To Have and To Insure: The Relationship between Health Insurance Coverage and Marriage Formation among Cohabitors

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ABSTRACT

Legal marriage confers a host of social, economic, and legal benefits that may serve as an incentive to marry. Not least among these is access to health insurance through dependent coverage. When one partner lacks health insurance coverage, couples may decide to marry in order to reduce medical costs and ensure that partner has access to medical care. Using a sample of cohabiting individuals ages 18-49 from the 1999-2008 panels of the Medical Expenditures Panel Survey – Household Component, I use survival analysis to determine whether there is a relationship between health insurance coverage and marriage timing. Results suggest that health insurance coverage is associated with a higher probability of marriage, but only for private coverage that is held by one or both partners. However, this relationship can be explained by the selection of those with higher socioeconomic status, who are more likely to have health insurance coverage into marriage.

INTRODUCTION

For many Americans marriage is a capstone event (Cherlin 2004) signifying the achievement of economic stability and security (Gibson-Davis, Edin, and McLanahan 2005; Smock, Manning, and Porter 2005; Smock and Manning 1997b). Growing economic inequality has made reaching the necessary level of economic stability more difficult, particularly among low-income couples and those with less education (Bramlett and Mosher 2002; Cruz 2012; Goldstein and Kenney 2001), leading researchers to focus on economic barriers that couples face to entering marital relationships (Carlson, McLanahan, and England 2004; Gibson-Davis et al. 2005; Harknett and Kuperberg 2011; Miller, Sassler, and Kusi-Appouh 2011; Smock et al. 2005; Trail and Karney 2012). The legal status of marriage itself, however, bestows a host of social, economic, and legal benefits upon its participants that may be difficult or costly to obtain outside of marriage. These benefits may serve as an incentive for a couple to marry when they might otherwise choose to delay marriage or not marry at all. One such benefit is access to dependent health insurance coverage through one's spouse.

The U.S. healthcare system relies primarily on private employer-provided insurance coverage (EPIC). It also has a limited public healthcare system and an expensive private individual health insurance market to cover gaps in health insurance coverage that are associated with linking that coverage to employment. In the decades prior to the implementation of the Patient Protection and Affordable Care Act of 2010 (ACA), the proportion of Americans who had health insurance coverage through their employer declined steadily, particularly among young-adult workers (Claxton et al. 2012). Public healthcare provision was restricted to low-income families with children, the disabled, and the elderly. Those who did not receive EPIC or public coverage could purchase health insurance through the private individual market; however, the high cost and extensive cost-sharing of these insurance plans, as well as their failure to cover pre-existing conditions, often made them unaffordable or inaccessible (Bundorf and Pauly 2006; Doty et al. 2009; Koch 2009; Marquis et al. 2004, 2006). For those who did not receive an offer of affordable health insurance coverage through their own employer or through a government healthcare program, dependent coverage through a potential spouse's employer could be the least expensive or only obtainable source of health insurance.

Using data from cohabiting couples in the 1999-2008 panels of the Medical Expenditures Panel Survey, Household Component (MEPS-HC), I examine whether those who hold health insurance are more likely to marry than those who do not, after controlling for other socioeconomic

factors that would make them more attractive long-term partners. By restricting my analysis to the period prior to the passage of the ACA, I am able to provide a baseline estimate of this relationship before the changes to the health insurance market that were mandated by this law have gone into effect. By restricting my sample to cohabiting couples, I am able to take into account the characteristics of both partners in my analyses. The detailed health insurance information collected by MEPS-HC allows me to distinguish both the type of insurance coverage each partner has and whether each partner is the holder of their own insurance or covered through dependent coverage, both of which are important for identifying couples in which one partner might be able to be covered through dependent health insurance coverage.

The benefit of obtaining health insurance coverage through marriage is driven by both the high cost and the relative inaccessibility of health insurance coverage outside of this institution or the labor market. The two primary goals of the ACA were to reduce the proportion of uninsured individuals and to slow the growth of healthcare costs to make insurance more affordable. It accomplishes the first of these goals by requiring Americans to have health insurance or pay a tax penalty, preventing insurers from banning coverage of pre-existing conditions, and improving coverage options through both an expansion of Medicaid to all low-income Americans under age 65 and the provision of tax subsidies for purchasing individual insurance on newly-created health insurance exchanges. This paper is a first step in establishing whether there is a relationship between dependent health insurance coverage and the timing of marriage. If such a relationship exists, then the ACA may also have heretofore unexamined and unanticipated effects on marriage formation in the United States.

RELEVANT LITERATURE

In the United States, though the desire to marry remains nearly universal among young Americans (Thornton and Young-DeMarco 2001), marriage rates have declined in recent decades (Cruz 2012), particularly among low-income men and women (Bramlett and Mosher 2002; Goldstein and Kenney 2001; Gould and Paserman 2003). Because married families enjoy higher income and greater economic stability than cohabiting or single families (Waite and Gallagher 2000) and children in two-parent families fare better than those in single-parent families across a wide variety of outcomes (McLanahan and Sandefur 1994), this decline in marriage rates was viewed with concern. Some policy makers and researchers have suggested that policies that encourage marriage among low-income families could improve the economic circumstances of these families (Ooms, Bouchet, and Parke 2004; Waite and Gallagher 2000); however, a large and growing body of

research has examined the reasons for the decline in marriage rates among low-income families and found that it due less to changes in attitudes about the importance of and desire for marriage (Thornton and Young-DeMarco 2001) or their partner expectations (Trail and Karney 2012), and more to do with the changing economic circumstances of low-income families (Edin and Reed 2005; Gibson-Davis et al. 2005; Smock et al. 2005).

For low-income couples, marriage has increasingly become a status to attain (Cherlin 2004), achieved only when a couple has reached some measure of economic success and stability (Edin and Reed 2005; Gibson-Davis et al. 2005; Smock et al. 2005). At the same time, growing economic inequality has meant that obtaining this level of economic stability is often out of reach for low-income families (Gibson-Davis 2009; Harknett and Kuperberg 2011; Smock et al. 2005). The growth in income inequality has been driven by an erosion in the earnings of men with a high school degree or less (Kopczuk, Saez, and Song 2010), however, increases in women's educational attainment, labor force participation, and income have somewhat mitigated the impact on families of this growing economic inequality among men (Cancian and Reed 1998; Kopczuk et al. 2010). This has increased the importance of women's economic characteristics in partner sorting (Sweeney and Cancian 2004); however, men's economic circumstances continue to be a more important predictor of whether or not a couple will marry (Burgess, Propper, and Aassve 2003; Smock and Manning 1997a; Xie et al. 2003) and remain married over time (cites).

Decreases in marriage rates, particularly among low-income families, are both the result of and contribute to economic inequality in the United States (McLanahan and Percheski 2008). As income equality has grown over time, assortative mating patterns have changed (Schwartz and Mare 2005); specifically, educational homogamy has increased at both the top and bottom of the education distribution as men and women with college degrees increasingly marry each other and those with a high school degree or less have greater difficulty finding a partner with more education than themselves (Schwartz and Mare 2005). This has reduced the contribution of marriage to economic mobility and left those at the bottom of the income distribution increasingly isolated from those at the top. This has increased overall economic inequality beyond what would be expected given the growth in earnings inequality alone (Schwartz 2010). In addition, the reduction in marriage rates among low-income families has also contributed to income inequality within the United States by reducing the resources available to low-income families (McLanahan and Percheski 2008).

The contribution of declines in marriage rates to the declining economic stability of low-income families has led both researchers and policy makers to focus on the barriers to marriage that

these couples face (Ooms et al. 2004; Trail and Karney 2012). However, the effects of income inequality expand beyond the bottom of the income distribution. As wage growth has increasingly become restricted to those at the top of the earnings distribution, a growing number of American families find themselves unable to make ends meet (Mishel et al. 2012). Focusing on barriers to marriage among low-income families may miss other important factors that affect the decision to marry or that have a greater impact on middle-income families than among low-income couples. Marriage itself confers a host of benefits to its participants, any of which may provide an incentive for couples to marry who would otherwise delay or not marry at all. Access to these benefits may vary across the income distribution. Among low-income couples, the barriers to marriage may overwhelm these benefits, but among those whose economic circumstances are less precarious, these benefits may affect marriage decisions.

One of these potential benefits is access to employer-provided health insurance coverage through dependent coverage. The U.S. healthcare system depends primarily on individuals receiving health insurance coverage through their own employment or that of a family member. This means that before the implementation of the ACA, for unmarried individuals who did not have health insurance through their employer, opportunities for obtaining this coverage were limited. Low-income parents and children and individuals with disabilities could obtain coverage through state Medicaid and child health insurance programs (CHIP), though the eligibility requirements and generosity of the coverage varied significantly across states. In contrast, those without access to public coverage or coverage through an employer were limited to purchasing health insurance on the expensive private individual market that would often deny them coverage based on preexisting conditions.

Unlike income, which is fungible and can be pooled and shared regardless of the legal status of the couple's relationship, health insurance coverage generally cannot be extended to a partner unless the couple is married, though a limited number of cities, states, and companies allowed health insurance coverage to extend to registered domestic partners. In 2011, the average cost of an employer-provided family health insurance plan was more than $15,000 per year, while the average cost of an employer-provided individual health insurance plan was more than $5,000 (Claxton et al. 2012). In contrast, median household income was just over $51,000 per year (Mishel et al. 2012). The high cost associated with providing family health insurance coverage is an incentive for employers to restrict the extension of coverage to family members who have a legally recognized bond. Though the cost of providing health insurance coverage to employees is substantial, the cost

to employers was far lower than that paid by individuals purchasing health insurance on the private individual health insurance market. Those who purchased health insurance through the private individual market paid a higher price for coverage than employers for two primary reasons. First, employers received a federal tax credit for purchasing insurance for their employees that was not available to those purchasing insurance on the individual market. This tax credit meant that the federal government subsidized the cost of health insurance coverage for those employees, but not for those who purchased their own insurance coverage.

Second, employers are able to pool the risk of high healthcare costs across a large number of employees, allowing them to enjoy a decreased unit cost for healthcare premiums relative to those who purchase private individual coverage. Because employment is not determined by health status or, if anything, is selective of those in good health, employers offer health insurance companies a pool of clients who are not selected into coverage based on their risk of needing healthcare services. By covering those in good health whose healthcare costs are low as well as those with health problems, employers are able to spread the cost of high risk employees over a larger number of people. In contrast, those with high healthcare costs who purchase health insurance on the private individual market have no group of healthy coworkers who can absorb their higher costs. These purchasers are forced to bear the full weight of their own risk, leading to higher insurance costs than they would if their risk was pooled. The high cost of insurance on the private market discourages those who are less likely to need care from purchasing insurance, leaving the remaining pool of clients to be one selected based on adverse risk. Because the higher risk associated with covering those with health problems cannot be dispersed over low-cost, healthy individuals, premiums become more expensive for those looking to purchase this coverage.

These advantages mean that employer-provided insurance coverage offers a lower cost and more efficient alternative to other sources of private health insurance coverage than the private individual health insurance market. However, because health insurance coverage is tied to employment, labor market inequalities also affect access to health insurance and healthcare. Health insurance coverage is a substantial economic benefit that one may receive through the marital relationship. Either spouse may receive health insurance coverage through an employer and most employers who offer health insurance coverage to their employees also offer family coverage (Claxton et al. 2012); therefore marriage offers a higher chance that one or both partners will be offered employer-provided health insurance, which allows them to avoid the high costs associated with purchasing insurance on the private individual market. Because of this, married individuals are

more likely than single persons to have health insurance coverage (Bernstein et al. 2008), to have been continuously insured (Schoen and DesRoches 2000), and to have higher quality and/or more extensive health insurance coverage (Monheit, Schone, and Taylor 1999).

Health insurance coverage has been shown to affect economic behaviors within marriage. An extensive economic literature is devoted to the ways in which health insurance coverage affects labor market and family decisions, including employment and work hours (Bradley et al. 2007; Buchmueller and Valletta 1999; Olson 1998; Royalty and Abraham 2006; Wellington and Cobb-Clark 2000) and changing jobs (Gruber and Madrian 2002). Wives whose receive health insurance coverage through their husband's job are less likely to work full time than wives who do not (Buchmueller and Valletta 1999; Olson 1998). Similarly, husband's who receive health insurance coverage through their wife's employment work fewer hours (Wellington and Cobb-Clark 2000) than husbands who do not. Moreover, those who receive health insurance coverage through their spouse are more likely to be self-employed or working in a position that does not offer health insurance coverage (Royalty and Abraham 2006). The phenomenon of "job lock", in which an employee remains in a job that offers health insurance coverage despite the fact that she or he could receive higher earnings or be more productive in another job that does not, is well documented (Gruber and Madrian 2002). Given that access to health insurance coverage affects such a wide range of other behaviors, it is possible that it may also contribute to decisions to marry. In fact in 2008, the Kaiser Family Foundation published poll results that suggested that 7% of American adults had either themselves married someone in the past year primarily to obtain health insurance coverage or lived with someone who had (Kaiser Family Foundation 2008).

The proposition that health insurance coverage may affect the decision to marry is not without precedent, though previous research has almost exclusively focused on the question of whether public health insurance coverage through Medicaid acts as a deterrent to marriage among low-income women with children (Moffitt 1998). During the initial years of Medicaid, married couples and their children were excluded from receiving Medicaid coverage. This restriction depressed marriage rates among the Medicaid-eligible population during this period (Decker 2000; Moffitt 1998; Yelowitz 1998). In the mid-1980s the rules of Medicaid changed, allowing the expansion of coverage to families whose incomes fell below thresholds set by each state. Though not actively discouraging marriage, for a low-income woman whose marriage to a low-income man would place her above the income eligibility threshold, marriage might be less attractive if it meant losing health insurance coverage for herself or her children. In fact, among low-income families,

married women are less likely to have health insurance coverage than unmarried women because married women often lose eligibility for Medicaid (Bernstein et al. 2008).

This suggests that it is not simply health insurance coverage that may predict entrance into marriage, but the type of coverage that an individual has. Those who have health insurance through a government program may face eligibility requirements that either prevent that coverage from being extended to a new spouse or render the recipient ineligible after the marriage. For example, health insurance through the Veteran's Administration is restricted to those who have served active duty in the U.S. military, reserves, or National Guard. It cannot be extended to a spouse after marriage. Eligibility for Medicaid coverage has historically been restricted to those whose family incomes fall below a threshold set by each state. By adding a second earner to the family, marriage may cause the family's income to rise above this threshold, making family members ineligible for coverage through Medicaid. In contrast, EPIC can often be extended to other family members through the provision of dependent coverage.

Though there are reasons to suspect that EPIC is positively related to marriage timing, identifying this effect is difficult because there is a relationship between socioeconomic status and health insurance coverage. Because EPIC, by definition, is tied to employment, disparities in the labor market will reinforce disparities in access to health insurance coverage. At the same time, declining marriage rates among those with low levels of education have meant that over time marriage has become more selective of individuals with high educational attainment and socioeconomic status. Not all employers are equally likely to offer health insurance, nor are all employees at a firm that offers health insurance eligible for coverage. The probability that a worker will be offered health insurance coverage increases with the accumulation of human capital, so that older workers and those with higher levels of education and income are more likely to have coverage (Fairlie and London 2009; Janicki 2013). In 2010, though 79% of workers with a college degree worked for an employer who offered health insurance coverage, only 43% of those who had less than a high school degree did so (Janicki 2013).

Firms that employ more people, have a more educated work force, and employ more full-time workers are more likely to offer health insurance coverage to their employees and the coverage they offer is likely to cover a higher proportion of costs, leading to higher employee take-up of that insurance (Hoffman, Rowland, and Carbaugh 2004). In addition, firms that offer health insurance are also more likely to be unionized (Cubbins and Parmer 2001) and offer an assortment of other non-pecuniary benefits such as paid sick leave, paid vacation, and retirement or pension benefits

(Kalleberg, Reskin, and Hudson 2000) that may make those jobs more attractive to workers. Workers that are able to be employed in the "good jobs" (Kalleberg et al. 2000) that offer these benefits may possess a number of economic and social characteristics that are associated with both labor market and romantic success. This selection effect could explain any observed relationship between health insurance and marital dissolution.

DATA

The data used in this study are from the 1999-2008 panels of the Medical Expenditures Panel Survey – Household Component (MEPS-HC) longitudinal data files. MEPS-HC is a nationally-representative longitudinal survey of families drawn from respondents to the National Health Interview Survey (NHIS). The study focuses on collecting detailed information on health insurance, health quality, and healthcare utilization. A new panel of families is selected every year and interviewed five times over a two-year period. The time period for the data was chosen to precede the passage of the ACA so that changes to the healthcare and health insurance system would not confound the results. This will make interpretation of the results cleaner, as well as provide a baseline measure of the relationship between marriage formation and health insurance coverage prior to the implementation of this law. Because currently cohabiting couples are rare within any cross-section, ten panels of the MEPS-HC are pooled together for the analyses to provide a sufficient sample size for analysis.

The sample was restricted to opposite-sex couples that were cohabiting at the time of the first interview and in which both partners were between the ages of 18 and 49. Because cohabitating couples were identified using each participant's relationship to the family unit's reference person, the analysis was further restricted to couples in which one partner was coded as the family unit reference person. Only opposite-sex couples were included because few same-sex couples lived in states that had legalized same-sex marriage during the period the data covers. This restriction leaves a sample of 1,833 cohabiting couples, of which 552 (30%) married during the two-year observation period. Six of these couples were missing date information for one or more interviews during the observation period, so they were excluded from the final analysis.

ANALYTIC METHOD

Statistical Analysis

Data are analyzed using Cox proportional hazards survival analysis. To reduce the number of ties between couple event times, the time until the event or end of the observation period is

measured as the number of days since the first interview. Censoring events include separation, death of one or both partners, leaving the survey, and the end of observation period.

The two-year period that each panel of MEPS data covers is divided into five reference periods based on when each of the five interviews occurs. The exact timing of events such as death, leaving the survey, and the end of the observation period are provided by MEPS, which backdates the end of the current reference period to the time of that event if it occurs during the reference period. However, one drawback of using MEPS data is that it does not provide the exact date for events that reflect a change in relationship status or household composition. This means that when a couple separates or marries, the exact date on which the event occurs is not known. Instead, the data are interval-censored, meaning we know that the event occurred sometime in the interval between the last interview and the current interview, but the exact date is unknown.

There are several methods that can be used to analyze interval-censored data. The two most common methods are to use either the end point of the interval as the time of the event or the midpoint of the interval as the time of the event; however both of these methods could result in biased estimates. For example, in the case of the MEPS data, the length of the potential interval is affected by the timing of the reference period interview. This timing is unlikely to be randomly distributed throughout the respondent population because some respondent families are more difficult to contact and interview than others. This may cause unmeasured bias in the estimates if the timing of marriage is coded based on the date of the survey, and the bias is likely to be exacerbated when the timing is based on days rather than months, which would mean that coding event times in days would solve one problem while creating another. There are a number of methods that exist for analyzing interval censored data, however, methods that allow for analyzing the effects of multiple and time-varying covariates on an interval-censored outcome are complex and not well-developed.

In order to assess the degree to which the coding of the event time affects the model results, I perform several sensitivity analyses of the results using different event times for those who experience an event. I tested three different event times. In the first set of analyses, for those whose event times are interval-censored, I use the end of the interval as the time of the event. In the second set of analyses, I assume that the event occurred within two weeks of the previous interview. To prevent artificially creating a large number of ties that would affect the estimation process, exact dates are randomly assigned within a two-week interval using a uniform distribution. Finally, to determine whether unobserved bias due to differences in the timing of the reference period survey

affects the results, I code the time of the event based on the time that the first interview for that reference period was conducted.

The second set of analyses, which are based on random assignment of the event date within a short interval, can be thought of as a lower-bound on true effect of health insurance on marriage. Because the dates are randomly assigned near the last point at which the couple is known to be unmarried and living together, they are unlikely to introduce additional bias due to survey collection times to this relationship. However, this random assignment is likely to underestimate a relationship between health insurance and marriage for two reasons. First, to the extent that health insurance would be related to the timing of marriage within the interval if the exact date was observed, this random assignment will not capture this relationship. Second, this random assignment will not capture the differences in exposure times between couples. Couples who are interviewed later have more time in which to marry than couples who are interviewed later. Coding the event time based on the interview date takes into account differences in exposure time, but may also introduce bias related to interview timing.

The results for the first set of analyses, in which the event is coded as the end of the current reference period, are presented in the text. The results from the second and third set of models were nearly identical. For this reason, only the results from the second set of analyses are included in Appendices B and C. Where the results from the second set of analyses differ from those from the first set based on interview date, this is noted in the main text.

Health Insurance Coverage

Not all health insurance is created equally. The manner through which health insurance is obtained matters for whether or not that insurance can be transferred to another individual through marriage, as well as for the ways in which individuals are selected into having that insurance. We would expect that private health insurance, in particular EPIC, would have a larger effect on marriage because it is often possible to extend that coverage to a partner after marriage. Moreover, those with EPIC are more likely to be those with higher socioeconomic status who are employed in higher-paid occupations that also offer other non-pecuniary benefits and these individuals are more likely to marry. In contrast, among those who are covered through a public health insurance program, such as Medicaid, health insurance coverage may discourage marriage because marriage may leave the family ineligible for program participation. These couples are more likely to be low-income couples with children who may be less likely to marry.

These hypothesized differences in the relationship between health insurance coverage and marriage timing mean that the manner in which health insurance coverage is coded is crucial. For this reason, in the first part of the analyses I test the relationship between health insurance coverage and marriage formation using several different ways of parameterizing this coverage. First, I test whether there is a relationship between having health insurance coverage and marriage formation. Health insurance coverage is coded into three categories: neither partner insured, one partner insured and both partners insured.

Next, I test whether the type of insurance matters by coding health insurance status by type of insurance. I code two measures: the first, based on whether each partner is covered by private insurance, and the second based on whether each is covered through EPIC. For each measure, I code health insurance coverage into six categories: neither partner insured; one partner insured, but not covered through private coverage (EPIC); one partner covered through private coverage (EPIC); both partners covered, but not through private insurance (EPIC); both partners covered, only one through private coverage (EPIC); and both partners covered through private coverage (EPIC).

Finally, because it is only possible to extend your health insurance to a spouse if you are the one who holds that insurance, I code two additional measures of health insurance coverage based on the type (private insurance, EPIC) and holder (holder, dependent) of the insurance. Like the previous measures, I code health insurance coverage into six categories: neither partner insured; one partner insured, but not holder of private coverage (EPIC); one partner insured and holder of private coverage (EPIC); both partners covered, but not holders private insurance (EPIC); both partners covered, only one holder of private coverage (EPIC); and both partners hold private coverage (EPIC). In all models, the category of uninsured couples is the reference group.

Model Covariates

The model covariates fall into three groups: demographic and family characteristics, human capital characteristics, and job characteristics. Each set of covariates is entered into the model as a group. I first present unadjusted models that include only the effects of health insurance coverage. I then introduce demographic and family characteristics to this model (Model 1). The next model (Model 2) adds the human capital characteristics to that model. Finally, to assess whether the effect of health insurance can be explained by the selection of individuals into "good jobs" that offer health insurance as well as other valuable non-pecuniary benefits, I introduce job characteristics to

the model that includes both demographic and family characteristics and human capital characteristics (Model 3).

Demographic Characteristics. These characteristics include female partner's age in years, her age squared, the couple's race (coded as both non-Hispanic white versus other[1]), an indicator for whether either partner had previously been married, and the presence of children. The presence of children is measured in two ways: an indicator for whether there are any children under age 18 who report either partner as a parent present in the family unit; and an indicator for whether there are any children under age 6 who report either partner as a parent present in the family unit.

Human Capital Characteristics. Human capital characteristics include each partner's education (coded as less than high school, high school degree, attended college with no degree, and college graduate or higher), the couple's employment status (neither working, neither works full-time, one partner works full-time, both partners work full-time), and each partner's income from earnings[2] during the first year of the observation period.

Job Characteristics. The job characteristics included in the model include employer size, employer type, union contract status, employer offers a retirement or pension plan, employer offers paid vacation, and employer offers paid sick leave. Employer size is coded separately for each partner, and is included as a categorical measure with three categories: under 50 employees, 50-249 employees, and 250 or more employees. Each of the other job characteristics are coded at the couple level and are coded into three categories: neither partner's job has the characteristic, one partner's job has the characteristic, and both partners' jobs have the characteristic. This coding was used in order to mirror the coding of health insurance coverage in order to increase the correlation between these measures and health insurance.

The models include both time-invariant and time-varying covariates. Time invariant covariates do not change over the observation period. Time-varying covariates are coded at the time of each interview. Time invariant covariates include the female partner's age, her age squared, the couple's race/ethnicity, whether either partner had previously been married, and the male and female partners' education and income in the first year of the observation period. The time-varying

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[1] The original coding of race/ethnicity coded couples into five groups: both non-Hispanic white, both non-Hispanic black, both Hispanic, both another race, or multiracial. Initial models showed no differences across non-white couples in the hazard of marriage, so the four non-white couples were combined into a single group.

[2] I compared the predictive value of using each partner's total income from all sources to each partner's earnings income, but found that earnings income provided a better model fit than total income. In addition, I tested whether family income measured as a percentage of the federal poverty line improved the fit of the model over earnings income, but it did not. In fact, this measure was largely unrelated to the hazard of marriage.

predictors are each measured at the time of each interview. They include the presence of children, health insurance coverage, the couple's employment status, and job characteristics. In order to ensure that changes in covariate values are not caused by a change in marital status instead of vice versa, values are lagged so that values from the previous interview are used to predict marital status by the subsequent interview.

Future versions of this paper will multiply impute information for variables that are missing data. Due to time constraints, in these analyses missing data for each measure are included in the model as a separate category that is identified using an indicator variable.

RESULTS

The descriptive statistics for the sample can be found in Table 1. Male partners are on average 32.3 years old, just under two years older than female partners (30.6 years old). About 28% of both male and female partners had previously been married, though many of these participants were partnered with someone who had not been previously married: two-fifths (41%) of couples contained at least one partner who had previously been married. The cohabiting couples in this sample are, on average, less educated than the full MEPS-HC sample. Though 19% of all MEPS-HC respondents ages 18-49 from the 1999-2008 panels had less than a high school degree, 31% of male cohabiters and 26% of female cohabiters did so. Similarly, 26% of all MEPS-HC participants had a Bachelor's degree or higher, compared to only 16% of male cohabiters and 17% of female cohabiters. A majority (51%) of the cohabiting couples currently have one or more children living in the family unit with them and one-third have one or more children under the age of 6. In nearly all of the cohabiting couples both partners are currently working (95%), though they are both working full-time in only 51%. Most men and women work for employers who employ fewer than fifty people. Government employment and coverage by a union contract are relatively rare. More couples have at least one partner whose works for an employer that offers a retirement or pension plan (49%), paid vacation (71%), or paid sick leave (58%).

Three-fifths (60%) of male partners are insured, compared to two-thirds (67%) of female partners. In 20% of cohabiting couples both partners are uninsured, and in 47% both are insured. Most of those who are insured are covered through private insurance and most of those with private insurance receive that insurance through an employer. Among couples in which one partner is insured, 72% are covered by private health insurance and 68% are covered through EPIC. Similarly, within couples in which both partners are insured, both partners are covered through private insurance in 73% and both are covered through EPIC in 62%. Most of these partners hold their

own insurance (are not covered through dependent health insurance coverage). Within couples in which one partner has private insurance coverage and EPIC, nearly all (>95%) hold their own insurance coverage. Similarly, more than 80% of those in couples in which both partners are insured and covered through private insurance and/or EPIC hold their own insurance coverage.

The substantial overlap across insurance coverage status, insurance type, and insurance holder can be seen in Table 2, which shows the unadjusted survival analysis results for each of the five definitions of health insurance coverage. Couples in which one partner is insured (HR=1.33, 95% CI: 0.98, 1.80) and couples in which both are insured (HR=1.54, 95% CI: 1.14, 2.08) are more likely to marry than couples in which both are uninsured, though only the latter difference reaches statistical significance. When compared by insurance type, we can see that this advantage is only experienced by those with private insurance coverage. Couples in which one or both of the insured partners are insured through public coverage are no more likely to marry than uninsured couples. When one partner is insured and is insured through private coverage, the couple is 41% more likely (HR=1.41, 95% CI: 1.02, 1.94) to marry than uninsured couples. When both partners are insured through private insurance, the couples is 71% more likely (HR=1.71, 95% CI: 1.25, 2.33) to marry than uninsured couples.[3] The results for EPIC are substantially similar to those of private coverage. This is unsurprising because most of those covered by private insurance are covered through EPIC.

Though doubly-insured couples in which only one partner was covered through private insurance were not more likely to marry, those in which only one holds their own insurance are more likely to marry. Couples in which both partners have health insurance are more likely to marry than uninsured couples when either one partner is the holder of his her own insurance coverage (HR=1.64, 95% CI: 1.14, 2.35) or both partners hold their own insurance (HR=1.58, 95% CI: 1.13, 2.20). The fact that this effect appears only when the holder status of the coverage is taken into account suggests that it is only health insurance that is held by one or both partners that increases the likelihood of marriage. This could suggest that in some couples, one partner has extended coverage to the other prior to marriage, possibly in anticipation of marriage. However, this is also consistent with the hypothesis that the relationship between marriage and health insurance is due to

[3] The results from the analyses in which the event date is randomly assigned within the two-week period immediately following the previous interview show the same pattern of differences across insurance groups; however, the size of the effects are smaller. The difference between the two sets of analyses is larger for couples in which one partner is insured, where the difference is about 30% smaller and no longer statistically significant. The differences are about 20% smaller among couples in which both partners have health insurance, and the statistically significant effects remain statistically significant (See Appendix B).

a selection effect in which those who are more socioeconomically advantaged are selected into good jobs that are more likely to offer health insurance coverage.

To investigate this, I add controls for demographic and family, human capital, and job characteristics to the final definition of health insurance coverage, which takes into account the holder of EPIC. The partial results focusing on the effect of health insurance on marriage timing can be found in Table 3. The full model results can be found in Appendix A. Controlling for demographic and family characteristics (Model 1) does not affect the relationship between health insurance and marriage. Adjusting for differences in human capital characteristics (Model 2) reduces the effect of both partners holding their own EPIC by about 40%. These couples are 30% more likely (HR=1.30, 95% CI: 0.77, 2.21) to marry than uninsured couples, but this difference is no longer statistically significant. In contrast, adjusting for these human capital characteristics does not explain the relationship between holding EPIC and marriage. When both partners are insured, but only one holds EPIC, the couple is 68% more likely to marry than uninsured couples. Moreover, when only partner is insured and that partner holds EPIC, the couple is almost twice as likely (HR=1.92, 95% CI: 1.26, 2.92) to marry as couples in which both partners are uninsured[4].

The final model (Model 3) introduces characteristics of each partner's job in order to assess whether the effects of health insurance on marriage can be explained by the selection of those with positive characteristics into both marriage and high quality jobs. Controlling for these characteristics dramatically reduces, and in some cases eliminates the effect of health insurance on marriage. Though the difference no longer reaches statistical significance, couples in which one partner is insured and hold his/her own EPIC remain 47% more likely to marry than couples in which neither is insured.[5] The dramatic reductions in the effect of health insurance is consistent with a selection effect and suggests that health insurance does not have an independent effect on the timing of marriage among cohabiting couples. Instead, the effect of health insurance on marriage timing that can be observed without the presence of these of these control measures appears to be due to the selection of those with positive economic characteristics into marriage.

Interestingly, the effect of health insurance persists even after controlling for other measures of current economic status, including educational attainment, employment status, work hours, and

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[4] Though controlling for human capital characteristics appears to increase the effect of one partner holding EPIC among couples in which either one or both partners are insured, this should be interpreted with caution. No such increase appears in the analysis that randomly assigns the date of the event. Instead, human capital characteristics explain about 15% of the effect of health insurance coverage on marriage for each health insurance group.

[5] All of the effects of health insurance are eliminated when job characteristics are introduced in the set of analyses in which the time of the event is randomly assigned to the two-week period immediately following the previous interview.

income. It is not until the characteristics of the current job are included in the model that the relationship between health insurance and marriage is fully explained. Moreover, the job characteristics that had the largest effects on the hazard of marrying were an employer offering a retirement or pension plan and paid vacation. It is possible that the ability to obtain a position that offers these job characteristics provide a stronger indicator of long-term earnings capacity and socioeconomic status than more traditional measures of that focus on current human capital characteristics.

DISCUSSION

During the years immediately preceding the passage of the ACA, a number of news articles and stories were published that suggested that failures in the U.S. healthcare system were driving couples to marry when they otherwise might not. Television series, such as *Grey's Anatomy,* began to incorporate storylines in which two characters marry in order to provide one with health insurance. Multiple stories were published in the *New York Times* (Sack 2008) the *Los Angeles Times* (Costello 2004), on CNN.com (Aronowitz 2009), and on ABC News (Goodman 2008). Each of these included personal anecdotes from couples who decided to marry in order to provide health insurance coverage to one partner who could not receive that insurance from another source. These stories suggested that these anecdotes are part of a larger phenomenon; however it was never possible to know how widespread this phenomenon was. Until now, this relationship has been unexamined within the academic literature.

The results presented in this paper initially supported the hypothesis that health insurance coverage may serve to encourage couples to marry. Among cohabiting couples, those who have private health insurance coverage are more likely to marry than those who are uninsured, while those who have public coverage are not. However, this effect is present even when *both* partners hold their own health insurance coverage, which is not what we would expect if health insurance coverage were the motive for marriage. Instead, this is consistent with the relationship between health insurance and the timing of marriage being caused by a selection effect in which the same characteristics that make an individual a successful candidate for a job that provides health insurance coverage also make them a more desirable marriage partner. This interpretation receives additional support from the fact that the effect of health insurance coverage is eliminated once other job characteristics associated with health insurance coverage are controlled for in the model.

This suggests that health insurance does not have an independent effect on the probability of marriage and that the phenomenon of couples marrying to obtain health insurance coverage that

was regularly documented in the press during the late 2000s is not as widespread as those articles would suggest. However, these results also tell us something more about inequality and the nature of partner selection. Adjusting for educational attainment, employment, and earnings, measures that are most commonly associated with establishing economic security and stability, was not sufficient for explaining the effect of health insurance on marriage timing. This suggests that a broader array of measures of economic success may be useful for measuring inequality within educational groups. Other researchers have suggested that young adults from working class families who earn college degrees are less able to translate their educational attainment to success in other areas of life, such as marriage (Musick et al 2012). Differences in access to higher status occupations that offer non-pecuniary benefits that can improve quality of life, such as paid vacation and sick leave, health insurance coverage, and retirement or pension plans may help to explain some of the disadvantages that these young adults face relative to their comparably-educated peers.

The results presented in this paper are interesting, but preliminary. There are number of limitations to this study that could potentially affect the findings. My decision to use the MEPS-HC data to evaluate this research question was based on the level of detail with which health insurance information is collected within the survey. Most population-based surveys focus on a primary topic; surveys that include detailed family history information generally do not collect detailed health insurance information that allows for identifying the holder of insurance coverage. Similarly, surveys designed to collect extensive health- and health insurance-related information generally do not collect detailed family history information. MEPS-HC is no exception. There are three significant limitations of the MEPS-HC data that could have affected the results presented here. The first, the lack of information regarding the exact date on which family transitions occurred, is discussed in detail in the statistical analysis section of this paper. This has no effect for couples that cohabit throughout the observation period or become ineligible for inclusion in the survey, or couples in which one partner dies, because the dates of these censoring events are known. However, the dates on which couples marry or separate is not known other than within specific intervals. This means that the estimates provided in this paper are imprecise, based on incomplete data, and are potentially affected by unobserved biases that affect when information was collected.

A second limitation is that each panel of the MEPS-HC is followed for a period of only two years, and because couples were required to be living together at the first interview, which occurred on average three months into the observation period, most couples could be followed for a maximum period of about 21 months. Because most cohabitations are short-lived and end in either

marriage or separation (Lichter, Qian, and Mellott 2006; Bumpass and Lu 2000), we might expect that the short observation time of the data should be sufficient for capturing many couples' transitions. However, most of the MEPS-HC couples who did not marry remained together at the end of the observation period. It could be that by selecting a cross-section of all cohabiters at a specific time, the sample is more heavily weighted toward long-term cohabiters. This points to the third limitation of using MEPS-HC data. All of the cohabiting relationships included in the analysis are left-censored; MEPS does not collect information about when a cohabiting relationship began, therefore it is not possible to know the true length of time the couple has been at risk of marriage. Without this knowledge, it is not possible to accurately account for the timing of events or determine whether long-term cohabiters differ from short-term ones.

There is a final limitation of this study that does not pertain to limitations of the MEPS-HC data. In order to assess the relationship between health insurance and marriage, it is necessary to know the health insurance coverage status, type, and holder status of both partners prior to marriage. Information for both partners was only available for cohabiting couples; therefore the analysis was restricted to cohabiters. Cohabiting couples may differ from other couples in ways that make their experiences less representative of the experiences of all couples. In addition, cohabiting itself can change couples' expectations regarding marriage (McGinnis 2003). For these reasons, the results presented here may not hold for all couples.

Despite these limitations, this study is the first to examine whether a relationship between health insurance and marriage timing exists and is as widespread a phenomenon as has been suggested within the news media. The preliminary results presented here suggest that it was not widespread prior to the passage of the ACA. With the expansion of health insurance coverage that has occurred due to the implementation of the ACA, the effect of health insurance coverage on marriage timing may change in the future. First, we might expect to see a divergence between the effect of private insurance and EPIC, because the health insurance exchanges and federal subsidies for purchasing insurance expanded access to those who previously could not afford this coverage. Prior to the ACA, due to the high cost and inaccessibility of insurance on the private individual insurance market, most of those who had private insurance were covered through EPIC. With the opening of the health insurance exchanges, a larger proportion of those with private coverage will have purchased private, individual coverage and these individuals are less likely to be selective of those with high socioeconomic status. To the extent that the effect of private health insurance is due to the selection of those with positive employment characteristics into jobs that offer health

insurance benefits, we might expect the relationship between private health insurance coverage (of any type) to attenuate. By expanding access to health insurance through the Medicaid expansion Medi-Cal coverage to anyone with income below 138% of the federal poverty line, the ACA will also change the composition of those who are uninsured and those covered through public insurance.

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TABLES

Table 1. Descriptive Statistics, Cohabiting Couples ages 18-49 from 1999-2008 Panels of the Medical Expenditures Panel Survey – Household Component

	Male Partner			Female Partner			Couple		
	N	Mean	SE	N	Mean	SE	N	Mean	SE
Age	1,833	32.33	0.25	1,833	30.60	0.25			
Previously Married	1,833	28.4%		1,833	28.8%		1,833	40.5%	
Race/Ethnicity									
White	819	61.8%		869	64.6%		729	57.2%	
Black	326	13.8%		271	11.0%		253	10.1%	
Hispanic	609	19.4%		589	18.2%		524	15.1%	
Other Race	79	5.0%		104	6.3%		46	3.1%	
Multi-Racial Couple							281	14.5%	
Education									
Less than High School	738	30.9%		664	25.7%		454	15.8%	
High School Degree	615	36.5%		567	33.0%		284	17.3%	
Some College	270	16.5%		379	24.1%		112	6.4%	
Bachelor's Degree	192	16.1%		216	17.2%		107	9.9%	
Male More Education							510	31.0%	
Female More Education							342	19.7%	
Missing	18			7			24		
Income (in year 2000 dollars)									
Personal Income	1,833	26,786	674.66	1,833	18,297	533.57	1,833	45,084	1031.56
Wage Income	1,833	25,604	656.14	1,833	17,007	525.61	1,833	42,612	1013.40
Children and Dependents									
Children of Either Partner							1,218	52.8%	
Under age 18							1,187	51.4%	
Under age 6							771	33.1%	
Dependents									
Living in Household	460	21.5%		698	31.8%		1,027	47.5%	
Living Outside Household	84	4.2%		48	2.9%		123	6.7%	
Employment and Work Hours									
Not Working	280	12.9%		616	27.6%		120	5.1%	
Works Part-Time	93	5.1%		184	11.1%				
Works Full-Time	1,433	82.0%		1,013	61.3%				
Both Working < Full-Time							76	4.3%	
One Works Full-Time							790	38.9%	
Both Work Full-Time							828	51.6%	
Missing				20			19		

Table 1. Descriptive Statistics Cohabiting Couples ages 18-49 from 1999-2008 Panels of the Medical Expenditures Panel Survey – Household Component (Continued)

	Male Partner			Female Partner			Couple		
	N	Mean	SE	N	Mean	SE	N	Mean	SE
Employer Size (among those employed)									
Under 50 Employees	895	62.4%		654	54.8%				
50-249 Employees	282	21.6%		257	24.1%				
250 or More Employees	219	15.9%		246	21.1%				
Missing	157			60					
Works for Government	84	5.5%		121	7.1%				
Neither Partner							1,606	88.6%	
One Partner							155	9.9%	
Both Partners							25	1.5%	
Missing Employer Type	32			22			47		
Covered by Union Contract	135	8.7%		93	6.3%				
Neither Partner							1,568	86.4%	
One Partner							178	11.8%	
Both Partners							25	1.8%	
Missing Union Status	51			20			62		
Retirement/Pension Plan	471	31.5%		429	28.4%				
Neither Partner							1,032	50.8%	
One Partner							510	35.0%	
Both Partners							195	14.2%	
Missing Retirement Plan	86			43			96		
Job Offers Paid Vacation	846	51.4%		750	46.6%				
Neither Partner							635	29.3%	
One Partner							714	41.4%	
Both Partners							441	29.4%	
Missing Paid Vacation	45			27			43		
Job Offers Paid Sick Leave	568	37.1%		611	38.8%				
Neither Partner							882	41.8%	
One Partner							617	38.5%	
Both Partners							281	19.8%	
Missing Paid Sick Leave	54			26			53		
Insurance									
Insured	977	60.0%		1,148	66.8%				
Private Insurance									
Holder of Insurance									
Employer-Sponsored									
Holder of Insurance									
Neither Insured							455	19.8%	
One Insured							631	33.6%	
Private Insurance							418	24.9%	
Holder of Insurance							404	23.9%	
Employer-Sponsored							384	22.8%	
Holder of Insurance							381	22.5%	
Both Insured							747	46.6%	
Private Insurance									
Neither Partner							124	5.2%	
Neither Partner Holder							129	5.5%	
One Partner							143	7.5%	
One Partner Holder							239	13.5%	
Both Partners							480	33.9%	
Both Partners Holders							379	27.6%	
Employer-Sponsored									
Neither Partner							147	6.8%	
Neither Partner Holder							148	6.8%	
One Partner							179	10.7%	
One Partner Holder							255	15.3%	
Both Partners							421	29.1%	
Both Partners Holders							344	24.4%	

Table 2. Survival Analysis Results: The Relationship between Health Insurance and Marriage, Unadjusted

	Unadjusted Model	
One partner insured	1.33	(0.98, 1.80)
Both partners insured	**1.54**	**(1.14, 2.08)**
One Partner Insured		
Privately Insured	**1.41**	**(1.02, 1.94)**
Not Privately Insured	1.11	(0.72, 1.72)
Both Partners Insured		
Both privately insured	**1.71**	**(1.25, 2.33)**
One privately insured	1.08	(0.67, 1.73)
Neither privately insured	1.15	(0.67, 1.97)
One Partner Insured		
Insured through EPIC	**1.45**	**(1.05, 2.00)**
Not insured through EPIC	1.07	(0.71, 1.63)
Both Partners Insured		
Both insured through EPIC	**1.72**	**(1.25, 2.36)**
One insured through EPIC	1.29	(0.84, 1.98)
Neither insured through EPIC	1.18	(0.72, 1.91)
One Partner Insured		
Privately Insured Holder	**1.43**	**(1.04, 1.97)**
Not Holder of Private Insurance	1.07	(0.70, 1.65)
Both Partners Insured		
Both Holders of Private Insurance	**1.55**	**(1.12, 2.15)**
One Holder of Private Insurance	**1.67**	**(1.16, 2.41)**
Neither Holder of Private Insurance	1.16	(0.69, 1.97)
One Partner Insured		
Holds Own Employer-Provided Coverage	**1.47**	**(1.06, 2.03)**
Does Not Hold Employer-Provided Coverage	1.05	(0.69, 1.59)
Both Partners Insured		
Both Hold Own Employer-Provided	**1.58**	**(1.13, 2.20)**
One Holds Own Employer-Provided	**1.64**	**(1.14, 2.35)**
Neither Holds Own Employer-Provided	1.17	(0.72, 1.90)

Table 3. Survival Analysis of Results: The Relationship between Health Insurance and Marriage, Adjusted Models

	Unadjusted		Model 1		Model 2		Model 3	
	HR	**95% CI**	**HR**	**95% CI**	**HR**	**95% CI**	**HR**	**95% CI**
One Partner Insured								
Holds Own Employer-Provided Coverage	**1.47**	**(1.06, 2.03)**	**1.48**	**(1.07, 2.03)**	**1.92**	**(1.26, 2.92)**	1.47	(0.89, 2.43)
Does Not Hold Employer-Provided Coverage	1.05	(0.69, 1.59)	0.99	(0.65, 1.52)	1.26	(0.75, 2.12)	1.20	(0.71, 2.04)
Both Partners Insured								
Both Hold Own Employer-Provided	**1.58**	**(1.13, 2.20)**	**1.56**	**(1.12, 2.16)**	1.30	(0.77, 2.21)	0.88	(0.45, 1.73)
One Holds Own Employer-Provided	**1.64**	**(1.14, 2.35)**	**1.55**	**(1.08, 2.23)**	**1.68**	**(1.04, 2.72)**	1.23	(0.72, 2.12)
Neither Holds Own Employer-Provided	1.17	(0.72, 1.90)	1.07	(0.65, 1.74)	0.90	(0.46, 1.78)	0.82	(0.41, 1.64)

Model 1 controls for female partner's age and age squared, couple race/ethnicity, couple marital status, presence of children
Model 2 adds controls for each partner's education and earnings, and the couple's employment to Model 1
Model 3 adds controls for the characteristics of each partner's job to Model 2

APPENDIX A: Full Survival Analysis Results, Event Time Assigned as End of Interval

	Unadjusted				Model 1				Model 2				Model 3			
	HR	**β**	**SE**		**HR**	**β**	**SE**		**HR**	**β**	**SE**		**HR**	**β**	**SE**	
Insurance Coverage (Reference=Both Uninsured)																
One Partner Insured																
Does Not Hold EPIC	1.05	0.05	0.21		0.99	-0.01	0.22		1.26	0.23	0.27		1.21	0.19	0.27	
Holds EPIC	1.47	0.38	0.16	*	1.48	0.39	0.16	*	1.92	0.65	0.21	**	1.47	0.39	0.26	
Both Partners Insured																
Neither Holds EPIC	1.17	0.16	0.25		1.07	0.06	0.25		0.90	-0.10	0.35		0.82	-0.20	0.35	
One Holds EPIC	1.64	0.49	0.18	**	1.55	0.44	0.19	*	1.68	0.52	0.24	*	1.23	0.21	0.28	
Both Hold Epic	1.58	0.46	0.17	**	1.56	0.44	0.17	**	1.31	0.27	0.27		0.88	-0.12	0.34	
Demographic and Family Characteristics																
Female Partner Age					1.20	0.18	0.07	**	1.14	0.13	0.09		1.12	0.11	0.09	
Female Partner Age^2					1.00	0.00	0.00	**	1.00	0.00	0.00		1.00	0.00	0.00	
Both Partners White					1.18	0.17	0.11		1.07	0.06	0.14		1.17	0.15	0.15	
Either Previously Married					0.92	-0.09	0.13		0.96	-0.04	0.20		1.00	0.00	0.21	
Children Ages 0-5					1.48	0.39	0.16	*	1.75	0.56	0.22	*	1.82	0.60	0.23	*
Children Ages 0-18					0.72	-0.33	0.16	*	0.78	-0.25	0.22		0.76	-0.27	0.23	
Human Capital Characteristics																
Education																
Male Partner (Reference=Less than High School)																
High School Degree									0.86	-0.15	0.19		0.81	-0.21	0.19	
Attended College									1.12	0.11	0.23		1.03	0.03	0.24	
Bachelor's Degree									1.46	0.38	0.27		1.51	0.41	0.29	
Female Partner (Reference=Less than High School)																
High School Degree									0.80	-0.23	0.20		0.83	-0.19	0.21	
Attended College									0.88	-0.12	0.20		0.90	-0.10	0.21	
Bachelor's Degree									1.06	0.05	0.33		1.11	0.10	0.36	
Couple Employment (Reference=Neither Working)																
Neither Works Full-Time									0.76	-0.28	0.50		0.79	-0.23	0.51	
One Works Full-Time									0.87	-0.14	0.36		0.70	-0.35	0.40	
Both Work Full-Time									0.64	-0.45	0.40		0.51	-0.68	0.45	
Earnings Income																
Male Partner									1.43	0.36	0.16	*	1.27	0.24	0.17	
Female Partner									1.00	0.00	0.19		0.94	-0.06	0.20	
Job Characteristics																
Employer Size																
Male Partner (Reference=Under 50 Employees)																
50-249 Employees													0.96	-0.04	0.19	
250 or More Employees													1.21	0.19	0.23	
Female Partner (Reference=Under 50 Employees)																
50-249 Employees													1.07	0.06	0.22	
250 or More Employees													1.08	0.08	0.25	
Government Employee (Reference=Neither Partner)																
One Partner													0.67	-0.40	0.25	
Both Partners													0.40	-0.93	0.71	
Covered by Union Contract (Reference=Neither Partner)																
One Partner													1.10	0.10	0.22	
Both Partners													0.81	-0.21	0.72	
Retirement/Pension Plan (Reference=Neither Partner)																
One Partner													1.55	0.44	0.20	*
Both Partners													1.50	0.41	0.31	
Paid Vacation (Reference=Neither Partner)																
One Partner													1.35	0.30	0.28	
Both Partners													1.15	0.14	0.42	
Paid Sick Leave (Reference=Neither Partner)																
One Partner													0.94	-0.06	0.23	
Both Partners													1.31	0.27	0.40	

*** p<0.001 ** p<0.01 *p<0.05

APPENDIX B: Survival Analysis Results: The Relationship between Health Insurance and Marriage, Unadjusted, Event Time Randomly Assigned within Two Weeks of Previous Interview

	Unadjusted Model	
One partner insured	1.19	(0.87, 1.63)
Both partners insured	**1.43**	**(1.06, 1.94)**
One Partner Insured		
Privately Insured	1.27	(0.92, 1.77)
Not Privately Insured	0.97	(0.63, 1.50)
Both Partners Insured		
Both privately insured	**1.55**	**(1.13, 2.13)**
One privately insured	1.11	(0.70, 1.77)
Neither privately insured	1.07	(0.60, 1.91)
One Partner Insured		
Insured through EPIC	1.30	(0.93, 1.81)
Not insured through EPIC	0.96	(0.63, 1.46)
Both Partners Insured		
Both insured through EPIC	**1.55**	**(1.12, 2.13)**
One insured through EPIC	1.28	(0.84, 1.96)
Neither insured through EPIC	1.15	(0.69, 1.93)
One Partner Insured		
Privately Insured Holder	1.29	(0.93, 1.79)
Not Holder of Private Insurance	0.96	(0.62, 1.48)
Both Partners Insured		
Both Holders of Private Insurance	**1.44**	**(1.03, 2.00)**
One Holder of Private Insurance	**1.55**	**(1.08, 2.24)**
Neither Holder of Private Insurance	1.11	(0.63, 1.96)
One Partner Insured		
Holds Own Employer-Provided Coverage	1.31	(0.94, 1.82)
Does Not Hold Employer-Provided Coverage	0.95	(0.63, 1.45)
Both Partners Insured		
Both Hold Own Employer-Provided	**1.45**	**(1.03, 2.03)**
One Holds Own Employer-Provided	**1.53**	**(1.06, 2.19)**
Neither Holds Own Employer-Provided	1.15	(0.69, 1.93)

APPENDIX C: Full Survival Analysis Results, Event Time Randomly Assigned within Two Weeks of Previous Interview

	Unadjusted				Model 1				Model 2				Model 3			
	HR	β	SE		HR	β	SE		HR	β	SE		HR	β	SE	
Insurance Coverage (Reference=Both Uninsured)																
One Partner Insured																
Does Not Hold EPIC	0.96	-0.05	0.21		0.90	-0.10	0.21		0.91	-0.10	0.22		0.88	-0.13	0.22	
Holds EPIC	1.31	0.27	0.17		1.30	0.26	0.17		1.24	0.22	0.18		1.07	0.07	0.19	
Both Partners Insured																
Neither Holds EPIC	1.15	0.14	0.26		1.04	0.04	0.27		0.97	-0.03	0.28		0.92	-0.08	0.29	
One Holds EPIC	1.53	0.42	0.18	*	1.42	0.35	0.19		1.33	0.28	0.19		1.09	0.09	0.20	
Both Hold Epic	1.45	0.37	0.17	*	1.41	0.34	0.17	*	1.35	0.30	0.22		1.00	0.00	0.24	
Demographic and Family Characteristics																
Female Partner Age					1.20	0.18	0.07	**	1.13	0.12	0.07		1.13	0.12	0.07	
Female Partner Age^2					1.00	0.00	0.00	**	1.00	0.00	0.00	*	1.00	0.00	0.00	*
Both Partners White					1.21	0.19	0.11		1.15	0.14	0.12		1.23	0.20	0.12	
Either Previously Married					0.92	-0.08	0.13		1.00	0.00	0.13		0.96	-0.04	0.13	
Children Ages 0-5					1.50	0.40	0.16	*	1.49	0.40	0.17	*	1.52	0.42	0.17	*
Children Ages 0-18					0.73	-0.31	0.16		0.87	-0.14	0.17		0.88	-0.13	0.17	
Human Capital Characteristics																
Education																
Male Partner (Reference=Less than High School)																
High School Degree									0.94	-0.06	0.15		0.95	-0.05	0.16	
Attended College									1.26	0.23	0.18		1.26	0.23	0.18	
Bachelor's Degree									1.46	0.38	0.22		1.50	0.41	0.23	
Female Partner (Reference=Less than High School)																
High School Degree									0.85	-0.16	0.15		0.89	-0.12	0.15	
Attended College									0.74	-0.31	0.17		0.76	-0.28	0.17	
Bachelor's Degree									1.06	0.06	0.24		1.12	0.11	0.26	
Couple Employment (Reference=Neither Working)																
Neither Works Full-Time									0.82	-0.20	0.36		0.81	-0.21	0.37	
One Works Full-Time									0.85	-0.16	0.27		0.77	-0.26	0.30	
Both Work Full-Time									0.55	-0.60	0.33		0.46	-0.78	0.38	*
Earnings Income																
Male Partner									1.10	0.09	0.12		1.01	0.01	0.12	
Female Partner									1.28	0.25	0.15		1.19	0.18	0.15	
Job Characteristics																
Employer Size																
Male Partner (Reference=Under 50 Employees)																
50-249 Employees													0.78	-0.25	0.15	
250 or More Employees													1.22	0.20	0.16	
Female Partner (Reference=Under 50 Employees)																
50-249 Employees													0.98	-0.02	0.18	
250 or More Employees													1.00	0.00	0.17	
Government Employee (Reference=Neither Partner)																
One Partner													0.81	-0.22	0.21	
Both Partners													0.64	-0.45	0.46	
Covered by Union Contract (Reference=Neither Partner)																
One Partner													0.87	-0.14	0.19	
Both Partners													0.47	-0.76	0.54	
Retirement/Pension Plan (Reference=Neither Partner)																
One Partner													1.41	0.35	0.15	*
Both Partners													1.73	0.55	0.23	*
Paid Vacation (Reference=Neither Partner)																
One Partner													1.40	0.33	0.21	
Both Partners													1.51	0.41	0.29	
Paid Sick Leave (Reference=Neither Partner)																
One Partner													0.79	-0.23	0.17	
Both Partners													1.01	0.01	0.25	

*** p<0.001 ** p<0.01 *p<0.05