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Are There Gains to Delaying Marriage?

The Effect of Age at First Marriage on Career Development and Wages

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Abstract

Age at first marriage has risen dramatically since the mid-1960s among a wide spectrum of the U.S. population. Researchers have considered many possible explanations for this trend. Few, though, have asked why individuals should want to delay marriage in the first place. One possibility is that early marriage inhibits the career development of one or both individuals in a marriage. We test this hypothesis using data from the NLSY79. Using panel data methods that exploit longitudinal variation in wages and marriage timing, we estimate that delaying marriage increases hourly wages of women by nearly four percent for each year they delay. Marriage timing has no impact on the wages of men. We find that delaying marriage may have costs as well. All else equal, women who delay marriage marry spouses with lower wages.

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Abstract

Age at first marriage has risen dramatically since the mid-1960s among a wide spectrum of the U.S. population. Researchers have considered many possible explanations for this trend. Few, though, have asked why individuals should want to delay marriage in the first place. One possibility is that early marriage inhibits the career development of one or both individuals in a marriage. We test this hypothesis using data from the NLSY79. Using panel data methods that exploit longitudinal variation in wages and marriage timing, we estimate that delaying marriage increases hourly wages of women by nearly four percent for each year they delay. Marriage timing has no impact on the wages of men. We find that delaying marriage may have costs as well. All else equal, women who delay marriage marry spouses with lower wages.

1 Introduction

Marital rates have fallen sharply over the past three decades across a wide spectrum of the U.S. population. However, much of the so-called "decline in marriage" is attributable to a delay in marriage rather than rejection of marriage altogether.[1] The U.S. Census Bureau estimates median age at first marriage increased from 20.6 and 22.8 in 1965 to 25.0 and 26.7 in 1998 for women and men, respectively [Census 1999]. A common thread running through the economics literature on marriage is the idea that individuals delay marriage when the relative cost of remaining single falls. Increased access to the "pill" beginning in the late 1960s, for example, reduced the potential cost of nonmarital sex and so may have reduced the demand for early marriage [Akerlof et al. 1996; Goldin and Katz 2002]. For women, greater access to the labor market may also have lowered the relative cost of remaining single [Becker 1973; Van Der Klaauw 1996; Blau et al. 2000].[2] But, beyond the possibility that individuals, especially younger individuals, simply value the social freedom afforded by being single, why might individuals take advantage of the lower cost of remaining single and thereby delay marriage? One possibility, which we

[1] Tracking female cohorts in the March Current Population Survey (CPS) age 22 in 1970, 1980, and 1990, Loughran (2002) shows that while the propensity to marry fell sharply among younger women between 1970 and 1990, the decline in the propensity to marry across these three cohorts diminishes substantially after age 30. The propensity to marry by age 40 among women falls by only 6 percentage points (95 versus 89 percent) for those age 40 in 1965 and those age 40 in 1998.

[2] Other hypotheses for the decline in marriage tested in the empirical literature include the decline in the number of marriageable men [Wilson 1987; Wood 1995; Brien 1997], rising male wage inequality [Loughran 2002], and the rise in federal welfare support for single mothers [Murray 1984; Moffitt 1992].

address in this paper, is that early marriage inhibits the career development of one or both partners to a marriage.

Mobility is an important factor in developing a successful career since neither firm nor worker knows with certainty that a given employment relationship will be mutually beneficial. The underlying hypothesis of this paper is that marriage itself limits mobility and so constrains the process by which employees find suitable employers. Simply put, satisfying the career objectives of two married individuals is more difficult on average than satisfying the career objectives of two single individuals [Mincer 1986]. Marrying early, then, could negatively impact long-run earnings, especially for those individuals for whom the return to mobility and career development is high.

The literature on marriage and labor market outcomes has largely focused on the incidence of marriage rather than its timing. There is virtually no published research on the effect of marriage timing on labor market outcomes of which we are aware. Bergstrom and Schoeni (1996) show a positive correlation between age at first marriage and male wages, although Loughran (2000), using the same census data, shows this correlation is negative once observable characteristics like educational attainment are controlled for. Gray (1997) reports finding a negative correlation between male earnings and age at first marriage using data from the National Longitudinal Survey of Young Men (NLSYM) and National Longitudinal Survey of Youth 1979 (NLSY79). However, none of these studies addresses empirically whether it is selection or something about marriage timing itself that drives these results.

The absence of research on the effect of age at first marriage on labor market outcomes is perhaps not entirely surprising, since age at first marriage is highly correlated with age at first birth, and childbirth has a more obvious role in determining labor supply. Even so, outside the literature on teenage childbearing, only one published paper—Blackburn et al. (1990)—asks how age at first birth in general affects female labor supply and earnings. In their analysis, Blackburn et al. (1990) conclude that late childbearers tend to earn more than early childbearers and that this relationship is driven largely by differences in human capital investment prior to childbearing rather than unobserved heterogeneity driving both fertility timing and earnings.

In testing the hypothesis that marriage timing affects long-run earnings, we must recognize that many of the determinants of when one marries are likely to be correlated with earnings. Controlling for unobserved heterogeneity as well as contemporaneous endogeneity in wage and employment equations is the subject of much of the recent empirical literature on marriage, fertility, and female labor market outcomes.[3] Korenman and Neumark (1992) and Neumark and Korenman (1994), for example, argue that OLS estimates of the effect of marriage and fertility on female wages tend to be biased downward, both because women who choose to marry and have children have different unobserved characteristics than women who do not and because random wage realizations may simultaneously influence the choice to marry or have children. Employing various fixed-effect, sample selection, and instrumental variables methods, they report a positive effect of marriage and negative effect of fertility on female wages. More recently, Lundberg and Rose (2000) show using fixed-effects methods that a first child reduces female wages by 5 percent and hours by 45 percent. Using a different set of instruments, Angrist and Evans (1998) show that a third child tends to lower female labor force participation, although more educated women and women with high-wage husbands are unaffected.

The literature on the effect of marriage and fertility on male labor market outcomes is also concerned with unobserved heterogeneity and endogeneity, although of a different nature. Here, the concern is that males with strong labor market potential are the most desirable males available and hence the most likely to marry. Consequently, earnings directly influences the likelihood of marriage and so confounds estimates of the effect of marriage on earnings. Using longitudinal data and fixed-effects methods, Korenman and Neumark (1991), Daniel (1995) and Gray (1997) all show that male wages rise following marriage. They argue that a substantial proportion of the difference in wages between married and unmarried men is due to unobserved heterogeneity, but that marriage nonetheless appears to make men more productive. Lundberg and Rose (2000, 2002) also find that marriage increases male earnings as does the presence of children. Most recently, Krashinsky (2004) questions whether the fixed-effect models estimated by Korenman and Neumark (1991) and Gray (1997) are sufficient to control for differences between married

[3] See Browning (1992), Hotz et al. (1997) and Waldfogel (1998) for summaries of this literature.

and unmarried men because unobserved heterogeneity may influence both wage levels and wage growth. Krashinsky (2004) finds no evidence that marriage induces higher rates of wage growth for men.

We identify the effect of age at first marriage on wages employing longitudinal data from the NLSY79. Our empirical approach, outlined in Section 4, entails estimating wage growth equations with fixed effects in an effort to address potential biases caused by endogeneity and unobserved heterogeneity. Before turning to our empirical model, though, we first outline a model of marital search in which the value of marriage is a function of both spouse quality and own career development (Section 2). The model serves to highlight how our primary empirical model is identified and further suggests that, under the assumption that early marriage does retard career development, women who marry early, all else equal, should choose spouses with relatively high wages. We describe our data and sample in Section 3.

We report in Section 5 that our estimates indicate marriage timing affects the long-term earnings of women, but not men. We estimate that delaying marriage increases hourly wages of women by nearly four percent for each year they delay resulting in substantial differences in hourly wages at later ages. Our results further suggest that the benefit of delaying marriage is greater for women with high labor market potential. We also find support for the hypothesis that women who marry early demand relatively high wage spouses. These later results are reported in Section 6.

2 Marital Search and Career Development

The study of marriage behavior lends itself naturally to a search-theoretic framework, and explicit modeling of the marital search process can be found in numerous papers in the economics literature (Becker 1973; Keeley 1974; Becker et al. 1977; Boulier and Rosenzweig 1984; Mortensen 1988; Bergstrom and Bagnoli 1993; Willis 1999; Burdett and Coles 1997). Individuals search for suitable marriage partners among a distribution of potential partners. We can think of this distribution as a marriage market, perhaps defined both geographically and demographically. Given marriage market conditions, it is natural to ask with search models, at what age does an individual stop searching and accept an offer to marry? In this section, we explore how the assumption that early marriage is detrimental to career development affects a simple model of marital search, highlighting both the endogeneity of age at first marriage with respect to labor market outcomes and the tradeoffs individuals make between career development and spousal quality.

2.1 The Importance of Mobility

While the economics literature has much to say about how fertility timing and labor supply interact, it is virtually silent on the question of marriage timing. Up until the mid 1960s, age at first marriage and age at first birth were typically very close. Ellwood and Jencks (2002) report that 75 percent of women marrying for the first time in 1960 had a first birth within 36 months of marriage. The tight coupling of these events may have been attributable to the inconvenience of available contraceptive methods and perhaps social norms that presumed childbearing should closely follow marriage. Consequently, it is plausible that the same forces that caused some women to delay childbearing in the 1950s and 1960s also caused them to delay marriage. For example, a life-cycle model of fertility and labor supply would predict women with strong labor market potential will choose to have children later in life than women with poor labor market potential [see, for example, Moffitt 1984].[4] Today, with more convenient forms of birth control and relaxed social norms, marriage and childbearing are no longer so tightly coupled in time. For women first marrying in 1990, fewer than 50 percent gave birth within 36 months [Ellwood and Jencks 2002].[5] If marriage and childbearing are indeed separate events, the reasons why marriage might affect future labor market outcomes are likely to differ from those offered in the fertility and labor supply literature.

The migration and job mobility literatures provide a compelling reason why early marriage could inhibit career development. Rarely are the careers of two individuals fully complementary, especially in

[4]The key assumptions underlying this result in the fertility literature is that future earnings are an increasing function of past human capital investments and work experience and child rearing requires time that could otherwise be spent working or at leisure. In a model with perfect capital markets, the lifetime return to those investments and experience is greater when made earlier in life and so the marginal return to human capital investment and work is more likely to exceed the marginal return to childbearing at younger ages. This is particularly true for individuals for whom the return to human capital investment and work experience is high. With imperfect capital markets, it may be optimal to delay childbearing until income is high, and marginal utility of income is low or until a sufficient nest egg is saved to replace lost labor income [Hotz et al. 1997].

[5]Their figures exclude women with out-of-wedlock births.

terms of geographic location, and mobility is a key factor in early career development and wage growth [Mincer 1986; Topel and Ward 1992; Keith and McWilliams 1999]. It may take several tries to achieve the optimal employer-employee match and individuals who are geographically constrained may have fewer opportunities to achieve that match than will individuals who can search freely.[6] Topel and Ward (1992) find using longitudinal data between 1957 and 1972 that the typical young man will hold seven jobs in the first ten years of his working career, two-thirds of his career total. Using a more recent sample from the NLS, Light and McGarry (1998) find that young white men experience an average of five job separations during the first eight years of their careers. Much of this job-churning likely involves migration. In the NLSY79, the likelihood of interstate migration is at its highest in the years immediately following high-school or college graduation and much of that migration is related to job searching [Kodrzycki 2001].

Marriage creates geographic constraints because privately optimal migration decisions are frequently collectively suboptimal. Mincer (1978) formalizes this notion in a model of family migration. Suppose the gains to migration for males and females are identical and normally distributed and that males and females are paired randomly from these two distributions. Mincer shows that if the average probability of migration when single is 16 percent, the average probability of migration when married will fall to 7.5 percent and five percent of those couple will contain one tied-mover (an individual whose privately optimal choice would be not to move); 22 percent of the non-migrating couples will contain a tied-stayer.[7] Correlation in gains to migration will tend to mitigate the inhibiting effects of marriage on migration, but clearly the potential for locational conflict is high, especially when multiple locations are admitted to the model.

In unpublished work, Gladden (1999) documents the difficulty two-earner couples face in maximizing individual earnings and, in particular, the career sacrifice women tend to make for their husbands. Using the NLSY79, she finds that while migration increases employment and wages of males and unmarried

[6] Recent evidence in Neumark (2002) suggests that early job stability can have a positive effect on adult wages. Neumark identifies his model with variation in the unemployment rates during the first five years after schooling is completed. Thus, his estimates identify the effect of job instability on later wages due to macroeconomic forces as opposed to deliberate job shopping. Light and McGarry (1998) also find evidence that early job instability depresses long-term wages. Again, though, it is not clear from their results whether this is the effect of voluntary or involuntary job instability.

[7] We provide some evidence on marriage and migration from the NLSY in Section 3.

women, the employment and earnings of married women following a move decrease. The implication is that married couples tend to move to accommodate the husband's career. We might think that the problem of maintaining a two-career marriage would be more severe for those working in professional occupations where a good employer/employee match is more difficult to achieve and job tenure a more significant determinant of earnings. Gladden's results, in fact, are strongest in her sample of college graduates and professionals. While wages of married college-educated men increase by 9 percent in the year following a move, married college-educated women earn 7 percent less. Moreover, these large differences persist over time. In related work, Keith and McWilliams (1999) find that young women are much more likely than young men to separate voluntarily from a job for family-related reasons and that the returns to that type of mobility are typically negative.

If marriage itself complicates career development we might expect individuals and couples to take steps to minimize those negative effects. Mincer (1978), for example, noted in his original characterization of the family migration decision that maximizing individual earnings while married is more likely in large, diversified labor markets, especially for couples for whom migration plays a role in career development. Costa and Kahn (2000) maintain this variation as an identifying assumption in studying the location decisions of dual-career households. They note that between 1970 and 1990, the propensity to live in a metropolitan area increased more rapidly for couples in which both spouses were college-educated than for couples in which only one or neither spouse was college-educated. Over half of that difference in growth rates they attribute to the increasing incidence of colocation problems as female career objectives take greater precedence in family migration decisions.

2.2 Trading-Off Spousal Quality and Career Development

A standard model of marital search predicts that individuals will, all else equal, delay marriage if marriage itself inhibits career development and career development is valuable. Let V_t represent the expected present value of searching for a marital partner in period t and $M(z_t, Y_t)$ represent the expected utility of accepting a marriage proposal in period t. The value of being married is an increasing function of the quality of the potential spouse, z, and a stock of career development, $Y_t = \sum_{s=0}^{t} y_s$, that conveys future pecuniary and nonpecuniary benefits. Spousal quality is a random variable drawn from a known distribution, $G(z)$. The stock of career development is a choice variable, but we assume incremental investments in career development, y_t, are not possible when married so that the stock of career development is fixed upon marriage.

In a given period, the individual can either accept or reject a marriage proposal that arrives with some exogenous probability, λ_t. Individuals accept a proposal if $M(z_t, Y_t) > V_t$. The value of accepting a marriage proposal in period t must exceed the expected value of continuing to search in that period. The expected present value of searching in period t is characterized by the Bellman equation:

$$V_t = (S_t(Y_t) - c_t) + \beta E\{MAX[V_{t+1}, M(z_{t+1}, Y_{t+1})]\} \tag{1}$$

where S_t is the utility of remaining single, c_t is the cost of searching, and β is the personal discount factor. Providing $M(z, Y)$ has a finite mean, an individual's optimal search strategy will satisfy the reservation property such that there exists some value of being married such that the individual is indifferent between accepting a marriage proposal now and continuing to search in the next period, $M^*(z, Y) = V$.[8] Given this reservation property and the standard conditions for the application of Bellman's principal, we can implicitly define M^* as a function of the underlying parameters of the model. For example, individuals will demand a relatively high quality marriage if the cost of searching is relatively low. An increase in M^* will, in turn, lower the probability of realizing an acceptable match in any given period and so lengthen search, or delay marriage.[9]

M^* can be achieved by any number of combinations of spouse quality and career development. If we assume the realization of z, spouse quality, is truly random, then individuals will forgo career development to marry only if the realization of z is sufficiently high. Forgoing career development in period t lowers the utility of remaining single, but, by lowering the stock of career development, also lowers the expected

[8]See, for example, Lippman and McCall (1981) and Mortensen (1986).

[9]Holding career development constant, the probability of accepting a marriage proposal at any given instant is $p = \lambda[1 - G(z^*)]$, which implies an increase in the demand for spousal quality lengthens search.

present value of being married. If we assume that forgoing career development lowers the present value of marriage more than it lowers the value of remaining single, then individuals who forgo career development will demand relatively high quality spouses, all else equal. By extension, individuals who forgo marriage and invest in career development can achieve the same M^* in future periods with a lower level of spouse quality.[10]

Now, suppose there are two types of individuals: type H enjoys high returns to career development and type L does not. We depict these individuals in Figure 1. In period t, two individuals $\mathrm{H_e}$ and $\mathrm{H_l}$ have high returns to career development relative to type L and so have relatively steep potential age-wage profiles. Type H individuals know, however, that their age-wage profile will flatten when they marry. If we assume that both type H individuals have the same demand for marriage quality in period t and further that the production function M is identical, then only the realization of a relatively high quality spouse will induce one to forgo career development and relatively high wages in order to marry early. In Figure 1, spouse quality must be high enough for $\mathrm{H_e}$ to outweigh the present value of foregone future wages represented by the area between the age-wage profile of $\mathrm{H_l}$ and $\mathrm{H_e}$ to the right of point a.

As drawn, type L individuals have nothing to lose by forgoing career development in order to marry. These individuals may have different preferences for career development for non-pecuniary reasons or innate ability may prevent them from realizing the wage path of type H individuals. In either case, wage growth is unaffected by marriage timing. All else equal, then, we should expect L to marry relatively early since, for him or her, future wages (or at least the utility of future wages) will not suffer as a result and continued search is costly.

We draw three principal implications from this model of marital search. The first implication is that we cannot identify the effect of age at first marriage on wages by simply comparing the wages of individuals who marry early and late. Individuals who marry early should, on average, have less labor market potential than individuals who marry late and so their wages are likely to fall below and grow at a slower rate than the wages of individuals who marry late, regardless of when they marry. In the next

[10] Of course, M^* might not be constant over time.

section we show that, in fact, early and late marriers have very different pre-marriage characteristics.

The second implication of the model is that identification of the effect of age at first marriage on wages comes from the assumption that, conditional on type, the probability of meeting a spouse of sufficiently high quality is random. Some fraction of individuals will encounter spouses of sufficiently high quality for whom they are willing to sacrifice some level of future career development. It is these individuals (e.g., individual H_e in Figure 1) that, in theory, allow us to identify the effect of age at first marriage on wages. In the next section, we will see that a substantial fraction of individuals in the NLSY79 marry earlier than they expected. Finally, the search model implies that, all else equal, for individuals who face a trade-off between career development and age at first marriage, those who marry early should demand spouses of relatively high quality. We test this implication of the model in Section 6.

3 Differences Between Early and Late Marriers

We use the NLSY79 to study the effect of age at first marriage on wages. The NLSY79 began in 1979 with 12,686 men and women ages 14-22. With the exception of particular subsamples, these men and women were surveyed every year between 1979 and 1988 and biannually thereafter. By 2000, the remaining sample was between 35 and 43 years old. The long time-series, detailed demographic data, and low attrition rates make the NLSY79 ideally suited for studying the long-term labor market consequences of age at first marriage in an era of widely available and convenient forms of birth control.[11]

We employ a number of sample restrictions which we detail in Table 1. First, we drop the military and poor non-black, non-Hispanic subsamples since the NLSY79 stopped surveying them after 1984 and 1990, respectively.[12] Our sample of NLSY79 respondents includes individuals reporting ever marrying between 1979 and their last survey wave and for whom we could reliably identify the year in which they first married. Since marriage and birth timing are highly correlated, we dropped individuals for whom we could not reliably determine their age at first birth.[13] We drop individuals whose first birth was

[11] See BLS (1999) for more detail on the history and contents of the NLSY79.

[12] A small number of respondents in the military subsample were retained after 1984; we drop them from our sample nonetheless.

[13] We also dropped a small number of respondents who reported being ever married or ever having a child in one wave

out-of-wedlock since, for these individuals, the effect of fertility on wages may be particularly difficult to separate from the effect of subsequent marriage.

Our measure of wages is hourly wages on the respondent's main job. We use wages, as opposed to earnings, in an effort to isolate the effect of age at first marriage on labor market productivity as opposed to labor supply. So that we can reasonably compare pre- and post-marriage wages, we keep only those respondents for whom we have at least two pre- and two post-marriage wage observations from jobs in which the respondent worked at least 20 hours per week. All together, these sample restrictions leave us with 1,702 male and 1,570 female respondents and 49,464 individual-year observations.[14]

Readers might be concerned that the sample we employ is select. Indeed, our sample restrictions leave us with only 30 percent of the non-military, non-poor white sample. Many of our sample restrictions, especially dropping individuals with out-of-wedlock pregnancies, will clearly result in a more economically advantaged sample than the original NLSY79 sample. This fact is readily apparent by looking at differences in the distribution of scores on the Armed Forces Qualifying Test (AFQT) which was administered to the NLSY79 sample in 1980 and is broadly predictive of educational and labor market outcomes later in life.[15] The mean AFQT score is 32 in the non-military, non-poor white sample compared to 50 in our subsample. The AFQT scores are normed so that a score of 50, for example, is the median score for all youth 17 and older of that cohort in the U.S. population. Not only is the median AFQT score in our sample 50, but scores throughout the distribution match the population distribution almost exactly. This suggests that while our sample is more advantaged than the NLSY79 sample, which oversampled Hispanics and African Americans, it is broadly representative of the U.S. population born between 1957 and 1965 in terms of ability.

We summarize pre-marriage characteristics — AFQT scores, expected educational attainment, occupational aspirations, and expected age at first birth — by eventual age at first marriage ($MAge$) in Table 2. Looking at AFQT scores, we see that earlier marriers have lower average scores than later marriers. The difference in scores are perhaps more apparent when looking at the fraction scoring at or

and then never being married or never having had a child in a subsequent wave.

[14]We do not employ a balanced panel.

[15]See, for example, Neal and Johnson (1996).

above the 75th percentile: 12 percent of individuals marrying before age 22 scored at or above the 75th percentile compared to 30 percent marrying after age 29. Educational and occupational expectations are also markedly different among these groups. Whereas 23 percent of individuals who married before age 22 expected to complete a college degree, 42 percent of individuals expecting to marry after age 29 expected to complete a college degree. The difference between early and late marriers in the fraction expecting to complete an advanced degree are of a similar magnitude. These patterns are mirrored in statistics on occupational aspirations; the proportion expecting to work in a professional occupation increases from 0.38 to 0.52 as marriage age increases. Finally, Table 2 indicates that expected birth age increases by more than two years between individuals who married early and individuals who married late.

In Table 3, we tabulate actual and expected age at first marriage for our sample. The bulk of respondents (54.2 percent) marry between ages 22 and 27, but there are substantial numbers marrying both earlier and later. Females in our sample marry at an average age of 24.3, while males marry at an average age of 25.4.[16] In 1979, the NLSY asked respondents when they expected to marry, if ever. About 50 percent of our sample reported they expected to marry between ages 20 and 24 and 38 percent between ages 25 and 29. More than one quarter (27 percent) of the sample married earlier than expected and 44 percent married later than expected. We do not use this information directly in the analyses below, but believe it provides suggestive evidence that at least some of the variation we observe in age at first marriage is unexpected.

Initial differences between early and late marriers persist later into life. In Table 4, we examine mean differences in a variety of characteristics between early (≤ 22) and late (≥ 28) marriers at their last interview.[17] The means reported in Table 4 condition on age and gender and the differences in means (with the exception of tenure) are all statistically significant at the five percent confidence level or

[16]These average marriage ages are likely to be substantially lower than national averages because our sample includes only ever married individuals and because the NSLY79 oversamples African Americans. About 22 percent of the non-military/non-poor white NLSY sample for whom we can reliably measure marital status were unmarried at age 35. Descriptive statistics throughout are unweighted.

[17]We restrict the sample to individuals who were at least 35 years old at the time of their last interview (2,898 individuals). For 97 percent of this sample, the last interview wave was either 1998 or 2000.

better. Educational attainment stands out as one of the most significant differences between early and late marriers; 14 percent of individuals marrying before age 23 earn a college degree or better compared to 43 percent of individuals marrying after age 27. This difference in educational attainment between early and late marriers is reflected in occupational choice, wages, and family income. The hourly wage rate of late marriers, for example, is $8.57 compared to $6.53 for early marriers; late marriers are more likely to be employed in professional occupations and have family income 29 percent higher than early marriers. As might be expected, the fertility of late marriers to date is considerably lower on average than early marriers — 0.79 v. 1.89. It would also appear that late marriers make more job changes and are more likely to move between counties or states. Late marriers held an average of 11.8 jobs by their last interview compared to 10.4 jobs for early marriers. Moves between states and counties total 1.08 and 2.14 for late marriers compared to 0.84 and 1.68 for early marriers.

We provide suggestive evidence here that it is not just innate differences between early and late marriers that leads late marriers to move more frequently than early marriers. Using the sample described above, we implement linear regressions in which the dependent variable is a dichotomous variable measuring whether a respondent moves between counties or between states and the independent variables include a dichotomous variable for ever married ($Evmar$), a dichotomous variable for scoring above the 75th percentile of the AFQT distribution ($AFQT \geq 75$), educational attainment (five categories), race (three categories), age at first marriage, and a quadratic in age.[18] We summarize the results of these regressions, run separately for men and women, in Table 5. Contrary to expectations, the main effect of marriage on moving between states and counties is positive and statistically significant for women and essentially zero for men (columns (1) and (3)). However, the estimates suggest that the probability of moving between counties declines by about 15 percent for high AFQT women and men following marriage (columns (2) and (4)).[19] Thus, low AFQT women move more frequently, but high AFQT women and men move less frequently when married.[20] One interpretation of these results is that marriage limits

[18]Importantly, the sample includes only ever married individuals, so the estimated differences in migration between married and ever married individuals are not due to fixed differences between those who do and do not ever marry.

[19]Note that the main effect of AFQT is strongly positive.

[20]Childbearing, omitted from these models, no doubt also plays a role in suppressing geographic moves following marriage. We note, however, that these results hold in a sample of women who never give birth during our sample. For childless men,

geographic mobility among individuals with strong labor market potential. Low AFQT women, on the other hand, are perhaps more likely to follow their husbands following marriage.

4 Methods

While it is clear that late marriers ultimately earn higher wages than early marriers, Tables 3 and 4 also make clear that early and late marriers differ in many other dimensions that are strongly correlated with wages, which suggests that this simple comparison of mean wages cannot be interpreted causally. We do not know from Table 4 whether early marriage itself leads to lower wages or whether individuals who marry early simply have lower labor market potential than individuals who marry later.

Suppose wages are linearly related to years ever married, $MYears$, and age at first marriage, $MAge$, and furthermore that the effect of years ever married varies by $MAge$:

$$\begin{aligned} W_{it} &= X_{it}\beta_1 + MYears_{it}\beta_2 + MAge_i\beta_3 + (MAge_i \times MYears_{it})\beta_4 \\ &\quad + Age_{it}\alpha_i + \nu_i + \epsilon_{it} \end{aligned} \tag{2}$$

where W_{it} is the log hourly wage, X_{it} a vector of individual-level time-varying covariates, Age_{it} is a polynomial in age, and ϵ_{it} is an idiosyncratic error term. This specification allows the wage equation to have separate intercepts, ν_i, and slopes in age, α_i, for each individual. If the choice of when to marry is correlated with either ν_i or α_i,[21] then the estimates of β_2, β_3, and β_4 will be biased. For example, if individuals who have the potential to earn high wages and experience rapid wage growth marry relatively late, then β_3 and β_4 will be biased upward.

First differencing Equation 2 removes the individual intercept, ν_i, and the main effect of marriage

there is no effect of marriage on mobility.

[21] α_i is actually a vector of individual-specific slope parameters. For expository reasons we refer to it as a single parameter.

age:

$$\Delta W_{it} = \Delta X_{it}\beta_1 + Evmar_{it}\beta_2 + (MAge_i \times Evmar_{it})\beta_3 + \alpha_i + \Delta\epsilon_{it} \quad (3)$$

First differencing also converts years ever married into an indicator variable for ever married, $Evmar_{it}$. Now our specification tests whether marriage and its interaction with age at first marriage affects wage growth instead of wage levels. Conceptually, a wage growth regression is the correct specification to implement because we do not think marriage has a discrete impact on wages so much as it has an impact on the rate at which wages grow over time (see Figure 1).

The individual-specific intercept, α_i, remains in Equation 3. If this unobserved heterogeneity is correlated with the choice of whether and when to marry, then estimates of β_2 and β_3 remain biased. Demeaning the specification in Equation 3 removes this heterogeneity:

$$\Delta W_{it} - \Delta W_i = (\Delta X_{it} - \Delta X_i)\beta_1 + (Evmar_{it} - Evmar_i)\beta_2 + MAge_i \times (Evmar_{it} - Evmar_i)\beta_3 + (\Delta\epsilon_{it} - \Delta\epsilon_i) \quad (4)$$

where the difference $Z_{it} - Zi$ represents the difference between the contemporaneous value of any variable Z and its within-person mean.[22] We assume the error term in this wage growth regression is i.i.d.

The specification in Equation 4 tests two hypotheses of interest. The first hypothesis is that mean wage growth is lower following a first marriage (i.e., $\hat{\beta}_2 < 0$). The second hypothesis is that wage growth suffers less following a first marriage when individuals marry later (i.e., $\hat{\beta}_3 > 0$). Even with this restrictive specification, several sources of potential bias remain. First, the specification relies on cross sectional variation in marriage age to identify β_3. Our estimate of β_3 could represent the causal effect of marriage

[22]This specification is distinct from that used by Korenman and Neumark (1991) and Gray (1997) who estimate standard fixed effect models on wage levels. It is also distinct from the wage growth model employed by Krashinsky (2004), because he does not subtract within-person means (Z_i) from his wage growth equation. Other important differences between our and earlier work is that we include only individuals who ever marry in our sample, we account for child birth (see immediately below), and specify our marriage variable as ever married as opposed to currently married.

age on post-marriage wage growth or it could indicate that individuals who marry relatively early or late have other unobserved characteristics that cause them to experience wage growth differently in the post-marriage period, regardless of when they marry. Second, contemporaneous shocks to wage growth could affect marriage timing. For example, an unexpected shock to wage growth for a man might make him more attractive in the marriage market and induce earlier marriage. We believe these biases are likely to be insignificant, but admit that we cannot dismiss their potential impact on our estimates.

There is some evidence that early childbearing, especially for women, negatively affects earnings [Blackburn et al. 1990; Amuedo-Dorantes and Kimmel 2002]. Age at first marriage and age at first birth are highly correlated (especially in our sample in which individuals with out-of-wedlock first births are absent), but not perfectly colinear, and so separate identification of these effects is possible. The mean difference in years between age at first marriage and birth is 3.7 years with a standard deviation of 2.8 years. We add terms for ever had a live birth, B_{it}, age at first birth, $BAge_i$, and their interaction to the specification in Equation 4. We also include a control for number of children ever born.

We include as covariates in X current job tenure, an indicator variable for whether an individual is currently attending school, and years divorced. The indicator for divorce is potentially important since divorce itself may affect wages and the propensity for divorce may be correlated with age at first marriage (e.g., early marriers may be more likely to divorce subsequently). We estimate all regressions separately by gender. We summarize the regression variables in Table 6. Our estimating procedure requires us to drop the first year of data for each respondent (between 1979 and 1982 for 95 percent of the sample), leaving us with 21,486 female observations and 24,706 male observations.

5 Age at First Marriage and Wage Growth

Our main results show that female wage growth declines following marriage, but that male wage growth is unchanged. Tables 7 and 8 summarize the results of estimating Equation 4 separately for women and men. Examining the results for women first, we see in column (1) of Table 7 that, controlling for age, annual wage growth falls by 4.5 percentage points following marriage. The effect of marriage on wage growth declines somewhat to -0.039 after controlling for child birth in column (2). The estimates further imply that each additional child lowers wage growth by 3.2 percentage points. In columns (3) and (4), the regressions include an interaction between ever married and age at first marriage. The point estimate of 0.003 in both specifications suggests that wage growth decreases by less following marriage for individuals who marry relatively late, but the estimates are not statistically significant at conventional levels. There is no statistically significant impact of age at first birth on wage growth. The other covariates in the model have the expected impact: wage growth is lower while in school whereas wage growth increases with tenure on the current job.[23] A first divorce apparently has no effect on wage growth.

For men (Table 8), we see that marriage itself has a comparatively small and statistically insignificant effect on wage growth and there is no evidence that age at first marriage affects wage growth. We also see no evidence that birth or age at first birth affects wage growth for men. Being in school and tenure on the current job impact wage growth in the same manner as we see for women.

With respect to marriage, these results are consistent with Krashinsky (2004) who shows, in a less restrictive specification, that marriage has no impact on wage growth for men. By way of comparison, we show in Table 9 the results of estimating a fixed-effects specification similar in nature to Korenman and Neumark (1991) in which the dependent variable is log hourly wages in levels. These estimates imply male wages increase by almost nine percent following marriage. Evidently, unobserved heterogeneity correlated with marriage and wage growth leads to a strong upward bias in the coefficient on *Evmar* for men.[24] For women too, the effect of marriage appears to be upwardly biased in these level fixed-effect specifications. In column (2), for example, the estimate implies hourly wages for women are 2.9 percent higher following marriage.

We hypothesized that age at first marriage could have a more detrimental effect on wage growth among women with potentially high returns to career development (see Figure 1). We test this hypothesis by estimating the regressions in columns (2) and (4) of Tables 7 and 8 separately by a number of pre-

[23]The inclusion of tenure as a control variable has no impact on the coefficient estimates on $Evmar$ or $Evmar \times MAge$.

[24]The estimates of Korenman and Neumark (1991), generated using the earlier NLS cohort, imply that marriage increases male wages by six percent. In a specification nearly identical to that used by Korenman and Neumark (1991), Gray (1997) finds no effect of marriage on wages for men using 1989-93 data from the NLSY79. Differences in specifications noted above could account for the difference between our estimates in column (5) and those of Gray (1997).

marriage characteristics correlated with labor market ability: AFQT and expectations regarding college completion and age at first birth. For women, we see some evidence of differential effects of marriage and marriage age on wage growth (Table 10). For example, the point estimates of the effect of $Evmar$ suggest that high-AFQT women and women who expected to complete college and have their first child relatively late experienced slightly larger declines in wage growth following marriage than other women. The point estimates on $Evmar \times Mage$ also suggest that these high ability women experience less of a decline in wage growth when they marry later than do low-ability women. For example, the coefficient on $Evmar \times Mage$ increases from 0.001 to 0.008 between the low and high AFQT female samples. However, none of these difference across samples is statistically significant. For men, differences in coefficient estimates across high and low-ability samples do not vary in a systematic fashion and are never statistically significant.

Although we control for child bearing and divorce in the estimates we presented above, we also report in Table 10 estimates of β_2 and β_3 for samples in which the respondent did not have a child or divorce by age 35. In the childless sample, we find that the point estimate of β_2 is negative for women, but no longer statistically significant. In the male childless sample, the point estimate of β_2 is somewhat larger in magnitude, but also is statistically insignificant. Substantially smaller sample sizes could account for the imprecision of these results in the childless sample. Among women who were never divorced, we observe a negative and statistically significant effect of marriage on wage growth (-0.059) and a positive and marginally statistically significant impact of age at first marriage on post-marriage wage growth (0.004). Among men, β_2 and β_3 remain statistically insignificant in the never divorced sample.

Our principle estimates for women, but not men, (Table 7, column (4)) indicate delaying marriage can result in large wage gains. Even if we treat β_3 as statistically indistinguishable from zero, the main effect of marriage on female wage growth will cause wages of early and late marriers to diverge considerably. In Figure 2 we graph predicted real hourly wages for a woman marrying at age 21 and having her first child at age 25 and a woman marrying at age 27 and having her first child at age 30 (wages are normalized to one at age 18).[25] The two women start out on the same wage path (by assumption), but the wages of the early marrier tail off at age 21 and continue on a relatively flat trajectory thereafter. The wages of the late marrier rise at a much more rapid pace until marriage at age 27, whereupon her wage profile flattens somewhat, but less so than that experienced by the early-marrier. By these estimates, by age 36, the late marrier is earning wages nearly 75 percent higher than the wages earned by the early marrier.[26]

6 Age at First Marriage and Spousal Wages

Our results thus far have shown that long-run female earnings benefit considerably from delaying marriage. Given this finding, our search model implies that women who marry relatively early should demand relatively high-quality spouses. In this section, therefore, we estimate the relationship between female age at first marriage and the wages of her spouse, a measure of spousal quality.

Simple correlations show a positive relationship between female age at first marriage and spousal hourly wages. In our sample, which we describe below, the hourly wages of the spouses of women who marry after age 27 are 20 percent higher than the hourly wages of the spouses of women who marry before age 23 (we restrict the sample here to women with spouses ages 30-34). However, as we documented earlier, women who marry early are less educated, score lower on the AFQT, and generally have weaker career aspirations than women who marry late. Given the tendency for individuals to marry individuals with comparable socioeconomic characteristics (see, for example, Mare (1991) and Epstein and Guttman (1984) on positive assortative mating), the simple positive correlation between female age at first marriage and spousal wages should come as no surprise.

To account for this positive assortative mating, we control for a number of the female respondent's own characteristics in our model. Specifically, we estimate a linear model of the husband's log hourly wage as a function of the wife's age at first marriage, her own log wage, AFQT score (a measure of potential returns to career development), race, and whether the marriage ended in divorce (during our

[25] The figure holds all other model covariates at their age-specific mean.

[26] Some of this difference in wages is attributable to higher fertility at age 36 for those marrying at age 21 than for those marrying at age 27 — 2.36 v. 1.86 children.

sample). We also include in our model the husband's education, a quadratic in his age, and a complete set of year dummy variables. We include an indicator for whether the marriage ended in divorce because individuals who marry early may make less-informed decisions about marriage than individuals who marry later.

Our sample is restricted to female respondents observed during their first marriage with husbands who earn a positive wage ($n = 9,260$). We select female respondents because our results indicate that women have the most to gain by delaying marriage. It might also be the case that women are more likely to select spouses based on earnings ability while men value less pecuniary features in a potential mate (e.g., fecundity, physical attractiveness). We predict wages for female respondents when their wage is not available correcting for self-selection into the labor market [Heckman (1979); Heckman (1990)].[27]

In the first column of Table 11, in which we control only for husband's age and year effects, we see that the wife's marriage age is strongly positively correlated with her husband's wage. Husband's wages increase by 1.3 percent for each year of marriage delay. This correlation disappears in column (2) when we control for own and spousal characteristics. The wife's predicted wage is strongly positively correlated with her husband's wage as is her AFQT score. Evidently, the positive correlation between marriage age and husband's wage observed in column (1) is largely attributable to assortative mating. However, in column (3), we see that the linear specification of marriage age obscures effects at young marriage ages. In particular, the point estimates in column (3) imply that husbands of women who marry before age 22 earn wages more than 9 percent higher than the husbands of women who marry after age 28. This difference is significantly different from zero at the ten percent confidence level. So, consistent with theory, women who marry early tend to marry husbands with higher wages than women who marry later.

The final column of Table 11 reports results for women who score above the 75th percentile on the AFQT. We might expect this group of women to be particularly sensitive to spousal quality given their potential gains to delaying marriage. The point estimates on the marriage age indicator variables do indicate a steeper gradient with respect to marriage age. However, the standard errors on the point

[27] Our wage regression controls for AFQT, education ($<$ 12 years, 12 years, 13-15 years, $\geq$ 16 years), years of experience, and a quartic in age. Our excluded variable in the wage equation is number of children.

estimates are relatively large and we cannot reject the hypothesis that the low and high-AFQT marriage age gradients are the same.

Importantly, our empirical test assumes that the probability of meeting a spouse of any given quality is random and that women choose men, not vice-versa. Of course, men choose women too, and so the matching we observe in the marriage market must be understood to be two-sided. For example, an alternative interpretation of the results reported in Table 11 is that high wage men choose to marry younger women. We control for other potentially desirable characteristics of women, namely AFQT and predicted wages, but we can not account for the possibility that women with desirable unobserved characteristics correlated with age, like physical attractiveness, marry relatively high wage men.

7 Conclusion

This paper has asked whether men and women who delay marriage are rewarded with better career paths and higher wages. The evidence reported here indicates that delaying marriage is beneficial for women, but not for men. We estimate that delaying marriage increases hourly wages of women by nearly four percent for each year they delay resulting in substantial differences in hourly wages at later ages. We estimate that childbirth also substantially depresses the wage growth of women in our sample. We hypothesized that the effect of delaying marriage on wages is largely attributable to the central role mobility plays in facilitating career development at younger ages. We report supporting evidence that geographic mobility declines considerably for high ability individuals after marriage. Taken all together, our results suggest that, at least in this sample, the careers of women take a backseat to the careers of their husbands.

Central to this paper is the argument that individuals make calculated decisions about whether and when to marry. Our theoretical model implies that individuals who forgo higher wages for early marriage should demand relatively high quality spouses. We find some support in favor of this hypothesis. Controlling for AFQT and predicted wages, women who marry before the age of 22 marry men with higher wages than women who marry after age 28. We acknowledge, however, that our estimates could be biased by our inability to control for other desirable spousal characteristics correlated with age.

For a variety of reasons, individuals marry much later today than they did before the entry of large numbers of women into the labor force and the widespread availability of convenient forms of birth control. Whether delayed marriage and the concomitant delay in childbearing has been welfare enhancing on net is a question of considerable debate. However, in at least one important dimension, namely, career development, the evidence reported here suggests women do benefit from delaying marriage. Whether the benefit of earning higher wages outweighs the costs associated with delaying marriage, like the risk of delaying childbearing, remains to be determined.

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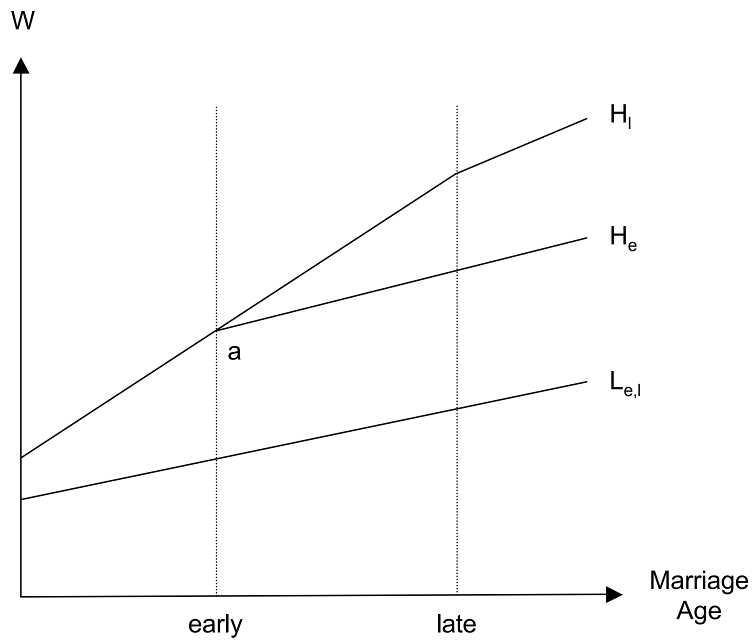
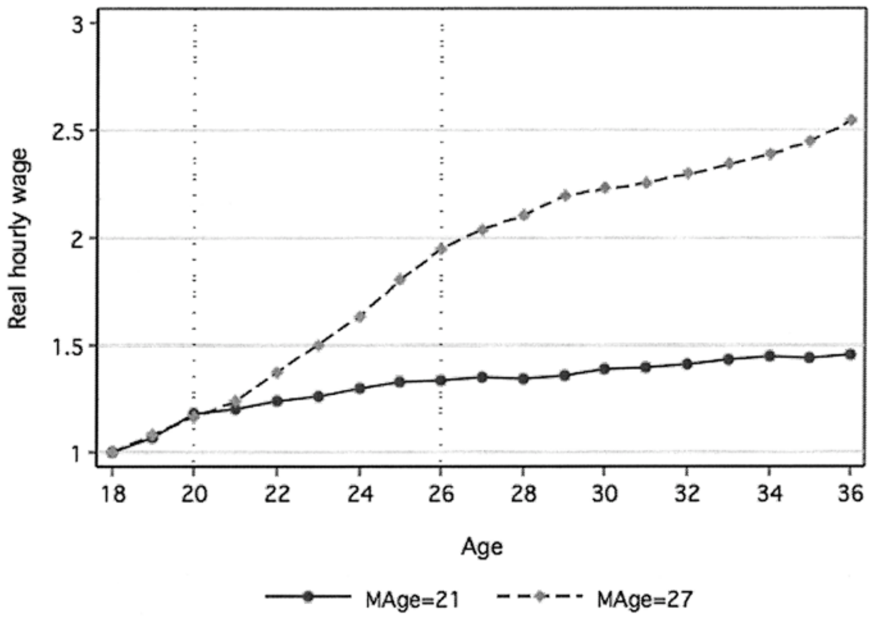


Figure 1: The effect of age at first marriage on wages for low- and high-types



Notes: The figure is derived from the estimated coefficients in Column (4) of Table 7. Real hourly wages are normalized to one at age 18.

Figure 2: Simulated effect of age at first marriage on female wages

Table 1: Sample Restrictions

Sample	Respondents	Obs.
All respondents	12,686	
Non-military, non-poor white sample	9,763	
Marriage age known	9,686	
Ever married in sample	7,477	
Birth age known	7,475	
No out-of-wedlock first birth	4,904	
First marriage and birth age does not change	4,834	
Non-missing hourly wage observation	4,277	61,629
$\geq$ 2 pre- and post-marriage obs. working $\geq$ 20 hours/week	3,272	49,464

Data source: NLSY79.

Table 2: Pre-Marriage Characteristics by Age at First Marriage

	AFQT		Expected Education		Expected Occupation	Expected Age at First Birth	
MAge	Score	75th Pct.	Col.	Adv.	Professional	Age	None
≤ 19	38.8	12.2	22.5	7.0	38.0	22.8	0.08
22-23	48.3	22.6	26.8	14.5	41.8	24.0	0.07
24-27	52.7	29.1	36.4	16.8	50.7	24.4	0.08
28-29	56.0	30.7	39.4	21.2	48.8	25.1	0.06
≥ 30	54.6	30.5	42.3	16.7	52.4	25.0	0.09

Notes: All frequencies are row frequencies. Sample is defined as in Table 1. *Data source*: NLSY79.

Table 3: Actual and Expected Age at First Marriage

$MAge$	Freq.	$MAge$	Expected Age at First Marriage: 1979* ≤ 19	20-24	25-29	≥ 30	Never
≤ 21	21.9						
22-23	20.2	≤ 19	44.4	7.7	3.5	4.7	7.3
24-27	34.0	20-24	41.1	52.0	39.0	34.7	40.0
28-29	10.1	25-29	12.1	30.5	38.8	36.2	33.4
≥ 30	13.9	≥ 30	2.4	9.8	18.7	24.4	13.9
		Row freq.**	3.8	50.3	37.7	6.6	1.7

Notes: *Percent of column in row. ** Percent of total in column. Sample is defined as in Table 1.
Data source: NLSY79.

Table 4: Later Characteristics by Age at First Marriage

	MAge			
	≤ 22	≥ 28	Diff.	*se* Diff.
College degree	0.14	0.43	0.29	0.02
Professional occupation	0.24	0.33	0.09	0.03
Number of jobs ever held	10.45	11.83	1.38	0.31
Tenure – current job (weeks)	240	217	-23	16
Hourly wage – current job ($1983)	6.53	8.57	2.05	0.86
Number of children	1.89	0.79	-1.11	0.06
Family income ($1983)	50,894	65,684	14,790	2,654
State moves	0.84	1.08	0.24	0.07
County moves	1.68	2.14	0.46	0.10

Notes: Reported means are conditional on full set of age dummies and gender. The final column reports the standard error on the difference between early and late marriers. Sample is defined as in Table 1. *Data source*: NLSY79.

Table 5: The Effect of Marriage on State and County Moves

	State Move		*County Move*	
	(1)	(2)	(3)	(4)
A. Females				
Evmar	.026	.038	.034	.056
	(.006)	(.007)	(.009)	(.010)
$AFQT \geq 75$	.007	.032	.006	.056
	(.006)	(.010)	(.008)	(.013)
$Evmar \times AFQT \geq 75$		-.040		-.080
		(.010)		(.014)
n	21,648	21,648	21,663	21,663
R^2	.007	.008	.013	.016
mean dep. var.	.058	.058	.133	.133
B. Males				
Evmar	-.003	-.001	.001	.012
	(.006)	(.006)	(.009)	(.009)
$AFQT \geq 75$	.008	.012	.009	.033
	(.006)	(.008)	(.009)	(.012)
$Evmar \times AFQT \geq 75$		-0.007		-0.040
		(.009)		(.013)
n	24,523	24,523	24,541	24,541
R^2	.009	.009	.014	.015
mean dep. var.	.061	.061	.142	.142

Notes: Dependent variable is moved between states or county since last interview. Additional covariates include quadratic in age, age at first marriage, educational attainment (5 categories), and race (3 categories). Sample is defined as in Table 1. *Data source*: NLSY79.

Table 6: Summary Statistics

Variable	Mean	Std. Dev.
$ln(W)$	1.9	0.62
$Evmar$	0.65	0.48
$MAge$	25.01	4.17
$Evbirth$	0.37	0.48
$BAge$	28.01	3.88
$No.\ Children$	0.63	0.96
$Evdiv$	0.13	0.34
$In\ School$	0.02	0.14
$Tenure$	3.5	3.81
$Tenure\_m$	0.01	0.11
Age	28	5.83
Obs.	46192	

Notes: Sample drops first observation for each individual. Otherwise, the sample is defined as in Table 1. *Data source*: NLSY79.

Table 7: The Effect of Marriage and Birth on Wage Growth: Females

	(1)	(2)	(3)	(4)
Evmar	-.045	-.039	-.133	-.116
	(.012)	(.012)	(.065)	(.069)
Evmar × *MAge*			.003	.003
			(.002)	(.003)
Evbirth		-.009		-.028
		(.013)		(.077)
No. Children		-.032		-.034
		(.015)		(.015)
Evbirth × *BAge*				.0008
				(.003)
Evdiv	.007	.005	.01	.008
	(.015)	(.015)	(.016)	(.016)
In School	-.132	-.132	-.131	-.131
	(.021)	(.021)	(.021)	(.021)
Tenure	.017	.017	.017	.017
	(.003)	(.003)	(.003)	(.003)
Const.	.04	.042	.047	.048
	(.015)	(.016)	(.016)	(.016)
Obs.	21486	21486	21486	21486
R^2	.008	.008	.007	.008

Notes: Dependent variable is the first difference of the log hourly wage. All regressions are implemented with fixed effects. Regressions additionally include a quartic in age and a dummy variable for missing tenure data. Standard errors are in parentheses. Sample is defined as in Table 1. *Data source*: NLSY79.

Table 8: The Effect of Marriage and Birth on Wage Growth: Males

	(1)	(2)	(3)	(4)
Evmar	-.012	-.011	-.042	-.012
	(.011)	(.011)	(.059)	(.064)
Evmar × *MAge*			.001	.00005
			(.002)	(.002)
Evbirth		-.015		-.049
		(.012)		(.07)
No. Children		.009		.008
		(.013)		(.013)
Evbirth × *BAge*				.001
				(.002)
Evdiv	-.01	-.01	-.009	-.01
	(.014)	(.014)	(.014)	(.014)
In School	-.137	-.136	-.136	-.136
	(.019)	(.019)	(.019)	(.019)
Tenure	.006	.006	.006	.006
	(.002)	(.002)	(.002)	(.002)
Const.	.044	.048	.046	.05
	(.013)	(.013)	(.014)	(.014)
Obs.	24706	24706	24706	24706
R^2	.005	.005	.005	.005

Notes: Dependent variable is the first difference of the log hourly wage. All regressions are implemented with fixed effects. Regressions additionally include a quartic in age and a dummy variable for missing tenure data. Standard errors are in parentheses. Sample is defined as in Table 1.*Data source*: NLSY79.

Table 9: The Effect of Marriage and Birth on Level Wages

	Women		Men	
	(1)	(2)	(3)	(4)
Evmar	.044	.029	.088	.086
	(.012)	(.012)	(.011)	(.011)
Evbirth		.041		.03
		(.016)		(.015)
No. Children		-.095		-.001
		(.009)		(.008)
Evdiv	.01	-.013	-.108	-.107
	(.015)	(.015)	(.014)	(.014)
In School	-.269	-.266	-.297	-.299
	(.024)	(.024)	(.021)	(.021)
Tenure	.022	.022	.011	.011
	(.001)	(.001)	(.001)	(.001)
Const.	.312	.27	.051	.051
	(.058)	(.06)	(.049)	(.049)
Obs.	21486	21486	24706	24706
R^2	.154	.17	.191	.19

Notes: Dependent variable is the log hourly wage. All regressions are implemented with fixed effects and permit AR(1) disturbances. Regressions additionally include a quartic in age and a dummy variable for missing tenure data. Standard errors are in parentheses. Sample is defined as in Table 1. *Data source*: NLSY79.

Table 10: The Effect of Marriage on Wage Growth: Sample Restrictions

	Women		Men	
Sample	*Evmar*	*Evmar*× *MAge*	*Evmar*	*Evmar*× *MAge*
AFQT<75	-0.039	0.001	-0.009	0.002
	(.014)	(.003)	(.013)	(.003)
AFQT≥ 75	-0.046	0.008	-0.023	-0.002
	(.024)	(.006)	(.021)	(.005)
Δ	-0.007	0.006	-0.014	-0.004
	(.028)	(.006)	(.025)	(.006)
Exp. Birth<26	-0.037	0.001	-0.016	0.001
	(.014)	(.003)	(.014)	(.003)
Exp. Birth≥ 26	-0.047	0.008	0.002	0.000
	(.024)	(.005)	(.020)	(.004)
Δ	-0.010	0.007	0.018	-0.001
	(.028)	(.006)	(.024)	(.005)
Don't Exp. College	-0.033	0.002	-0.005	0.002
	(.017)	(.004)	(.015)	(.003)
Exp. College	-0.041	0.004	-0.016	-0.002
	(.017)	(.004)	(.016)	(.004)
Δ	-0.009	0.002	-0.011	-0.004
	(.024)	(.005)	(.022)	(.005)
No Children	-0.021	0.005	-0.022	0.000
	(.020)	(.004)	(.021)	(.004)
Never Divorced	-0.059	0.004	-0.016	0.001
	(.014)	(.003)	(.013)	(.003)

Notes: Each coefficient estimate is generated from a separate regression in which the sample is defined by the rows. Dependent variable is first difference of the log hourly wage in all regressions. Columns (1) and (3) report the coefficient on *Evmar* using specifications identical to Column (2) in Tables 7 and 8. Columns (2) and (4) report the coefficient on $Evmar \times MAge$ using specifications identical to Column (4) in Tables 7 and 8. The rows labeled Δ provide the difference in the coefficient estimates between the previous two rows. Standard errors are in parentheses. *Data source*: NLSY79.

Table 11: The Effect of Wife's Marriage Age on Husband's Earnings

	(1)	(2)	(3)	(4)
MAge	.013	-.004		
	(.004)	(.004)		
$Mage \leq 21$			.074	.157
			(.037)	(.086)
$25 \leq Mage \leq 28$			.006	.092
			(.034)	(.062)
$Mage \geq 29$			-.025	-.004
			(.045)	(.092)
Pred. wage		.284	.324	.595
		(.124)	(.125)	(.217)
AFQT		.0006	.0004	-.005
		(.001)	(.001)	(.004)
Divorced in sample		-.051	-.05	-.041
		(.034)	(.034)	(.063)
Const.	-1.011	-.405	-.627	-1.589
	(.329)	(.337)	(.343)	(.803)
Obs.	9260	9260	9260	2556
Sample	Full	Full	Full	$AFQT \geq 75$
R^2	.094	.2	.201	.224

Notes: Dependent variable is the husband's log hourly wage. All regressions are implemented with Generalized Least Squares and permit arbitrary correlation of errors within individuals. Specification (1) additionally controls for husband's age and year effects. Specifications (2)-(4) include a quadratic in the husband's age, indicators for black and Hispanic, husband's education entered as three indicator variables, dummy variables for missing data on AFQT, and husband's age and education, and a full set of year indicator variables. Robust standard errors are in parentheses. Sample is restricted to currently married women in their first marriage whose husbands have positive earnings and hours worked. *Data source*: NLSY79.