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What is the Source of the Male Marital Wage Premium?

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ABSTRACT. The male marital wage premium is the wage difference between married and unmarried men. This paper explores the potential sources of the male marital wage premium using cross-sectional and time series regression models from previous economic research. The studies examined suggest three possible explanations for the marital wage premium: marriage makes men more productive, marriage allows men to spend more time in the labor market, and men who earn above-average wages possess certain characteristics that make them more attractive in the marriage market. The studies examined favor the theories that men are more productive after marriage and higher wages increase the probability of marriage.

I. Introduction

It is widely documented that married men earn significantly more than non-married men in the labor market. This wage difference is known as the male marital wage premium. The marital wage premium is observed even when controlling for age, education, work experience, occupation, and industry in almost every study. Most studies find that the marital wage premium is between ten and forty percent (Korenman and Neumark 1991, 283). Although the existence of the marital wage premium is almost universally accepted, there is much less agreement on its source.

There are a variety of explanations for why married men earn more than non-married men. The most plausible and most researched theories on the source of the marital wage premium are the productivity theory (marriage makes men more productive in the workplace), the specialization theory (marriage allows men to specialize in the labor market because they are able to devote less time to housework after marriage), and the selection theory (married men possess unobservable characteristics that make them attractive both in the marriage and labor market). This paper examines several empirical studies intended to determine the source of the marital wage premium. It conclude that the marriage premium is most likely due both to an increase in productivity after marriage and because men with high earnings potential are more likely to be married.
II. Productivity Theory

Sanders Korenman and David Neumark (1991) conducted a study to test the productivity theory. Using data from the personnel file of an unspecified large U.S. manufacturing firm, Korenman and Neumark compared performance ratings and promotions between married men and single men in the firm. The data used were for white, male professionals working in a single firm in the year 1976 (Korenman and Neumark 1991, 296). The data allow Korenman and Neumark to control for occupation, work environment, and other variables. Korenman and Neumark found that, overall, married men earned 12 percent more per year than single men. Controlling for job grade, married men earned only 2.5 percent more than comparable single men (Korenman and Neumark 1991, 297). The results suggest that much of the marriage premium (about 80%) can be explained by the fact that married men were more likely to hold higher paying jobs in the company.

Korenman and Neumark also measured the performance of married men and single men within the company. The performance of each employee was evaluated each year and reflected the employees' "performance relative to the standards of the job and relative to others performing similar work at similar levels" (Korenman and Neumark 1991, 297). Each employee was evaluated by multiple supervisors to ensure consistent ratings. The study found that married men were more likely to receive promotions and had a lower probability of separation from the company (controlling for education, job grade, and experience). Married men were 34 percent more likely than single men to be promoted and 46 percent more likely to receive higher performance ratings than single men (Korenman and Neumark 1991, 302). Assuming that higher performance ratings and probability of being promoted were due to higher productivity in the work environment, it is possible that married men are in fact more productive than single men in the workplace. These findings do not, however, rule out the possibility that employers discriminate in favor of married men.

Korenman and Neumark (1991) also used data from the National Longitudinal Survey of Young Men (NLSYM) to estimate the effects of marriage on males' earnings by comparing earnings before and after marriage. The NLSYM surveyed men (ages 14 to 24) for fifteen years to get data on employment status, hourly earnings, work experience, marriage status, and education level. Using a cross-sectional regression
model (controlling for survey year, work experience, education level, union status, age, occupation, and industry) Korenman and Neumark found that married men earned about 11 percent more per hour than never-married men and divorced men earned about 9 percent more than never married men (Korenman and Neumark, 1991, 291). Using a longitudinal regression model, Korenman and Neumark found similar results; men who were married between 1966 and 1980 earned 8 percent more than men who did not marry in the same time period (Korenman and Neumark, 1991, 293).

One interesting finding in Korenman and Neumark's regressions was that the marriage premium increased as time spent married increased. Wage growth for married men was approximately 2.3 percent per year married in the first few years of marriage and between 1-2 percent per year after that (Korenman and Neumark, 1991, 293). Higher wage growth during the early years of marriage could explain why divorced men earned more than men who had never been married but less than men who were still married. The wage premium for divorced men seems to be a result of the wage gains during their time spent married. Korenman and Neumark concluded that most of the marital wage premium could be explained by increased productivity after marriage. "Approximately eighty percent of the estimated impact of marriage on earnings survives the fixed-effects estimation" (Korenman and Neumark 1991, 296). Although Korenman and Neumark do not completely ignore the selection theory, they estimated that it could only explain at most 20 percent of the marital wage premium.

Peter Groothuis and Paul Gabriel (2010) tested the hypothesis that married men are more productive when their spouses have achieved higher education levels. Groothuis and Gabriel assume that more educated wives should have a greater impact on their husbands' marital wage premium. Using data from the 2000 U.S. Census of Population (sample size of 92,905 couples) and the 2003 Current Population Survey (sample size of 2,775 couples), Groothuis and Gabriel compared wives' education level to their husbands' marital wage premium. Groothuis and Gabriel's regression analysis implies that as wives increase their education level, the husband's wage increases as well. An additional year of education by the wife increased her husband's wages by up to 4 percent when the husband had at least 16 years of schooling (Groothuis and Gabriel, 2010, 1108). Wives' education level had an insignificant effect on their husband's wages when the husband had less than 16 years of
schooling. Assuming that wives' level of education is positively correlated with their husband's productivity, Groothuis and Gabriel's results provide evidence to support productivity theory.

Martha Hill (1979) also examined the productivity theory as a potential source of the marital wage premium. Hill used a sample of 3,045 males from the Panel Study of Income Dynamics in 1976 to test the effect of marriage on men's wages. Hill's regressions revealed that married men earned 25-30 percent higher wages than single men (Hill 1979, 591). Introducing dummy variables for labor force attachment, work history, on-the-job training, and worker qualifications had little effect on the marital wage premium. Hill also introduced a variable for the number of children in the family and found that married men with children received higher wages than married men with no children. Hill concluded that "It may be that workers with greater financial responsibilities are more willing to work harder on the job and take unpleasant jobs in order to earn more" (Hill 1979, 592). According to Hill, the marriage premium is a result of realizations married men acquire after marriage. Married men may feel that they need to provide for their family, so they work harder to pursue raises and higher paying jobs. Hill's findings support the theory that marriage makes men more productive.

A study conducted by Eng Seng Loh (1996) found that marriage did not make men more productive in the workplace. Loh used data from the National Longitudinal Survey of Youth Labor Market Experience (NLSY) in 1990 to compare earnings of married and unmarried self-employed men. Assuming that marriage makes men more productive, Loh hypothesized that there should also be a significant marital wage premium for married, self-employed men in relation to single, self-employed men. Using data on self-employed men is beneficial because it also addresses the possibility that employers discriminate in favor of married men. If employer discrimination is the source of the marital wage premium, then married, self-employed men should not receive a marital wage premium. Loh's regression analysis showed that married, self-employed men earn 11.89 percent less than single, self-employed men (Loh, 1996, 584). In this case marriage actually has a negative effect on wages. These results provide evidence to reject the theory that marriage makes men more productive. The results also imply that employer discrimination is a potential source of the marital wage premium. One problem with Loh's study is that self-employed men are
"more likely to understate their earnings to lower their tax liability" (Loh 1996, 583). Another problem with Loh's study is that it does not address the number of hours self-employed men work. Single, self-employed men may benefit from fewer family obligations compared to married, self-employed men which could explain why single men in this sample earned higher wages. Although Loh's results give some weight to the employer discrimination theory, the results more or less rule out the productivity theory.

The major assumption underlying the productivity theory is that wages are based on productivity alone. If promotions and pay are granted based on productivity, it should be true that married men are more likely to be promoted and are more likely to hold higher paying jobs (as a result of increased productivity). Korenman and Neumark (1991) provide the best evidence for the productivity theory by showing that married men are paid more, are more likely to be promoted, and hold higher paying jobs. Although it is not clear why marriage makes men more productive, it is quite possible that Hill (1979) is correct in suggesting that married men feel a sense of financial responsibility after marriage, which makes married men work harder to provide for their families.

III. Specialization Theory

Hyunbae Chun and Injae Lee (2001) tested their hypothesis that marriage allows men to specialize in the workplace because they can afford to devote less time to household chores, and thus more time in the labor market after marriage. Using 2,686 sample observations from the Current Population Survey (CPS) in 1999, Chun and Lee estimated the effects of wives' labor market hours on the husbands' marital wage premium. Chun and Lee found that married men earned 29.7 percent more than never married men (Chun and Lee 2001, 311). Controlling for education level, labor market experience, race, and location, Chun and Lee found that married men earned approximately 12.4 percent more than single men (Chun and Lee 2001, 313). Assuming that marriage allows men to specialize less in the household (because wives take on some of the household chores that single men must do themselves), married men with working wives should have a lower marital wage premium than married men with non-working wives. Chun and Lee used wives' labor market hours as an independent variable to test the effects of wives' time spent in the labor market on the marital wage premium. Chun and Lee broke
down the independent variable for wives labor market hours into three categories: wives who work 30 hours or more per week, wives who work less than 30 hours per week, and wives who are not currently working in the labor market. Chun and Lee found that married men with non-working wives earned 3.7 percent more than married men whose wives worked more than 30 hours per week. They also found that the marital wage premium decreased by about 0.1 percent for each additional hour the wife spent in the labor market (Chun and Lee 2001, 313). Married men with non-working wives earned 31.4 percent more per hour and married men with wives that worked 40 hours per week earned only 3.4% more per hour compared to single men (Chun and Lee 2001, 318). This suggests that the husband's marital wage premium depends on the amount of time the wife spends in the labor market. Assuming that wives' household specialization increases as her labor market hours decrease (household chores and labor market hours are substitutes), at least some of the male marital wage premium can be explained by the specialization theory. The problem with Chun and Lee's study is that they did not include variables for husbands' or wives' time spent on household chores. Without variables for time spent on household chores it is unclear whether husbands actually devoted less time to housework (and more time in the labor market) after marriage.

Marcia Bellas (1992) also tested the specialization theory by examining the effect of marital status and wives' employment on the salaries of men. Bellas used data from the 1984 Survey of Faculty sponsored by the Carnegie Foundation for the Advancement of Teaching. The survey yielded 3,694 usable male respondents. Bellas divided the respondents into four categories: never-married men, previously married men, married men with an employed wife, and married men with a non-working wife. Bellas's results were consistent with her hypothesis that married men with non-working wives would have the highest average salaries. The average salaries for the four groups were: never-married men ($26,000), previously married men ($31,000), married men with employed wives ($32,000), and married men with unemployed wives ($34,500) (Bellas 1992, 612). The results confirm that, on average, married men earn more than never-married men and wives' employment status has a significant effect on the marital wage premium.

Bellas also used regression analysis to examine the effect of wives' employment status on their husbands' average education level and salary rank. The regression suggests that men with employed wives were 8.5
percent more likely and men with non-working wives were 12.3 percent more likely than single men to have a doctorate or professional degree (Bellas 1992, 615). Bellas concluded that marriage allows men to specialize in the workplace, which explains at least some of the marital wage premium. Holding job type constant and comparing salary rank among married men with working wives, married men with non-working wives, and never-married men, Bellas found that men with employed wives earned just over $1,000 more and men with non-working wives earned almost $2,000 more than never-married men (Bellas 1992, 617). Bellas concluded that some men do see financial benefits from having a wife and even more so if the wife is non-working (Bellas 1992, 618). Although these results provide evidence for the specialization hypothesis, Bellas does not include variables for time spent on household activities for men or their wives. This makes it difficult to rule out the possibility that marriage somehow makes men more productive. Bellas also suggested that men with non-working wives have a greater financial need than men with employed wives, which may explain why married men work harder (increase productivity) or are more likely to seek raises or higher-paying jobs.

To test the specialization hypothesis Loh (1996) used data from the National Longitudinal Survey of Youth Labor Market Experience (NLSY) and included a variable for the number of hours wives spent in the labor market. Assuming that labor market hours and hours spent on household chores are substitutes, men with wives who work less should experience a higher marital wage premium. Loh's findings actually suggest the opposite; married men whose wives worked between six and eight years during marriage earned 9.26 percent higher wages than non-married men and married men whose wives worked less than two years during marriage earned only 1.88 percent higher wages than non-married men (Loh 1996, 579). These findings provide evidence against the specialization hypothesis.

Assuming time spent in the labor market increases as education level increases, husbands with more educated wives should have a lower marital wage premium than husbands with less educated wives (if specialization is the source of the marital wage premium). Loh (1996) tested this theory by comparing wives' education level with their husband's wages. Married men whose wives were college graduates earn 11.5 percent more, married men whose wives completed some college earn 7.1 percent more, and married men whose wives were high school
graduates earn 4.3 percent more than single men. Married men whose wives were high school dropouts actually earn 11.8 percent less than single men (Loh 1996, 579). If there is indeed a positive relationship between time spent in the labor market and education level, Loh's findings provide evidence to reject the specialization hypothesis. Loh concluded that wives' education level is positively correlated with the marital wage premium because as wives become more educated, they improve their husbands' time management and resource allocation. According to Loh the results suggest that the marital wage premium is a result of increased productivity, not increased specialization.

Joni Hersch and Leslie Stratton also tested the specialization theory using data from the National Survey of Families and Households in 1995. Assuming that marriage allows men to specialize in the workplace, men whose wives work should have a lower marital wage premium than men whose wives do not work. Hersch and Stratton surveyed a sample of 1,373 men and asked them to estimate the number of hours they spent on nine different types of household activities: meal preparation, washing dishes and cleaning up after meals, house cleaning, outdoor and other household maintenance tasks, shopping for groceries and other household goods, washing clothes, paying bills and keeping other financial records, auto maintenance and repair, and driving other household members to work, school, or other activities. On average, married men spent approximately the same amount of time (18 hours per week) on housework as single men (Hersch and Stratton 2000, 85). Cross-sectional regressions that compared married men with employed wives to married men with non-working wives found that married men with non-working wives spent about two hours less on housework than married men with employed wives (Hersch and Stratton, 2000, 88). Although wives' employment status clearly has some effect on the amount of time their husband spends on household tasks, Hersch and Stratton concluded that "specialization does not explain the substantial marriage premium in hourly wages observed throughout the literature" (Hersch and Stratton 2000, 86).

Robert Nakosteen and Michael Zimmer (2001) tested the specialization theory by comparing male wages before and immediately after marriage. If marriage allows men to specialize in the workplace the marital wage premium should be evident immediately after marriage. Nakosteen and Zimmer used a sample of 309 men from the Panel Study of Income Dynamics (PSID) to test their hypothesis. The regressions
showed that men who earned wages that were .28 standard deviations above the mean wage before marriage earned wages that were .29 standard deviations above the mean wage after marriage (Nakosteen and Zimmer 2001, 207). The results show that there was not a significant increase in men's wages immediately after marriage, implying that specialization is not the source of the marital wage premium. Although the marital wage premium is not evident immediately after marriage, married men could see an increase in the marital wage premium over time. Nakosteen and Zimmer also found that men with above average earnings before marriage were more likely to marry women with above average earnings before marriage. Nakosteen and Zimmer concluded that men who earn average wages before marriage continue to earn average wages after marriage. The results provide evidence to reject the hypothesis that specialization is the source of the marital wage premium. The problem with Nakosteen and Zimmer's study is that they assume marriage has an immediate effect on wages; they do not test the effects over time. Additionally, the results give some weight to the selection theory because men who earned above average wages were more likely to get married.

Kate Antonovics and Robert Town (2003) used a study on monozygotic (identical) twins to test the specialization theory by examining the effect of wives' time spent in the labor market on their husbands' salary. The data came from the Socioeconomic Survey of Twins and included 31 sets of twins who differed in marital status. Assuming that the marriage premium decreases as wives spend more time in the labor market, Antonovics and Town reported "the coefficient on wives' full-time work experience to be negative" (Antonovics and Town 2003, 7). If Antonovics and Town's theory is correct, the marital wage premium should decrease as wives spend more time in the labor market. The regressions found that the coefficient on wives' full time work experience is actually positive (but insignificant) and the coefficient on marriage status remains consistent with cross-sectional results (Antonovics and Town 2003, 7). These findings imply that wives' time spent in the labor market does not have a significant impact on their husbands' wages, providing evidence against the specialization theory. Antonovics and Town gave an explanation similar to Bellas's (1992), concluding that married men may be more productive in the labor market because their income affects the well-being of the entire family (Antonovics and Town 2003, 8).
The main problem with testing specialization as the source of the marital wage premium is that most workers who are paid a yearly salary do not control the number of hours they work. Although marriage may decrease the time a husband spends on housework, no studies found that men spent more time in the labor market after marriage. It is also possible that husbands with non-working wives experience a larger marital premium as a result of increased productivity. If the wife is unemployed, the husband is the sole provider for the household, which may increase the probability that the husband will work harder to get a promotion or secure a higher paying job. Considering the previously mentioned studies and the problems with testing the specialization theory, it seems that the marital wage premium is not a result of increased specialization after marriage.

IV. Selection Theory

To test the selection theory Nakosteen and Zimmer (2001) compared men with above-average earnings before marriage to their spouse's wages before and after marriage. The regressions showed that men with above-average earnings tend to marry women who also have above average earnings. The findings support the hypothesis of assortative mating on the basis of earnings. "Persons whose earnings are above average, controlling for measured background factors, tend to find spouses with similarly strong earnings traits" (Nakosteen and Zimmer 2001, 211). Nakosteen and Zimmer conclude that marriage alone does not increase earnings; it is just more likely that higher income individuals will get married.

Peter Groothuis and Paul Gabriel (2010) tested the selection theory by examining the effect of wives' education on their husbands' earnings. Groothuis and Gabriel predicted that "the differences between wives are more important in explaining the marriage premium than the differences between the husbands themselves" (Groothuis and Gabriel 2010, 1103). If Groothuis and Gabriel's prediction is true (men with higher earnings are more likely to marry more educated women), then it would suggest that the marriage premium should be higher for men married to more educated women. Groothuis and Gabriel found that there was a positive relationship between the marital wage premium and wives' education level (Groothuis and Gabriel 2010, 1108). These findings support the selection theory in that men with higher earnings were more likely to
marry more educated women.

Loh (1996) also tested the selection theory by comparing males' wage growth rates to the probability of marriage using a sample of 879 men (NLSY data) who were single in 1986 and either single or married in 1990. Loh found that men with high wage-growth-rates between 1984 and 1986 were no more likely than other men to get married (Loh, 1996, 580). Loh's findings provide evidence against the theory that men with high earnings are more likely to get married. The major issues with Loh's study are that the sample size is relatively small, there was only a four year gap between surveys, and high wage-growth rates do not necessarily imply higher overall wages.

Kate Antonovics and Robert Town (2003) tested the selection theory using data from the monozygotic twin study previously mentioned. Using data on identical twins allowed Antonovics and Town to control for unobserved characteristics that may make men more attractive in the marriage market and labor market. Assuming that identical twins possess similar physical and mental characteristics, the twins should have roughly the same earning potential regardless of marital status. Antonovics and Town found that married twins earn 27 percent more than their unmarried counterpart (Antonovics and Town 2003, 7). The results from Antonovics and Town's study imply that "marriage has a causal effect on men's wages" (Antonovics and Town 2003, 1). Antonovics and Town concluded that selection into marriage based on unobservable characteristics is not the cause of the marital wage premium.

The studies conducted by Nakosteen and Zimmer (2001) and Groothuis and Gabriel (2010) provide the best evidence in favor of the selection theory. The problem with the study conducted by Loh (1996) is that it only compared wage growth rates to the probability of marriage. It is possible that men with high wages (and low wage growth rates) are more likely to get married. The twin study conducted by Antonovics and Town (2003) was also inconclusive because the sample size was so small and it did not address the possibility that twins may differ in traits other than physical appearance that make them more attractive in the marriage or labor market. Overall, selection into marriage based on unobservable traits and earnings seems to be a possible cause of the marital wage premium.
V. Conclusion

More than likely, the marital wage premium is a result of multiple factors. It is probable that no single theory completely captures the source of the marital wage premium. Considering all of the studies and empirical results, the most plausible source of the marital wage premium is an increase in productivity after marriage. The productivity theory is strongly supported by evidence from Korenman and Neumark (1991), Groothuis and Gabriel (2010), and Hill (1976). These studies imply that marriage has a causal effect on men's wages. It may be that married men actually do feel the need to provide for their family so they work harder and pursue higher paying jobs after marriage. Although an increase in productivity after marriage seems to be the primary source of the marital wage premium, it is also evident that men with higher earnings are more likely to get married. Nakosteen and Zimmer (2001) and Groothuis and Gabriel (2010) provide evidence that supports the selection theory by showing that there is a positive correlation between males' income and probability of marriage. Although there is much more research to be conducted, the sources examined favor the theory that the marital wage premium is mostly result of increased productivity after marriage and somewhat a result of assortative mating based on earnings.

References


