (Bennett, Bloom, and Craig 1989; Fitch 2005), as well as in international contexts with high gender specialization (e.g., Raymo and Iwasawa 2006). However, most analyses of data for the post–baby boom era find either no relationship between educational attainment and the likelihood of marriage (Bloom and Bennett 1990; Blossfeld and Huinik 1991) or a positive relationship between education and/or income and marriage for women (Clarkberg 1999; Goldscheider and Waite 1986, 1991; Goldstein and Kenney 2001; Qian and Preston 1993; Sweeney 2002; Thornton, Axinn, and Teachman 1995). These contradictory findings suggest that the relationship between economic status and marriage for women may vary depending on the gender-role context.

Changes in Marriage Across Periods and Cohorts

Almost all of the research described above on the relationship between economic status and marriage focuses on one particular point in time. Only a handful of studies examine changes across periods (Fitch and Ruggles 2000; Fitch 2005) or cohorts (Goldscheider and Sassler 2004; Goldstein and Kenney 2001; Sweeney 2002). Consistent with a story of changing relationships over time, Goldstein and Kenney (2001) find that, while for two earlier cohorts of baby boomers there was a negative relationship between education and the likelihood of ever-marrying, for two

later cohorts of baby boomers there was a positive relationship. Although highly educated women were less likely to marry at younger ages, at later ages they were more likely to marry, and thus more likely to marry overall. This change was evident for both black and white women, although it was evident in an earlier cohort for black women. Similarly, Fitch (2005) concludes that greater female economic opportunity is associated (at the bivariate level) with later ages at marriage across the period 1850 to 2000. However, in the early part of the period, greater economic opportunity for women resulted in lower marriage rates, while in the latter part of the period, economic opportunity had more of an effect on the timing of marriage than it had on marriage rates. Likewise, Sweeney (2002) finds a positive relationship between education and first-marriage rates for two baby-boom cohorts of men and women, net of earnings. Furthermore, the importance of earnings for women's marriage formation increased across the two cohorts, increasing similarity between men and women in the relationship between earnings and marriage.

This paper extends this work on changes over time in the relationship between economic status and marriage by examining both a longer time period and by focusing on all marital statuses, not just first marriages or ever-marriage rates. This analysis highlights changes over time in the U.S. and examines the changing relationship between education and marital status concurrent with changes in gender roles. In addition, this analysis examines whether the differential changes in marriage patterns for black and white women can be explained by the differential timing of changes in the economic status of women across the two groups. While this analysis focuses on past changes in the U.S., it is also relevant for assessing how marriage patterns may change in the future and why marriage patterns may differ across groups and across contexts.

DATA AND METHODS

Data

Data for this study come from the IPUMS-USA, Integrated Public Use Microdata Series, version

3.0, of the United States decennial censuses (Ruggles et al. 2004). The analytic sample includes

data from the IPUMS one-percent samples for the seven census years, 1940 through 2000. This

allows the examination of marriage patterns for persons born as early as 1901 and as late as

1982. IPUMS data are uniquely suited to an individual-level analysis of changes over time in

marriage patterns by education and income. No other data allow the examination of these

relationships using consistent measures[1] across the 60-year period. Furthermore, the large

sample sizes allow the inclusion of characteristics that may have been relatively rare in one

census, but common in another (e.g., farm residence). The major limitation of the IPUMS data is

that they are cross-sectional and thus provide a snapshot of educational attainment by marital

status at the time of the census, rather than allowing for a longitudinal examination of the effects

of completed schooling on subsequent marriage. Unfortunately, no nationally representative

samples with longitudinal data cover the entire period, including the pre–baby boom reference

period. This pre–baby boom reference period is particularly important given the dramatic

changes of the baby boom and the racial crossovers in family patterns observed in that era (e.g.,

Fitch and Ruggles 2000; Koball 1998).

The analytic sample is limited to women age 18 to 39 at the time of each census year, in

order to best capture the population at risk of a becoming ever-married across the entire period.

Clearly, some of the youngest adults in the sample have not yet completed their education,

potentially underestimating the relationship between education and marital status. In order to

assess the sensitivity of the results to the sample definition, alternative age restrictions for the

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sample were explored, limiting the analysis to those 21 and older, those 25 and older. In addition, different specifications of age (e.g., as a continuous variable) were also explored. Although the regression coefficients changed slightly with the different age restrictions and specifications, none of these alternative age specifications altered the substantive content of the findings reported here. That is, the results are not sensitive to the exclusion of younger or older women from the sample. Thus, I chose to use the wider sample age range in order to maximize sample size for the analysis of black women and the previously married across the entire period. Data are weighted where appropriate (e.g., 1940, 1950, 1990, and 2000); the other three years are self-weighting.

Method

I use multinomial logistic regression procedures (Stokes, Davis, and Koch 2000) in SAS to examine the relationship between education and marital status for women net of other characteristics. Models are analyzed separately for blacks and whites in each census year. Given the cross-sectional nature of census data, the findings reported here should be interpreted descriptively rather than causally. However, using a regression approach allows the assessment of the relationship between education and marital status net of other characteristics that may be related to marriage, and more importantly, whose distribution in the population may have changed over the period. Thus, for example, we can look at the cross-sectional relationship between education and marital status net of metropolitan residence, which prior research has shown to decrease the likelihood of marriage (McLaughlin, Lichter, and Johnston 1993), and which dramatically increased between 1940 and 2000 (see Table 1 below).

Multinomial logistic regression also has the major benefit of allowing comparisons across all three marital statuses. We can examine the likelihood of being 1) currently versus never

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married, 2) previously married versus never married, and 3) among the ever-married, the likelihood of being currently married versus previously married. For ease of discussion, the regression coefficients are then used to calculate the predicted probability of being never, currently, and previously married by education level, taking into account all three comparisons. Individual predicted probabilities are calculated by applying the regression coefficients to the data for each person, holding constant the education level of interest (Hosmer and Lemenshow 1989) and taking the mean across all individuals.

For ease of discussion, I focus on the results for 1940, 1970, and 2000. These years highlight the major changes in the relationship between economic status and marriage over the period, without obscuring these changes in a wealth of detail. In addition, these years also highlight the transition in gender roles and changes in women's status in the U.S.: 1940 serves as a pre–baby boom reference period and a time of high gender specialization; 1970 illustrates the relationship during the transitional period of women's mass entry into the labor force; and 2000 highlights the current era of low gender specialization in market work.

Measures

Marital Status. In each census year, the head of household (or person filling out the census form) was asked to provide the marital status of each person age 15 and older living in the household.[2] This information was used to create the dependent variable, a trichotomous measure of marital status that indicates whether the person was never married, currently married, or previously married at the time of the census. Previous work on the changes in the relationship between education and marriage has generally focused on first marriages (e.g., Sweeney 2002), marriage timing (e.g., Fitch 2005), or ever-marriage rates (Goldstein and Kenney 2001). These measures all largely ignore divorce and remarriage. This paper begins to fill that gap by

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examining the role that education plays in ever-married women's propensity to stay married or to remarry after divorce or widowhood. Unfortunately, no distinction can be made between first and higher-order marriages among the currently married using census microdata; we can only distinguish between the previously and currently married.

Education. On each census year since 1940,[3] information was collected on each person's highest level of education completed. For this analysis, educational attainment is measured categorically as a set of dummy variables for highest education level completed: grade school only, some high school, high school diploma, some college, and college degree or higher. Because many women do not work for pay,[4] educational attainment has a major advantage over income as a measure of economic status in cross-sectional data for women. The use of education as a measure of economic status eliminates the complication of having to estimate potential earnings for those not in the labor force (Goldstein and Kenney 2001). This is particularly relevant in the earlier part of the period, when women were likely to drop out of the labor force after marriage and married women often worked for pay outside the home only when faced with severe financial hardship (Goldin 1990).

Period and Control Variables. Although the models for each year do not include explicit measures of period, they function as full interactions by census year, allowing the examination of the changing effect of education on marital status over the 60-year period. In a sense, census years represent the historical context in which young adults made decisions about marriage at that time. The differences in periods, rather than simply marking the passage of time, are intended to represent the broad changes in historical contexts between 1940 and 2000, including the transformation of gender roles, expansion of education, changing occupational

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structure, suburbanization, changes in fertility and contraception, and increases in divorce, cohabitation, nonmarital childbearing, and nonfamily living.

All models include additional controls for population characteristics that may be related to marital status, and whose representation in the population may have changed over time. Life-course factors, such as younger age and school enrollment, may inhibit marriage (Goldscheider and Waite 1991; Thornton et al. 1995). Marriage and divorce rates differ by race and ethnicity (Cherlin 1992; Espenshade 1985; Fitch and Ruggles 2000; Koball 1998; Oropesa and Landale 2004), foreign-born status (Landale 1994; Sassler 1997), region (Fenelon 1971; Glenn and Shelton 1985; Goldscheider and Waite 1991), farm and metropolitan residence (Fitch and Ruggles 2000; McLaughlin, Lichter, and Johnston 1993), and home ownership (Lauster 2006). A dummy variable for Hispanic ethnicity is included for 1980 and later censuses to account for the dramatic growth in Hispanic white women in the recent period.

Since census data are cross-sectional in nature, not all of the independent variables are causally prior to the dependent variable in the regression analysis. That is, they may be endogenous to the dependent variable. Using education as a measure of economic status minimizes this problem for the key independent variable, because most women complete their education prior to marriage. In order to assess the sensitivity of the results to issues of endogeneity for the control variables, alternative regression models were examined that alternately excluded and included different combinations of variables, such as school enrollment, home ownership, and other variables that may be particularly endogenous to marital status. As for the sensitivity tests for the sample age restrictions, the coefficients changed slightly, but there were no substantive differences in the results. The final model is presented in the appendix.

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Despite these limitations, the IPUMS samples are the best available data for analyzing the changing relationship between education and marriage between 1940 and 2000.

The Changing Context: Changes in Marriage, Education, and Employment, 1940–2000

The percentage of all women age 18 to 39 that were currently married declined between 1940 and 2000, from 62% in 1940 to 49% in 2000 (not shown). The percentage never married increased from 30% to 39%, and the percentage previously married also increased from 8% to 12% (not shown).

The overall changes in marital status hide substantial divergence in the marriage patterns for blacks and whites. Table 1 presents descriptive statistics for the samples in 1940, 1970, and 2000 for white women (first column) and black women (second column).The descriptive statistics for white women (as well as the regression results presented below) are very similar to those for all women, but those for black women differ substantially on a few key dimensions. In 1940, black women were less likely to be never married than white women (23% vs. 30%). They were also less likely to be currently married than white women (56% vs. 63%), and as a result were more substantially likely to be previously married (at 21% vs. 7%), likely due to higher mortality of black men at younger ages (Levine et al. 2001; Preston et al. 1996). As a result, black women were slightly more likely than white women to be ever-married in 1940. After 1950 (not shown), there was a crossover, and thereafter black women were more likely to be never married than white women (see also Fitch and Ruggles 2000; Koball 1998). Current marriage rates also declined more rapidly for black women over the period, and by 2000, only 27% of black women were currently married, compared to 52% of white women.

[Insert Table 1 here]

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Along with changes in marriage, access to education increased substantially between 1940 and 2000. A majority of women in the sample in 1940 had less than a high school diploma (88% of black women and 58% of white women), and a grade school education was the modal category. By 2000, the vast majority of women had at least a high school diploma (79% of black women and 87% of white women), and 49% of black women and over 62% of white women had a least some college education. The percentage of white women who were college graduates expanded from 4% in 1940 to 25% by 2000. Black women lagged behind (at 13%) with a college degree or higher in 2000, although this was a substantial increase from just 1% in 1940. By 2000, few women had just the lowest level of education. While some of the sample sizes for education groups were quite small in some years,[5] these same groups composed a substantial proportion of the population in other years.

Along with gains in education, women's employment more than doubled over the 60-year period, increasing from 32% in 1940 to 66% in 2000. Labor force participation is not included in the models because of its covariation with marriage for white women in the early part of the period. However, these descriptive statistics provide relevant context for the shift in gender roles over the period. This increase was particularly dramatic for married women, increasing from 16% to 65% (not shown). In 1940, 41% of black women were employed, compared to 31% of white women. Black women remained more likely than white women to be employed through 1970 (50% versus 45%), but after 1970 the growth in white women's employment outpaced the growth in black women's employment, and white women became more likely than black women to be employed. However, married white women continued to lag behind married black women in employment rates (data not shown). By 2000, more than two-thirds of women in both groups were economically active.

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RESULTS

Currently Married

In 1940, when gender specialization was high, college-educated women (black and white) were the least likely to be currently married. By 2000, when specialization was low, college-educated women were the most likely to be currently married. Panel A of Table 2 presents the predicted probabilities of being currently married for white and black women for 1940 through 2000, calculated based on the regression coefficients (regression results for 1940, 1970, and 2000 are presented in the appendix; results for other years are available from the author on request). For ease of presentation, I focus on 1940, 1970, and 2000 in the discussion.

[Insert Table 2 here]

In 1940, there was a negative relationship between education and the predicted probability of being currently married for white women. Forty-six percent of college-educated white women in 1940 were predicted to be currently married, all else equal. In contrast, almost 70% of white women with less than a high school diploma were predicted to be currently married.

Comparing 1940 to 2000, the predicted probability of being currently married declined for most white women (with the exception of those with college degrees, for whom it increased slightly). White women with some high school or grade school education experienced the largest decline in the predicted probability of being currently married (from 66% in 1940 to 47% in 2000); those with high school diplomas experienced a moderate decline (from 59% to 50%); while those with some college education experienced a smaller decline (from 56% to just over 50%). In contrast, the predicted probability of being currently married *increased* between 1940 and 2000 for white women with college degrees, from 46% to 53%. These changes occurred as a

result of increases in marriage during the baby-boom period followed by declines in the post-1970 period that more than offset the earlier rise for all white women—except those with college degrees. By the end of the period, white women with college degrees were most likely to be currently married (53%), while those with a grade school education were least likely to be currently married (47%).

Figure 1a highlights the reversal of the relationship between education and the predicted probability of being currently married for white women. The relationship between education and the predicted probability of being currently married was negative in 1940 and remained mostly negative in 1970. The probability of being currently married declined among the least educated women after 1970, but increased for all other women, resulting in an inverse U-shaped relationship in 1970. After 1970, the probability of being currently married declined for all women, but more rapidly for the less educated. By 2000, the relationship was positive.

[Insert Figure 1a about here]

Black women had a lower predicted probability of being currently married than white women at all education levels in all years, but the relationship between education and the predicted probability of being currently married was similar to that for white women. In 1940, there was a negative relationship between education and the predicted probability of being currently married. Thirty-seven percent of all college-educated black women in 1940 were predicted to be currently married, all else equal. In contrast, 56% of black women with a grade school education were predicted to be currently married.

Comparing 1940 to 2000, the predicted probability of being currently married declined for all black women. Black women with some high school or grade school education experienced the largest decline in the predicted probability of being currently married (from 58% and 56%,

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respectively, in 1940 to 21% and 20% in 2000); those with high school diplomas experienced a moderate decline (from 51% to 30%); while black women with some college education experienced a smaller decline (from 47% to 30%). In contrast to their white counterparts, black women with college degrees also experienced a decline in the predicted probability of being currently married between 1940 and 2000, but it was the smallest decline for black women (from 37% to 33%). For black women with a high school diploma or less, the overall decline in the predicted probability of being currently married occurred as a result of continuous declines over the entire period, although the declines were larger in the post-1970 period. For black women with at least some college education, a small increase in the early period was offset by later declines. Just as for white women, black women with college degrees were most likely to be currently married (33%) in 2000, while those with a grade school education were least likely to be currently married (20%).

Figure 1b shows a similar pattern of change for black women to that shown in Figure 1a for white women, from a negative relationship in 1940, to a transitional relationship in 1970, to a positive relationship in 2000. The main differences are the larger overall decline in the probability of being currently married for black women at all education levels and the 1970 patterns. Figure 1b highlights that the positive relationship between education and the predicted probability of being currently married was observed as early as 1970 for black women, primarily because black women with at least some college education became more likely to be currently married between 1940 and 1970, while less educated black women became less likely to be currently married. Despite declines in the likelihood of being currently married for all black women in the post-1970 period, the positive relationship between education and the predicted probability of being currently married remained. Furthermore, the reversal in the relationship

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between education and marital status was mostly complete before the most dramatic declines in marriage rates began for black women in the post-1970 period. White women's mass entry into the labor force did not occur until after 1970, which may explain some of their lag behind black women in the timing of changes in marriage.

[Insert Figure 1b about here]

Previously Married

Black and white women with college degrees have the lowest predicted probability of being previously married in all years and experienced the smallest increase between 1940 and 2000. However, there are two main differences between black and white women in the probability of being previously married. First, white women were less likely than black women at similar education levels to be previously married, in all years. Second, between 1940 and 2000 the predicted probability of being previously married increased for white women in all educational groups, but declined substantially for all black women.

Panel B of Table 2 shows the predicted probability of being previously married by education level for white and black women. In 1940, 4% of white women with college degrees were predicted to be previously married. For white women at all other education levels, the predicted probability in 1940 of being previously married was roughly similar (5 to 7%). The predicted probability of being previously married increased 3 percentage points for college-educated white women between 1940 and 2000 (to 7%). White women at all other education levels experienced a slightly greater increase of 8 to 10 percentage points between 1940 and 2000 (to 15 to 17%). The predicted probability of being previously married increased gradually across the entire period. The only exception to this pattern of gradual increase was for white women with a grade school education: They experienced a dramatic increase in the predicted

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probability of being previously married between 1940 and 1970, followed by a decline in the post-1970 period.

The predicted probability of being previously married started out substantially higher for black women than for white women. In 1940, 11% of black women with college degrees were predicted to be previously married, compared to 21% of black women with only a grade school education. Similar to the pattern for the least educated white women (and in contrast to the pattern for all other white women), the predicted probability of being previously married increased for all black women between 1940 and 1970 before falling dramatically in the post-1970 period. However, this decline in the post-1970 period for black women is due in part to large increases in the predicted probability of being never married, which reduced the pool of women eligible to be previously married.

Summing the predicted probability of being currently and previously married gives us the probability that women will be *ever*-married (not shown, but calculated by summing the predicted probabilities from Panels A and B of Table 2)—that is, the predicted probability of having been married at least once. For both black and white women, there was a negative relationship between education and the predicted probability of being ever-married in 1940. Although there was a decline in the predicted probability of being ever-married for black women at all educational levels between 1940 and 2000, this decline was accompanied by a clear transition from a negative to a positive relationship between education and the predicted probability of being ever-married, similar to the transition for the currently married.

In contrast to the declines for black women, the predicted probability of being ever-married increased 10 percentage points for highly educated white women over the period (to 60%) and there were smaller increases for white women at lower education levels. Furthermore,

college-educated white women continued to have a slightly lower predicted probability of being ever-married (60%) than those with some college (67%) through 2000. That is, the relationship remained U-shaped for white women, in contrast to the transition to the positive relationship for black women. However, the regression coefficients suggest that among ever-married white women, those with college educations were more likely to be currently married than previously married after 1970.

Never Married

There was a racial crossover in the likelihood of being never married over the period. In 1940, black women were less likely to be never married than white women, at all education levels except those with a college degree. By 2000, black women were more likely than white women at similar education levels to be never married. However, between 1940 and 2000, both groups experienced a transition in the relationship between education and the predicted probability of being never married. For black women, there was a clear transition from a negative relationship in 1940 to a positive relationship in 2000. This transition proceeded more slowly for white women, and the relationship remained U-shaped in 2000, similar to the relationship observed for black women in 1970. If white women continue to follow a similar transition as black women, then we might expect this relationship to be positive in the future.

In 1940, 50% of college-educated white women were predicted to be never married, compared to 39% for those with some college, 36% for those with a high school diploma, and just 27% of white women with a grade school education (see Panel C of Table 2). During the baby boom period, the predicted probability of being never married declined for white women at all education levels. After 1970, the predicted probability of being never married increased for all white women, but the increase was larger among the less educated. Comparing 1940 to 2000, the

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predicted probability of being never married declined 10 percentage points for college-educated white women (from 40% to 50%) over the entire period. In contrast, white women with less than a high school diploma became more likely to be never married over the period (increasing from approximately 27% in 1940 to over 35% in 2000). As a result, there was a U-shaped relationship between education and the predicted probability of being never married in 2000 for white women. College-educated white women continued to have a higher predicted probability of being never married than their less educated counterparts (50% vs. 35%) but the education gap in the predicted probability of being never married narrowed considerably, from 23 percentage points in 1940 to just 3 percentage points in 2000.

In 1940, college-educated black women, like college-educated white women, had the highest predicted probability of being never married, at 52%, compared to 37% of those with some college education, 29% for those with a high school diploma, and 23% of black women with a grade school education (see Panel C of Table 2). Between 1940 and 1970, black women with at least some college education experienced a decline in the predicted probability of being never married, while black women at lower education levels experienced an increase. This led to a U-shaped relationship between education and the predicted probability of being never married for black women in 1970, similar to that observed for white women in 2000. After 1970, the predicted probability of being never married increased for black women at all education levels, resulting in an overall increase between 1940 and 2000. The increase over the period was smallest for those with at least some college education (4 percentage points) and largest for women with less than a high school education (over 40 percentage points). By 2000, college-educated black women had the lowest predicted probability of being never married, at 56%, compared to 66% of those with a grade school education.

Decomposing the Change

The above results show a clear change in the relationship between education and the predicted probabilities of being currently and never married. However, changes in these predicted probabilities have two components: 1) change due to changes in population characteristics and 2) change due to changes in the relationship between education and marriage. The regression coefficients in the appendix indicate that the changes in the predicted probabilities are not simply due to changes in population characteristics, because there has been a change in the coefficients for education. In addition, using a counterfactual simulation, or standardization, we can also decompose the change in the predicted probabilities. This allows us to asses the contributions of changes in population characteristics and changes in the relationship between education and marriage to the observed changes in predicted probabilities.

Table 3 shows the predicted probabilities of being currently and never married for black and white women in 1940 and 2000, along with a counterfactual simulation applying the 1940 model to the 2000 population—in effect, a standardization on the 2000 population. This standardization allows us to decompose the observed changes in the predicted probability of being never and currently married into 1) the percentage of the change due to changes in population characteristics and 2) the percentage of the observed change due to changes in the model. The percentage of change due to changes in population characteristics is calculated by comparing the counterfactual change between columns 1 and 2 (holding the model constant) in Table 3 to the observed change in columns 1 and 3. The percentage of change due to changes in the model is calculated by comparing the counterfactual change between columns 2 and 3 (holding the population constant) in Table 3 to the observed change in columns 1 and 3. Panel A

shows this decomposition for white women and Panel B shows the decomposition for black women.

[Insert Table 3 about here]

For white women with a high school diploma or less, the majority of change in the predicted probability of being currently married and never married occurred is explained simply by changes in population characteristics (explaining 67% to 84% of the decline for currently married, and more than the observed change in the probability of being never married). In contrast, changes in the model play a larger role in explaining changes in marriage among college-educated white women. Changes in the relationship between education and marital status offset changes in the population for those with some college, and explain almost all of the observed increase in the predicted probability of being currently married among white women with a college degree (86%). In addition, changes in the relationship explain the majority (60% to 80%) of the decline in the probability of being never married among college-educated white women.

In contrast, for black women, changes in the relationship between education and marriage play more of a role. Changes in population characteristics explain one-third to two-thirds of the decline in the predicted probability of being currently married among those with some college or less, while changes in population characteristics explain the rest. Changes in the relationship between education and marriage offset changes in population characteristics among college-educated black women, resulting in a smaller decline in the probability of being currently married for college-educated black women. Similar contributions of changes in population characteristics and changes in the relationship explain the observed increases in the predicted probability of being never married for black women.

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Thus, both 1) changes in population characteristics and 2) changes in the relationship between education and marriage play a role in changing marriage patterns. For less-educated black and white women, changes in population characteristics are responsible for much of the decline in current marriage probabilities and increase in nonmarriage probabilities. In contrast, among college-educated white women, the changing relationship between education and marriage plays a substantial role in explaining the increase in the predicted probability of being currently married and the decrease in the predicted probability of being never married. For college-educated black women, changes in the relationship between education and marriage offset declines in the predicted probability of being currently married and increases in the predicted probability of being never married due to changes in population characteristics. As a result, college-educated women were more likely to be currently married and less likely to be never married than if the relationship between education and marriage had not changed. Thus, while changes in population characteristics play a role in declining marriage rates among the less educated, the observed transformation of the relationship between education and the predicted probability of being currently or never married is primarily the result of changes in the relationship between education and marriage.

SUMMARY AND CONCLUSION

Marriage Is a Dynamic Institution

This analysis extends previous work on the changing relationship between economic status and marriage. A major contribution of this analysis is the use of IPUMS data, which allows the inclusion of a longer time period than has been previously examined in a multivariate context. Thus we can examine the relationship between economic status and marriage before, during, and after the baby boom. This study also extends the definition of marital status to include the

currently, previously, and never married, which allows the examination of the relationship between education and the likelihood of both getting and staying married. While the cross-sectional nature of the IPUMS data limits what we can conclude about the causal ordering of the relationship between education and marriage, there is a clear and changing association between education and marital status for women between 1940 and 2000, net of other characteristics.

In 1940, there was a clear negative relationship between education and marriage for both black and white women, consistent with specialization and exchange theory. College-educated women (black and white) were most likely to be never married and least likely to be currently married. The opposite was true for women with less than a high school diploma—they were the least likely to be never married and the most likely to be currently married. By 2000, the relationship between education and marriage was positive, and college graduates were most likely to be currently married. College-educated black women were also least likely of all black women to be never married, while for white women the gap in the probability of being never married probabilities narrowed substantially, but college-educated women remained slightly more likely than other white women to be never married.

In short, in the early part of the period, when separate spheres and the specialization of gender roles were more likely to prevail, greater education decreased the likelihood of marriage for women. By the end of the period, gender roles became increasingly similar, and so too did the relationship between economic status and marriage for men and women. In the most recent era, in which gender roles are more symmetrical, greater education increases the likelihood of both getting and staying married (or remarrying after divorce or widowhood).

Although the reversal of the relationship between education and marriage occurred for both black and white women, there are some notable differences in the patterns of change over

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time for the two groups. First, the transition occurred earlier for black women. Second, a clear transition is observed across all three marital statuses for black women. Third, black women experienced a substantial decline in current marriage rates between 1940 and 2000 at all education levels, due in part to changes in the characteristics of the population. White women with a college degree experienced an increase in current marriage rates between 1940 and 2000, while black women with college degrees experienced smaller declines than all other black women. Current marriage probabilities declined for all other women.

Although it may be coincidental, both the timing of white women's mass entry into the labor force and the change in the relationship between education and marriage for white women lagged behind black women. It is feasible that black women's earlier mass entry into the labor force increased both the benefit of education (DiPrete and Buchmann 2006) and the symmetry of gender roles at an earlier point leading to an earlier transition in the relationship between education and marital status. The relatively poor position of black men in the labor market after 1940 likely helped facilitate these changes. However, the standardization analysis suggests that at least some of the decline in marriage rates over time can be explained simply by the changing characteristics of the population. In addition, at least some of the black-white difference in marriage is explained by differences in group characteristics. White women's marriage rates have not yet experienced the same sizeable declines as black women, and if those declines are a result of the uniquely disadvantaged position of black men, it is unlikely that white women will experience the same large declines.

Overall, the transformation of the relationship between education and marital status occurred primarily as a result of the decreasing likelihood of marriage (and remarriage) among less educated women. These declines were accompanied by small increases in marriage (and

remarriage) among highly educated white women and smaller decreases in marriage among highly educated black women relative to other black women. Consistent with Oppenheimer's (1998, 2000) findings that the increasing disadvantage of men led to declines in marriage rates, economic disadvantage among women also decreases the likelihood of marriage, at least in contexts where gender specialization is low. Furthermore, the dramatic decline in marriage rates for black women occurred after the relationship between education and marriage had already become positive, suggesting that population characteristics and the increasing disadvantage of the least educated women in the marriage market, rather than women's increased economic status and independence, is the likely explanation for the "retreat from marriage" among black women.

Another important component of the change in the relationship between education and marriage is the increased propensity of ever-married women with at least some college education to be currently married, particularly among white women. Given the increases in divorce and remarriage over the period, it is crucial to understand the role that economic status plays in both getting married and staying married. This analysis provides a first step, suggesting that higher education increases the probability of staying married, or of remarrying after divorce. Highly educated women, black or white, are least likely to be previously married in all years. However, the change over time in the predicted probability of being previously married seems to be largely driven by period changes in mortality and divorce laws. While this analysis provides a first step toward a more thorough understanding of the role of education in lowering previous marriage rates, additional analysis on this topic is needed.

Consequences for Inequality

Highly educated women are now more likely than their less educated counterparts to be currently married, and highly educated black women are more likely to be ever-married. This suggests that although marriage rates declined coincident with substantial increases in women's status between 1940 and 2000, the declines in marriage rates did not result from declines in marriage among highly educated women, as predicted by specialization and exchange theory. Rather, declines in marriage, as well as the transformation in the relationship between education and marital status for women, were largely driven by declines in marriage among the most disadvantaged women.

This finding has serious consequences for inequality, and particularly intergenerational inequality. Not only has there been a dramatic decline in the likelihood of marriage among the most disadvantaged women, but over the same period there have been increases in educational homogamy (Kalmjin 1991; Mare 1991; Schwartz and Mare 2006). Thus, less educated women are less likely to marry, and when they do marry, they are more likely to marry men with similar economic disadvantages than in the past. When gender specialization was high, marriage as an institution helped mitigate economic disadvantages for women with little education. However, as specialization declined, marriage may increasingly exacerbate socioeconomic inequalities.

This analysis provides substantial support for the idea that the relationship between economic status and marriage is dependent on the gender-role context. When specialization is high, highly educated women are likely to opt out (or be forced out) of the marriage market. However, when specialization is low, those women most able to live independently are also the most likely to be married. In contrast, those who might benefit most (in financial terms) from marriage are the least likely to be married. This raises interesting questions about what the revolution in gender roles and expectations mean for economically disadvantaged women. The

gender revolution is not just about micro-level increases in women's employment and economic status. Rather it profoundly altered the roles and statuses available to women. One possible explanation is that less educated women are using macro-level increases in the acceptance of women's independence outside of marriage to opt out of what they see as "bad" or undesirable marriages (e.g., Edin and Kefalas 2007; Edin and Reed 2005). The alternative interpretation is that changing expectations about what make women good marriage partners has made economically disadvantaged women, like lower socioeconomic status men, less attractive marriage partners. Although both interpretations have implications for inequality, distinguishing between these to interpretations is an important avenue for further research.

Increases in nonmarital childbearing and single parenthood have reduced some children's access to both parents' economic and emotional resources. However, some of the increase in nonmarital childbearing and single parenthood has been offset by increases in cohabitation (Bumpass and Raley 1995; Bumpass and Sweet 1989), particularly among those of lower socioeconomic status (Bumpass, Sweet, and Cherlin 1991; Clarkberg 1999; Oppenheimer 2003). If the less educated are increasingly more likely to cohabit than to marry over the period, than this might explain the changing relationship between education and marriage over the period. Alternative specifications of the models, which treat cohabiting couples as currently married in 2000 (data not shown), do not alter the patterns of change observed in the relationship between education and marriage for women. Thus, the changing relationship between education and marriage for women does not appear to be a result of increases in cohabitation.

The changing relationship between education and marriage between 1940 and 2000 suggests that marriage is a dynamic institution. Thus, it may be useful to think about the theories of marriage based on specialization and exchange and those based on similarities in the marriage

market as complementary rather than oppositional. When gender specialization is high, greater economic status decreases the likelihood of marriage for women, but increases it for men. However, the increased symmetry of men's and women's gender roles in market work in the recent period appears to have increased the symmetry of the characteristics that make an attractive marriage partner. In the process, the relationship between education and marital status for women has been transformed. This dynamic interpretation allows us to assess how the gender-role context shapes, and reshapes, the relationship between economic status and marriage. Such an approach is useful for thinking about past changes over time in marriage, and theorizing about future changes. It is also useful for thinking about differences in marriage patterns and differential timing of changes in marriage across groups, and across countries with different gender-role contexts.

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NOTES

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[1] While the basic structure and format of the files is similar across years, there are some minor differences in sampling frames, coverage, and definitions. Alaska and Hawaii were not included prior to 1960; no comparable income data are available prior to 1950; multiple race categories were added in 2000; and metropolitan area definitions vary across years. In 1940 and 1950, the sampling procedures used by the Census Bureau collected education and income data for "sample line individuals" only, resulting in a smaller analytic sample for these two census years.

[2] In 1940, there were five possible categories: married spouse present, married spouse absent, divorced, widowed, and single. In 1950 and all subsequent years, the additional category of separated was added and "single" was renamed "never married." For the marital status variable used in this analysis, those whose reported martial status was "married spouse present" were coded as currently married, while those whose reported marital status was single (1940) or never married (1950–2000) were coded as never married. Finally, those whose reported marital status was married spouse absent, separated (1950–2000), divorced, or widowed were all coded as being previously married. Although there was no separated category in 1940, IPUMS-USA documentation (Ruggles et. al 2004) indicates that such individuals would have been coded as "married spouse absent" and thus included in the previously married category used here.

[3] Prior to 1940, the census asked about literacy rather than educational attainment.

[4] Prior to 1980, married women were much less likely than unmarried women to be employed and/or have any earnings (data not shown).

[5] In all cases, there were at least 1,000 observations in each cell.

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Table 1. Descriptive Characteristics For White and Black Women Aged 18-39

	White Women			Black Women		
	1940 **Value or** **Proportion**	**1970** **Value or** **Proportion**	**2000** **Value or** **Proportion**	**1940** **Value or** **Proportion**	**1970** **Value or** **Proportion**	**2000** **Value or** **Proportion**
Never Married	0.30	0.23	0.36	0.23	0.30	0.58
Currently Married	0.63	0.68	0.52	0.56	0.47	0.27
Previously Married	0.07	0.09	0.12	0.21	0.23	0.14
Grade School	0.35	0.08	0.03	0.72	0.15	0.02
Some HS	0.23	0.18	0.10	0.16	0.33	0.19
HS Diploma	0.29	0.46	0.25	0.08	0.38	0.30
Some College	0.09	0.18	0.37	0.03	0.10	0.36
College Degree or Higher	0.04	0.10	0.25	0.01	0.04	0.13
Age (mean)	27.93	27.41	29.16	27.97	27.37	28.72
Hispanic	----------	----------	0.09	----------	----------	0.02
Foreign Born	0.07	0.05	0.09	0.01	0.02	0.08
Employed	0.31	0.45	0.69	0.41	0.50	0.62
Unemployed	0.04	0.03	0.04	0.05	0.06	0.10
Not in Labor Force	0.65	0.52	0.27	0.54	0.45	0.28
Currently In School	0.04	0.13	0.21	0.03	0.12	0.23
Northeast	0.30	0.24	0.19	0.14	0.21	0.18
Midwest	0.32	0.29	0.26	0.12	0.21	0.19
South	0.27	0.29	0.35	0.73	0.50	0.55
West	0.10	0.18	0.20	0.01	0.08	0.08
Metropolitan	0.57	0.64	0.56	0.50	0.73	0.72
Farm	0.17	0.03	0.01	0.26	0.02	0.00
Owner Occupied Housing	0.38	0.58	0.61	0.19	0.37	0.38
N	30,142	264,018	310,000	3,561	34,673	54,033

Source: IPUMS-USA

Notes: The large changes in the percent living in metropolitan areas between 1990 and 2000 are due to changes in definitions between the 1990 and 2000 Censuses.

Table 2. Predicted Probability of Being Currently Married, Previously Married, and Never Married by Education, Women 18 to 39

Panel A: Currently Married

	White Women							Black Women						
	1940	1950	1960	1970	1980	1990	2000	1940	1950	1960	1970	1980	1990	2000
College Degree or Higher	46%	62%	69%	63%	55%	56%	53%	37%	48%	52%	53%	36%	36%	33%
Some College	56%	67%	74%	68%	60%	58%	52%	47%	49%	55%	51%	34%	31%	30%
High School Diploma	59%	75%	75%	69%	63%	60%	50%	51%	55%	56%	48%	35%	27%	26%
Some High School	67%	78%	79%	71%	64%	56%	47%	58%	58%	56%	46%	28%	20%	21%
Grade School	66%	74%	72%	59%	59%	53%	47%	56%	58%	54%	40%	23%	16%	20%

Panel B: Previously Married

	White Women							Black Women						
	1940	1950	1960	1970	1980	1990	2000	1940	1950	1960	1970	1980	1990	2000
College Degree or Higher	4%	4%	4%	5%	7%	7%	7%	11%	18%	17%	12%	15%	12%	11%
Some College	5%	6%	6%	7%	10%	13%	15%	15%	17%	19%	18%	23%	19%	17%
High School Diploma	5%	6%	7%	8%	11%	15%	16%	20%	21%	19%	20%	23%	20%	14%
Some High School	7%	8%	9%	12%	15%	19%	17%	20%	24%	24%	25%	27%	21%	15%
Grade School	7%	10%	18%	29%	13%	16%	16%	21%	26%	23%	23%	24%	19%	14%

Panel C: Never Married

	White Women							Black Women						
	1940	1950	1960	1970	1980	1990	2000	1940	1950	1960	1970	1980	1990	2000
College Degree or Higher	50%	33%	27%	31%	38%	37%	40%	52%	35%	32%	35%	49%	53%	56%
Some College	39%	27%	20%	25%	30%	29%	34%	37%	35%	26%	32%	43%	50%	54%
High School Diploma	36%	19%	18%	23%	26%	26%	34%	29%	24%	25%	32%	43%	53%	59%
Some High School	26%	14%	12%	18%	21%	26%	35%	21%	18%	20%	29%	45%	59%	63%
Grade School	27%	16%	18%	12%	28%	31%	37%	23%	16%	23%	36%	54%	65%	66%

Source: From authors caluclation based on the regression models (see Appendix) applied to population characteristics for each year.

Table 3. Predicted Probabilities of Being Currently and Never Married for Black and White Women, 1940, Standardized 1940, and 2000

Panel A. White Women

	Currently Married			Percent of Difference Due to		Never Married			Percent of Difference Due to	
	1940 on 1940	1940 on 2000*	2000 on 2000	Changes in Population	Changes in Relationship	1940 on 1940	1940 on 2000*	2000 on 2000	Changes in Population	Changes in Relationship
Grade School	66%	50%	47%	84%	16%	27%	43%	37%	160%	-60%
Some High School	67%	50%	47%	85%	15%	26%	42%	35%	178%	-78%
High School Diploma	59%	53%	50%	67%	33%	36%	39%	34%	-150%	250%
Some College	56%	47%	52%	225%	-125%	39%	38%	34%	20%	80%
College Degree or Higher	46%	47%	53%	14%	86%	50%	46%	40%	40%	60%

Panel B. Black Women

	Currently Married			Percent of Difference Due to		Never Married			Percent of Difference Due to	
	1940 on 1940	1940 on 2000*	2000 on 2000	Changes in Population	Changes in Relationship	1940 on 1940	1940 on 2000*	2000 on 2000	Changes in Population	Changes in Relationship
Grade School	56%	43%	20%	37%	63%	23%	32%	66%	20%	80%
Some High School	58%	45%	21%	35%	65%	21%	30%	63%	22%	78%
High School Diploma	51%	39%	26%	46%	54%	29%	37%	59%	27%	73%
Some College	47%	37%	30%	61%	39%	37%	45%	54%	48%	52%
College Degree or Higher	37%	29%	33%	193%	-93%	52%	58%	56%	148%	-47%

Source: From authors calucation based on the regression models (see Appendix) applied to population characteristics for each year.

* Standardization applying 1940 regression coefficients to the 2000 population

Figure 1a. Predicted Probabilty of Being Currently Married for White Women by Education Level, 1940-2000
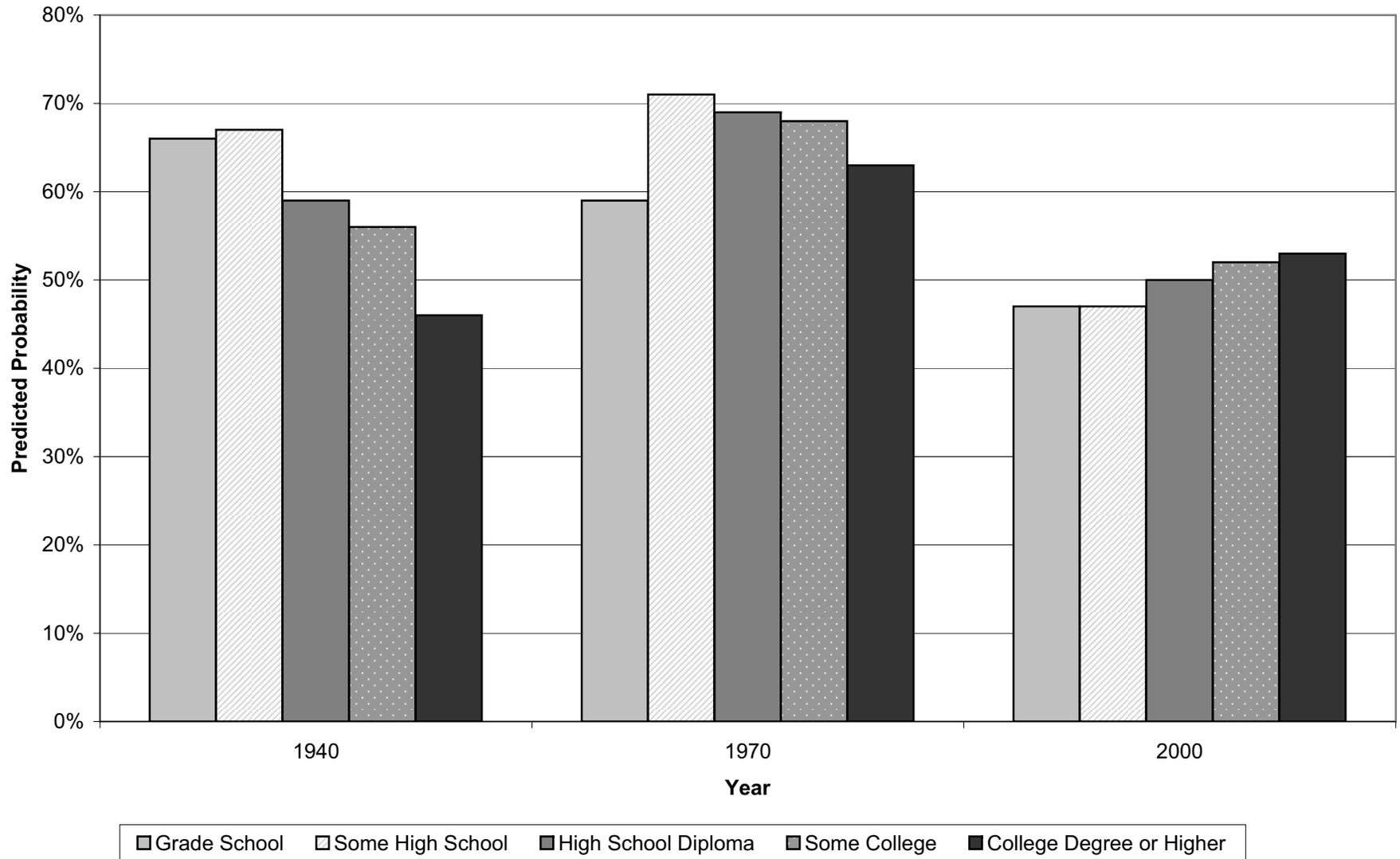
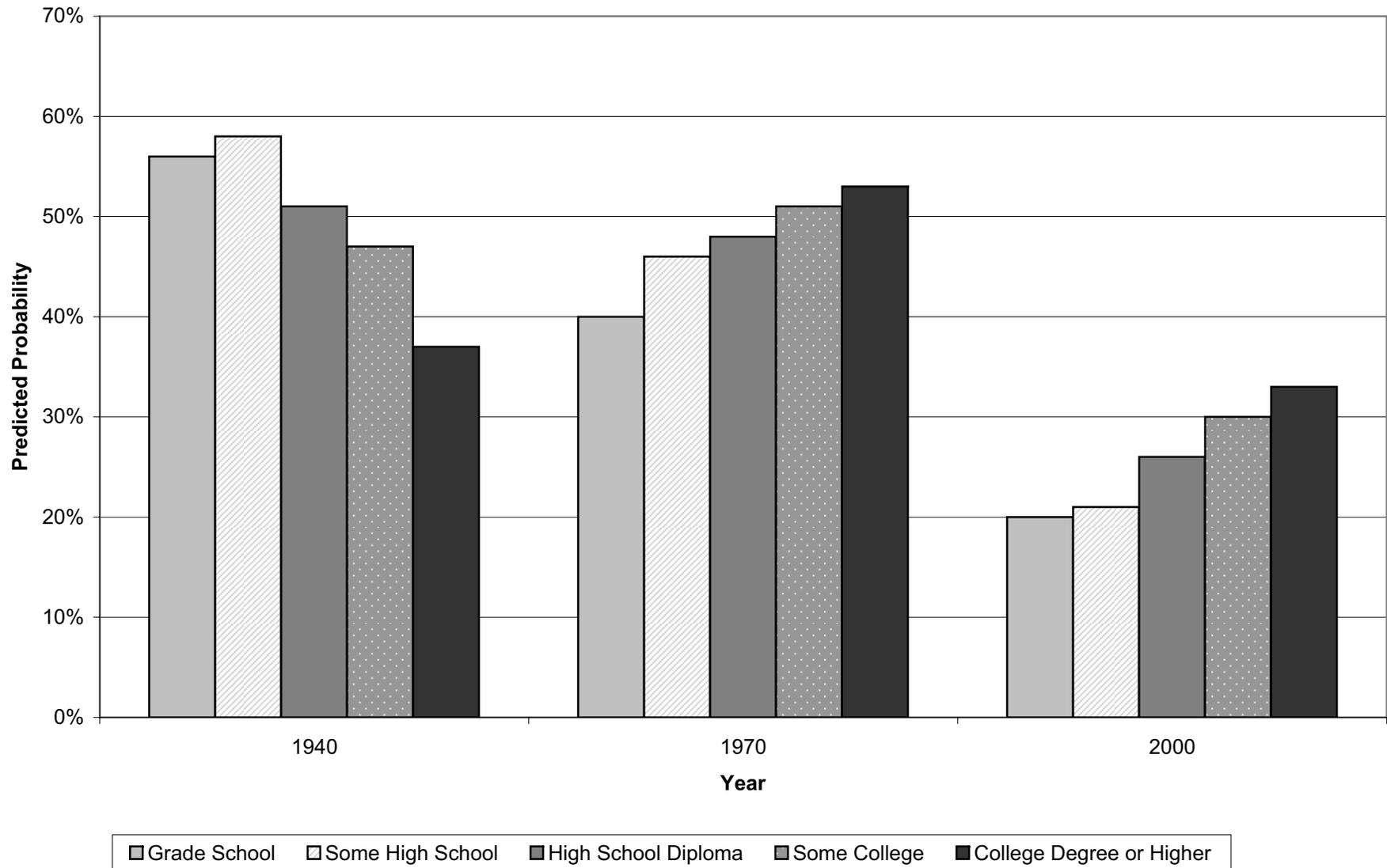**Figure 1b. Predicted Probabilty of Being Currently Married for Black Women by Education Level, 1940-2000**

Grade School | Some High School | High School Diploma | Some College | College Degree or Higher

Table A1. Multinomial Logistic Regression Coefficients for Black and White Women Aged 18-39

Panel A. White Women

	Currently Versus Never Married			Previously Versus Never Married			Currently Versus Previously Married		
	1940	1970	2000	1940	1970	2000	1940	1970	2000
Education (HS is reference)									
Grade School	0.61 ***	-0.56 ***	-0.25 ***	0.82 ***	-0.01	-0.22 ***	-0.21 **	-0.54 ***	-0.03
Some High School	0.63 ***	0.49 ***	-0.15 ***	0.82 ***	0.80 ***	0.00	-0.19 *	-0.31 ***	-0.15 ***
HS Diploma	--------	--------	--------	--------	--------	--------	--------	--------	--------
Some College	-0.18 *	-0.14 ***	0.04 *	-0.17	-0.29 ***	-0.08 ***	-0.02	0.15 ***	0.12 ***
College Degree or Higher	-0.79 ***	-0.62 ***	-0.25 ***	-0.70 ***	-0.99 ***	-1.11	-0.09	0.37 ***	0.88 ***
Age (mean)	0.18 ***	0.22 ***	0.18 ***	0.20 ***	0.22 ***	0.22 ***	-0.02 ^	0.00	-0.04 ***
Hispanic	--------	--------	0.03	--------	--------	-0.10 **	--------	--------	0.13 ***
Foreign Born	0.06	0.01 ^	0.69 ***	-0.16	-0.30 ***	-0.03	0.22 ^	0.31 ***	0.72 ***
Currently In School	-2.75 ***	-2.2 ***	-1.12 ***	-1.57 ***	-1.68 ***	-0.33 ***	-1.18 ***	-0.52 ***	-0.79 ***
Region (Northeast is reference)									
Midwest	0.48 ***	0.46 ***	0.37 ***	0.44 ***	0.35 ***	0.39 ***	0.03	0.10 ***	-0.02
South	0.66 ***	0.70 ***	0.60 ***	0.97 ***	0.74 ***	0.75 ***	-0.31 ***	-0.03	-0.15 ***
West	0.98 ***	0.52 ***	0.32 ***	1.42 ***	0.75 ***	0.35 ***	-0.44 ***	-0.23 ***	-0.03
Metropolitan	-0.35 ***	-0.30 ***	-0.44 ***	-0.20 *	-0.17 ***	-0.40 ***	-0.16 *	-0.14 ***	-0.04 *
Farm	0.10 ^	-0.40 ***	0.18 ***	-0.61 ***	-0.75 ***	-0.86 ***	0.72 ***	0.36 ***	1.04 ***
Owner Occupied Housing	-0.83 ***	-0.25 ***	0.70 ***	-0.87 ***	-0.91 ***	-0.56 ***	0.03	0.88 ***	1.28 ***
Intercept	-4.22	-4.17	-5.05	-7.35	-5.06	-6.78	3.16	1.89	7.73

Panel B. Black Women

	Currently Versus Never Married			Previously Versus Never Married			Currently Versus Previously Married		
	1940	1970	2000	1940	1970	2000	1940	1970	2000
Education (HS is reference)									
Grade School	0.37 ^	-0.35	-0.42 ***	0.37 ^	-0.02	-0.26 *	-0.01	-0.33 ***	-0.15
Some High School	0.63 *	0.13 ***	-0.32 ***	0.44 ^	0.39 ***	-0.12 *	0.09	-0.26 ***	-0.2 ***
HS Diploma	--------	--------	--------	--------	--------	--------	--------	--------	--------
Some College	-0.45	0.09	0.29 ***	-0.64 ^	-0.09	0.22 ***	0.19	0.18 **	0.07 ^
College Degree or Higher	-1.17 *	-0.06 ***	0.32 ***	-1.47 *	-0.56 ***	-0.32 ***	0.30	0.50 ***	0.64 ***
Age (mean)	0.16 ***	0.16 ***	0.13 ***	0.19 ***	0.18 ***	0.17 ***	0.00 ***	-0.02 ***	-0.04 ***
Hispanic	--------	--------	0.68 ***	--------	--------	0.47 ***	--------	--------	0.21 ^
Foreign Born	-0.34	-0.03	0.84 ***	-0.34	-0.59 ***	0.13 ^	0.23	0.56 ***	0.71 ***
Currently In School	-2.78 ***	-1.7 ***	-0.51 ***	-1.12 *	-1.28 ***	0.01	-1.66 *	-0.42 ***	-0.52 ***
Region (Northeast is reference)									
Midwest	0.50 *	0.36 ***	0.15 ***	0.58 *	0.35 ***	0.22 ***	-0.06	0.01	-0.07
South	0.35 ^	0.27 ***	0.43 ***	0.23	0.16 ***	0.45 ***	0.12	0.11 *	-0.02 ***
West	0.99 ^	0.59 ***	0.50 ***	1.23 *	0.68 ***	0.50 ***	-0.27	-0.09 ^	0.01
Metropolitan	-0.52 ***	-0.03	-11.00 ***	-0.17	0.15 ***	-0.20 ***	-0.35 ***	-0.18 ***	0.09 *
Farm	0.22 ^	-0.21 *	0.19	-0.68 ***	-0.65 ***	0.05	0.89 ***	0.44 **	0.14
Owner Occupied Housing	-0.64 ***	-0.03	0.58 ***	-0.62 ***	-0.56 ***	-0.34 ***	-0.03	0.59 ***	0.92 ***
Intercept	-3.60	-3.81	-5.11	-5.39	-5.16	-6.47	1.78	1.35	1.36

^ p<.10, * p<.05, ** p<.01, *** p<.001