# Wealth and the Marital Divide[1]

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Marriage patterns differ dramatically in the United States by race and education. The author identifies a novel explanation for these marital divides, namely, the important role of personal wealth in marriage entry. Using event-history models and data from the National Longitudinal Survey of Youth 1979 cohort, the author shows that wealth is an important predictor of first marriage and that differences in asset ownership by race and education help to explain a significant portion of the race and education gaps in first marriage. The article also tests possible explanations for why wealth plays an important role in first marriage entry.

## INTRODUCTION

There has been a retreat from marriage in the United States over the past four decades. Since 1960, young people have been marrying at older ages, and a larger share of the population is now expected to never marry (Fischer and Hout 2006). These demographic shifts in the age at entry and prevalence of marriage have been far larger for blacks and less educated adults than they have for whites and those with more education. Consequently, gaps in marital status by race and education have widened substantially (Ellwood and Jencks 2004*a*; Fischer and Hout 2006).

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Prior explanations for delays in marriage and growing race and educational gaps have focused primarily on changes in economic opportunity and, to a lesser extent, on cultural differences.

The dominant economic explanation has focused almost exclusively on the role of labor market performance, measured as employment and earnings, as the explanation for the growing marital divide (Wilson 1987; Oppenheimer 1988; Bennett, Bloom, and Craig 1989; see Ellwood and Jencks [2004*a*] and Burstein [2007] for reviews of the empirical literature). A few studies have also suggested that culture may play a role, arguing that blacks and lower-class young men and women may have come to devalue marriage relative to white and more affluent peers (South 1993; Wilson 2002) or that black women may have higher economic prerequisites for marriage than other women (Bulcroft and Bulcroft 1993).

In this article, I propose and test a novel explanation for delays and declines in marriage and for the divergence in marriage by race and education, namely, that wealth is an important predictor of first marriage and that accounting for wealth will explain a portion of the racial and educational divides in first marriage. Wealth has assumed a more important place in sociological research (Keister and Moller 2000) as researchers are increasingly investigating how the ownership of wealth shapes the organization of social life. These studies underscore the fact that wealth is not simply a function of income (Hurst et al. 1998) and is distributed even more unequally than income in the United States (Kopczuk and Saez 2004; Scholz and Levine 2004). Wealth is also associated with positive benefits ranging from increased capacity to cope with emergency to higher levels of political power and social status (Keister and Moller 2000; McKernan, Ratcliffe, and Vinopal 2009).

Yet very little quantitative research has examined whether wealth is linked to marriage entry and whether inequalities in wealth ownership may explain differences in marriage by race and education. But recent qualitative research by Edin and her colleagues (Edin and Kefalas 2005; Edin and Reed 2005; Gibson-Davis, Edin, and McLanahan 2005), which suggests that young people aspire to marriage but are deterred from marrying because they believe they should have some money in the bank, own a car, and even own a home before they marry. For these young people, a steady job and a stable relationship are not enough—wealth must also precede marriage (Edin, Kefalas, and Reed 2004; Edin and Kefalas 2005; Gibson-Davis et al. 2005). Since blacks and less educated people have less wealth than whites and more educated people (Oliver and Shapiro 1995; Conley 1999; Bucks, Kennickell, and Moore 2006), we would expect delay of marriage to be more prevalent among members of those wealth-poor groups than among members of more advantaged groups.

In this article, I use data from the National Longitudinal Survey of Youth 1979 (NLSY79) to test the hypotheses that wealth is associated with marriage and that accounting for wealth can explain a portion of the racial and educational divides in marriage, even after adjusting for conventionally studied measures of socioeconomic status. Assuming that wealth is part of the story, there are two possible explanations for why wealth might matter for marriage: its symbolic value (Lamont and Molnar 2002; Cherlin 2004) or its use value (Oppenheimer, Kalmijn, and Lim 1997; Edin and Kefalas 2005). In the final portion of the article, I use the NLSY79 to examine these two possibilities.

## BACKGROUND

### Changing Patterns of Marriage

The United States experienced rapid demographic change during the second half of the 20th century, particularly in terms of family formation behavior. Between 1970 and 2000, the median age at first marriage rose by about four years, and the proportion of individuals who never married doubled, growing from 5% to 10% (Fitch and Ruggles 2000; Fischer and Hout 2006).

The most striking change, however, has been the growing differences in marriage entry by race and by education. Black-white differences in marriage have been documented from the late 19th century (Ruggles 1994). But, over the past several decades, these initial differences have grown significantly as the rate of increase in the mean age of marriage and the percentage of the population that will never marry have been far faster for blacks than whites (Bennett et al. 1989; Raley 2000; Ellwood and Jencks 2004*a*, 2004*b*).

Comparative data make this change clear. In 1980, 81% of white women had married by ages 25–29 as compared with 63% of black women. However, among older women, that gap was mostly eliminated: by age 55, 96% of white women and 93% of black women had married. Over the next 20 years, the percentage of whites and blacks ever married declined at every age. Yet the decline was far steeper for blacks, exacerbating existing differences and erasing existing similarities. In 2000, the percentage of white women ever married by ages 25–29 had dropped by 13 percentage points to 68%, but the drop was far larger for blacks, plummeting 25 points, to just 38%. Similarly, the black-white gap in percentage ever married by ages 50–54 had grown from 3 percentage points in 1980 to 10 percentage points in 2000 (Lichter and Qian 2004). Analysts estimate that more than one-third of black women now in their thirties will never marry (Teachman, Tredow, and Crowder 2000; Lichter and Qian 2004).

A similar divergence in marriage patterns has appeared between the more and the less educated (Goldstein and Kenney 2001). During the mid-20th century, there were few differences in the marital status of people ages 30–44 by education. However, by 1970, marriage behavior was differentiated by education, and over the next several decades, men and women who lacked a high school diploma became increasingly less likely to be living in a married-couple household than their more educated counterparts (Fischer and Hout 2006). While the overall share of women between the ages of 25 and 34 who were married declined over these decades, consistently higher shares of women with a high school diploma or more education were married than those with less than a high school education (Lichter and Qian 2004).

## Marriage and Well-Being

Delayed marriage, elevated rates of nonmarriage, and the widening marital divide are of social concern because a large body of social science research suggests that marriage imparts substantial benefits to men and women (Ross, Mirowsky, and Goldstein 1990; Waite 1995; Waite and Lehrer 2003). Married men and women appear to engage in healthier behavior, experience lower mortality, and have less emotional distress than their unmarried counterparts (Umberson 1987; Lillard and Waite 1995; Simon 2002). Married men also appear to fare better in the labor market than their unmarried counterparts. When employed, married men appear to earn higher wages than unmarried men, and when looking for work, married men search for shorter periods of time (Hill 1979; Korenman and Neumark 1991; Teachman, Call, and Carver 1994; Cornwell and Rupert 1997). The economic benefits of marriage also appear to extend beyond earnings to wealth (Lupton and Smith 2003; Yamokoski and Keister 2006). While some of these effects may be attributable to differential selection into marriage, research using fixed effects, natural experiments, and other methods of causal inference suggest that at least a portion of the relationship is causal (Ribar 2004).

The decline in marriage has also corresponded with an increase in nonmarital fertility. The result of this shift (along with the increase in divorce) is that children are spending more time in single-parent households (Ellwood and Jencks 2004*a*; McLanahan 2004). These changes have generated concern because a large body of research indicates that children growing up in nonmarital households may be uniquely disadvantaged (Sigle-Rushton and McLanahan 2002; Thomas and Sawhill 2005).

Given that changes in family formation have been concentrated among already underprivileged families, we might worry that the relationship between parents' marital status and economic status could cement cycles

of disadvantage and further entrench poverty across generations. Disparities in marriage feed into a within-cohort and cross-cohort process of cumulative disadvantage in which men and women from already disadvantaged groups marry later and less and so are further disadvantaged by missing out on the benefits of marriage for themselves and their children (DiPrete and Eirich 2006). The role of the family in perpetuating disadvantage across generations has recently been mentioned in a number of prominent accounts of inequality in the United States (McLanahan 2004; Western 2006; Massey 2007). As I argue below, wealth represents a specific manifestation of this process of cumulative disadvantage.

## Wealth and Disparities in First Marriage

An emerging line of qualitative research suggests that differences in personal wealth may help explain the marital divides by race and education. This research, focused on low-income, unmarried parents in the United States in the first decade of the 21st century and advanced most prominently by Edin and Kefalas (2005), suggests that young couples are delaying marriage until they have a steady source of income and a strong relationship, but that these economic and relational attributes are not enough. Couples also feel that having some money in the bank, owning a car, and even having a home are necessary prerequisites of marriage (Edin and Kefalas 2005; Gibson-Davis et al. 2005).

In the modern American context of racial and educational wealth inequality, a mismatch between economic standards of marriageability and access to resources could explain disparities in marriage. Edin and Kefalas (2005) argue that disadvantaged unmarried men and women highly value marriage but feel bound to own certain assets before marrying. In qualitative studies, respondents report that a stable job and income are necessary but not sufficient qualifications for marriage. Savings, car, and home ownership must also precede marriage (Edin, England, and Linnenberg 2003; Cherlin 2004; Edin et al. 2004). Economic prerequisites of this sort appear to be commonly held by low-income couples (Gibson-Davis et al. 2005; Smock, Manning, and Porter 2005).

While earlier research on attitudes regarding marriage suggests that black women may place a greater priority than white women on wealth-based prerequisites of marriage (Bulcroft and Bulcroft 1993), more recent ethnographic evidence suggests that there is little differentiation in these orientations by race or class. Rather, according to these scholars, wealth has become part of a widely shared "middle-class" standard of marriage (Cherlin 2004; Edin and Reed 2005; Gibson-Davis et al. 2005). However, blacks and less educated adults have relatively low levels of wealth compared to other Americans. Whites' mean wealth is greater than blacks'

mean wealth by a factor of nearly five (Oliver and Shapiro 1995; Conley 1999). There is similar wealth inequality by education (Bucks, Kennickell, and Moore 2006), which may influence asset accumulation independently of income by increasing financial knowledge, promoting earlier investing, and providing access to better and more varied financial advice (Chang 2005; Yamokoski and Keister 2006). Consequently, members of these wealth-poor populations may have particular difficulty in meeting wealth-based standards of marriage (Edin et al. 2003).

In both Edin and Kefalas's (2005) work and Wilson's (1987) earlier focus on labor market performance, disparities in marriage are not caused by differences in the value people ascribe to marriage, but rather by inequality in young people's abilities to satisfy commonly held economic standards of marriageability. Edin and Kefalas's (2005) key innovation is to identify wealth as a consequential element of that standard. While their focus is on the role of wealth in marriage entry in the first decade of the 21st century, that relationship might also help to explain the pronounced emergence of racial and educational divides in marriage during the last decades of the 20th century.

The few quantitative studies on the relationship between wealth and marriage have mostly focused on the relationship between home ownership and marriage, generally finding that owning a home increases the likelihood of marriage, all else equal (Lloyd and South 1996; Gibson-Davis 2009). Given this prior quantitative research and the qualitative evidence for the role of wealth in first marriage, I expect that wealth will be an important predictor of first marriage.

HYPOTHESIS 1.—*Wealth ownership will be a statistically significant and large predictor of marriage, net of controls.*

While there is some evidence that financial wealth predicts entry into marriage (Mamun 2005; Dew and Price 2011), to my knowledge, no work has examined the extent to which differences in wealth may explain differences in first marriage by race and education. I expect that differences in the *level* of wealth between blacks and whites and the more and less educated will explain a portion of the differences in marriage entry that emerged between these groups since the 1960s. However, I do not expect that wealth will be differentially valued for marriage by race or education.

HYPOTHESIS 2a.—*Adjusting for wealth ownership will explain a portion of the negative relationship between being black and entering into first marriage and a portion of the positive relationship between education and entering into first marriage.*

HYPOTHESIS 2b.—*The relationship between wealth and marriage will not vary by race or education.*

## Why Wealth Matters

Recent research suggests that wealth may be an important economic prerequisite of marriage and may help to explain the disparity in marriage by race and education. However, the literature is less clear about why wealth may be important for marriage. Perhaps the most prominent explanation focuses on the symbolic value of wealth. Cherlin (2004) has argued that marriage really no longer serves the functional purpose of being the sole socially acceptable forum for sex, companionship, and child rearing. Rather, marriage has become primarily a "marker of prestige," and "the purchase of a home, and the acquisition of other accoutrements of married life" have become ways to display the "attainment of a prestigious, comfortable, and stable style of life" that is suitable for marriage (Cherlin 2004, 857). Part of this "display" occurs very early, as couples appear to increasingly value and prioritize large and costly weddings and are reluctant to simply wed in modest civil ceremonies (Cherlin 2004; Edin and Kefalas 2005; Smock et al. 2005). Such elaborate ceremonies require outlays from savings, often provided by the couples themselves (Cherlin 2004).

By this logic, wealth matters for what it symbolizes to others beyond potential partners. Quite apart from its economic value, wealth takes on a social meaning and is used to define relationships, in this case to define eligibility for marriage (Zelizer 1997). Owning a home, a car, or having some savings becomes a way to cross a symbolic boundary and qualify for marriage. In Cherlin's (2004) account, marriage is increasingly a status category associated with wealth and stability—with having "made it." The visible ownership of wealth becomes a way for young people to qualify for membership in this essentially Weberian status group. In a variant on Veblen (1973), though the actual value of their holdings may be small, by practicing a kind of "conspicuous ownership," young people outside of the upper class may display the symbolic markers of group eligibility.

A second explanation for the importance of wealth for marriage focuses on use value. This benefit of wealth could manifest in a number of ways. A potential partner with wealth may be better able to help provide the material aspects of a comfortable life by liquidating assets or augmenting earned income with interest or dividends. In addition, assets might be valued for marriage in the same way that job stability and a mature career are valued: as a means of facilitating assortative mating (Oppenheimer 1988), providing couples with a buffer against uncertainty about the economic future (Oppenheimer 1988; Oppenheimer et al. 1997; Kalmijn and Luijkx 2005), and even protecting against the harmful effects of economic distress on marital quality. In regards to this third purpose,

Edin and Kefalas (2005) describe how their female respondents worried that marrying without savings would subject their relationships to high levels of stress in the event of income or job loss. Such ethnographic evidence accords with research showing increasing actual and perceived economic risk and insecurity (Hacker 2006; Jacobs 2007; Jacobs and Newman 2008) and substantial evidence that economic distress has a negative effect on marital quality (Liker and Elder 1983; Conger et al. 1990; Conger, Reuter, and Elder 1999).

In sum, though the literature suggests two possible reasons why wealth might be valued as a prerequisite for marriage, there is little consensus and limited empirical data. For both men and women, the primary puzzle relates to whether wealth would be an important predictor of marriage because it (*a*) acts as a cultural symbol of economic arrival and marriageability or (*b*) provides use value.

If wealth is primarily valued as a cultural symbol, then the simple ownership of wealth without regard to its value or underlying associated debt should matter most for marriage entry. This simple ownership of wealth satisfies the public standard of financial arrival and marriageability as displayed through the ownership of a home, a car, or financial assets.

In contrast, if assets are primarily important in marriage for their use value, whether for facilitating assortative mating, purchasing goods and services, or providing a buffer against economic shocks, then the value of the assets as measured by the worth of individual assets or an individual's overall net worth should be most salient. This should be particularly true for the value of financial wealth. Below, I propose two testable hypotheses based on these theoretical propositions. These hypotheses specify the empirical relationships I would expect to find if assets are primarily valued as a cultural symbol.

HYPOTHESIS 3a.—*Dichotomous measures of wealth ownership will be significant predictors of first marriage and measures of the value of assets or of net worth will not be.*

HYPOTHESIS 3b.—*The negative relationship between race and first marriage and the positive relationship between education and first marriage will be attenuated to a greater extent by the inclusion of dichotomous measures of wealth ownership than by measures of the value of assets or of net worth.*

## DATA AND METHODS

### Data

I draw on data from NLSY79. This survey captures the marital experiences of the late baby boom cohort, those born between 1957 and 1965.

The NLSY79 began interviews with 12,686 young men and women ages 14–22 in 1979 and surveyed them annually through 1994, after which point interviews have been conducted biennially. The NLSY79 contains a main sample designed to be representative of the noninstitutionalized civilian population as well as two oversamples, one of the white poor population and one of the military population. I include both oversamples in the analysis, but, in order to focus on black-white differences in marriage entry, I exclude respondents who report any race/ethnicity other than black or white.[2]

## Measures of Marriage, Wealth, Race, and Education

To measure entry into marriage, I use a question, asked at each survey wave, that inquired about the nature of any changes in the respondent's marital status and then collected information on the date of that change. From these reports, I create a variable summarizing year of first marriage. I use a separate item that collects information on current marital status to check the accuracy of my measure of year of first marriage, excluding respondents who report being separated, divorced, or widowed who have not previously reported a first marriage.

I measure wealth ownership with three different sets of variables. First, I construct four dichotomous measures of ownership: ownership of a home (with ownership including homes with mortgage loans outstanding), ownership of a vehicle (also including vehicles owned with debt outstanding), ownership of financial assets (bank accounts, CDs, stocks, bonds, mutual funds, retirement accounts, and trusts), and a dichotomous measure of owning other wealth (not captured in the other measures). In order to test hypotheses 3a and 3b regarding why wealth may matter for marriage, I also construct two alternative measures of the value of wealth. First, I create separate measures of the market value of respondents' vehicles, homes, financial assets, and other assets, without taking debt into account. I exclude the top 5% of respondents by wealth and take the natural log of the value of wealth (adding a small constant to each value prior to taking the log to retain the zero values). Second, I create a measure of overall net worth that is calculated as the (market value of vehicles − debt on vehicles) + (market value of the home − debt on the home) + market value of financial assets + market value of other assets − the value of other nonsecured debt, excluding the top 5% of respondents by net worth. To take the natural log of net worth, I first take the absolute value of the measure, then add a small positive constant (to retain the

[2] Excluding the white poor and the military oversamples does not substantively change the results.

zero values), take the natural log, and then multiply the cases that originally had negative values by −1. All asset and debt values are measured in hundreds of 2006 dollars adjusted using the Consumer Price Index (CPI). The NLSY79 first asked a full set of questions about the ownership of wealth beginning in 1985. These data were then collected consistently through 2004 with the exception of in 1991 and 2002.

I measure race with a dichotomous variable coded using information collected at the baseline survey (1 = black; 0 = white). I capture educational attainment with two time-varying predictors: having completed 12–15 years of education and having completed 16 or more years of education (relative to having completed less than 12 years of education). These two sets of measures allow me to examine differences in marriage entry by race and education and the extent to which differences in wealth may explain those marital divides.

## Confounding Factors

Estimating the relationship between wealth and first marriage is complicated by the need to parse out the direct effect of wealth on marriage from confounding relationships between marriage, wealth, and other characteristics. In appendix table A1, I present descriptive statistics for a number of possible confounding variables, tabulating them separately for men and women and by whether the respondent transitioned to first marriage in the next period. These simple descriptive statistics serve to show the relationships among these potentially confounding variables and first-marriage entry in the analysis sample.

Labor market performance is a potentially important confounding variable in the relationship between wealth and first marriage. While income and employment are by no means determinative of wealth, there is a strong positive association (Schneider and Tufano 2007; McGrath and Keister 2008) and there is also a strong positive link between income, employment, and marriage (Oppenheimer et al. 1997; Clarkberg 1999; Sweeney 2002). I construct a variety of measures of labor market participation and performance. I create a continuous measure of amounts of total earned income from wages, salary, tips, self-employment, and military service for which respondents with no earned income are assigned values of $0 (in thousands of CPI-adjusted 2006 dollars).[3] Following Oppenheimer et al. (1997), I also use respondents' reports of hours and weeks worked per year to categorize them as working full-time for the full year,

[3] The results are robust to the inclusion of an alternative broader measure of income that includes income from disability payments, veteran's benefits, or worker's compensation.

full-time for part of the year, part-time for either part of the year or the full year, or not working. I also include a dichotomous measure of current school enrollment.

A similar possibility of confounding arises with respect to welfare receipt. The receipt of public benefits such as AFDC/TANF and Food Stamps/SNAP may discourage marriage (Carlson et al. 2004; Teitler et al. 2009; see Moffit [1998] for a review), and public assistance eligibility guidelines may also discourage recipients from accumulating wealth (Hubbard, Skinner, and Zeldes 1994; Ziliak 2003; Nam 2008). To take account of this possible confounding relationship, I include time-varying measures of receipt of AFDC/TANF and receipt of Food Stamps/SNAP in a given calendar year.

Noneconomic factors might also confound the relationship between wealth and first marriage. Religious affiliation is predictive of wealth accumulation by young adults (Keister 2003, 2007), and religious affiliation (Lehrer 2004) and religious attendance (Carlson, England, and McLanahan 2004; Wilcox and Wolfinger 2007) are predictive of first marriage. I include controls for both religious affiliation (comparing conservative Protestants to mainline Protestants, Catholics, Jews, and others as categorized using the rubric employed by Steensland et al. 2000) as measured at baseline, and frequency of religious services attendance as assessed in 1982 and 2000 (comparing those attending services once a month or less to those attending two to three times per month, once a week, and more than once a week).

Marriage entry varies by place of residence with men and women residing in the American South more likely to marry (Lloyd and South 1996; Clarkberg 1999; Sweeney 2002) and those residing in an urban area less likely to marry (Sweeney 2002; Sassler and Goldschneider 2004). This place-based variation can also affect wealth accumulation (Keister 2003). I include two time-varying measures, residing in the South and residing in a Standard Metropolitan Statistical Area (SMSA) to account for these relationships.

Aspects of family background may also have important effects on both marriage and wealth. Parents' education is positively associated with wealth as an adult (Keister 2004; Yamokoski and Keister 2006) and is linked to marriage (e.g., Goldschneider and Waite 1986). Similarly, growing up with divorced parents is negatively associated with wealth as an adult (Keister 2004) and with marriage (Clarkberg 1999; Carlson et al. 2004; Sassler and Goldschneider 2004). At baseline, the NLSY79 measured whether the respondent was living with both biological parents at age 14 and measured the respondent's parents' education when the respondent was age 14. Both measures are included as time-invariant covariates.

Respondents' demographic behavior may also affect wealth accumulation and marital entry. Never-married women with children are particularly disadvantaged in terms of wealth accumulation (Yamokoski and Keister 2006) and while nonmarital pregnancy appears to raise the risk of marriage (Brien, Lillard, and Waite 1999), having a nonmarital birth may make women less likely to marry (Bennett, Bloom, and Miller 1995; Brien et al. 1999; Graefe and Lichter 2002; Qian, Lichter, and Mellott 2005). However, there does not appear to be a relationship between nonmarital parenthood and wealth for men, and men who father a child outside of marriage may actually be more likely to subsequently wed (Stewart, Manning, and Smock 2003).

Other aspects of respondents' living situations, such as coresidence with parents, might also be expected to affect wealth accumulation and marriage entry, but there is less empirical evidence to indicate a confounding relationship. While earlier work suggests that living independently prior to marriage might delay first marriage (Goldschneider and Waite 1987), the effects of independent living on wealth accumulation are theoretically ambiguous, as living in the parental home might help young people to conserve resources and save or might reduce home ownership and make young people less likely to have separate finances and solely owned assets. The possible confounding effects of cohabitation are similarly unclear. While evidence suggests that unmarried parents cohabiting at the time of the birth of their child are more likely to marry than those not cohabiting (Carlson et al. 2004; Harknett and McLanahan 2004), there has been little work linking cohabitation to wealth accumulation. In order to adjust for these factors, I construct three time-varying dichotomous indicators: ever reporting having a biologically related child, coresidence with one or both parents, and cohabiting with an unmarried partner of the opposite sex.

## Analyses

I model the transition to first marriage using a discrete time event history model, estimated with logistic regression (Allison 1984). The data are structured as a person-year file with the discrete time period defined as the calendar year, which is also the duration variable for the event-history analysis. By this method, NLSY79 respondents can have a maximum of 25 person-year observations, encompassing the years from 1979 until 2004. However, I exclude observations prior to 1985 as little wealth data were collected before that year, resulting in a maximum of 19 person-year observations. Most respondents are observed for fewer than 19 person-years either because they married before 2004 (so are no longer at risk of the event) or because they attrite from the study before marriage and

before 2004. Discrete time event history methods allow significant latitude in the modeling of hazards. I include a dichotomous indicator for each of the 19 periods, omitting the first. I also include a linear term for age in the models, though the results are robust to the inclusion of a quadratic term and to centering the age variables on the sample mean (30.5) to reduce multivariate collinearity in the models that include both a linear and quadratic term.

It is relatively straightforward to include time-varying covariates within this framework. Much of the data are collected annually and are easily assigned to a person-year observation. For each time-varying covariate, I lag the measure by one period, ensuring that the characteristic occurs temporarily prior to marriage. This method of ensuring temporal priority is particularly important in the case of the measures of wealth because research suggests that marriage may facilitate wealth ownership (Yamokoski and Keister 2006). However, lagging the measures of wealth does not eliminate the possibility that plans to marry rather than marriage itself cause wealth ownership. In other words, individuals may save in anticipation of marriage rather than wealth being the catalyst for marriage. While I am unable to disentangle these effects, the distinction may not be crucial. Whether individuals marry because they have wealth or accumulate wealth because they plan to marry is not actually an important conceptual distinction. In both cases, individuals would be responding to a wealth-based standard of marriage that required wealth ownership to precede marriage. Both cases would also be distinct from the case in which aspects of the marital situation, such as increased specialization or discrimination in favor of married people, caused wealth accumulation. Again, I exclude the possibility of that latter situation by lagging wealth ownership to be prior to first marriage.

Measurements of some characteristics were not made at every wave, and between 1994 and 2004, surveys were conducted only every two years. In those cases, values for the time-varying covariates were imputed to be equal to the value provided at last inquiry. Otherwise, missing data are handled through list-wise deletion. As noted above, I only model transitions to marriage between 1985 and 2004, as little wealth data were collected prior to 1985. That data limitation means that I must exclude respondents who married before 1985. Since the NLSY79 began by interviewing respondents ages 14–22 in 1979, the youngest respondents in my analysis sample were 21 in 1985. These rules yield an analysis sample of 3,688 male and female respondents.

I split the analysis sample of respondents by gender and conduct the analyses separately for men and women. By dividing the sample, I allow the relationship between first marriage and the measures of economic and demographic characteristics to vary by gender. Allowing for such variation

is important because prior research suggests that gender may play an important moderating role in many of these relationships. For instance, income may have a positive relationship with men's chances of marriage (Wilson 1987; Oppenheimer 1988) but may have a negative relationship with women's chances of marriage if women's labor force participation erodes the advantages derived from a model of marriage built on traditional sex roles and a gendered division of household and workplace labor (Becker 1981). Gender may similarly moderate the effects of public benefits receipt, religion, and prior births on marriage. While there is no research that directly suggests that the relationship between wealth and first marriage might vary by gender, the evidence of variation in the relationship between first marriage and other economic characteristics suggests that this is a reasonable possibility.

I generate a set of weights using the NLSY79 Custom Weighting program that I employ in tabulating descriptive statistics. However, I do not employ the weights in my multivariate analyses because, used in conjunction with list-wise deletion, incorrect betas and standard errors may result.

## RESULTS

### Wealth and First Marriage

My first hypothesis is that wealth would be an important predictor of first marriage, net of controls for possibly confounding economic and demographic characteristics. Table 1 presents simple bivariate statistics (weighted) separately for men and women and pooled across all survey years (1985–2004) in the analysis sample, which show the unadjusted relationship between wealth and first marriage. While ownership of a vehicle, financial assets, and other assets is fairly common for both men and women, those who marry are more likely to hold these assets than those who do not. For example, 86.29% of men and 80.43% of women who transition to marriage in the next period own a vehicle as compared with 75.13% of men and 72.90% of women who do not marry. Home ownership is much less common among this relatively young group of unmarried men and women (the average age for men and women is just 30), with approximately 17% of men and 21% of women owning a home. There is also much less differentiation in home ownership between those who marry and those who do not, and women who own homes actually appear less likely to marry.

While table 1 pools respondents across ages, figure 1 plots a set of

TABLE 1
OWNERSHIP OF MEN AND WOMEN WHO MARRY AND WHO DO NOT MARRY IN THE SUBSEQUENT PERIOD

| | MEN | | | WOMEN | | |
|---|---|---|---|---|---|---|
| | Marry | Do Not Marry | *t*-test | Marry | Do Not Marry | *t*-test |
| Own home (%) ..... | 16.80 | 17.22 | | 13.49 | 21.14 | * |
| Own vehicle (%) ..... | 86.29 | 75.13 | * | 80.43 | 72.90 | * |
| Own financial assets (%) ... | 80.49 | 69.47 | * | 80.48 | 72.58 | * |
| Own other assets (%) ..... | 64.02 | 56.54 | * | 58.04 | 51.07 | * |
| Person-years ..... | 15,632 | | | 12,637 | | |

* $P < .001$.

hazards of first marriage by age for men and women by asset ownership.[4] The figure shows the hazard of first marriage for those who own a home, a vehicle, financial assets, or other assets (solid lines) versus those who do not (dashed lines). At nearly every age through the early 40s, men who own one or more of these assets have a much higher hazard of first marriage than men who do not. There is a similar, though less striking, relationship for women that extends through the mid-30s.

Figure 2 presents a set of simulated survival curves estimated from the hazards presented in figure 1, comparing hypothetical men and women who own at least one asset at every age to men and women who never own any assets. For men, the comparison reveals that owning assets substantially hastens first-marriage entry, with about half of those who were unmarried at age 20 marrying by age 27 if assets were owned at each of the prior ages, against just one-quarter marrying by that age if assets were never owned. Further, asset ownership raises the proportion ever marrying by age 46, with about 80% of those who owned assets at every prior age estimated to marry against 40% of those who never owned assets. The results are similar for women, with half of women who owned assets at every age marrying by age 26 against approximately 28% of those who did not own assets at any of the preceding ages, and with approximately 80% of women who owned assets at every age marrying by age 46 compared with just 50% of women who never held assets.

The bivariate tabular and graphical representations show evidence of a relationship between wealth ownership and first marriage. However, this relationship could be the artifact of a confounding association between wealth, marriage, and other characteristics. To account for that possibility, I estimated discrete time event history models with logistic regression,

[4] Hazards are calculated as the number of events at a given age divided by the number of respondents exposed to the risk of event at that age.

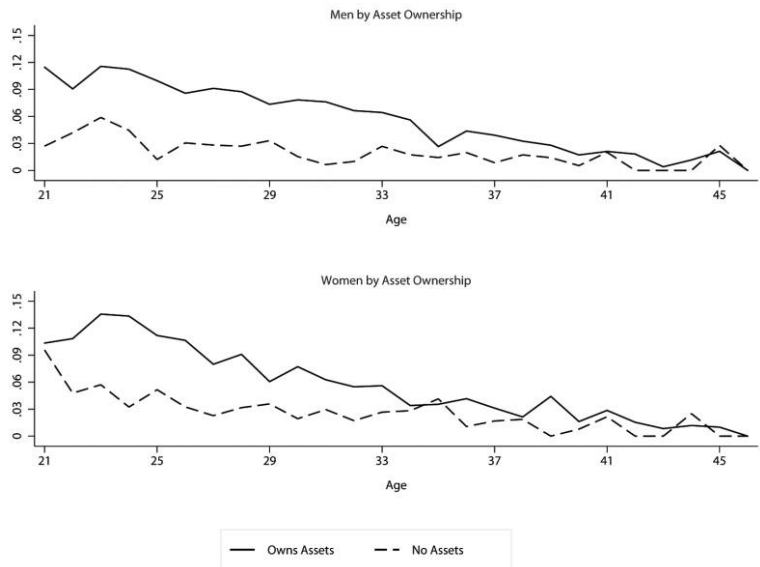


FIG. 1.—Hazard of first marriage for men and women by asset ownership

adjusting for a number of demographic and economic characteristics. I present estimates of the average marginal effects (AME) of men and women's characteristics on first marriage. While coefficients from logistic regression cannot be properly compared across models with different covariates because the introduction of an additional control variable ($x_2$) may change the coefficient on a variable $x_1$ both via an indirect effect and by increasing the explained variance of the model, the AME of a given variable is comparable across logistic regression models (Mood 2010) and is likely more substantively meaningful than coefficients or odds ratios.

Hypothesis 1 predicted that wealth would have a positive relationship with first marriage, net of controls. Consistent with that prediction, as shown in model 4 of table 2, I find that men who own a vehicle have a 2.6 percentage point higher probability of first marriage in any given year than men who do not own a vehicle and that men who have financial assets have a 1.5 percentage point higher probability of first marriage in any given year than men who do not have financial assets. Both of these relationships are statistically significant at the .001 level. The relationship between wealth ownership and first marriage is distinct from that of income, employment, education, school enrollment, and welfare receipt.

Model 5 reports the results of a model that also includes controls for

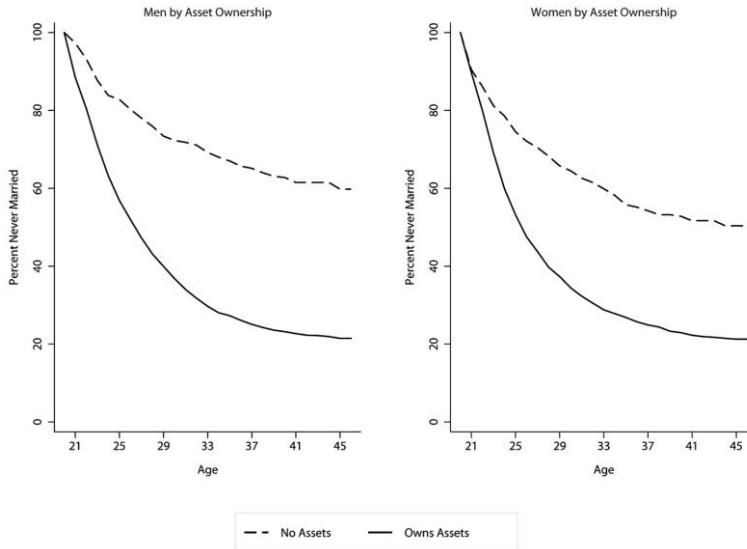


FIG. 2.—Survival scenarios for men and women by asset ownership

religion, church attendance, family structure at age 14, parents' educational attainment, ever having had a child, residence in the south, and residence in an urban area. The relationship between wealth and first marriage is robust to the inclusion of these additional covariates.[5]

I present the results of a comparable analysis for women in model 4 of table 3. I find that, also consistent with hypothesis 1, wealth has a statistically significant positive relationship with first marriage for women. Women who own a vehicle have a 1.3 percentage point higher probability of marriage in any given year, and women who possess assets other than a vehicle, home, or financial assets have a 1.9 percentage point higher probability of marriage in any given year than women without those assets. As was the case for men, and as shown in model 5, adjusting for social and demographic characteristics does not change those relationships.

In partial confirmation of hypothesis 1, I find evidence that vehicle ownership, the ownership of financial assets, and the ownership of other

[5] The relationship between marriage and wealth was also robust to the inclusion of two additional controls (for living with parents and cohabiting with a partner of the opposite sex) that were not included in the main models because of theoretical ambiguity about their relationship with wealth and marriage.

TABLE 2
PREDICTORS OF TRANSITION TO FIRST MARRIAGE FOR MEN, AVERAGE MARGINAL EFFECTS FROM DISCRETE TIME LOGISTIC REGRESSION (NLSY79)

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| Black | −.030*** | −.024*** | −.025*** | −.017*** | −.019*** |
| High school graduate | .023*** | .016* | .016* | .007 | .008 |
| College graduate | .060*** | .035*** | .037*** | .022* | .024* |
| Age (years) | −.002* | −.004** | −.003** | −.004*** | −.003** |
| Wealth ownership: | | | | | |
| Own home | | | | .003 | .001 |
| Own vehicle | | | | .026*** | .025*** |
| Own financial assets | | | | .015*** | .016*** |
| Own other assets | | | | .003 | .004 |
| Earned income ($ thousands) | | .001** | .001** | .001*** | .001** |
| Public benefits: | | | | | |
| Received AFDC/TANF | | .122** | .123** | .117** | .118** |
| Received Food Stamps/SNAP | | .007 | .008 | .017 | .017 |
| Employment status: | | | | | |
| Not working | | −.030*** | −.031*** | −.020* | −.021** |
| Full-time work, part year | | −.015*** | −.016*** | −.011** | −.012* |
| Part-time work | | −.016** | −.016** | −.011 | −.011 |
| Enrolled in school | | .006 | .007 | .004 | .004 |

| | | | | | |
|---|---|---|---|---|---|
| Family background: | | | | | |
| Living with both parents at 14 | | | .001 | | .000 |
| Father college graduate | | | −.005 | | −.004 |
| Mother college graduate | | | −.002 | | −.001 |
| Religion: | | | | | |
| Jewish | | | .019 | | .028 |
| Catholic | | | .005 | | .004 |
| Mainline Protestant | | | .010 | | .009 |
| Other | | | .016 | | .016 |
| Religious services attendance: | | | | | |
| 2–3 times per month | | | .012 | | .010 |
| Once a week | | | .013* | | .011 |
| More than once a week | | | .010 | | .011 |
| Reside in urban area | | | −.016** | | −.017** |
| Reside in South | | | .009 | | .007 |
| Ever had child | | | .009 | | .010 |
| Person-years | 15,632 | 15,632 | 15,632 | 15,632 | 15,632 |

* $P < .05$.
** $P < .01$.
*** $P < .001$.

TABLE 3
PREDICTORS OF TRANSITION TO FIRST MARRIAGE FOR WOMEN, AVERAGE MARGINAL EFFECTS FROM DISCRETE TIME LOGISTIC REGRESSION (NLSY79)

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| Black | −.036*** | −.029*** | −.031*** | −.027*** | −.030*** |
| High school graduate | .019* | −.003 | −.003 | −.005 | −.006 |
| College graduate | .045*** | .008 | .006 | .006 | .004 |
| Age (years) | −.006*** | −.006*** | −.006*** | −.006*** | −.006** |
| Wealth ownership: | | | | | |
| Own home | | | | −.013 | −.013 |
| Own vehicle | | | | .013* | .014* |
| Own financial assets | | | | −.004 | −.005 |
| Own other assets | | | | .019*** | .019*** |
| Earned income ($ thousands) | | .000*** | .000*** | .000** | .000** |
| Public benefits: | | | | | |
| Received AFDC/TANF | | .009 | .010 | .011 | .012 |
| Received Food Stamps/SNAP | | −.018* | −.018* | −.019*** | −.017 |
| Employment status: | | | | | |
| Not working | | −.034*** | −.034*** | −.031*** | −.030*** |
| Full-time work, part year | | −.002 | .002 | .003 | .004 |
| Part-time work | | −.005 | −.004 | −.002 | −.002 |
| Enrolled in school | | −.008 | −.009 | −.007 | −.009 |

| | | | | | |
|---|---|---|---|---|---|
| Family background: | | | | | |
| Living with both parents at 14 | | | −.002 | | −.003 |
| Father college graduate | | | .005 | | .005 |
| Mother college graduate | | | −.007 | | −.007 |
| Religion: | | | | | |
| Jewish | | | .004 | | .004 |
| Catholic | | | .004 | | .004 |
| Mainline Protestant | | | .001 | | .002 |
| Other | | | −.012 | | −.012 |
| Religious services attendance: | | | | | |
| 2–3 times per month | | | .009 | | .009 |
| Once a week | | | .010 | | .011 |
| More than Once a week | | | .002 | | .003 |
| Reside in urban area | | | .010 | | .009 |
| Reside in South | | | .003 | | .002 |
| Ever had child | | | −.000 | | .000 |
| Person-years | 12,637 | 12,637 | 12,637 | 12,637 | 12,637 |

* $P < .05$.
** $P < .01$.
*** $P < .001$.

assets predict first marriage, net of controls for a large number of possible confounding variables. This relationship is especially strong for men.

## Wealth and Disparities in First Marriage

Hypothesis 2a contends that, in light of the strong relationship between wealth ownership and first marriage, accounting for wealth ownership will explain a portion of between-group differences in marriage. The results presented in tables 2 and 3 provide some support for this hypothesis.

Model 1 of table 2 describes the relationship between race and education and the transition to first marriage for men, adjusting only for age. Examining the results, compared with white men, black men have a 3.0 percentage point lower probability of first marriage in any given year. Similarly, being a high school graduate or a college graduate (relative to someone with less than a high school education) is a significant advantage, associated with a 2.3 and 6.0 percentage point higher probability of first marriage in any given year, respectively.

Are these associations between race and education and men's marriage explained by differences in other economic factors such as income, employment, school enrollment, or welfare receipt? Including these covariates (model 2) somewhat reduces the AME of the variable for black, shifting it from −0.030 to −0.024, a 20% change. Including these economic covariates also narrows the marital divide between the more and less educated, reducing the high school advantage by 30% and the college advantage by 42%. However, both race and education still have statistically significant relationships with marriage.[6]

As predicted by hypothesis 2a, including wealth reduces the relationship between being black and entering first marriage. As shown in model 4, after adjusting for wealth, the AME on black goes from −0.024 to −0.017. While being black still has a statistically significant negative association with first marriage, wealth narrows the gap from model 2 by about 30%, judging by changes in the AME. Similarly, including wealth reduces the relationship between having a high school diploma (relative to none) and first marriage by 56% and renders it statistically insignificant. Including wealth also reduces the relationship between having a college diploma (relative to less education) and first marriage by 37%, judging by change in the AME between models 2 and 4. Though it does not eliminate the racial or educational gap in first marriage for men, wealth explains a large portion of these gaps in first marriage and, for race and high school, a

[6] Y-standardized coefficients can also be compared across models (Winship and Mare 1984; Mood 2010). Doing so yields nearly identical results to those described here and below.

larger portion than traditionally included covariates such as earned income, employment, and welfare receipt.[7]

Model 3 of table 2 shows the relationship between race and education and first marriage after adjusting for both economic factors and for social and demographic characteristics. Comparing the AMEs of race and education on marriage reported for model 2 (which includes only the economic factors) and for model 3 (which includes the full set of covariates) reveals that accounting for family background, religion, religious services attendance, residence, and fertility history does little to explain the racial and educational marital divides. The average marginal effect of being black on marriage is essentially unchanged, as are the average marginal effects of education on marriage. Further, comparing the estimates from model 3 with those from model 5, which also includes the measures of wealth ownership, reveals that wealth operates similarly to partially explain the marital divide even after accounting for these social and demographic factors. In short, the relationships of interest are little changed by the inclusion of these additional controls.

Table 3 presents identical analyses for women. Model 1 shows the relationship between first marriage and race and education, controlling only for age. As was the case for men, black and less educated women are significantly disadvantaged in terms of entry into first marriage. Compared with white women, black women have a 3.6 percentage point lower probability of first marriage in any given year in the baseline model. Similarly, being a high school graduate or a college graduate (relative to someone with less than a high school education) is a significant advantage, associated with a 1.9 and 4.5 percentage point higher probability of first marriage in any given year, respectively. Model 2 introduces adjustments for income, public benefits receipt, employment status, and school enrollment. Including these covariates reduces the black-white gap by approximately 19% (judged by the change in the AME of black between models 1 and 2). Further, these measures of labor market performance appear to explain much more of the educational divide in first marriage

[7] I also estimated alternative models that compare the average marginal effect of being black on first marriage in any given year across three models in which the first just included the age-adjusted relationship between being black and marriage, the second added in the measures of educational attainment, and the third added in the measures of wealth ownership. Adjusting for education reduced the average marginal effect of being black by 20% while adjusting for wealth ownership further reduced the average marginal effect of being black by 40%. Reestimating the models such that the second model introduced both education and the full set of economic controls reduced the average marginal effect of being black by 33%, and including measures of wealth in a third model further reduced the average marginal effect of being black by 29%.

for women than for men, as including them renders the relationship between marriage and education insignificant.

Compared to men, there is less evidence among women for hypothesis 2a, that wealth explains gaps in first marriage by race or education. While controls for labor market performance reduce the black-white marital divide by about 19%, adjusting for wealth narrows the gap by only an additional 7%. Further, wealth plays little role in explaining the educational divide in first marriage, as labor market performance seems to completely explain that disparity.

As was the case for men, taking account of social and demographic characteristics in addition to economic characteristics does little to explain the racial or educational divides in marriage for women. The relationships between being black and marriage and between education and marriage are substantively similar in model 2, which includes economic controls, and in model 3, which also includes social and demographic controls. Further, the inclusion of these characteristics does not change the extent to which wealth ownership explains race and education gaps in marriage. The reduction in the relationship between being black and marriage with the inclusion of assets is similar in models that adjust only for economic factors (comparing models 2 and 4) and models that also adjust for social and demographic characteristics (comparing models 3 and 5).

These results provide strong support for hypothesis 2a for men, showing that wealth explains a portion of the race and educational divides in first marriage. However, there is quite limited support for hypothesis 2a with regards to women.

Hypothesis 2b predicted that the strength of the relationship between wealth and first marriage would not vary by race or education and that there would be no differences in how wealth is valued for marriage across groups. I test for differences by race and education in the relationship between wealth and first marriage by including interaction terms between race and wealth and between education and wealth in the models of first marriage. I find that the interaction between measures of wealth ownership with a variable for being black is statistically insignificant; that is, I do not find any evidence to suggest that the importance of wealth varies by race either for men or for women results not presented in tables).[8]

Interacting wealth ownership with the education variables is a more complicated exercise. Ideally, interactions would be tested between wealth ownership and both high school and college completion. However, models estimated with the full set of these variables show substantial multivariate collinearity between the dichotomous indicators of college and high school

[8] There is also no statistically significant interaction between race and asset ownership, which were tested jointly.

completion, wealth ownership, and the interaction of those variables. There are similar problems when the data are consolidated to examine the interaction between high school completion and wealth ownership. Limiting the model to include only interactions between college completion and wealth ownership minimizes the variance inflation factors on the wealth indicators and the interaction terms. These models test whether the relationship between wealth ownership and marriage is different for college graduates as compared with nongraduates. A Wald test of the joint significance of the interactions suggests that, as a group, there is no significant variation by education in the relationship between wealth and marriage for men or for women (results not presented in tables).[9] These tests provide strong evidence to support hypothesis 2b. I find no evidence that the relationship between wealth and first marriage varies by race/ethnicity or education.

### Robustness Check: Left-Censored Cases

In the tests of hypotheses 1, 2a, and 2b, described above, I track the NLSY79 sample from 1985, when complete data on wealth were first collected and the youngest respondents were age 21. By doing so, I exclude respondents who marry before 1985. This left-censoring may bias the sample in two possible ways. First, I do not observe any marriages between 1979 and 1985. Second, I do not observe any marriages by respondents under 21 years of age and few marriages by respondents in their early twenties. If the relationship between wealth and marriage either differed between the 1979–85 and the 1986–2004 periods or differed depending on the age of the respondent at marriage, then the forgoing analyses might be biased by this left-censoring.

My ability to correct for this possible bias is somewhat constrained by survey design. The NLSY79 collected detailed data on assets and debts beginning in 1985 and every year thereafter with the exception of 1991 and 2002. However, data on wealth prior to 1985 are not totally lacking. Prior to 1985, respondents were asked if they owned a home, a vehicle, or financial assets. However, the survey did not inquire about any other kinds of assets and did not collect any information on the value of the assets or of associated debts. Further, these questions were asked only in the years 1979, 1980, 1981, and 1982. In 1983 and 1984, the NLSY asked about home ownership, but not about vehicle ownership or financial assets. In addition, these questions were asked only of respondents who (*a*)

[9] A corresponding test just limited to interactions between high school completion and asset ownership is not readily interpretable, as the reference category comprises those with both more (college graduates) and less (high school dropouts) education.

had a child, (*b*) were enrolled in college, (*c*) were married, (*d*) were living outside of the parental home, or (*e*) were over the age of 18.

Though the data on wealth are quite limited for the years before 1985, it is sufficient to conduct a basic analysis of the robustness of the main tests of hypotheses 1, 2a, and 2b to the inclusion of the left-censored cases. For this analysis, I estimate models of the relationship between wealth and first marriage for three different subsamples. The first subsample includes respondents over the age of 18 observed between 1979 and 1983, the period prior to the years covered by the main analyses. The second subsample, shown for comparability, includes the over-18 sample observed from 1985 to 2004. This is the same time period that I examine in the main analyses, but these models only examine home, vehicle, and financial asset ownership. The third subsample includes respondents observed in the entire study period, 1979–2004. Because data on vehicle and financial asset ownership were not collected in 1983 or 1984, I set values for those years equal to the 1982 values. In addition, even though additional measures of asset ownership were collected in the years 1985–2004, to maintain comparability, I only consider home, vehicle, and financial asset ownership. For each subsample, I estimate a version of the models presented in tables 2 and 3, first showing just the age-adjusted relationship between marriage and race and education, then introducing controls for labor market performance, and then measures of home, vehicle, and financial asset ownership.[10]

Table 4 presents the average marginal effects of race, education, and wealth ownership on first marriage. Overall, either limiting the analysis sample to the years 1979–83 or taking the full panel from 1979–2004, the results are substantively similar to the main results presented in tables 2 and 3.

In confirmation of hypothesis 1, I find that asset ownership is predictive of men's first marriage after controlling for labor force characteristics, though there is some variety in which assets in particular matter for marriage. The results presented in table 4 for women are also consistent with those presented in table 3. Across subsamples, vehicle ownership is significantly related to first marriage.

In confirmation of hypothesis 2a, I find that introducing wealth explains a portion of the racial divide (between 13% and 36%) in men's marriage, and a larger portion than is explained by other economic attributes (which explain only between 4% and 27%). In the 1985–2004 and 1979–2004

[10] I tested, but do not present, the robustness of these results to additional controls for family background, religion, and geographic location. As in the models presented in tables 3 and 4, including these covariates does not substantively change the results.

TABLE 4

Comparison of Relationship of Wealth and Transition to First Marriage across Samples, Average Marginal Effects from Discrete Time Logistic Regression (NLSY79)

| | Men (1980–83) | | | Men (1986–2004) | | | Men (1980–2004) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 |
| Black | −.057*** | −.054*** | −.047*** | −.030*** | −.022*** | −.014*** | −.038*** | −.032*** | −.025*** |
| High school | −.010 | −.012 | −.015 | .023*** | .016** | .007 | .015*** | .009* | .003 |
| College | −.027* | −.025 | −.026 | .049*** | .035*** | .021** | .046*** | .026*** | .017*** |
| Economic controls | | Y | Y | | Y | Y | | Y | Y |
| Wealth: | | | | | | | | | |
| Own home | | | .058* | | | .004 | | | .010* |
| Own vehicle | | | .036*** | | | .029*** | | | .030*** |
| Own financial assets | | | −.009 | | | .016*** | | | .008* |
| Person-years | 8,103 | 8,103 | 8,103 | 21,529 | 21,529 | 21,529 | 33,158 | 33,158 | 33,158 |
| | Women (1980–1983) | | | Women (1986–2004) | | | Women (1980–2004) | | |
| Black | −.073*** | −.068*** | −.065*** | −.039*** | −.030*** | −.026*** | −.055*** | −.046*** | −.041*** |
| High school | .008 | .001 | −.001 | .021* | .001 | −.003 | .019** | .004 | .000 |
| College | .036 | .027 | .024 | .041*** | .011 | .006 | .044*** | .015 | .009 |
| Economic controls | | Y | Y | | Y | Y | | Y | Y |
| Wealth: | | | | | | | | | |
| Own home | | | .007 | | | −.005 | | | .002 |
| Own vehicle | | | .020* | | | .014*** | | | .017*** |
| Own financial assets | | | −.002 | | | .008 | | | .006 |
| Person-years | 7,259 | 7,259 | 7,259 | 17,425 | 17,425 | 17,425 | 27,127 | 27,127 | 27,127 |

* $P < .05$.

** $P < .01$.

*** $P < .001$.

subsamples, which include a greater range of ages, I find that adjusting for wealth also diminishes the education divide in men's marriage.

There is also evidence in each subsample of a black-white marital divide for women, though, as before, wealth accounts for less of this divide (between 4% and 13%) and for less of the divide than economic characteristics such as income and employment (which account for between 7% and 23%). In addition, economic controls explain most of the educational divide in women's first marriage that is apparent in the two later (and older) subsamples.

I also repeat my tests of hypothesis 2b, that the relationship between wealth and first marriage does not vary by race or education (not reported in tables). There is no evidence of an interaction between education and wealth ownership in any of the samples for either men or women. However, there is some evidence of an interaction between race and wealth once these left-censored cases are included. There is a positive interaction between black and home ownership for women observed between 1979 and 1983 and a positive interaction between black and ownership of financial assets for men observed between 1979 and 2004. However, all of the other interaction terms are insignificant. In sum, with the exception of some evidence that contradicts hypothesis 2b, these tests show little reason to think that the main results of this analysis are biased by the left-censoring of early marriages.

## Why Wealth Matters for First Marriage

The cultural interpretation of the role of wealth in marriage focuses on its symbolic value rather than its use value or signaling value. If this argument is correct, we would expect to find that the simple ownership of wealth is more predictive of first marriage than measures of the value of wealth, as postulated in hypotheses 3a and 3b. Table 5 presents the results of this comparative analysis, separately for men and women.

Models 1a (for men) and 1b (for women) of table 5 replicate model 4 of table 2 and model 4 of table 3, showing the relationship between dichotomous measures of wealth ownership and marriage, net of controls for economic characteristics. As in prior models, owning a vehicle and owning financial assets are positively related to marriage for men, and owning a vehicle and owning other assets are positively related to first marriage for women. Models 2a and 2b substitute measures of the market value of vehicles, home, financial assets, and other assets (in logged hundreds of 2006 CPI-adjusted dollars) in place of the dichotomous indicators of ownership. Individually, the value of men's vehicles and women's vehicles and other assets is significantly related to marriage. Moreover, including these measures of asset value serves to attenuate the relationship

TABLE 5

Comparison of Measures of Wealth as Predictors of the Transition to First Marriage, Average Marginal Effects from Discrete Time Logistic Regression (NLSY79)

| Predictor | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | Model 1a | Model 2a | Model 3a | Model 1b | Model 2b | Model 3b |
| Black | −.013** | −.013*** | −.019*** | −.031*** | −.031*** | −.033*** |
| High school | .005 | .006 | .011* | −.010 | −.010 | −.007 |
| College | .017* | .018* | .027** | −.006 | −.007 | −.002 |
| Ownership of wealth: | | | | | | |
| Own home | .012 | | | −.003 | | |
| Own vehicle | .028*** | | | .013* | | |
| Own financial assets | .010* | | | .005 | | |
| Own other assets | .005 | | | .018*** | | |
| Value of wealth (ln $ hundred): | | | | | | |
| Market value of home | | .001 | | | −.000 | |
| Market value of vehicle | | .005*** | | | .002** | |
| Market value of financial assets | | .001 | | | .002 | |
| Market value of other assets | | .001 | | | .003*** | |
| Net worth (ln $ hundred) | | | .002** | | | .002** |
| Economic controls | Y | Y | Y | Y | Y | Y |
| Person-years | 17,050 | 17,050 | 17,050 | 13,549 | 13,549 | 13,549 |

* $P < 0.05$.

** $P < 0.01$.

*** $P < 0.001$.

between being black and first marriage and education and first marriage to the same extent as the dichotomous indicators of wealth ownership. For instance, in models 1a and 1b, which include the dichotomous indicators, the average marginal effect of being black on marriage in any given year is −0.013 for men and −0.031 for women, identical to the −0.013 for men and −0.031 for women reported in models 2a and 2b.

Models 3a and 3b employ a continuous measure of the natural log of net worth in place of the other measures of wealth. Net worth is significantly and positively related to marriage for both men and women. However, comparing the average marginal effect of being black on first marriage in any given year for men in model 3a (−0.019) with those shown in models 1a and 2a (−0.013 in both cases), it is apparent that accounting for net worth does not as effectively close the black-white gap in men's first marriage.

I find limited evidence to support hypotheses 3a and 3b. For men, the simple ownership of each of two kinds of assets is significantly related to marriage in any given year while just the value of vehicles is related to marriage. Yet, including the measures of the market value of each kind of asset serves to attenuate as much of the race and educational divides in marriage as the dichotomous measures. I also find that net worth is significantly related to marriage for men, but that net worth does not account for as much of the race and educational divides in marriage as the other two measures. For women, I find that both the dichotomous measures and the value measures of vehicle ownership and ownership of other assets are significantly related to marriage in any given year, and these measures explain similar portions of the black-white gap in marriage. I also find that, as for men, net worth is a significant predictor of first marriage.

## Robustness Checks

An additional issue of some importance is the role that vehicle ownership plays in first marriage. The results presented in tables 2 and 3 suggest that just owning a vehicle raises the probability of first marriage in any given year by 2.6 percentage points for men and 1.3 percentage points for women relative to men and women who do not own vehicles. However, there are still at least two possible reasons that vehicle ownership might raise the risk of first marriage. First, vehicle ownership may serve as a symbolic marker. Second, vehicle ownership may allow for access to larger marriage markets. To test the second possibility, I interacted vehicle ownership with residence in an urban area (an SMSA). If vehicle ownership primarily functioned to provide available transportation and allow access to a larger pool of potential partners, then vehicle ownership should matter

more in nonurban places—both because potential partners might be less concentrated and because alternative transportation might be less available. However, I do not find evidence of any such interaction (results not presented in tables).

Higher education may also have a complicated relationship with wealth and marriage. While education imparts a significant advantage in first-marriage entry to men and women, it might be the case that in gaining a college education, men and women have taken on substantial debt and have delayed the acquisition of assets such as homes, cars, and financial savings, which could delay marriage. Several pieces of evidence argue against that process, at least as it plays out over ages 22–46. On average across those ages, respondents with a college degree have higher levels of asset ownership than their less educated peers. In addition, adjusting for asset ownership reduces the educational advantage in marriage. Part of the reason why I do not detect such a relationship between education, wealth, and first marriage may be because while no means negligible, student loan debt for the cohort of men and women represented in the NLSY79 was significantly lower than it is for more recent cohorts. Specifically, while average student loan debt for undergraduate and graduate education combined was nearly $28,000 in 2002, such debts averaged about $11,000 in the 1980s and, tracing the trend line farther back, could conceivably have been lower still when the NLSY79 respondents, who were ages 14–22 in 1979, were incurring student loan debt (Baum and O'Malley 2003).

An alternative way to consider the relationship between education, wealth, and marriage is to recognize that part of the reason that higher education may matter for marriage, aside from the realized economic benefits of income, employment, and wealth, is that education may reduce uncertainty about future employment and earnings (Oppenheimer et al. 1997). If wealth matters for marriage because it provides use value in offering long-term security, then wealth might matter less for respondents who have completed college than it might for less educated respondents, who lack the security of a college degree. However, the finding of no significant interactions between wealth and education shows this not to be the case; wealth ownership appears to matter equally across educational attainment. Similarly, there is no evidence of variation in the relationship between net worth and marriage by education.

## DISCUSSION

This article presents evidence that wealth plays an important role in the timing of first marriage and provides new insight into three key questions

about the nature of that relationship. First, wealth has a relationship with first marriage that is robust to the inclusion of controls for potentially confounding economic and demographic characteristics. This relationship is especially strong for men for whom vehicle ownership and financial asset ownership raise the probability of first marriage in any given year by 2.6 and 1.5 percentage points, respectively, compared to men without these assets. Second, wealth explains a portion of the racial and educational differentials in the transition to first marriage and appears to operate similarly for blacks, whites, and the more and less educated. Again, these dynamics are particularly strong for men. Finally, I find limited evidence to adjudicate between the cultural/symbolic interpretation of the importance of wealth and the use-value interpretation. The dichotomous measures, market value measures, and net-worth measures are all significant predictors of first marriage for men and women, and the ownership measures and market value measures explain similar amounts of the race and education divides and more of those divides than is explained by net worth.

In all, I find evidence to support the argument that wealth is an important prerequisite of marriage, especially for men. That wealth matters more for men than for women in first marriage accords with prior work that finds earnings to be a more important predictor of first marriage for men than women (Sweeney 2002). The priority given to men's wealth may well be an additional manifestation of the male breadwinner ideal. Yet, while wealth is more important for men than for women, wealth is a positive predictor of first marriage for women. Contrary to the predictions from Becker's (1981) independence hypothesis, it appears that women do not use wealth to purchase autonomy; rather women's wealth is an important and valued factor in marriage entry, even if less so than for men.

In addition, I provide evidence on the extent to which differential wealth holdings explain between-group differences in first-marriage transitions, adding a new element to the sociological literature on racial and educational differentials in marriage. For men, wealth explains a large portion of the race and education gaps in first marriage, and a larger portion of the black-white gap and the gap in marriage between high school graduates and nongraduates than conventionally studied covariates such as income, employment, and school enrollment. While including measures of wealth in models of first marriage does not eliminate the black-white gap in marriage, it does reduce the differential by approximately 30% for men, a larger share than that explained by measures of labor market performance (20%). Further, wealth reduces the advantage in marriage enjoyed by male high school graduates over nongraduates by 56% and renders it statistically insignificant and reduces the college ad-

vantage by approximately 37%, larger than or on par with the 30% and 42% reductions in the high school and college advantages that come with adjusting for labor market factors.

Edin and Kefalas (2005) suggest that the wealth-based economic standard of marriage is widely held across groups. My findings are generally supportive of this claim. Although wealth is unequally held, I find little evidence that it is differentially valued for marriage across population subgroups.

I find mixed support for the contention that wealth matters for marriage primarily for its symbolic value. Both the simple ownership of wealth and the value of that wealth appear to matter for marriage for men and women. My results support the idea that having wealth is an important predictor of marriage, but I find that the utility of wealth is not confined to simply owning assets but extends to the value of that wealth.

This analysis is subject to several limitations. First, I compare the relative importance of simple dichotomous measures of wealth to self-reported measures of market value and net worth in predicting first marriage. However, there is likely to be substantially more error in the measurement of the value of assets than the measurement of the ownership of assets, biasing the coefficients on the value measures toward zero. This problem makes it difficult to cleanly test hypotheses 3a and 3b, leaving some uncertainty about just why wealth matters for marriage.

Second, I analyze the individual predictors of first marriage, following the approach of Oppenheimer et al. (1997), Sweeney (2002), and Xie et al. (2003), among others. I do not include marriage market measures such as the ratio of men to women or of employed men to women (Lloyd and South 1996). It is possible that these measures, along with wealth, might help explain the remaining race and educational divides in first marriage.

A third issue relates to unobserved heterogeneity. Although I have included a large number of time-varying controls in my models, it is possible that wealth ownership and marriage are jointly determined by a third omitted variable, such as economic potential, or more abstractly, a sense of responsibility or maturity. The evidence I have provided on the relationship between wealth and first marriage does not rule out the possibility that such omitted variables might exist. However, omitted variables of this sort would have to be distributed such that they would (1) be associated with wealth and marriage, (2) explain racial and educational gaps in marriage, (3) operate similarly by race and education, and (4) operate differently for men and women to explain the entire relationship between wealth and first marriage. That said, it remains the case that unmeasured variables correlated with wealth and marriage might exist and could bias the estimates presented here.

The findings presented here should be of interest to scholars broadly

concerned with issues of inequality and mobility, race, and the family. First, by tracing the connections between wealth and marriage, this research presents new evidence on how disadvantage is transferred and compounded across generations. Future work should focus on further drawing out the complicated causal relationships between wealth, marriage, and intergenerational mobility.

This research also contributes to the literature in family demography by expanding our understanding of emerging disparities in marriage. I identify wealth as a powerful, and mostly overlooked, explanation for the black-white and educational marriage gaps and demonstrate that wealth accounts for as much as or more of the gaps than is explained by traditionally included covariates.

My findings also raise a broader theoretical question about the relationship between marriage, economic change, and economic standards for marriage. Work by Becker (1981), Oppenheimer (1988), and Wilson (1987) on the economic correlates of marriage all rely on a common element. Each scholar argues that pronounced changes in the labor market are responsible for changes in marriage entry. Becker (1981) focuses on women's increasing labor force participation outside the home. Oppenheimer (1988) is primarily concerned with increasing uncertainty and delay in men's career entry. And Wilson (1987) hones in on the role of declining economic opportunities for black men. Despite the difference in focus, all three scholars assume a fairly static set of economic prerequisites of marriage (Wilson 1987; Oppenheimer 1988) or a fairly static conception of the economy of households (Becker 1981). In each of these accounts, what has changed is the economic structure.

In contrast, more recent accounts of marital change have argued that the economic prerequisites of marriage have also changed, that the bar for marriage has risen (Edin and Kefalas 2005). This argument suggests that rather than becoming less common or more stratified by race and education, wealth has become more important as a prerequisite of marriage. Discerning whether wealth has become (1) more difficult to obtain or (2) more important for marriage is beyond the scope of this work. But, to assess the first possibility, future work should examine whether the ownership of wealth and timing of wealth acquisition in the early life course has changed across cohorts. To examine the second, future work should examine the relationship between wealth and marriage not only within a single cohort, but also across cohorts. My own preliminary comparisons of the NLSY79 with the earlier National Longitudinal Surveys of Young Men and of Young Women suggest that wealth does appear to be more strongly related to first marriage in the more recent cohort.

Future research could also productively focus on how the relationship between wealth and marriage varies by age. We might expect that, in

accord with Oppenhiemer's theory of marriage timing, wealth would be particularly important at the youngest ages as a useful signal about future economic potential at a time when career entry may not be fully established.

In this research, I treat cohabitation as a potentially confounding variable in the relationship between wealth and marriage and find that it does little to alter that relationship. However, future work could usefully examine cohabitation as a competing risk to marriage, assessing whether wealth matters similarly for cohabitation and marriage. The symbolic interpretation of the importance of wealth would lead us to expect that wealth would be much more strongly related to marriage, with its particular set of social meanings, than to cohabitation.

Over the last 20 years, there has been a building movement in social service, policy, and academic circles to help low-income individuals and families build wealth. This research offers several policy implications relevant to the continuing efforts of the asset-building field. First, contrary to concerns that such programs are unlikely to make a meaningful difference in the lives of the poor because these individuals are unlikely to accumulate significant savings, I argue that even small amounts of wealth may help disadvantaged men and women meet the economic standard of marriage. Second, at a time when widespread crises in home mortgage markets have led commentators to question the wisdom of home ownership for financially insecure people, this research highlights the importance of other kinds of wealth for well-being—most notably, financial assets and vehicles. Third, this work buttresses the case that wealth matters for the poor and disadvantaged. What people own, not just what they earn or know, shapes entrance into marriage and so may perpetuate disadvantage across generations.

## APPENDIX

TABLE A1
DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF MEN AND WOMEN WHO MARRY AND WHO DO NOT MARRY IN THE SUBSEQUENT PERIOD

| | MEN | | WOMEN | |
|---|---|---|---|---|
| | Marry | Do Not Marry | Marry | Do Not Marry |
| Black (%) | 10.74 | 20.03 | 13.55 | 26.83 |
| Less than high school (%) | 7.18 | 11.04 | 4.50 | 6.76 |
| High school graduate (%) | 59.39 | 63.91 | 57.16 | 61.91 |
| College graduate (%) | 33.43 | 25.05 | 38.34 | 31.33 |
| Age (mean years) | 28.22 | 30.48 | 27.87 | 30.74 |
| Earned income (mean $1,000) | 38.5 | 31.39 | 29.87 | 26.27 |
| Employment status (%): | | | | |
| Not working | 3.59 | 7.86 | 3.86 | 11.97 |
| Full-time work, full year | 61.47 | 54.85 | 58.35 | 53.64 |
| Full-time work, part year | 22.95 | 24.76 | 18.45 | 16.55 |
| Part-time work | 11.99 | 12.53 | 19.34 | 17.83 |
| Enrolled in school (%) | 12.65 | 10.44 | 15.46 | 13.27 |
| Public benefits (%): | | | | |
| Received AFDC/TANF | 1.55 | .88 | 3.99 | 8.27 |
| Received Food Stamps/SNAP | 3.13 | 3.47 | 4.55 | 11.70 |
| Religion (%): | | | | |
| Jewish | 2.65 | 1.60 | 2.12 | 1.73 |
| Catholic | 32.09 | 31.18 | 35.23 | 25.04 |
| Mainline Protestant | 29.64 | 25.79 | 26.47 | 25.37 |
| Conservative Protestant | 18.46 | 23.13 | 20.73 | 28.12 |
| Other | 11.86 | 11.52 | 9.62 | 13.75 |
| Religious services attendance (%): | | | | |
| Not at all | 24.50 | 27.49 | 17.67 | 20.64 |
| Several times a year | 27.97 | 26.76 | 27.81 | 28.11 |
| Once per month | 10.50 | 12.02 | 10.54 | 10.96 |
| 2–3 times per month | 12.25 | 9.53 | 10.54 | 9.93 |
| Once a week | 18.43 | 16.16 | 25.46 | 20.90 |
| More than once a week | 6.35 | 8.04 | 7.97 | 9.46 |
| Reside in urban area (%) | 81.45 | 84.24 | 86.99 | 84.74 |
| Reside in South (%) | 28.87 | 29.09 | 30.00 | 34.52 |
| Family background (%): | | | | |
| Living with both parents at 14 | 80.69 | 75.81 | 81.45 | 76.51 |
| Father college graduate | 23.56 | 19.76 | 27.08 | 22.65 |
| Mother college graduate | 13.65 | 11.91 | 15.27 | 14.10 |
| Ever had child (%) | 11.09 | 18.03 | 14.53 | 29.96 |
| Person-years | 15,632 | | 12,637 | |

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