Marriage Formation and Economic Opportunity in the United States: 1970-2000

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This paper will present results from a project to assess the impact of changes in male and female economic opportunity on marriage formation in the United States since 1960. The rise in median age at first marriage over the past four decades is one of the most dramatic and consequential demographic shifts in American history. Our analysis will capitalize on a vast new archive of restricted-access long-form census data currently in preparation by the Census Bureau in collaboration with the Minnesota Population Center. This data series, the "National Historical Census Files," will include the complete long-form census returns for the period from 1960 to 2000. Data from the censuses of 1970 to 2000 are available through the Census Bureau's Research Data Center network and will be included in the analysis. Data from the 1960 census are being recovered and will be later added to our study.

This study will break new ground by analyzing the local economic context of marriage decisions for African Americans, Hispanics, and non-Hispanic whites. Previous efforts to address this problem were stymied by inadequate geographic precision in available public use microdata and by insufficient sample sizes, especially for minority populations. By pioneering the use of a massive new data resource, we can for the first time develop precise measures of male and female economic opportunity for small geographic areas and major population subgroups. This information will yield estimates of the relationship of labor market conditions to marriage behavior across four decades of dramatic change in patterns of marriage formation.

Initially when marriage age began increasing, most analysts ascribed the change to rising economic opportunity and employment of women. The rise of women's educational attainment, job opportunities, and wages had substantially decreased women's economic dependence on a spouse. The independence theory of marriage formation posits that women will delay marriage if other more attractive alternatives are present (Cherlin 1980; Goldsheider and Waite 1986; Preston and Richards 1975; Waite and Spitze 1981). Long-run studies using aggregated cross-sectional data and marriage market analysis support a positive relationship between rising female economic opportunity and delayed marriage for men and women (e.g., Cready, Fossett, and Kiecolt 1997; James 1998; McLanahan and Casper 1995; Mare and Winship 1991).

The role of women's rising economic opportunity in marriage formation, however, remains controversial. Oppenheimer sees the independence theory as an extension of Becker's specialization model of the gains to marriage (Oppenheimer 1994, 1997; Becker 1981). In Becker's formulation, the specialization of labor within the household is a key component to marriage formation and success; men and women each have something to gain through the union. However, as women obtain more access to the paid labor market and household chores become more mechanized, the gains to marriage for each partner decrease, thus delaying

marriage and increasing the proportions never married (Becker 1981). Oppenheimer (1994) questions the basis of specialization theory, arguing that families have not specialized in the past, but instead have adapted to changing economic circumstances, sending wives and children into the workforce when necessary.

To explain the reversal in marriage trends that began in the 1960s, several analysts have argued that stagnant or declining male economic opportunity in the 1970s and 1980s contributed to the unprecedented delay in marriage by reducing the supply of marriageable men. Many studies have shown a significant connection between poor male economic circumstances and delayed marriage (Cready, Fossett, and Kiecolt 1997; James 1998; Fossett and Kiecolt 1993; Lichter, LeClere, and McLaughlin 1991; Lichter et al. 1992; Lloyd and South 1996; Testa and Krough 1995; Wilson and Neckerman 1987). Assessing the role of men's ability to fulfill the breadwinner role, these studies find that young men and women are more likely to be married in areas with greater numbers of marriageable men. Qualitative research from the Fragile Families Study also provides evidence that young unmarried couples—even those with children—place a high priority on financial stability before marriage (Gibson, Edin, and McLanahan 2005; Smock, Manning and Porter 2005).

In a variation on this argument, Oppenheimer maintains that it is uncertainty in the career entry process that leads to delays in marriage. A young man without an established career or career path may be a poor marriage risk, and as the career entry process became more difficult in the 1970s and 1980s, couples spent more time searching for spouses and delaying marriage (Oppenheimer 1988, 1994; Oppenheimer, Kalmijn and Lim 1997). Both variations of the theory—a minimum income or the uncertainty of career-entry—predict that poor male economic opportunity will delay entry into marriage for both men and women.

Recent economic studies have also considered the role of inequality in changing marriage patterns since 1970 (Gould and Paserman 2003; Loughran 2002). Focusing on female marriage, these economists argue that growing wage inequality for men means greater variability in prospective husbands' economic capability, and a greater potential reward for women to extend their spouse search. These researchers hypothesize that each woman has a "reservation wage," representing the minimum wage requirement for an acceptable spouse. Using a job search model, they predict that a woman's reservation wage increases as the distribution of wages above that point widens. This theory predicts a greater effect for middle- and upper-income women, as women with a low reservation wage are less affected by changes in the distribution of wages. These studies suggest that rising inequality may account for as much as thirty percent of the marriage rate decline for white women for the period 1970 to 1990 (Gould and Paserman 2003, Loughran 2002).

However salient the evidence on male economic opportunity and inequality in recent decades, we need to assess the role of economic opportunity for women and men simultaneously if we wish to understand the long-term relationship between economic change and marriage formation.

In broader historical perspective, we suspect that the decline of opportunity and increase in inequality among young men is of insufficient duration or magnitude to be responsible for the *entire* increase in marriage age. We hypothesize that the rise of female economic opportunity allowed women to increase the length of their spouse search, thus delaying marriage. It is also likely, however, that this relationship has not remained constant over time, and that it varies according to socioeconomic stratum and racial and ethnic group.

Some analysts argue that the rise of cohabitation has contributed to the increase of marriage age. We agree that cohabitation is critically important, and declining marriage formation is offset to some extent by increasing cohabitation (e.g., Bumpass, Sweet, and Cherlin 1991). We are wary, however, of regarding cohabitation merely as a substitute for traditional marriage. Cohabitation can also serve as a stage in the marriage process (similar to engagement) or as a stage in dating and sexual relationships (Smock and Manning 2004). Moreover, cohabitation has different outcomes than marriage; married spouses enjoy better health, better sex lives, higher incomes and more wealth compared to cohabiting partners (Waite 1995; Waite and Gallagher 2000). For these reasons, cohabitation should not only be viewed as a form of marriage, but should also be studied as a separate phenomenon

In this paper, we will investigate the relationship of male and female economic opportunity to marriage formation in the period 1970 to 2000 for African Americans and non-Hispanic whites. If sample sizes allow, we will also include an analysis of Hispanics. We also examine how the associations between economic opportunity and the marriage of young people vary with race and ethnicity. To address these issues, we carry out multi-level analysis of the effects of local economic conditions on the marriage decisions of young men and women. The models will include controls for individual-level characteristics such as age and educational attainment and local characteristics such as partner availability, levels of cohabitation, housing costs and welfare generosity.

This study builds on previous research using contextual measures to assess economic opportunity and other factors affecting marriage formation. These analyses predicted marriage behavior using metropolitan-level or labor-market measures of male and female employment and education, sex ratios, and other local factors (Cready, Fossett, and Kiecolt 1997; Fossett and Kiecolt 1990, 1993; Hughes 2003, Lichter, LeClere, and McLaughlin 1991; Lichter et al. 1992; McLanahan and Casper 1995; Preston and Richards 1975; South and Lloyd 1992; White 1981). To obtain contextual economic data for labor markets or other small geographic areas, some researchers have turned to aggregate statistics from the census summary files. These data, however, are problematic; in general, only crude measures are available, and those that exist tend to be inconsistent across census years. For example, the summary files do not provide income distributions for young adults for small geographic areas. Moreover, the available indicators do not allow researchers to control for population composition and this can lead to endogeneity.

The best solution is to derive economic context measures directly from census microdata, and several researchers have followed that course. The problem with this approach is that because of limited sample sizes, the constructed variables are subject to high sampling variability. Furthermore, the limited number of cases in each geographic area limits the potential for separate analyses of racial and ethnic groups. The problem of small sample size in the public-use microdata is compounded when we turn to the analysis of African Americans and Hispanics. Understanding the role of economic context for these subpopulations is critical. Some analyses suggest that although socioeconomic measures are strong predictors of marriage age for whites, they are less effective in explaining changes in marriage timing for African Americans. African-America marriage behavior, however, has shifted even more than that of whites (Hughes 2003; Lichter, LeClere, and McLaughlin 1991; Lichter et al. 1992; Lloyd and South 1996; McLanahan and Casper 1995). Hispanic economic circumstances resemble those of African-Americans, but the historic pattern of marriage timing among Hispanics is similar to that of non-Hispanic whites (Vega 1990; Oropesa 1996).

Public use microdata samples are too small to construct fine-grained measures of the economic opportunities of potential spouses at the local level for these population subgroups. This study will be among the first to capitalize on the National Historical Census Files which includes all long-form records for the 1960 census, and all long-form and short-form records for the period from 1970 to 2000. In 2000, the long-form data include 45 million individuals in 18 million households, representing 16 percent of the population. These files also include substantially greater geographic and subject area detail than is available in public-use census microdata. To ensure confidentiality, the Census Bureau will disseminate these data files to outside researchers exclusively through the Census Bureau Research Data Centers.

Our primary geographic unit of analysis will be commuting zones defined for the 1980 census. These geographic units were derived through cross-classification of county of residence and county of work for all U.S. counties (Tolbert and Killian 1987; Tolbert and Sizer 1996; Singelmann and Deseran 1993). Commuting zones are well suited for the present analysis. There are 764 commuting zones and we anticipate that the samples will include an average of approximately 56,000 cases per zone per census year, allowing us to construct reliable economic and demographic measures even for minority populations in most instances. Because the zones delineate areas with a high degree of commuting, they allow us to construct reasonable approximations of local job opportunities. Moreover, they also represent a good measure of local marriage markets, since commuting for work is a suitable proxy for other types of personal interactions.