

The effects of Health Insurance on Marriage

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Abstract: Financial security and health insurance affect marital status and the transitions in and out of marriage. Group health insurance policies often allow options to purchase family coverage rather than individual coverage in the event of a marriage, whereas public health insurance is received only upon meeting qualifications. I use detailed MEPS data to examine the effects of private and public health insurance on marriage. Public health insurance reduces the probability of getting married for both men and women. Private employer-provided group health insurance increases the probability of getting married, but having another form of private health insurance reduces the probability of marriage.

Keywords: divorce; marriage; health insurance

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Introduction

“And don't be fooled by folks trying to scare you saying we can't change the health care system. We have no choice but to change the health care system because right now it's broken for too many Americans.” (President Obama, 2009)

Political, financial, and social interests call for the US healthcare to be restructured. There is a long and rich history of attempts to provide government-sponsored and attempts to provide universal coverage to the U.S. population. (Brown 2006) However, private and public policy have long been intertwined in American healthcare (Stevens 2006), and the recently proposed healthcare bill by House Democrats incorporates changes that would affect the proportion of individuals with public and private health insurance coverage. (Pear and Herszenhorn 2009) The U.S. healthcare system history is one full of change, controversy, and constant pressures to evolve. Proposed and actual policy reform is under rigorous scrutiny with careful deliberation to the effects in the intended market. Healthcare policy may be directed towards insurance coverage, but often policy change has unintended consequences in seemingly unrelated markets. In this paper I how healthcare reform and health insurance coverage affects the marriage market.

Marriage, divorce and family structure decisions are not immune to policy change, yet these unintended policy effects on the family are erroneously omitted in reform discussions. Alm, Dickert-Conlin and Whittington (1999) show that all progressive tax programs where taxes are based on family income affect family structure. The Negative Income Tax's gave an incentive for women to have children outside of marriage. (Moffit 2003) Healthcare policy has also affected family structure. Decker (2000) uses state Medicaid program variations, finding that the increase in public health insurance increased the prevalence of white single mothers by increasing the probability of a woman remaining single after giving birth. Yelowitz (1998) finds that Medicaid's expansion to low income married couples and higher income levels for singles induced both higher marriage rates amongst single women who otherwise would have become ineligible under the old system and also higher divorce rates amongst women who only had insurance through marriage prior to the expansion.

Not surprisingly, individuals at the margin alter their marriage decisions according to incentives of the tax structure and various welfare programs.¹ Studies examine the role of Medicaid

¹ Moffit (1990) examines these negative effects of Medicaid on marriage.

and public health insurance on marriage decisions, but they fail to analyze all private group health insurance and other health insurance. Future healthcare reform may drastically change the health insurance coverage profile in the U.S. not just publicly provided health insurance. Financial security and/or problems are common reasons for marriage and divorce, yet the availability of health insurance and impact of healthcare costs are largely ignored as reasons for these marital changes. If health insurance affects family structure, then any healthcare reform directed to change health insurance coverage will also change the American family structure. A recent poll, albeit small in sample, indicates that marriage and divorce are correlated with health insurance and may be a source of family structure decisions. (Kaiser, 2008) Subsequent news reports provide anecdotal stories which corroborate the survey results. (Goldstein 2008, Goodman 2008, and Sack 2008)

In this paper I examine the effect of health insurance on marriage and divorce. I use a probit specification to test whether health insurance affects marital status and marriage decisions using MEPS survey data. I find the probability of marriage increases with private employer-provided health insurance but decreases when individuals have either public health insurance or private health insurance from a source other than their employment. Employer-provided private health insurance is positively associated with being married and remaining married. Women with public health insurance are more likely to obtain a divorce than uninsured women. In the next section I model the causal diagram between health insurance and marriage and describe the empirical implications and problems of such a model. In the third section I discuss the data and empirical results before concluding.

Model

To understand the effect of health insurance on marital status I utilize a causal diagram to model the relationship. This diagram of causal pathways summarizes the hypothetical causal relationship between the variables of interest and helps to identify an appropriate methodology on which to base the empirical analysis. (Glymour and Greenland 2008) Causal diagrams do not require all variables to be included. However, if two variables within the diagram share a common cause then that cause must be included. The variables I include in the causal diagram are productivity (P), employment (E), health insurance (HI), risk aversion (R), marital status (M) and other variables (O).²

² In order to simplify the diagram I grouped health outcomes and initial conditions in with risk aversion.

Figure 1: Causal Diagram

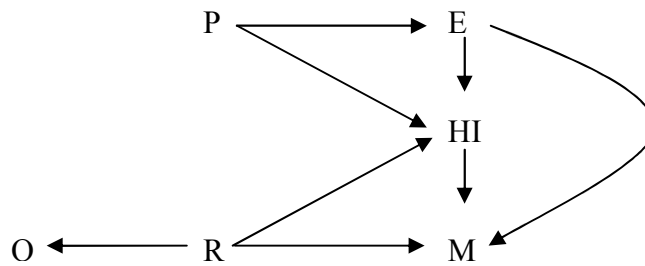


Figure 1 contains my model and proposed causal relationships between all of the variables, where the causal relationship of interest is between health insurance (HI) and marriage (M).³ Conditional on employment status, health insurance affects marriage in a couple of ways. Individuals prefer to marry an individual with employer-provided health insurance to gain access to the employer-provided group plan.⁴ The employer-provided group health insurance plan can be thought of as a public good, providing an incentive for others to marry an individual with that plan's coverage.⁵ Conditional on employment, health insurance is more prevalent amongst higher paying jobs and acts as a secondary signal for true productivity of the potential spouse (Beckmann 2007). Not only does health insurance signal a potential spouse's true productivity level, it also signals their risk aversion.

Individuals' productivity (P) directly affects both employment (E) and health insurance (HI). The relationship between productivity and employment is a basic theory of wages in labor economics, while current Medicaid disability provisions are the source of the relationship between productivity and health insurance. Employment (E) affects both health insurance (HI) and marriage (M). Employer-provided health insurance currently is tax exempt and the largest source of individual insurance. The tax exemption provides an incentive for employers to offer employees health insurance.⁶ Employment affects marriage by being a signal of expected success in household specialization as well as overall productivity (Kalmijn and Luijkx 2005) and may directly control

³ Montez et al. (2009) note that health insurance is largely determined by marital status. The causal diagram is appropriate for determining getting married, but is not complete to analyze overall marital status nor divorce.

⁴ This incentive to marry is supported by the Kaiser study and the anecdotal evidence in the news articles.

⁵ Dey and Flinn (2008) and Honig and Dushi (2005) find that married individuals are more likely to take jobs with reduced wages but health insurance than singles. These studies are not contradictory to the causal relationship between health insurance and getting marriage; rather these studies reflect risk sharing and mitigation within marriage.

⁶ Employees also have an incentive to purchase health insurance due to economies of scale and lower prices of group health insurance policies rather than individual policies. Large firms are more likely than small firms to offer health insurance, which may be a result of lower premiums for a larger group over which the underwriter may pool risks.

marriage through income barriers (Holland 2007). Risk aversion (R) affects health insurance (HI), marriage (M) and other variables (O). Individual's decisions to purchase health insurance depend on risk aversion. For a given premium for full coverage individuals with high risk aversion will purchase health insurance while individuals with a low risk aversion will not purchase the same insurance, *ceteris paribus*. Risk aversion will directly affect marital status and marriage decisions, as marriage is a union of two income earners and assurance of a more consistent standard of living. If there are two wage earners, being married reduces the severity of unexpected individual wage fluctuations. If only one individual in the household works, in the event of a job layoff both individuals can look for employment rather than just the one. Lastly risk aversion will affect other variables such as other forms of insurance and observable risk behavior. This causal link between risk aversion and these other variables is included in the diagram for statistical implication of the model.

The diagram provides the statistical framework for which to analyze the causal relationships. The appropriate analysis of marriage conditions on employment, health insurance, and risk aversion and would be represented by the statistical model below; where f is some function of the variables and u is the unexplained component.

$$\begin{aligned}
 M &= f(E, HI, R) + u \\
 E(u) &= 0 \\
 Cov(E, u) &= Cov(HI, u) = Cov(R, u) = 0
 \end{aligned}
 \tag{0.1}$$

The above statistical model is not available as risk aversion is unobservable. The unexplained residual component from a function including only employment and health insurance would be correlated with health insurance and the estimates would be biased. There are three potential corrections in order to control for this covariance; instrumental variables, proxy variables or factor analysis. Instrumental variable and proxy variable methods are fairly common in economic literature, where as factor analysis is more common in psychometrics and in other social science disciplines.⁷ Good instruments would be highly correlated with health insurance but not marriage.⁸

⁷ Factor analysis takes a set of observable related items and factors them into a set of unobservable characteristics. It relies on the econometrician's ability to identify the complete set of unobserved attributes. In this model the other observed variables and health insurance may be able to be factored into risk aversion. This factored risk aversion measure, \check{R} , could then yield unbiased estimates from the statistical analysis. Future versions of this paper will explore using a factor analysis.

⁸ The two necessary conditions for use of instrumental variables are that the instrumental variables do not affect marriage once the other explanatory variables are included, and that the instrument is partially correlated with health insurance once the other observables are included.

Similarly good proxies would be correlated with risk aversion but not marriage.⁹ Both methods assume that once a good instrument or proxy is used the resulting residual is no longer correlated with the observed variables. Either method will yield an unbiased estimate of the effect of health insurance on marriage, provided the necessary conditions are met. It is hard to meet these theoretical conditions in the data however, and as such further discussion is warranted.

I use proxy variables to control for risk aversion in my empirical analysis rather than instrumental variable techniques. Good instruments are not only hard to find, the instrumental variable should also be uncorrelated with the omitted variable.¹⁰ If the instrumental variables are weak or partially correlated with the unobserved variable the statistical estimates will be biased. However, the use of proxy variables is not without problems, as the proxy variables require that once the proxy variable is controlled for the residual unobserved variable is uncorrelated with the observables. The causal diagram and model indicates that risk aversion is not only correlated with health insurance but also affects health insurance. The risk aversion residual will likely still be correlated with health insurance although at a smaller magnitude, thus a bias induced from a correlation between the error term and health insurance will remain.¹¹ In future revisions I will explore the use of factor analysis.

Data

I use the Medical Expenditure Panel Survey (MEPS) data to analyze the effects of health insurance on marriage. The national representative MEPS dataset has labor market outcomes as well as individual and family demographics and detailed health expenditure and insurance data. Each panel of individuals has five rounds of surveys over two years and there is a new panel of individuals annually.¹² I restrict the sample to individuals who are between the ages of 18 and 60.¹³

⁹ The two necessary conditions for use of proxy variable are that the proxy variable does not affect marriage and that the correlation between each observed variable and the unobserved risk aversion is zero once the proxy variable is included.

¹⁰ In the causal diagram the instrumental variable (I) would have an arrow to health insurance but not risk aversion.

¹¹ I use a linear functional form of the explanatory variables in the empirical analysis. If unobserved risk aversion is positively associated with health insurance, omission of risk aversion would lead to health insurance point estimates with upward bias. Inclusion of the proxy variables reduces the partial covariance of unobserved risk aversion and health insurance and reduces this bias. Health insurance point estimate without any risk aversion proxy variables are greater than when these proxies are included for men and women for all marital dependent variables.

¹² The 2006 consolidated year file is the latest available MEPS data. The fourth and fifth waves of the eleventh panel were collected in 2007 but have not been released yet.

This restriction eliminates the effects of Medicare, as all individuals over 65 are covered by Medicare and individuals near this age requirement may alter their decisions prior to coverage.

I specifically estimate health insurance effects on the probability of marrying, the probability of divorce, and overall differences between married and single populations.¹⁴ I analyze each of these events separately on difference samples in order to have the appropriate control group. To analyze the probability of getting married I wish to compare individuals that recently got married only to individuals that are single and not other married or recently divorced individuals.¹⁵ I define getting married as one for individuals who married between the last two survey waves and zero for singles, thus all individuals with a different marital status are not included in the analysis. To analyze the probability of divorce I wish to compare individuals that recently divorced to married individuals. Similar to getting married, I define obtaining a divorce equal to one for individuals who divorced since the last survey wave and zero for married individuals. To compare overall differences of marriage I include all individuals where married includes recently married and single includes recently divorced.¹⁶

I use survey data to construct three binary health insurance (HI) variables, where these three health insurance variables are the variables of interest in the analysis. *Employer-provided Private* health insurance is equal to one if the individual is covered by an employer or union group insurance policy. *Other Private* health insurance is one when an individual has private health insurance during the survey wave that is not employer-provided and zero elsewhere.¹⁷ *Public* health

¹³ I eliminate individuals under 18 as this is age limit of legal marriage without parental consent in most states, the same age at which individuals not attending school make their own decisions and are no longer covered under their parent's health insurance.

¹⁴ I currently only use the 2000-2007 year files and do not fully utilize the data available from 1996-1999. The data from 2000-2007 has the health insurance information at the time of round already included, where as prior to 2000 the health insurance data is entered monthly and must be matched with the timing of the survey round. I plan to use the 1996-1999 data in the final draft of this paper.

¹⁵ I only separate four different marital status groups; single, recently married, married, and recently divorced. I do not explore differences between single, previously divorced or widowed individuals but will in future drafts to check the estimated effects on marriage robustness.

¹⁶ I base marital status off of the edited MEPS marital status variable, which was edited to control for discrepancies between spouses and inconsistencies between survey waves.

¹⁷ I group private health insurance coverage of the self-employed, non-group coverage, other group coverage, coverage through an unknown private category, and coverage from a policyholder living outside the dwelling unit all into *Other Private* health insurance.

insurance is equal to one if the individual has any form of public insurance coverage during the survey round.¹⁸ Individuals without health insurance are the reference group in the analysis.

The base set of employment variables (E) are *real total income*, and binary variables for *self-employment* and *active military duty*. Real total income, in 2006 real dollars, is constructed from all the MEPS income components. The remaining four employment variables are available only for limited observations. I include the only the base set of variables in the analysis but check estimate robustness by including a richer set of employment variables that is only available for a substantially smaller number of observations. Individual *real hourly wage* and *average hours worked per week* provide a more complete snapshot of labor income. *Union* status and if the individual is working *more than one job* in the survey wave are included as binary variables characterizing the individual's employment as well.

I include variables that are affected by risk aversion and indirect measures of risk aversion as other proxy variables (O) for risk aversion. Variables that are affected by risk aversion include two specific options to health insurance and educational attainment. *Dental* and *prescription drug* are equal to one if the individual has this optional insurance and zero elsewhere. *Education* is the individual's total years of education. Individuals were asked to respond to a pair of statements directed toward their attitude towards health insurance and also a pair of statements directed toward their attitude which might affect their decision to purchase health insurance and use health services.¹⁹ Individuals either disagreed strongly, disagreed somewhat, were uncertain, agreed somewhat or agreed strongly with each statement. *Health insurance not needed* is equal to one if the individual agreed, either strongly or somewhat, with the "Do not need health insurance" statement. *Health insurance not worth cost* is set to one if the individual agreed with "Health insurance is not worth the money it cost" statement. *More likely to take risks* and *overcome illness alone* are set to one if the individual agreed with the "More likely to take risks than the average person" and "Can overcome illness without help from a medically trained person" statements respectively. In addition to the proxy variables to control for the unobserved risk aversion, I include individual's *perceived*

¹⁸ The two private health insurance variables are mutually exclusive. Some individuals that have public health insurance coverage, about 20% in the data, also responded to having private health insurance coverage.

¹⁹ The questions pertaining to attitudes about health insurance and whether the individual would utilize health care or purchase health insurance are only asked in the second and fourth survey waves. All other variables are asked each survey wave, but for these variables I extrapolate the answers from the second wave to the first and third and the answer from the fourth wave to the fifth wave. In the event of no response in the second wave I extrapolated the answer in the fourth wave to the third wave as well.

physical health and *perceived mental health*. I grouped perceived health with risk aversion in the model to simplify the diagram, even though they are actually observable. Individuals rate their perceived physical and mental health on an excellent, very good, good, fair and poor scale (numerically coded from one to five).²⁰

Table 1 and Table 2 contain summary statistics of the variables by marital status for men and women respectively. For each gender the overall sample is split into marital status subgroups of singles, recently married, married and recently divorced individuals. For both men and women the largest disparity of sample means by marital status group comes from the health insurance variables and real income. Single and recently divorced men (women) are less likely to have employer-provided health insurance but more likely to have public health insurance than either recently married or married men (women). Single men and single women both have other private health insurance coverage twice as frequent as any other marital status group. Real total income is higher for men who are recently married compared to singles, and married men have higher incomes than recently divorced men. However, recently married and recently divorced men have similar levels of income. Real total income is higher for recently married women, but the income of married and recently divorced women are both higher. Single men are less likely to have dental or prescription drug insurance and are more likely to take risks and agree that health insurance is not needed. Single women are also less likely to have dental insurance and are more likely to believe they can overcome illness without the help of medical professionals and to believe that health insurance is not needed.

Comparing sample means of singles and recently married indicates difference between those getting married and remaining single. Similarly, comparing sample means of married and recently divorced individuals reveal a first glance of differences associated with divorce.²¹ We see many differences in sample mean but overall the sample means for single individuals is most closely similar to recently divorced than any other subgroup. Similarly the sample means for variables of

²⁰ The scale of these variables is arbitrary defined as they are only ordinal rankings. As such these variables do not offer much insight into causal predictive without modeling individual's responses to these ordered questions. Perceived physical and mental health affect health insurance and marriage decisions and are included in the risk aversion variables to simplify the model. Health outcomes and conditions affect both marriage and health insurance and are needed in order to obtain unbiased estimates. The health insurance estimates are robust by omitting these variables, I find only a small quantitative change and no quantitative difference in the health insurance estimates. The estimates are also robust to the inclusion of dummy variables for bad perceived physical (mental) health rather than the arbitrary one to five scale, where the dummy variable for bad health is equal to one if the response was either fair or poor.

²¹ The difference in sample means do not take into account other variables, it is a pair wise correlation rather than partial correlation.

recently married individuals are quite close to married individuals. The similarity in sample means difference of single and recently married, recently divorced and married, and single and married indicate that determinants of marriage and divorce are similar to steady state differences between individuals that are married and single.

Empirical Analysis

I am interested in estimating the determinants of marital status. Changes in marital status are also events of interest and I also wish to estimate the effects on getting married and separately on obtaining a divorce. To estimate these effects I use the model described before and a probit statistical equation model. The probit statistical equation is appropriate since each event of interest is a binary variable.²²

$$P(y_{it} = 1 | x_{it}) = \Phi(x_{it}\beta + u_{it}) \quad (0.2)$$

I use the above statistical model to analyze the marital status outcome of interest (married, recently married, or recently divorced), y_{it} , for each individual i in time t . The observed covariates, x_{it} , vary by individual and time and include the health income variables, employment variables, and risk aversion proxy variables as described in the model section. I utilize the panel structure of the data and include an individual random-effect error component, u_{it} , which standard deviation σ_u that is estimated in the data.²³

To analyze the determinants of getting married I restrict the sample to individuals who changed from single to married in the survey wave (recently married) and individuals who are single. By restricting the sample and looking at marriage as an event, I am examining only the transition into marriage rather than the general equilibrium in differences that may occur over time.²⁴ To compare differences between married and single men and women I use the entire sample of men and women respectively. To analyze divorce I restrict the sample to individuals that change

²² The MEPS dataset does have detailed relationship data to a reference person within the household, including female and male partners. There is a small frequency of these types of observations, but I do not utilize this information. Future work should explore if health insurance also has differing effects between legal marital status and cohabitants.

²³ I find that the estimates are robust to omitting the random-effects error component. For each specification the random-effects variance component is statistically significant and is a large fraction of total variance.

²⁴ This assumes that all individuals have a probability of marriage. If there are some individuals that will never marry than the analysis of marriage as an event is closer to the transition rather than general equilibrium differences, but there will still be a bias from selection. I assume this possibility away in the causal model.

from married to single in a survey wave (recently divorced) and individuals that are still married.²⁵ This sample restriction implies that married individuals are the comparison group rather than all individuals regardless of marital status. The divorce estimates are then interpreted in comparison to married individuals.

Determinants of Marriage for Men

Table 3 contains the point estimates obtained for varying dependent variables and three different regressions. The first column contains the point estimates for determinants of getting married, where y_{it} in equation (0.2) is equal to one if recently married and zero if single. The second column estimates a similar specification, but now the dependent variable is married rather than marriage and y_{it} is equal to one if married and zero if single regardless of durations. The third column contains the point estimate effects of divorce, where y_{it} to one if the man is recently divorced and zero if married.

Point estimates of marriage, from the probit specification comparing men that recently got married to those that remain single, reveal that *employer-provided private* health insurance increases the probability of getting married. Having either *other private* or *public* health insurance reduces the probability of getting married. These effects are statistically significant, with the private health insurance effects significant at the one percent level and the public health insurance effect at the five percent level. Having employer-provided group health insurance is a signal and offers the option to join the group insurance policy once married to the potential spouse. The positive aspects of *employer-provided private* insurance are not available for *other private* or *public* insurance. Instead *public* and *other private* health insurance are signals of a bad potential spouse compared to an uninsured single male. Higher real income and being self-employed or in the military increases the probability of getting married.²⁶ The proxy variables for risk aversion indicate that men that self profess to take fewer risks and believe insurance is needed are more likely to get married. Controlling for income, higher education is associated with a lower probability of getting married as is the belief that health insurance is not worth the cost. The individual random effect error component is statistically significant and about 80% of total variance. The health insurance

²⁵ These two groups are mutually exclusive.

²⁶ I include real income linearly in the probit specification. Holland (2007) explores use of income splines to examine if there are financial barriers to marriage and if cohabitating couples are more likely to marry at different income levels. She finds mixed evidence of a nonlinear income specification.

estimates are robust to including the richer set of employment variables including hours worked and hourly wage, even though the use of these variables reduces the sample size. The estimated effect of employer-provided health insurance on getting married is robust to using a fixed effects linear probability model without risk aversion proxies instead of a probit model. Other private and public estimates from the linear probability model are not statistically significant.²⁷

The effects of health insurance on getting married are still present when all married men are compared to all single men. *Employer-provided private* health insurance is more likely in married men, but men with *other private* or *public* health insurance are less likely to be married. Once married the likelihood of being offered an employer-provided group health insurance increases as their wife may be covered through her job even if the man is not covered through his employment. Public insurance restrictions based on marital status and income levels reduce the probability of being covered if married. I have not included any measure of household production, including the joint employment decision.²⁸ Without formally controlling for these confounding influences of marriage on health insurance decisions, the estimates in the second and third columns reflect overall correlation rather than the pure causal effect. The correlations of health insurance and marital status are not consistent with the causal effects of getting married as the health insurance estimates are different between the first and second column. The correlations of health insurance and divorce are not consistent with the causal effects of getting married either, as the divorce estimates are not opposite of the marriage estimates.

If the effects of health insurance on marital status were not confounded by decisions within marriage we would expect estimated partial correlations of health insurance on obtaining a divorce to be the opposite in sign as of getting married. However, the causal link between health insurance and obtaining a marriage is not mirror in the estimates of obtaining a divorce. Comparing men that recently divorced to all married men we see that *employer-provided private* health insurance statistically significantly reduces divorce. In other words, employer-provided private health

²⁷ The difference between estimates from the fixed effect linear probability model and the random effect probit model with proxies is not alarming. The fixed effect linear probability model eliminates any constant effect of risk aversion, but also restricts variable estimate identification to individuals with varying data. The difference in these estimates can be explained by the large portion of individuals, 90% of men, with invariant public insurance over the survey waves. These individuals do not identify the estimated public effect in the linear probability model.

²⁸ Dey and Flinn (2008) use spousal health insurance eligibility in employer-provided benefits to explore the effect of health insurance coverage for job search, finding a positive marginal willingness to pay for health insurance on a prospective job even if the family already has health insurance through the other spouse's employer-provided health benefits. Honig and Dushi (2005) indicates that married women are more willing to take jobs in which employers providing family health insurance and married men are not.

insurance promotes remaining married just as it promoted getting married. *Other private* is statistically significant but is not associated with a higher probability of divorce, rather having another form of private health insurance rather than no insurance at all is reduces the probability of divorce. *Public* health insurance is not correlated with divorce for men.

Determinants of Marriage for Women

Table 4 contains the women's point estimates from regressions for each different marital status dependent variable. Similar to the format of table 3 for men, the first column contains the point estimates effects for women getting married. The second column has married as the dependent variable overall, and the third column's dependent variable is divorce.

The health insurance effects on getting married are similar for both men and women. The probit estimated effects of getting married reveal that *employer-provided private* health insurance increases the probability of getting married for women. A woman with *other private* or *public* health insurance reduces the probability of getting married compared to an uninsured woman. All of these estimated effects are statistically significant at the one percent level for women. The benefits of having employer-provided group health insurance are not gender restricted; *employer-provided private* health insurance signals quality to potential spouses and offers the potential spouse the potential to join the group insurance policy once married. Group private health insurance is a public good that either spouse can bring to marriage, making them a good potential spouse in comparison.

Higher real income and being self-employed or in the military increases the probability of getting married for women as well as men. The proxy variables for risk aversion indicate that women self professing to take fewer risks and whom believe insurance is needed are more likely to get married. Higher education, controlling for income, is associated with a lower probability of getting married. The individual random effect error component is statistically significant and is over 80% of the total variance.

The same caveats interpreting the overall married sample and divorce transition applies to women as it did for men. The statistically significant probit estimates in the second column indicate similar correlations between health insurance and women's marital status. *Employer-provided private* health insurance is more prevalent for married women, but women with *other private* or *public* health insurance are less likely to be married. Comparing women that recently divorce to all married women the *employer-provided private* health insurance estimate reduces divorce. *Public* health insurance is positively related with divorce. The relationship of *other private* and *public*

health insurance with divorce differs by gender, consistent with other studies examining welfare effects. (Moffit 1990)

Conclusion

Financial security and health insurance affect marriage and divorce decisions. I use a causal diagram to discuss the relationship between health insurance, employment and marital status. Having a group health insurance policy as a single individual often allows potential spouses to join the group insurance policy if married. Since group health insurance coverage is most often through employers, having this coverage is also a signal to the potential spouse's productivity and potential quality. Public health insurance is often individual circumstantially based. Not only does public insurance signal a lower level of income potential to potential spouses, neither potential spouse gains from public insurance. The potential couple could retain public health insurance if qualifications are met, but more than likely getting married results in a loss of that insurance.

Estimates using MEPS data indicate that employer-provided health insurance increases the probability of getting married. Public health insurance and other private health insurance reduces the probability of an individual getting married. These statistically significant health insurance effects on getting married are similar for men and women. Similar qualitative relationships between the health insurance categories and marriage are found in the entire population. This research does not take into consideration changes in behavior once married. Montez et al. (2009) argue that marriage is the means in which to obtain health insurance, and future work is required to disentangle the causal effects of health insurance on remaining married.

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Table 1: MEPS Summary Statistics for Men by Marital Status

Variable	Marital Status				
	Overall	Single	Recently Married	Married	Recently Divorced
<u>Health Insurance</u>					
<i>Employer-provided Private</i>	0.58 (0.49)	0.43 (0.49)	0.62 (0.49)	0.70 (0.46)	0.49 (0.50)
<i>Other Private</i>	0.04 (0.20)	0.06 (0.24)	0.03 (0.17)	0.03 (0.17)	0.03 (0.18)
<i>Public</i>	0.10 (0.30)	0.13 (0.33)	0.07 (0.26)	0.08 (0.26)	0.12 (0.32)
<u>Employment</u>					
<i>Real total income (2006\$k)</i>	32.85 (31.24)	23.97 (26.28)	35.02 (29.55)	39.18 (33.05)	35.29 (29.82)
<i>Self-employment</i>	0.05 (0.21)	0.03 (0.17)	0.08 (0.27)	0.05 (0.23)	0.08 (0.27)
<i>Active military duty (x 100)</i>	0.06 (2.54)	0.07 (2.61)	0.25 (4.97)	0.05 (2.32)	0.08 (2.90)
<u>Risk Aversion Proxies</u>					
<i>Prescription drug</i>	0.59 (0.49)	0.46 (0.50)	0.62 (0.49)	0.69 (0.46)	0.52 (0.50)
<i>Dental</i>	0.46 (0.50)	0.36 (0.48)	0.49 (0.50)	0.54 (0.50)	0.41 (0.49)
<i>Education</i>	12.48 (3.11)	12.27 (2.75)	12.55 (3.19)	12.62 (3.35)	12.29 (2.73)
<i>More likely to take risks</i>	0.30 (0.46)	0.34 (0.47)	0.31 (0.46)	0.26 (0.44)	0.34 (0.47)
<i>Overcome illness alone</i>	0.28 (0.45)	0.31 (0.46)	0.30 (0.46)	0.26 (0.44)	0.30 (0.46)
<i>Health insurance not needed</i>	0.14 (0.35)	0.19 (0.39)	0.14 (0.35)	0.11 (0.32)	0.16 (0.36)
<i>Health insurance not worth cost</i>	0.27 (0.45)	0.27 (0.45)	0.27 (0.44)	0.27 (0.45)	0.28 (0.45)
<i>Perceived physical health</i>	2.24 (1.04)	2.22 (1.06)	2.17 (1.04)	2.25 (1.02)	2.44 (1.12)
<i>Perceived mental health</i>	1.98 (0.97)	2.04 (1.02)	1.83 (0.90)	1.94 (0.92)	2.13 (1.05)
Number of Observations	126,640	51,472	3,237	70,746	1,185

Note: Sample standard deviations are in parenthesis.

Table 2: MEPS Summary Statistics for Women by Marital Status

Variable	Marital Status				
	Overall	Single	Recently Married	Married	Recently Divorced
<u>Health Insurance</u>					
<i>Employer-provided Private</i>	0.56 (0.50)	0.43 (0.49)	0.56 (0.50)	0.68 (0.47)	0.45 (0.50)
<i>Other Private</i>	0.04 (0.20)	0.06 (0.23)	0.03 (0.17)	0.03 (0.18)	0.04 (0.19)
<i>Public</i>	0.16 (0.37)	0.24 (0.43)	0.15 (0.36)	0.10 (0.30)	0.20 (0.40)
<u>Employment</u>					
<i>Real total income (2006\$k)</i>	23.30 (25.01)	20.27 (21.09)	23.48 (25.17)	25.75 (27.61)	24.99 (23.00)
<i>Self-employment</i>	0.03 (0.16)	0.02 (0.13)	0.04 (0.20)	0.03 (0.17)	0.03 (0.18)
<i>Active military duty (x 100)</i>	0.01 (1.04)	0.01 (1.04)	0.10 (3.22)	0.01 (0.80)	0.00 (0.00)
<u>Risk Aversion Proxies</u>					
<i>Prescription drug</i>	0.58 (0.49)	0.46 (0.50)	0.57 (0.50)	0.68 (0.47)	0.48 (0.50)
<i>Dental</i>	0.45 (0.50)	0.37 (0.48)	0.45 (0.50)	0.53 (0.50)	0.40 (0.49)
<i>Education</i>	12.53 (3.06)	12.37 (2.81)	12.49 (3.02)	12.67 (3.25)	12.37 (2.74)
<i>More likely to take risks</i>	0.18 (0.38)	0.21 (0.41)	0.18 (0.39)	0.15 (0.35)	0.21 (0.41)
<i>Overcome illness alone</i>	0.21 (0.41)	0.22 (0.41)	0.21 (0.41)	0.20 (0.40)	0.20 (0.40)
<i>Health insurance not needed</i>	0.09 (0.29)	0.11 (0.31)	0.09 (0.29)	0.08 (0.27)	0.09 (0.28)
<i>Health insurance not worth cost</i>	0.23 (0.42)	0.22 (0.42)	0.22 (0.41)	0.23 (0.42)	0.22 (0.42)
<i>Perceived physical health</i>	2.38 (0.99)	2.44 (1.04)	2.34 (0.97)	2.33 (0.94)	2.56 (1.08)
<i>Perceived mental health</i>	2.07 (0.99)	2.14 (1.04)	1.98 (0.97)	2.01 (0.94)	2.24 (1.08)
Number of Observations	1247,690	64,226	3,853	77,905	1,706

Note: Sample standard deviations are in parenthesis.

Table 3: Marital Status Determinants for Men

Explanatory Variable	Dependent Variable		
	Marriage	Married	Divorce
<u>Health Insurance</u>			
<i>Employer-provided Private</i>	0.36*** (0.07)	0.53*** (0.08)	-0.73*** (0.10)
<i>Other Private</i>	-0.66*** (0.12)	-0.60*** (0.12)	-0.39** (0.16)
<i>Public</i>	-0.23*** (0.08)	-0.19** (0.08)	0.05 (0.09)
<u>Employment</u>			
<i>Real total income (2006\$<i>k</i>)</i>	0.01*** (0.00)	0.01*** (0.00)	0.00 (0.00)
<i>Self-employment</i>	0.62*** (0.08)	0.22** (0.09)	0.10 (0.09)
<i>Active military duty</i>	1.33*** (0.43)	1.07* (0.59)	-0.42 (1.00)
<u>Risk Aversion Proxies</u>			
<i>Prescription drug</i>	0.31*** (0.08)	0.53*** (0.09)	-0.06 (0.10)
<i>Dental</i>	0.06 (0.06)	-0.12 (0.08)	0.09 (0.07)
<i>Education</i>	-0.03*** (0.01)	-0.02 (0.02)	0.01 (0.01)
<i>More likely to take risks</i>	-0.10* (0.04)	-0.06 (0.05)	0.20*** (0.06)
<i>Overcome illness alone</i>	0.00 (0.05)	-0.08 (0.05)	0.11* (0.06)
<i>Health insurance not needed</i>	-0.22*** (0.06)	-0.13* (0.06)	0.14* (0.08)
<i>Health insurance not worth cost</i>	0.08* (0.05)	0.20*** (0.05)	-0.14* (0.06)
<i>Perceived physical health</i>	0.10*** (0.02)	0.05** (0.02)	0.06* (0.03)
<i>Perceived mental health</i>	-0.17*** (0.02)	-0.03 (0.02)	0.06* (0.03)
σ_u	2.09*** (0.04)	11.04*** (0.22)	2.30*** (0.03)
Number of Individuals	15,966	31,469	19,323
Number of Observations	54,709	126,640	71,931

Note: ***, **, and * indicate statistical significance at the 1, 5, and 10% levels. Standard errors are in parentheses and each specification included a constant.

Table 4: Marital Status Determinants for Women

Explanatory Variable	Dependent Variable		
	Marriage	Married	Divorce
<u>Health Insurance</u>			
<i>Employer-provided Private</i>	0.34*** (0.07)	0.97*** (0.05)	-0.90*** (0.09)
<i>Other Private</i>	-0.60*** (0.11)	-0.78*** (0.12)	-0.22 (0.13)
<i>Public</i>	-0.28*** (0.05)	-0.08 (0.20)	0.33*** (0.07)
<u>Employment</u>			
<i>Real total income (2006\$<i>k</i>)</i>	0.00*** (0.00)	0.01*** (0.00)	0.00*** (0.00)
<i>Self-employment</i>	0.58*** (0.10)	0.17** (0.08)	-0.03 (0.12)
<i>Active military duty</i>	2.52*** (0.84)	2.13 (1.52)	-7.24 (184)
<u>Risk Aversion Proxies</u>			
<i>Prescription drug</i>	-0.14* (0.07)	0.53*** (0.05)	-0.18* (0.10)
<i>Dental</i>	0.06 (0.06)	-0.00 (0.04)	0.25*** (0.08)
<i>Education</i>	-0.03*** (0.01)	-0.01 (0.01)	0.03*** (0.01)
<i>More likely to take risks</i>	-0.17*** (0.05)	-0.39*** (0.04)	0.28*** (0.06)
<i>Overcome illness alone</i>	0.02 (0.05)	0.05 (0.04)	-0.02 (0.06)
<i>Health insurance not needed</i>	-0.13** (0.06)	-0.21*** (0.06)	0.02 (0.09)
<i>Health insurance not worth cost</i>	0.05 (0.04)	0.09** (0.04)	-0.12** (0.06)
<i>Perceived physical health</i>	0.01 (0.02)	0.02 (0.02)	0.06** (0.03)
<i>Perceived mental health</i>	-0.09*** (0.02)	-0.02 (0.02)	0.08*** (0.03)
σ_u	2.21*** (0.04)	11.33*** (0.22)	2.39*** (0.03)
Number of Individuals	19,697	36,500	21,674
Number of Observations	68,079	147,690	79,611

Note: ***, **, and * indicate statistical significance at the 1, 5, and 10% levels. Standard errors are in parentheses and each specification included a constant.