# Historical Trends in Marriage Formation, United States 1850-1990 

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The dramatic rise of marriage age and decline in proportion marrying since the 1960s have captured the attention of both academics and the media. It is sometimes forgotten that the 1960s were an exceptional period with respect to marriage behavior. This essay puts recent changes in marriage patterns into historical perspective by assessing trends and differentials in U.S. marriage behavior over the very long run. Like the studies of Rogers and Thornton (1985) and Haines (1996), our aim is mainly descriptive. We have expanded on the work of these authors in three dimensions. First, through the use of new data sources and new methods we have extended the series of basic measures of marriage formation backward to the mid-nineteenth century and forward to 1999. Second, we present more precise measures of marital behavior than previous studies of long-run trends in marriage formation. In particular, we present a consistent series of estimates for median age at first marriage, distribution of first marriage age, and proportion never marrying from 1850 through 1998 for nativeborn whites and from 1870 through 1990 for blacks. Finally, we examine occupational differences in marriage formation between 1850 and 1990.

## Data and Methods

The United States was very late to gather vital statistics on marriage; it was not until 1920 that marriage data were systematically collected from all the states. Even today, the data collected from marriage certificates provides a poor source for studying differentials in marriage patterns because some states gather very limited information. For example, sixteen states do not inquire about the race of the bride and groom. Published tabulations of data from marriage
certificates are also highly limited in scope and frequency. For the period after 1990, the National Center for Health Statistics has published no marriage statistics except raw counts of the monthly number of marriages in each state.

Accordingly, analysis of trends and differentials in marriage patterns in the United States must rely on census and survey tabulations of marital status by age. Such data allow calculation of two key measures of marriage behavior: the indirect median age at marriage and the proportion never marrying. We prefer the indirect median measure of marriage to the singulate mean age at marriage (SMAM) widely used by historians, because it provides more precise period estimates when marriage age is changing rapidly (Fitch 1998). The indirect median yields an unbiased age-independent measure of age at first marriage. ${ }^{1}$ As described by Shryock and Seigal, the indirect median is calculated in three steps. Step 1 estimates the proportion of people who will ever marry during their lifetime, we calculate this figure as the proportion of persons aged 45-54 who are not married, separated, widowed, or divorced. Secondly, we calculate one-half of the proportion who will ever marry. The third and final step determines the current age of people at this half-way point through interpolation. For example, if we calculate that 90 percent of people will eventually marry, one half of this proportion is 45 percent; the median age at marriage, then, is the age at which 45 percent of the population has married. We also measure the age at which ten, twenty-five, and seventy-five percent of the population have married according to the same methodology (Shryock and Seigel 1971; US Bureau of the Census 1975).

This analysis is based on the Integrated Public Use Microdata Series (IPUMS). The IPUMS consists of individual-level national samples of census data from 1850 to 1990 (with the exception of 1890 and 1930). When possible, we have used published tables from the 1890 and 1930 Census to fill these gaps. ${ }^{2}$ Because of rapid changes over the past decade, we have also included data from the 1999 Current Population Survey (CPS). ${ }^{3}$

In the 1850, 1860 and 1870 census years, the census did not inquire about marital status. Fortunately, we do not need to know the exact marital status of individuals in order to compute the basic measures of nuptiality; we simply estimate the proportion of persons who were never-married (single) and the proportion who are ever-married (including the married, divorced, and widowed population) for each age. As part of the IPUMS, we created family interrelationship variables that use a probabilistic approach to identify spouses and children within the household, based on seventeen characteristics such as surname, sequence of enumeration, age, and birthplace (Ruggles and Sobek 1998). We use this information on the presence of a spouse or children to infer ever-married status for persons under age fifty-four. The American census has always been taken on a de jure basis, so spouses are ordinarily listed as present in their usual place of residence even if they are temporarily absent. Widowed persons usually can be identified by the presence of children. The childless widowed or divorced population, however, cannot be identified in this way. Moreover, some never-married persons living with children are incorrectly identified as ever married. Analysis of the 1880 census suggests that this
slippage has minor effects on estimates of marriage age, and requires only modest adjustments of age-specific proportions married (Fitch 1998).

Unlike previous studies, our analysis excludes persons born outside the United States. Our main measure, the indirect median age at first marriage, is based on the concept of a synthetic cohort: age differences in the proportion ever-married are treated as if they were changes over the life course. We need to know the marital status of the population at each age, but at the peak marriage ages many foreign-born immigrants had not yet arrived. If there were any association between marital status and immigration, the problem would be compounded. Thus, because the foreign-born spent part of their life outside of the area of observation, they can bias the results of synthetic cohort measures.

In addition, for the period prior to 1870 our analysis excludes blacks. Although most slaves entered enduring marital unions, formal marriage was prohibited, and the 1850 and 1860 censuses did not enumerate the slave population with sufficient detail to study marriage patterns. Moreover, the free black population is subject to the same sort of biases as the foreign-born, and the samples of free blacks are too small to produce conclusive results. ${ }^{4}$

## Marriage age before 1850

In one of the landmark essays of historical demography, John Hajnal (1965) revealed that the historic marriage pattern of Western Europe differed dramatically from that of other parts of Europe and from the rest of the world. This "European Marriage Pattern," as Hajnal termed it, was characterized by very late marriage for both men and women and by high proportions of individuals
never marrying. At least as far back as the eighteenth century, Hajnal demonstrated, the mean age at first marriage for western-European women generally varied from 24 to 27 , and for men from 26 to 30 . About a sixth of the European population never got married at all.

Hajnal explained the European marriage pattern by reference to the economic system, land availability, and family. Before the Industrial Revolution, western-European couples were generally required to achieve economic independence before they were allowed to marry. In other parts of Europe and elsewhere in the World, Hajnal maintained, such economic independence was not a prerequisite to marriage; in many areas young couples were incorporated into large joint-family households together with parents and married siblings. This kind of family was exceedingly rare in Western Europe. Instead, couples often delayed marriage until the prospective bridegroom inherited the family farm. Decreasing land availability significantly constrained the economic opportunities of young couples. The problem was compounded when mortality began to decline in the late nineteenth century, since the previous generation stayed alive longer and an increasing number of siblings survived to adulthood (Hajnal 1965).

According to the consensus of scholarly opinion, the timing and rate of marriage in the United States differed from that of Western Europe from the outset, even though the bulk of immigrants came from Western Europe. Observers as early as Ben Franklin noted the distinction between the European colonies in North America and European marriage patterns. After a discussion of births, deaths, and marriages in the colonies, Franklin concluded

Hence marriages in America are more general and more generally early, than in Europe. And if it is reckoned there, that there is but one marriage per annum among one hundred persons, perhaps we may here reckon two; and if in Europe they have but four Births to a marriage (many of the marriages being late) we may here reckon eight. (Franklin 1755, quoted in Haines 1996:16)

The difference, according to Franklin and later scholars, was not the adaptation of a non-Western European model of family and economic structure (incorporating young couples into large households) but instead the bountiful economic opportunity offered young men either through cheap land or from wage labor in urban areas (Easterlin 1976; Landale 1989a, 1989b; Leet 1977; Yasuba 1961).

We lack sufficient reliable data for the colonial period or for the United States as a whole before 1850 to make confident generalizations about either age at first marriage or about proportions never marrying. There are scattered estimates of marriage age from particular communities, mainly in New England, which suggest a mean age at marriage of perhaps 25.5 for men and 22.0 for women in the eighteenth century (Wells 1992, Haines 1996). These figures, however, are seriously biased downwards by methodological problems.

The problems with the colonial estimates are twofold. First, unlike the measures of marriage age used by Hajnal and others (including the SMAM and indirect median), the measures of marriage age used in the colonial studies are not age-independent. Because of very high fertility and high mortality (by modern standards) in the colonial period, the population was extremely young. Compared with the age-independent measure of marriage age used by Hajnal, this problem alone would bias the colonial estimates of age at marriage
downward by at least half a year, and perhaps as much as a year. Second, the colonial estimates are subject to severe migration censoring, a technical problem Ruggles has explored in detail (Ruggles 1992, 1999). We expect that migration censoring could bias the colonial estimates of marriage age downward by an additional one to three years.

For these reasons, we do not believe that the existing evidence for North America before 1850 is sufficient to confirm Franklin's hypothesis. If anything, we think the fragmentary colonial evidence suggests a broad similarity between North America and Western Europe.

## Median age at marriage among whites, 1850-1998

Figure 1 shows our estimates of median age at first marriage for nativeborn whites from 1850 through 1999 (Table 1a in the appendix presents the underlying statistics). In 1850, native-born white men married at a median age of 25.3 and women at 21.3. These figures are somewhat lower than Hajnal's figures cited above, but that is partly because we are measuring the median rather than the mean, and median age at marriage is generally about a year and a half earlier than the mean age. Using Hajnal's method (1953), we estimate that the mean age at marriage for white Americans was 26.6 for men and 22.9 for women in 1850 . Thus, marriage age for men in the mid-nineteenth century was close to the European marriage pattern, but for women it was probably slightly younger. For both men and women, marriage in mid-nineteenth century America generally took place at a significantly later age than in most countries outside of Western Europe (Haines 1996; Hajnal 1965).

Figure 1. Median Age at First Marriage: Native-born Whites by Sex, 1850-1999


Median age at marriage remained stable for white women from 1850 through 1870 but dropped noticeably for men after the Civil War. By 1890, however, marriage age for whites of both sexes rose still further to a peak of about 26 years for men and 22 for women. In a study of regional differences in the timing and incidence of marriage, Hacker reports a sharp decline in marriage age between 1860 and 1870 among Southern men and an increase among Southern women, presumably due to high wartime mortality (Hacker 1999). Other researchers argue that the increase in age at first marriage at the end of the century was related to declining availability of land, which restricted opportunities for family formation (Easterlin 1976; Landale 1989a, 1989b; Leet 1977; Yasuba 1961).

During the early decades of the twentieth century, marriage age among whites dropped substantially for men and somewhat less dramatically for women. Overall, white male age at first marriage fell by about two years between 1890 and 1930. This is probably associated with the growth of well-paid wage labor employment for men. In the rapidly industrializing economy, young white men increasing could find jobs that provided sufficient income to support a family.

There was a slight uptick in marriage age for whites during the depression, but after World War II there was an unprecedented marriage boom. The median age at marriage fell by 2.3 years for white men and 1.5 years for white women in just two decades. By 1960, median age at marriage was just 22 for white men and under 20 for white women. Again, this change was driven at least in part by the post-war economic expansion which increased opportunities for young men dramatically, especially in contrast with their depression-era childhood (Easterlin 1980).

The most dramatic changes in white marriage age have occurred in the decades since 1960. White female age at first marriage has been rising by about one year per decade for the past 39 years. The increase for men started a decade later than it did for women, but since 1970 the trend has been virtually the same. By 1999, marriage age for both men and women actually exceeded the peak reached at the turn of the century.

## Median age at marriage among blacks, 1870-1998

The long run trends in marriage age among blacks, shown in Figure 2 (and recorded in Table 1b of the appendix), differ dramatically from those of
whites. From 1870 through 1940, the trends in black age at marriage for both men and women followed the trends for whites quite closely, but blacks on average were married about two years younger than whites. Earlier marriage among blacks may reflect lower expectations about life course economic opportunity; blacks often remained farm tenants throughout their lives and even non-farm blacks experienced little upward occupational mobility (Landale and Tolnay 1991; Sobek 1997). Thus, black men and women had little incentive to delay marriage until they achieved economic success.

Figure 2. Median Age at First Marriage: Blacks and Native-born Whites by Sex, 1850-1990


After 1940, black trends in marriage age diverged dramatically from those of whites. While marriage age for whites plummeted during this period, there was essentially no post-war marriage boom for blacks. In fact, among black men the median age at marriage was rising slightly from 1940 to 1960. Among black
women, there was a very slight dip in marriage age in 1950, but by 1960-the nadir of marriage age for whites-black female marriage age was as high as it had ever been.

By 1960, the historic race differential in marriage age had reversed: blacks were marrying slightly later than whites, not earlier. After 1970 marriage age rose substantially faster for blacks than for whites, and by 1990 blacks were marrying at a median age of 27.3 among women and 28.6 among men. As we will discuss later, the reasons behind the recent rise of marriage age are doubtless similar for blacks and for whites, but it is not yet clear why the increase was greater for blacks. Although the number of cases in the Current Population Survey data does not provide conclusive results for 1999, preliminary statistics suggest that the rate of increase in marriage age may have slowed considerably. ${ }^{5}$

## Distribution of first marriage

Age at first marriage is not fully described by the median. The census provides sufficient information to estimate the distribution of marriage ages. We assess the age at which $10,25,50$, and 75 percent of the population had married in each census year. ${ }^{6}$ The marriage age distributions are presented separately for native-born white men and women, and black men and women in Figures 3 through 6 (and Table 1a and 1 b of the appendix). These figures suggest that prior to 1950 the distribution of marriage age was relatively stable and quite broad for all four groups. The $10^{\text {th }}$ and $25^{\text {th }}$ percentiles in particular remained

Figure 3. Age at which 10, 15, 50 and 75 Percent of Native-born White Men Have Married, 1850-1999


Figure 4. The Age at which 10, 25, 50 and 75 Percent of
Native-born White Women Have Married, 1850-1999


Figure 5. Age at which 10, 25, 50 and 75 Percent of Black Men Have Married, 1870-1990


Figure 6. Age at which 10, 25, 50 and 75 Percent of Black Women Have Married, 1870-1990

almost constant before World War II; the only exceptions to this stability were subtle fluctuations at the $50^{\text {th }}$ and $75^{\text {th }}$ percentiles.

For whites, however, the marriage boom in the post-war period was accompanied by a closer distribution of marriage age and the smallest difference between the $10^{\text {th }}$ and $75^{\text {th }}$ quartiles throughout the whole period. In 1960 the inter-quartile range for white women was only 3.5 years, compared to an average of nearly 6 years in previous decades. The inter-quartile range for white men decreased from an average of almost 7 years to 4.5 years. By 1980, however, the distribution had returned to pre-war levels for both men and women. In the past three decades, the distribution has broadened further and ages for all percentiles have risen to unprecedented levels. Several investigators have argued that the United States became a more age-graded society during the course of the twentieth century (see discussion in Stevens 1990). With a continuous series of observations throughout the course of the century, our analysis modifies that interpretation of life course transitions. The extremely narrow marriage age distribution of the post-war period now appears a short-run anomaly.

Among blacks, by contrast, there was little narrowing of the distribution of marriage after World War II. This trend is related to the absence of a marriage boom among blacks. The distributional data for blacks also highlights the magnitude of the marriage bust for blacks since 1970. Only ten percent of black women in 1990 had married by age 20; before 1970, over half had married by that age.

## Proportion never-marrying

A key indicator of the Northwestern European marriage pattern, as described by Hajnal, was high proportion of men and women who remained never married. We measure non-marriage as the percentage of individuals ages 45 to 54 listed as single. As seen in Figure 7, the proportion of whites never married follows a pattern similar to the trend in age at first marriage with a twenty to thirty year lag. For example, the peak in proportion never married was 1920

Figure 7. Proportion Never-married Age 45-54:
Native-born Whites by Sex, 1850-1999

for white men and women; this same cohort of individuals married late in 1890 and 1900. These similarities suggest that determinates of marriage patterns have strong cohort effects, and that if the marriage age for a cohort is late, the proportion never married also will be high. If this statement is true, we could hypothesize that marriage age for women was on the rise prior to 1850 and that it
was fairly stable for white men at that time. Similarly, given the recent dramatic rise in marriage age, it is likely that an unprecedented proportion of the current generation will never marry (Bloom and Bennett 1990).

Among blacks the proportion never-marrying, as seen in Figure 8, do not significantly lag behind the trends in median age at marriage. For black women in particular, consistently low proportions ever-marrying and an early age at first marriage mark the period from 1870 to 1950. At the same time, these measures

Figure 8. Proportion Never-married Age 45-54:
Blacks by Sex, 1870-1990

fluctuated more significantly for black men, but without evidence of the cohort effect demonstrated by whites. Since 1960, marriage was declining for all age groups of blacks and the proportion never-marrying rose simultaneously with the median age at marriage. Thus, the recent rise in non-marriage among blacks is apparently a period rather than the cohort effect.

## Occupational Differentials

The chronological patterns we have described suggest that marriage formation was powerfully influenced by economic circumstances. Several analysts have argued that changes in male economic opportunity since 1970 hindered the establishment of household and thus contributed to the unprecendented delay in marriage. Some of these studies, particularly those concerning race differentials, have demonstrated a significant connection between male economic circumstances and marriage timing (Bennett, Bloom and Craig 1989; Fossett and Kiecolt 1993; Lichter et al. 1992; Lichter, LeClere and McLaughlin 1991; Oppenheimer 1994; Oppenheimer, Kalmijn and Lim 1997;Testa and Krough 1995; Wilson and Neckerman 1987). Unlike previous research our analysis will assess the effects of male occupational status on marriage for the entire period from 1850 through 1990 using the IPUMS. Because occupations change over the life course, measures of marriage formation based on a synthetic cohort-such as the indirect median age at marriage—are inappropriate. Instead, we simply measure the percentage of men aged 22 to 27 who are never married. ${ }^{7}$ Figure 9 shows the percentage of white and black men aged 22-27 never married in each year from 1850 through $1990^{8}$. The chronological trends for the percent never married closely follow the trends in median age at first marriage. Note in particular that there was a pronounced marriage boom among whites in the decades following World War II, but virtually no marriage boom among blacks.

Figure 9. Percent Never-married: Black and Native-born White Men ages 22-27, 1850-1990


Figure 10 shows the percentage never married among 22-27 year old whites broken down into five occupational categories: persons not in the labor force (including students), farm workers, and three categories of non-farm workers. The non-farm occupations are coded into three groups, based on themedian earnings of each occupational title in 1950. Occupations with median 1950 earnings of $\$ 2,000$ or less are classified as 'lower non-farm,' those with earnings between $\$ 2,000$ and $\$ 2,600$ are 'middle non-farm,' and those with earnings of more than \$2,600 are 'higher non-farm.'

As one would expect, young white men not in the labor force were more often unmarried than were any other group. Farm workers married earlier than non-farm workers until 1920, perhaps because farming was a family enterprise

Figure 10. Percent Never-married: Native-born White Men Ages 22-27, by Occupational Group, 1850-1990

that depended on female labor (Landale1989a). Differences among the three non-farm occupational groups were modest. In the nineteenth century, those with low-earning occupations married earliest, but by 1900 there was a clear inverse relationship between occupational status and marriage age: those in the highest-paying jobs married earliest, and those with the poorest jobs delayed marriage longest. The marriage boom described earlier is evident in all five occupational groups.

The occupational patterns of marriage for black men, shown in Figure 11, are very similar: Those out of the labor force were most often unmarried and in the early period farm workers were usually married. The non-farm patterns are less clear-cut than the comparable patterns for whites, partly because of the small number of cases in the middle- and high-earnings groups before the mid-
twentieth century. Nevertheless, in most years the lowest earning group did marry slightly later than the higher earning groups. The most striking result in Figure 11 is that the post-war marriage boom is clearly visible in every occupational group except for farmers, although by 1950, farmers represented a small minority of the black population. How, then, can we explain the absence of a marriage boom among black men as a whole?

Figure 11. Percent Never-married: Black Men Ages 22-27, by Occupational Group, 1850-1990


The answer is revealed in Figure 12, which illustrates the occupational distribution of young black men from 1880 through 1990. In 1940, farming was still a major occupation for blacks, employing 31.7 percent of young men. With the introduction of automated cotton harvesters and other improvements in agricultural productivity, millions of blacks-many of them sharecroppers-were forced off the land (Grossman 1989). By 1960, only 6.5 percent of young blacks
remained on the farm. Many of the displaced farm workers found employment in the non-farm sector, but millions were forced out of the labor market altogether. The percentage of young black men not in the labor force rose from 9.5 percent in 1940 (a depression year) to 16.8 in 1950 and 22.3 in 1960.

Figure 12. Occupational Distribution of Black Men Ages 22-27, 1880-1990


The shift in the occupational composition of the black population explains the paradox of a marriage boom within each occupational group but no marriage boom for African Americans as a whole. Were it not for the compositional shift from farming to non-workforce, we would see a pronounced post-war marriage boom for blacks as well for whites. During the economic boom of the 1960s, young blacks fared slightly better. By 1970 only 16.8 percent were not in the labor force and growing numbers of young blacks entered the middle and upper occupational groups. Since then, however, the employment situation for young
blacks has worsened. By 1990, an all time high of 25.3 percent of young black men were not in the labor force. The grim economic prospects for young black men throughout the postwar period clearly have played a major role in the declining likelihood of marriage among blacks.

Employment trends for young whites were significantly different, as shown in Figure 13. The drop in agricultural employment for whites was both earlier and more gradual than it was for blacks. There was a slight increase in the percentage not in the labor force after the war, but this partly reflected a huge increase in higher education. Between 1940 and 1960, the most notable shift for young whites was the growth in higher earning non-farm occupations-the

Figure 13. Occupational Distribution of Native-born White Men Ages 22-27, 1880-1990

occupational group most associated with early marriage. This trend, however, ceased after 1970. Between 1980 and 1990 employment of young whites in lower-earning jobs once again began to grow, which helps to explain the rise in marriage age during this period.

Changing female occupational structure also had profound implications for the dramatic change in marriage age for both blacks and whites since 1970. The independence theory of marriage formation posits that women will delay marriage if other more attractive alternatives are present (Goldsheider and Waite1986; Waite and Spitze 1981). The growth of women's educational attainment, job opportunities, and wages since 1970 has substantially decreased women's economic dependence on a spouse. Because female labor force participation is often contingent on marital status we cannot carry out individuallevel analysis measuring the affect of occupation on marriage behavior. Several studies, however, have used longitudinal data and contextual analysis also show that the rise of female employment and the increase in female wages afforded many women the possibility of delaying marriage (McLanahan and Casper 1995; Preston and Richards 1975; Waite and Spitze 1981).

In addition, the decline of young male wage rates and workforce participation after 1970 also contributed to delayed marriage (). To date, no analyses have simultaneously assessed the impact of changing male and female employment opportunities over the long run. We believe that taken together these factors have the potential to explain much of the increase in marriage age
between 1960 and the mid 1990s, but such analysis is beyond the scope of this present study. ${ }^{9}$

## Summary

This broad overview of trends and differentials in United States marriage formation suggests that marital behavior is highly sensitive to economic conditions. In the nineteenth century, white Americans married fairly late, only slightly earlier than their counterparts in Western Europe. The United States in the late nineteenth century may not quite fit Hajnal's model of the West European marriage pattern, but it is closer to that model than to Eastern Europe or to virtually anywhere else in the world. In any case, it is plausible that the rise of marriage age from 1870 to 1890 reflects a decline in the availability of land.

From a peak in 1890, white age at marriage declined gradually until 1930 and precipitously after 1940. The marriage boom for whites coincided with the economic boom, and both ended shortly after 1970. By 1999, whites were marrying even later than they had at the beginning of the century. This long run view highlights the fact that the period from 1950 to 1970 is a historic anomaly, and an inappropriate baseline for research on marriage patterns.

The long run trends among blacks differ significantly from those of whites. Blacks married significantly earlier than did whites and were ultimately more likely to marry throughout the period from 1870 to 1940 . The marriage boom of the postwar period had virtually no impact on blacks, apparently because of economic dislocations that occurred as blacks were forced out of farming.

Between 1970 and 1990 black marriage age shot up more than six years, to a
level higher than that of whites. The CPS data, however, suggest that the rise in marriage age may finally have slowed in the 1990s, but because of the small number of blacks in the CPS, we must await Census 2000 for a definitive measure.

## Appendix

Table 1a. Age at which 10, 25, 50 and 75 Percent of Native-born White Men and Women Have Married. United States, 1850-1999

|  |  |  |  |  | Inter-quartile <br> range |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Native-born white men | $10 \%$ | $25 \%$ | $50 \%$ | $75 \%$ |  |
| 1850 |  |  |  |  |  |
| 1860 | 20.7 | 22.3 | 25.3 | 29.7 | 7.4 |
| 1870 | 20.5 | 22.3 | 25.0 | 29.6 | 7.2 |
| 1880 | 21.0 | 22.3 | 25.0 | 29.5 | 7.2 |
| 1900 | 20.6 | 23.1 | 25.4 | 29.1 | 6.3 |
| 1910 | 20.5 | 22.3 | 25.2 | 29.2 | 6.9 |
| 1920 | 19.9 | 21.7 | 24.8 | 28.3 | 6.6 |
| 1940 | 20.2 | 22.0 | 24.5 | 28.0 | 6.1 |
| 1950 | 19.3 | 20.9 | 22.8 | 25.5 | 4.6 |
| 1960 | 19.0 | 20.4 | 22.2 | 24.8 | 4.4 |
| 1970 | 19.1 | 20.6 | 22.4 | 24.9 | 4.3 |
| 1980 | 19.6 | 21.4 | 23.9 | 27.4 | 6.0 |
| 1990 | 20.5 | 22.7 | 25.8 | 30.1 | 7.4 |
| 1999 | 21.7 | 23.3 | 26.6 | 31.3 | 8.0 |
| Native-born white women |  |  |  |  |  |
| 1850 | 17.0 | 18.8 | 21.3 | 24.9 | 6.0 |
| 1860 | 17.3 | 19.2 | 21.4 | 25.7 | 6.5 |
| 1870 | 17.3 | 19.1 | 21.2 | 25.5 | 6.4 |
| 1880 | 17.6 | 19.3 | 21.8 | 25.5 | 6.2 |
| 1900 | 17.4 | 19.2 | 22.1 |  |  |
| 1910 | 17.5 | 19.2 | 21.7 | 25.4 | 6.2 |
| 1920 | 17.4 | 19.0 | 21.5 | 25.0 | 6.0 |
| 1940 | 17.6 | 19.1 | 21.5 | 24.7 | 5.6 |
| 1950 | 16.9 | 18.3 | 20.1 | 22.3 | 4.0 |
| 1960 | 17.0 | 18.3 | 19.9 | 21.9 | 3.5 |
| 1970 | 17.6 | 19.0 | 20.7 | 22.8 | 3.8 |
| 1980 | 18.0 | 19.6 | 22.0 | 25.1 | 5.5 |
| 1990 | 18.8 | 20.8 | 23.6 | 27.2 | 6.3 |
| 1999 | 18.1 | 21.2 | 24.5 | 28.6 | 7.4 |

Sources: Integrated Public Use Microdata Series; Current Population Survey (Basic Monthly Survey, January - July, 1999)

Table 1b. Age at which 10, 25, 50 and 75 Percent of Black Men and Women Have Married. United States, 1870-1990

|  | $10 \%$ | $25 \%$ | $50 \%$ | $75 \%$ | Inter-quartile <br> range |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Black men |  |  |  |  |  |
| 1870 | 19.7 | 21.0 | 23.1 | 27.7 | 6.6 |
| 1880 | 19.9 | 21.1 | 23.3 | 26.5 | 5.3 |
| 1900 | 20.0 | 21.5 | 23.9 |  |  |
| 1910 | 19.7 | 20.4 | 23.0 | 26.8 | 6.4 |
| 1920 | 18.9 | 20.1 | 22.4 | 27.1 | 7.0 |
| 1940 | 19.3 | 20.6 | 22.4 | 26.4 | 5.8 |
| 1950 | 18.8 | 20.4 | 22.4 | 26.0 | 5.6 |
| 1960 | 19.0 | 20.4 | 22.5 | 25.5 | 5.1 |
| 1970 | 19.0 | 20.7 | 22.5 | 25.6 | 4.9 |
| 1980 | 20.5 | 22.6 | 25.4 | 29.4 | 6.8 |
| 1990 | 21.2 | 24.0 | 28.6 | 34.7 | 10.7 |
|  |  |  |  |  |  |
| Black women |  |  |  |  |  |
| 1870 | 16.2 | 17.8 | 19.9 | 22.9 | 5.1 |
| 1880 | 16.7 | 18.1 | 20.0 | 23.2 | 5.1 |
| 1900 | 16.8 | 18.6 | 20.3 |  |  |
| 1910 | 16.8 | 18.3 | 20.2 | 23.2 | 5.0 |
| 1920 | 16.5 | 17.7 | 19.5 | 22.0 | 4.3 |
| 1940 | 16.6 | 18.0 | 20.1 | 23.2 | 5.1 |
| 1950 | 16.3 | 17.8 | 19.5 | 22.7 | 4.9 |
| 1960 | 16.8 | 18.5 | 20.4 | 23.0 | 4.6 |
| 1970 | 17.6 | 19.1 | 21.1 | 24.3 | 5.2 |
| 1980 | 19.0 | 21.2 | 24.3 | 29.2 | 8.0 |
| 1990 | 20.2 | 22.6 | 27.3 | 33.6 | 11.0 |

Source: Integrated Public Use Microdata Series

TABLE 2. Percent of Native-born Whites and Blacks NeverMarried, Ages 45-54 by Sex, United States 1850-1998

|  | Native-born White |  |  | Black |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women |  | Men |  |
| 1850 | 5.7 | 7.3 |  | Women |  |
| 1860 | 5.5 | 7.8 |  |  |  |
| 1870 | 5.6 | 7.6 |  |  |  |
| 1880 | 7.4 | 8.3 | 5.0 | 6.1 |  |
| 1890 | 8.4 | 8.2 | 8.7 | 5.6 |  |
| 1900 | 9.4 | 9.5 | 6.9 | 4.8 |  |
| 1910 | 11.7 | 10.2 | 8.3 | 4.6 |  |
| 1920 | 12.8 | 11.0 | 9.0 | 4.8 |  |
| 1930 | 11.5 | 10.5 | 8.1 | 5.4 |  |
| 1940 | 10.5 | 9.7 | 10.5 | 4.6 |  |
| 1950 | 8.2 | 8.3 | 6.1 | 4.9 |  |
| 1960 | 7.3 | 7.3 | 8.0 | 5.4 |  |
| 1970 | 6.3 | 5.4 | 9.4 | 5.8 |  |
| 1980 | 5.6 | 4.2 | 10.2 | 6.7 |  |
| 1990 | 5.8 | 4.6 | 11.8 | 11.9 |  |
| 1999 | 7.4 | 6.6 |  |  |  |

Sources: Integrated Public Use Microdata Series; Current Population Survey (March Survey and Basic Monthly Survey January-July, 1999); "Marital Conditions," Table 82 in Report on Population of the United States at the Eleventh Census: 1890 (Washington D.C.: G.P.O, 1895); "Marital Conditions," Table 5, Chapter 11 in Population, Volume II of the Fifteenth Census of the United States: 1930 (Washington D.C.: G.P.O., 1933).

## Notes

${ }^{1}$ The indirect median may differ slightly from the true median age at marriage because the proportion of people who will ever marry is estimated based on the population aged 45-54 at the time of the census, and this may not accurately predict the proportion of younger people who will eventually marry. For the period before 1950, we can evaluate the magnitude of this error because we know the actual proportion of the population that eventually did marry. In practice, the difference between the period-based indirect median and the true cohort median age at marriage is generally less than two tenths of a year, but in theory the error could go as high as half a year in periods of very rapid change.
${ }^{2}$ In Figure 1, the age at marriage for 1890 and 1930 represents an adjustment of the published Census Bureau marriage age figures for the total population (US Bureau of the Census 1975). We have adjusted these figures based on the difference between the age at marriage of native-born whites and total population in the surrounding census years.
${ }^{3}$ We used all basic monthly surveys available for 1999 (January - July), but we only have sufficient cases to study the native-born white population. Our analysis of the black population will not extend to 1999.
${ }^{4}$ We also exclude persons who were neither white nor black. Although by 1999 the white-black dichotomy excludes significant portions of the population, these are the only two racial groups large enough throughout the 120 year-period to produce accurate statistics.
${ }^{5}$ We calculated the median age at marriage as 29.9 for men and 29.1 for women when using five year age groups in the interpolation step. Although this technique allows us to make an estimate with the limited number of cases in the 1999 CPS, Shryock and Seigel warn that indirect medians based on five year intervals are much less precise (1976).
${ }^{6}$ We attempted to measure the $90^{\text {th }}$ percentile of marriage age as well, but we found that the slope of the marriage curve is so gradual at higher ages that shortrun period disturbances have the potential to bias the results significantly. In 1900, the sample with the smallest number of cases, we also excluded the $75^{\text {th }}$ percentile because of the volatile fluctuations in percent married at the older ages.
${ }^{7}$ We chose the 22 to 27 years as the age range because it includes the median age at first marriage for native-born white men for all years between 1850 and 1990.
${ }^{8}$ We have excluded 1900 for blacks because the 1900 public use sample does not provide enough cases to analyze this subpopulation.
${ }^{9}$ This contradicts the statement by Ruggles (1997) that first marriages were not greatly affected by female workforce participation. We now think that prelliminary analysis was incorrect. We are in the process of carrying out a new geographic analysis of the effects of male and female economic opportunity on the proportion of young men and women entering marriage. The new analysis uses better economic measures than the work reported earlier and focuses exclusively on the economic opportunities of young people.

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