



Men with Health Insurance and the Women Who Love Them: the Effect of a Husband's Retirement on His Wife's Health Insurance Coverage

Jody Schimmel



Project #: UM06-15

"Men with Health Insurance and the Women Who Love Them: the Effect of a Husband's Retirement on His Wife's Health Insurance Coverage"

Jody Schimmel Mathematica Policy Research, Inc.

September 2006

Michigan Retirement Research Center
University of Michigan
P.O. Box 1248
Ann Arbor, MI 48104
http://www.mrrc.isr.umich.edu/
(734) 615-0422

Acknowledgements

This work was supported by a grant from the Social Security Administration through the Michigan Retirement Research Center (Grant # 10-P-98358-5). The findings and conclusions expressed are solely those of the author and do not represent the views of the Social Security Administration, any agency of the Federal government, or the Michigan Retirement Research Center.

Regents of the University of Michigan

David A. Brandon, Ann Arbor; Laurence B. Deitch, Bingham Farms; Olivia P. Maynard, Goodrich; Rebecca McGowan, Ann Arbor; Andrea Fischer Newman, Ann Arbor; Andrew C. Richner, Grosse Pointe Park; S. Martin Taylor, Gross Pointe Farms; Katherine E. White, Ann Arbor; Mary Sue Coleman, ex officio

Men with Health Insurance and the Women Who Love Them: the Effect of a Husband's Retirement on His Wife's Health Insurance Coverage

Jody Schimmel

Abstract

Health insurance coverage in the years prior to retirement is particularly important because it protects the household from the financial risks of uninsurance as well as the health consequences of delaying care while uninsured. While results from the retirement "job lock" literature show that those who would lack coverage after retirement continue to work to maintain benefits, little work has explored the types of health insurance choices made by couples after retirement. It may be difficult for a married man to coordinate continuous coverage for a younger wife whose primary source of coverage has been from the husband, and thus households may pay more for non-group coverage or be exposed to the risks of uninsurance. This paper studies a panel of married couples from the 1992-2004 waves of the Health and Retirement Study (HRS) to study the types of health insurance decisions households make around the time of retirement. Results indicate that households seem to do well at avoiding uninsurance at the time of retirement, but may make high cost choices in order to insure the wife. Men switch into Medicare or coverage from their wife at retirement if they lose their own coverage, but a large fraction of women take-up privately purchased coverage. In fact, the transition from husband's coverage to privately purchased coverage is twice as large in periods when the husband retires than otherwise. Transitions to uninsurance are lower in periods of retirement than at other times, suggesting that men continue to work if either spouse would lose coverage. Though less risky, insurance purchased in the non-group market is expensive relative to employer-sponsored coverage. Thus, married households may need to increase savings to pay for health insurance that bridges the gap until the wife can claim Medicare at age 65.

Authors' Acknowledgements

This work was supported by a grant from the Social Security Administration through the Michigan Retirement Research Center (Grant UM06-15). The findings and conclusions expressed are solely those of the author and do not represent the views of Mathematica Policy Research, the Social Security Administration, any agency of the Federal government, or the Michigan Retirement Research Center. All remaining errors are the author's responsibility.

1. Introduction

It has been documented that men who are eligible for employer-sponsored health insurance after their retirement are more likely to retire than those who do not have such coverage. Recently, work by Blau and Gilleskie (2006) and Kapur and Rogowski (2006), addressed this same issue from the household perspective, incorporating other findings that have shown that couples make their health insurance and retirement choices jointly as a couple, not as individuals. By expanding the retirement "job lock" literature to include the insurance coverage of both spouses, these papers have made important contributions to the understanding of household retirement behavior.

Despite retirement job lock at the individual and household levels, little work has studied the types of health insurance choices couples make once retirement occurs. Medicare coverage is available beginning at age 65 for most in the United States, but most men retire years prior to reaching that age of eligibility. Many expect to receive retiree coverage from their former employer to bridge the gap until age 65, but they may discover upon retiring that such coverage is an unaffordable expense in retirement. In married households where retiree benefits are available for the husband, similar coverage may be unavailable or unaffordable to provide coverage to the wife. In situations where retiree coverage is altogether unavailable, a husband could delay his retirement until age 65 until eligible for Medicare. While that would ensure continuous coverage for him, if he is older, his retirement at age 65 could leave his wife without the coverage she had gotten from him. Thus, there are many possible reasons why expensive or risky health insurance choices may be made in the period of time between retirement and the Medicare eligibility that occurs at age 65 for each spouse.

This paper explores the household health insurance decisions of married couples in the years after a husband's retirement using a panel of respondents from the 1992-2004 Health and Retirement Study (HRS). Because health insurance transitions are not usually modeled as an outcome variable, much of the work in this paper is descriptive, and its main purpose is to provide evidence about the health insurance of both spouses in a married couple around retirement. In particular, emphasis is placed on the health insurance transitions of individuals who were covered by the husband's health insurance before his retirement, because these are the

people who are most likely to be affected by the man's decision to retire. Health insurance in the years among those who are late middle-aged have been shown to be volatile (Sudano and Baker, 2005), and this paper assesses the extent to which that volatility is a particular consequence of the decision to retire. Periods in which a retirement event is not observed are as used as a "control group" for the types of insurance transitions we would expect to observe if retirement were not driving any changes in coverage. If the relative rate of transition into more expensive or risky forms of health insurance states such as non-group coverage or uninsurance are higher in the periods when retirement is observed, or if the transitions for wives are different for the wives than their husband, this may suggest that households are not fully considering the health insurance choices for both spouses when choosing the husband's retirement date.

Descriptive evidence and results from multinomial logit models of health insurance transitions among those who had coverage from the husband's employer prior to his retirement indicate that a large fraction of both husbands and wives maintain coverage from the husband's employer after he leaves his job. This corresponds well to tabulations from HRS cross-sections indicate that about two-thirds of those with employer-sponsored coverage from their own job are also eligible for retiree health benefits. It also suggests that most retiree plans offer coverage to spouses who are currently covered by the plan. However, around fifty percent of those who had coverage from the husband prior to his retirement transition to a different insurance state in the period after he retires. Almost half of all men who lose their employer–sponsored health insurance have Medicare in the next period and one quarter take up coverage from their wife's employer sponsored plan. This suggests that a man's decision to retire is partially driven by his eligibility for Medicare, which is consistent with the job-lock and structural models of retirement. For women, the story is quite different. Because women are generally younger than their husband, they are not eligible for Medicare upon his retirement. Only one-quarter of women who lose coverage from their husband switch to Medicare in the period after he retires. An additional third are able to take-up coverage from their own employer, coverage that they either already had or were able to opt into upon losing coverage from their husband.

While transitions between employer plans or to Medicare will not significantly increase household health insurance costs, transitions to non-group coverage or uninsurance will be costly. Twenty percent of married women and thirteen percent of married men who had relied on the husband's coverage prior to his retirement take-up privately purchased coverage in the

period following his retirement. For women, this rate of transition is twice as large as in periods when the husband does not retire, for men it is approximately the same. Regression results confirm that transitions to non-group coverage are substantially higher in periods when the husband retires compared to otherwise, and that purchased insurance is the most common transition among women who lose coverage from their husband. While the HRS does not specifically ask about COBRA take-up, it does not appear that the increase in purchased coverage is owing to that coverage, since purchased insurance rates remain high in the next period, even after COBRA would have been exhausted. Among both married men and women, 16 percent of those who previously had employer coverage become uninsured, a lower rate than in periods of non-retirement. Thus, it appears that households recognize the risk-reducing aspects of health insurance coverage and make retirement decisions based on the availability of coverage, even if the choices made are quite expensive.

This paper proceeds as follows. Section 2 provides predictions from the existing retirement and health insurance literatures for observed health insurance choices after retirement. Section 3 presents the structure of the multinomial logit model that is used to model the relative risk of various health insurance transitions for those who had coverage from the husband prior to his retirement. Section 4 describes the sample and provides the definitions and descriptive statistics about retirement and health insurance in this group. Section 5 contains the empirical results, first presented descriptively and then within the framework of a multinomial logit model. Section 5 concludes by discussing the implications of the findings in light of recent changes in retirement expectations and retiree health insurance coverage, and the policy implications of the results.

2. Background

The majority of workers approaching retirement are covered by some sort of employer-sponsored health insurance, either from their own job or their spouse's. 81 percent of both men and women ages 55-64 who were working full-time in 1999 had employer-based coverage (EBRI, 1999). However, only a fraction of those workers are eligible to maintain that coverage after they retire. In 2005, only 33 percent of workers at large firms were offered retiree health benefits, a rate that is much higher than smaller firms, but has also dropped by 50% since 1988 (EBRI, 2005). For those who do not have the option of retiree health insurance, several options are available. One option is that workers can stay employed until eligible for Medicare at age

65. A large literature documents that many workers indeed are "locked" in their jobs and delay retirement in order to maintain coverage. Though the methodologies used to identify retirement job lock have varied, most find that the hazard of retirement is thirty to eighty percent higher for those who have access to health insurance after retirement, and those with retiree coverage have retirement dates that are six to twenty-four months earlier than they would have been without such coverage (Gruber and Madrian, 2002). Because most employers cost-share the full health insurance premium with workers, continuing to work reduces the out-of-pocket costs of coverage.

If workers without retiree coverage choose to retire, they can stay insured either by maintaining their employer-sponsored coverage via the Consolidated Omnibus Budget Reconciliation ACT (COBRA) or by purchasing coverage in the non-group insurance market.² However, both COBRA and non-group coverage are quite expensive. Under COBRA, workers pay 102 percent of the total health insurance premium, which for a single worker in 2005 was \$4,024 on average (Kaiser Family Foundation, 2005), and could be substantially higher if insurance is experience rated for age. However, only 7.31 percent of active employees were even eligible for COBRA in 1999, and only 20 percent of those accepted such coverage (McDonnell and Fronstin, 1999). Further, COBRA coverage is only available for eighteen months after retirement, meaning that those who retire earlier than sixty-three and a half will face some period without coverage. The other option for coverage is coverage purchased in the nongroup market. However, this coverage does not benefit from the risk-pooling or communityrating benefits of employer-sponsored policies, and thus can cost far more than even COBRA. Despite the high cost of such coverage, 8% of working 60-64 year olds had non-employer based health insurance in 1996 (Monheit, Vistnes, and Eisenberg, 2001). For those who do not continue to work and don't opt into COBRA or private coverage, the remaining option is to be uninsured. Being uninsured prior to retirement is extremely risky financially, as increased volatility in medical expenditures occurs at the same time as the highest levels of retirement savings (Johnson and Crystal, 1997, Smith, 2005).

_

¹ These include Madrian (1994), Karoly and Rogowski (1994), Madrian, Burtless, and Gruber (1994), Gruber and Madrian (1995), Baker (1999), Blau and Gilleskie (2001, 2003), Johnson, Davidoff, and Perese (2003), and French and Jones (2004).

² This ignores the possibility of public coverage through Medicare prior to 65, Medicaid, or Champus/TriCare.

Married workers choosing to retire likely consider the health insurance coverage of both spouses, as the uninsurance of either member can expose the household to financial risk. The discussion and results presented here will focus primarily on the married man's decision to retire.³ Though many households now consist of dual-earner couples, evidence suggests that women act as second-movers in household health insurance decisions. Buchmueller (1996/1997) finds that though women are more likely to be offered coverage than men, women are more likely to turn down their employer-sponsored health insurance in favor of coverage from their spouse.⁴ More recent evidence confirms this finding; only 80% of women take-up their own employer-sponsored health insurance, compared to 89% of men (Kaiser Family Foundation, 2005). Schur and Taylor (1991) find that among households with dual offers of coverage, it is more common to enroll the family in the husband's plan than in the wife's. Similarly, Royalty and Abraham (2004) find that women in dual-earner households are less likely to be offered coverage that their spouse.

Though women appear to base their labor supply and insurance choices on the options available to the husband, it has been shown that married couples indeed jointly determine health insurance and retirement (Hurd, 1990, Blau, 1998, Gustman and Steinmeier, 2000, Gustman and Steinmeier, 2002, Johnson and Favreault, 2001, Maestas, 2001, and Coile, 2004a, Blau and Gilleskie, 2006). This means that husbands may attempt to include the health insurance coverage of their wife as an element in the decision to retire. In studying the retirement of households, Coile (2004a) concludes that husbands are far more responsive to the financial incentives of their wife than wives are sensitive to the finances of their husband. This, along with the more consistent and comparable labor force participation of men, provides the rationale for emphasizing the behavior of men.

In the HRS sample considered in this paper, husbands are on average three to four years older than their wife, meaning that they will reach retirement age and Medicare eligibility sooner and thus could retire with no gap in their own health insurance coverage while leaving the wife without coverage. Even men with retiree coverage for themselves may not have the option of

³ Focusing on men corresponds well to other work in the retirement job lock literature. While some papers have considered the behavior of women as part of their larger analysis, only work by Wu (2005) has considered women as the main focus of the paper.

⁴ Buchmueller and Valetta (1996), Olson (1998), Royalty and Abraham (2004), Schone and Vistnes (1998), and Wellington and Cobb-Clark (1999) study the effect of husband's health insurance on a wife's labor supply choices at ages prior to retirement. These studies confirm the idea that women's behavior is sensitive to the health insurance options available to the household through the husband's employer.

such coverage for the wife. Evidence from the most recent wave of the Health and Retirement Study suggests that only two-thirds of married men who have retiree coverage believe they could provide their spouse with such coverage.⁵ Kapur and Rogowski (2006) show that a wife having retiree health insurance coverage doubles the likelihood that a both members of the couple will retire at the same time. Men whose wife is not eligible for retiree coverage have several options. They can choose to delay retirement until their wife becomes eligible for coverage from Medicare. In fact, Madrian and Beaulieu (1998) show that men whose wives are Medicare-eligible are more likely to retire than those whose wives are not, so some men may in fact delay their retirement for this reason. However, spousal job lock may be less likely than own job lock, because the current median retirement age is 62, which could potentially require an additional seven to eight years of work for the man to maintain his wife's benefits until she could claim Medicare coverage. Also, retirement often occurs as a response to an adverse health shock or declining health, which would make prolonging work for multiple years impossible.

If a husband decides to retire, his wife can obtain coverage from her own employer if available, which could require increasing hours to become eligible for coverage, or find a job with coverage if not currently working. For women who have been out of the labor force for a long time, this may be a nearly impossible option. Further, it has been shown that regardless of financial incentives, couples often time their retirement at the same time, meaning that it wouldn't be likely that a woman would increase her hours worked in response to her husband's retirement (Hurd, 1990, Maestas, 2000, Coile, 2004a). If labor supply responses of the wife do occur, it might be expected that such a change would occur prior to his retirement, so that the household could have a seamless transition from one source of coverage to the other.⁶

Barring employment changes, households can change the source of the health insurance for the wife, with similar choices as the single worker faces. The wife could claim COBRA for up to thirty-six months after her husband retires, but again, this could cost over \$4,000 per year in premiums for individual coverage, and much more for family coverage.⁷ The household could instead purchase non-group coverage for her. Currently, non-group health insurance for a 61

_

⁵ Author's calculation from the 2004 HRS. This estimate should be taken with a grain of salt, as the group who responded to the question was small due to errors in skip logic and a high percentage of "don't know" responses to this question and earlier questions that led to this question.

⁶ This draft does not consider labor supply responses of the spouse, although these may be incorporated into future drafts

⁷ Spouses and dependents are eligible for COBRA for up to 36 months after a qualifying event such as widowhood, divorce, or retirement, while those with coverage in their own name only can use COBRA for 18 months.

year old woman costs an average of \$338 per month or \$4,056 per year, without factoring in any additional costs due to smoking, weight issues, or preexisting health conditions. The remaining option is to go uninsured, which again exposes the household to financial risk and the woman to health risks of delayed care. For women ages 55-64 with health problems, the risk of being uninsured is actually quite high. In 1996, women in this age group who were working with health problems had a rate of uninsured of 22.7 percent, compared to a rate among those in very good or excellent health of only 9.5 percent (Monheit, Schone, and Eisenberg, 2001). Those who have pre-existing conditions may have difficulty in qualifying for non-group coverage, meaning that uninsurance would be the only option.

3. Empirical Model

In order to study the effect of retirement on health insurance transitions, a multinomial logit model is used.⁹ The basic structure of the model is as follows:

$$Transition_{it} = \beta_0 + \beta_1 Hretires_{it} + X_{it}'\beta + \varepsilon$$

The dependent variable *Transition*_{it} has six possible outcomes, based on the observed health insurance transition of a person from period t-1 to period t. This variable, and hence the model as a whole, is only defined for people who were covered by the husband's employer-sponsored health insurance coverage in period t-1, as those who had coverage from the husband are most likely to be affected by his retirement.¹⁰ In period t, those people could still have coverage from the husband, or could have transitioned to coverage from the wife's employer-sponsored insurance, Medicare, Medicaid or other public coverage, privately purchased non-group insurance, or uninsurance. This model can easily be defined for either the wife or the husband, depending on whose retirement transition is being studied.

_

⁸ Author's calculation based on the 97 available health plans listed for a 61 year old female on www.ehealthinsurance.com in September 2006. These plans ranged from \$150-\$823 per month, with varying degrees of coverage. Deductibles ranged from nothing to \$5100 per year, and coinsurance rates varied from nothing to 50%.

⁹ Though the dependent variable is mutually exclusive and exhaustive and is well-suited to the multinomial logit model, it is not obvious that the IIA assumption is satisfied in this case. For example, suppose Medicare was no longer available. The IIA assumption would require that the relative rate of transition into other types of health insurance would be the same without Medicare coverage as with it. As is common with these types of models, diagnostic tests for violation of the IIA assumption were contradictory. The Hausman test did not indicate a violation, while the Small-Hsaio test did. Implementation of the multinomial probit model to get around the IIA requirement was not possible, as the models did not converge (presumably due to the large number of transition options being modeled).

¹⁰Future drafts may consider a wider insurance range of insurance transitions.

The variable *Hretires*_{it} denotes whether the husband retired between period t-1 and period t. The coefficient on this variable in the multinomial logit model indicates the likelihood of having a certain health insurance transition relative to the reference transition, in the period that the husband retires relative to periods where he did not. Suppose for example, that the reference health insurance status is maintained insurance coverage from the husband, and the particular transition of interest is uninsurance. The coefficient on retirement in this example would indicate the relative probability of becoming uninsured relative to staying covered by the husband at the time he retired relative to the periods he did not.

Variables contained in X include categorical variables for husband's age, age difference between spouses, race, education, and income and assets, all defined as listed in Table 1. The model also includes controls for both the husband and wife's health status: one indicator variables denotes if either spouse currently reports having poor or fair health, while another indicates if either spouse reports that their health compared to last period is somewhat or much worse. These variables are included because one's own health has been shown to be a major determinant of retirement (although the spouse of one's health has not been found to matter much (Coile, 2004b)). Finally, the model includes an indicator variable for whether the wife is currently working for pay, as women who are already employed may better be able to obtain coverage on their own.

4. Data Description and Sample Selection¹¹

The Health and Retirement Study is the best available dataset for studying issues related to retirement. It contains a wealth of longitudinal information about households as they approach retirement, following respondents from age 51 through their death. The survey began in 1992 and has been continued every other year, with 2004 being the most recent year of data available. The HRS contains notably good information about household wealth and income, particularly for pensions and Social Security which have been proven to be important determinants of retirement. For this study, the HRS is particularly advantageous because each year, households have provided detailed information about the health insurance options and decisions, including information on both spouses in married households. The combined information on retirement and health insurance on a longitudinal survey over a long time period makes HRS the superior

8

¹¹ All descriptive analyses are weighted using 1992 household weights.

dataset for this analysis, despite limited information on the cost or quality of health insurance, and changes in question wording about health insurance over time.

The analyses here consider the sample of married households originally interviewed as part of the HRS cohort in 1992. Most of these couples stay married; Weir and Willis (2002) used a similar cohort and identified 36 incidences of divorce and 238 incidences of widowhood among initially married through the 2000 HRS. The sample is further restricted to couples where the man was age-eligible for the HRS (born 1931-1941) and working full-time in 1992. This requirement excludes households where the man has already retired by the first interview. Finally, a household's observation is excluded in a wave if either member was not interviewed in that period or if either spouse did not provide health insurance information, since this data is needed to model the insurance transition behavior. This results in a sample of 2,456 households in 1992, with a total of 14,336 observations over seven waves available for study due to attrition and missing data on key variables. 12

Table 1 contains some descriptive information about households in the sample. Married couples in the sample had been married for an average of 26.6 years by the baseline HRS interview, with a range from less than one year up to 43 years. At the baseline interview, husbands in the sample are between ages 50 and 62 (born 1931-1941). The average age among men in 1992 was 55.3, and among women was slightly under 52, for an average age difference between spouses of 3.6 years. The age difference between spouses ranges from husbands who are three years younger at the fifth percentile, to husbands who are thirteen years older at the 95th percentile, with a median age difference of three years. 67 percent of wives were working in 1992, with approximately two-thirds of those working employed full-time. Six percent of households have at least one spouse that is Hispanic and six percent have at least one spouse who is black. Those in the lowest income quartile in 1992 had household income of approximately \$22,000, compared to average income in the upper quartile of \$120,000. Net worth among the lowest quartile was only \$18,000, but was close to \$700,000 among those in the upper quartile. Note that households in the lowest wealth quartile have extremely low wealth if they plan to finance any part of their health insurance prior to claiming Medicare.

¹² The sample here includes households that missed interview waves. Preliminary work did not show any substantive difference in the results if only households interviewed in all seven waves were considered. However, the large reduction in sample size made this an unattractive option.

4.a. Defining Retirement

The literature contains a variety of definitions of retirement that use hours worked or self-reported labor force or retirement status, or some combination thereof. While the particular definition used may not matter substantively in certain cases, it will when studying the effect of health insurance. Because of the high fixed costs associated with providing health benefits, most employers do not offer health insurance to part-time workers. For those who may lose coverage if they completely retire, one option is to cutback on hours but maintain enough work time to keep benefits. Previous work has shown that many workers do not transition from full-time work to not working at all, and instead are observed to partially retire or take a "bridge job" as a transition out of the labor force (Ruhm, 1990). Thus, a definition that captures the possibility of partial retirement will allow for the possibility that workers continue to work in order to maintain health insurance benefits.

The working definition of retirement here is based on that used in Maestas (2000), which combines objective and subjective measures of retirement. Retirement is defined as the transition from in the labor force and working full time (35 or more hours, 36 or more weeks) in the first period and is either fully or partially retired in the second period. Full retirement is defined as not working for pay and reporting oneself as completely or partially retired. Partial retirement is defined to be working fewer than 35 hours per week or 36 hours per year, with the additional requirement of reporting oneself to be fully or partially retired. The benefit of this definition is that it allows for individuals to continue working, but uses their self-reported retirement status to determine their labor force status.¹⁴ "Unretirement" is not included here, so if a man realizes that his wife has lost coverage and subsequently decided to return to work, it will not be captured unless the main is observed to retire again.

Table 2 indicates the observed number of retirement transitions by wave—note that a retirement in 1994 indicates that the man was working in 1992 and then retired in 1994. There are roughly 8,000 observations for which a retirement cold occur (because those who are not working full-time in a given period are not eligible for a retirement in the next). Overall, 17

¹³ Ditsler, Fisher, and Gordon (2005) indicate that while 87 percent of full-time workers are offered health insurance coverage, only 40 percent of "non-standard workers are, where non-standard indicates part-time, temporary, or contract positions.

¹⁴ This is quite similar to the definition adopted in Kapur and Rogowski (2006), who also acknowledge that partial retirement is a relevant choice due to the provision of employer-sponsored health insurance. Rogowski and Karoly (2000) use a slightly different definition in the HRS and limit their analysis to only full retirement transitions.

percent of those observations include a retirement transition. 1,342 retirement transitions are observed, which means that over half of the men that are initially married and working full-time in 1992 are fully or partially retired by 2004.¹⁵ The average age of retirement is just over 60, the median age is 61. This means that when a man retires, his wife is only 57 on average, still eight years away from being able to claim Medicare for herself.

The comparison of the work behavior of men and women provides some confirmatory evidence of the joint retirement phenomena. Among households where the man is fully retired, 42 percent of wives are also retired. However, in households where the man is not full retired, only 14 percent of women are retired. Similarly, in the period when a man is observed to retire, 25 percent of the households also have a wife who retires, compared to only 7 percent of wives retiring in periods where the man is not observed to retire. Because this is not a carefully selected sample of only full-time working couples, this should not be construed as hard evidence of the joint retirement phenomena because of the large number of women not eligible for retirement because they were not working full-time to start. However, it is suggestive of joint retirement. It also points to the fact that the likelihood of a woman increasing her work hours to obtain coverage in response to her husband's retirement is small.¹⁶

4.b. Health Insurance among Near-Elderly Married Couples

The HRS contains a wealth of information about the health insurance coverage and options of coverage for households, with substantial improvement (and consequently change) in survey design in later waves. Figure 1 indicates the health insurance information available in the 1992-2004 HRS and demonstrates cross-wave changes.¹⁷ In the original interview, the person in

¹⁵ Work has not been done to deal with retirement transitions that occur during non-response interview periods. For example, a man that is interviewed in 1992, retires in 1994 but does not complete an HRS interview, and returns in 1996, is not captured. Future drafts of this paper will better account for these types of issues arising from missing interviews.

¹⁶ The change in hours worked from one period to the next (among women who are working in the initial period) is a decline of 0.65 hours in periods when the husband does not retire, and a decline of 0.93 hours in the period when the husband does retire. This difference in the change in hours worked is not statistically significant, nor does there appear to be variation by the source of the wife's health insurance in the period before the husband's retirement. This is further evidence that households are not increasing the wife's hours worked to obtain health insurance coverage.

¹⁷ There is a large amount of cross-wave variation in data regarding a worker's eligibility for employer-sponsored health insurance after retirement. Substantial changes in the questions occurred in 1996, leading to relatively incomparable rates of coverage pre- and post-1996. In later waves, questions have been added to assess whether spouses could be covered under the respondent's plan, but those questions have suffered from errors in survey skip logic in all but the most recent interviews. As additional waves of data with correct skip patterns become available, it will become easier to ascertain whether or not a woman would be able to be covered by her husband.

the household designated to answer financial questions provided all information about health insurance, in 1994 it was changed to be asked individually of all respondents. Most recently, a major survey redesign in the 2002 wave substantially affected the way questions about current sources of coverage are asked. There has been variation across waves in the number of employer-sponsored plans for which respondents are able to provide information, ranging from one plan in 1998 and 2000 to three plans in the most recent waves. This matters little as only 5% of respondents report more than one employer-sponsored source of coverage, and does not seem to affect overall rates of coverage.

In order to deal with the varying nature of health insurance questions across time and changes in the number of plans for which information is provided, a single hierarchical measure of health insurance was constructed. 18 This variable is defined so that an individual who has any sort of Medicare coverage is defined to have Medicare, and similarly, an individual without Medicare but with any other public insurance (Medicaid or Champus/TriCare) is coded to have that insurance. Those without public coverage can fall into one of four remaining categories. People with coverage from their own employer are coded as such, despite any coverage from another employer or private source. Employer coverage not only includes coverage from a current employer, but also any coverage from a former employer or union. Thus, individuals with retiree coverage from their previous job will also report having employer coverage. Those without public coverage or insurance from their own employer can then be coded as having coverage from one's spouse, privately purchased insurance, or uninsured. Among the non-public options, the order was chosen to reflect increasingly risky or costly health insurance options. Presumably, a woman who has coverage from her own employer is least likely to lose coverage when her husband retires, followed by a woman covered by her husband's employer plan, nongroup coverage, and uninsurance. While this classification of health insurance is convenient because it combines all information into a single variable, it is also limiting because it does not account for the possibility that a man who retires could have both Medicare and his own coverage. Future drafts will address this limitation. Nonetheless, while this variable would be biased in favor of showing a change "up" the hierarchy (for example, a switch from husband's coverage to own coverage, or a switch from own coverage to Medicare), it would only show

¹⁸ The hierarchal nature of this variable does not reflect a natural order so much as it indicates the order it which health insurance was accounted for. Future work may incorporate the expected costs of coverage and use an ordered logit model for the main analysis.

transitions "down" the variable (from own coverage to spousal coverage, non-group, or uninsurance) if the original source of coverage was truly gone. Thus, this variable should bias away from finding the more costly health insurance choices to the extent they exist.

Table 3 describes the health insurance coverage of men and women in the sample by the HRS interview wave. Because this study follows a cohort of couples, an increasing fraction is covered by Medicare in each wave, as more of the sample reaches age 65. For example, less than one percent of men in this sample are covered by Medicare in 1992, slightly lower than the overall rate in the 51-61 year old population, but consistent with the fact that the sample here is limited to full-time workers with presumably low rates of disability. By 2004, when over half of the sample has completely or partially retired, 72 percent of men are covered by Medicare and only 16 percent receive primary coverage from their own employer-sponsored coverage (meaning they do not have Medicare). Privately purchased insurance coverage and uninsurance peak near the midpoint of the panel period, presumably due to changes in coverage after retirement and before Medicare take-up. Rates of privately purchased insurance reach their maximum at approximately 7 percent, which is in line with the estimates of Monheit, Vistnes, and Eisenberg (2001).

The difference in point-in-time coverage rates between the men and women in this sample point to the fact that women rely on their husband for coverage. While only 12 percent of men at baseline were covered by their wife's employer-sponsored plan, 51 percent of women had coverage from their spouse. Though not shown here, this general pattern is observed even among women who are employed. Trends in coverage over time are similar between men and women, with an increasing fraction of women covered by Medicare, and an initial increase then decline in purchased coverage and uninsurance. Peak rates of uninsurance are similar between men and women as well, at about 13 percent.¹⁹

Table 4 shows the difference in the primary source of health insurance for husbands and wives in the sample based on whether the husband is currently retired or not. As expected, Medicare coverage is much higher among men who are retired than those who are not, 54 percent compared to 11 percent. The difference in Medicare coverage is not as large among women, 33 percent of women whose husband has retired are covered by Medicare, compared to

13

¹⁹ HRS rates of uninsurance among this age group are usually slightly lower than estimates from other sources because only a point-in-time measure instead of a full year measure of uninsurance is used.

8 percent of those whose husbands are not retired. Again, the age difference between husbands and wives explains most of this difference, as fewer women are old enough for Medicare. Men who retire experience a 37 percentage point decline in own employer-sponsored coverage at the time of retirement, leaving only 25 percent covered after retirement. While almost fifty percent of women who had coverage from their husband continue to have such coverage after his retirement, only twenty five percent of women who previously had their own coverage lose it.

The health insurance statistics so far have been taken at given points of time and have not considered person-level health insurance transitions. Table 5 shows the health insurance status of an individual based on their coverage source in the previous period, for husbands and wives separately. The majority of people covered by a particular source in the previous wave continue to be covered by that source in the next wave, although there is a non-negligible amount of health insurance volatility around retirement. Approximately 97 percent of people who had Medicare last period do in the current period, with any changes likely coming from measurement error since coverage is based on age or disability status. 70 percent of women and 77 percent of men who had coverage from the husband's employer in the previous period kept that coverage in the next period, with 56 percent and 74 percent remaining covered by the wife's plan. Among those who do not maintain employer-sponsored coverage, the majority either transition onto Medicare or obtain employer-sponsored coverage from their spouse. This is consistent with a job-lock story that individuals stay working in order to maintain their health insurance benefits until Medicare or an alternate source of coverage is available.

While coverage from Medicare and employer sources is fairly consistent across waves, there is much more variation in privately purchased and uninsurance transitions. Only 39 percent of men and 53 percent of women who previously had privately purchased coverage do so in the current period. One-third of men and one-half of women who transition out of privately purchased coverage move to an employer-source in the next wave, perhaps indicating the importance of COBRA coverage in bridging the lack of coverage between jobs. Many also transition to Medicare, indicating that privately purchased coverage may have been used to cover the time between the loss of coverage after retirement and Medicare enrollment. Finally, 13

²⁰ As was mentioned earlier, this is not the total fraction who has own employer-sponsored coverage, but rather, the fraction that has employer-sponsored coverage but does not have Medicare or Medicaid coverage. Similarly, the fraction of women with coverage from their husband excludes those who have coverage from a public source or their own job.

percent of men who had private coverage in the previous period and 9 percent of a comparable group of women are uninsured in the next period. This could be due to people exhausting their COBRA benefits prior to retirement, or letting purchased coverage lapse due to its expense. Only 43-49 percent of those who were uninsured in the last period continue to be in the current period. Sudano and Baker (2005) found that one-quarter of people approaching Medicare eligibility would be uninsured during an eight year period.

5. The Effect of Retirement on Health Insurance Status and Trajectories

5.a. Health Insurance Transitions around the Time of Retirement

Despite differences in the composition of coverage by gender, rates of overall coverage are nearly the same between married men and women. However, there is a relatively large transitory component to health insurance coverage among couples nearing retirement, particularly for coverage purchased on the private market and those who lack coverage. Table 6 considers the types of transitions that occur among people who were covered by the husband in the previous period. While it provides similar content as a single row from Table 5, it separately lists the transitions by whether or not the period is one in which the husband retired. Each column in the table indicates the current source of an individual's coverage, given that he/she was covered by the husband's employer sponsored coverage in the previous interview wave, so that each column (a) sums to 100 percent. In periods when the husband retires, both the husband and wife are less likely to maintain coverage from the husband's employer. In non-retirement periods, men who had coverage from their employer keep that coverage 87 percent of the time, compared to only 61 percent of the time when a retirement occurs. 78 percent of women who had coverage from their husband in the previous interview wave still have that same coverage if he has not retired since them, compared to 59 percent if he has retired.

Because the definition of insurance used here is mutually exclusive and exhaustive, those who lose coverage from the husband must then be accounted for in one of the other insurance categories. Given this, the most intuitive way to interpret the results in Table 6 is to calculate the conditional likelihood of transitioning to a particular insurance category, given that an individual does not stay covered by the husband's employer-sponsored plan. This calculation is reported in the columns denoted (b). For example, when husbands don't retire, only 13 percent of the time do they lose employer sponsored coverage (or in other words, 87 percent of the time they keep it). Almost 5 of those 13 transitions are to Medicare, or about 36 percent. However, in periods

when the husband does retire, transitions to Medicare conditional on not staying covered are 44 percent of all observed transitions. This loosely supports evidence in the job-lock literature and evidence from Rust and Phelan (1997) and others in the retirement literature that Medicare is an important consideration for retirees. A similar calculation for women indicates that 12 percent of the transitions out of the husband's employer plan are to Medicare in a non-retirement period, compared to 25 percent of transitions when the husband does retire. The fact that the transition to Medicare is higher for women when the husband retires could indicate simply that spouses are the same age and become eligible for Medicare at the same time. Or, it may indicate a story similar to that posited in Madrian and Beaulieu (1998) that men delay retirement until their wife is eligible for Medicare. Men and women are also about two times more likely to obtain other public coverage when the man retires, perhaps reflecting a loss of assets and subsequent Medicaid coverage as a result of a health shock. The conditional probability of transitioning to other public coverage is the about the same size for men as it is for women, and does not vary much by whether it is the time of retirement. This reflects the fact that individuals must meet eligibility criteria for these coverage sources, and it is not necessarily true that we would expect to observe a systematic increase in eligibility concurrent with retirement.

Surprisingly, in periods when the husband does not retire, uninsurance comprises one-quarter of the observed transitions (conditional on losing coverage from the husband). The conditional probability of changing to uninsurance is actually 50 percent lower during a retirement period than otherwise, for men and women. The result for men suggests the importance of job-lock in keeping men from retiring to avoid uninsurance, but is somewhat surprising for women. Conditional on not maintaining their own coverage, men are slightly more likely to obtain coverage from their spouse in the period when they retire. The switch to the wife's coverage comprises about twenty percent of transitions that do not maintain husband's coverage. The increase at the time of retirement suggests that households may have chosen to take-up the husband's coverage previously, even though coverage from the wife was also available. This is similar to the findings in Monheit, Schone, and Taylor (1999) and Buchmueller (1996/1997), which indicate that households may make systematic decisions about which spouse's coverage to take-up. However, potentially contradicting this idea is the fact that the likelihood of transitioning to own employer-sponsored coverage is lower among women in the period when the husband retires than otherwise. While this could suggest that women are not

eligible for coverage from their own jobs, more likely it points to the fact that households anticipated the husband's retirement and obtained coverage from the wife prior to the period he retired. If husbands were able to double-up on coverage prior to retirement, this could also explain why the switch to the wife's plan wasn't larger at the time of retirement.

The last possible insurance transition is to switch to purchased non-group insurance. Approximately 15 percent of the insurance transitions that do not maintain husband's coverage are to purchased coverage. This proportion is approximately the same in periods of retirement and not, although if anything, is even higher when not a retirement period. Thus, it does not appear that men are using privately purchased insurance as a way to bridge the gap between retirement and Medicare enrollment. However, households do appear to be using purchased insurance for that purpose for their wives. In periods when the husband does not retire, only 9 percent of conditional insurance transitions are to non-group coverage. However, as the husband retires, one in five women who lose coverage from their husband take-up privately purchased insurance. The difference between men and women may indicate that households fully consider the available options for men and do not need to rely on purchased insurance, and that they cannot or do not do the same for the wife. Joint retirement upon the husband reaching age 65 could explain why more women do not transition to their own insurance and at the same time explain the increase in transitions to non-group coverage.

5.b. Multinomial Logit Models of Health Insurance Transitions

The previous descriptive analyses indicated that conditional on losing coverage from the husband's employer-sponsored coverage, transitions into Medicare and spouse's coverage are higher for men in the period they retire. For women, transitions into Medicare and privately purchased insurance are higher in the periods when their husband retires than otherwise. However, it might be expected that other socioeconomic and demographic variables that are known to effect insurance coverage might also affect transitions around the type of retirement. In order to control for these various effects, a multinomial logit model is used to estimate the relative risk of insurance transitions for those who were covered by the husband's employer-sponsored coverage in the previous wave. In general, the magnitudes of relative risk ratios from the multinomial logit model are similar to those that can be calculated using data in Table 6. To the extent that there are differences, these are likely due to capturing important demographic, economic, and health variables that affect health insurance transitions around retirement. Thus,

the following discussion will focus primarily on the multinomial results and not compare the estimated effects to those from Table 6.

Table 7 presents the coefficients and relative risk ratios (RRR) on the retirement variable from the multinomial logit models, first for husbands, then for wives. The relative risk ratio for the retirement variable indicates the relative risk of experiencing a particular type of transition relative to the base category. For example, if the base category was Medicare, the RRR on retirement for Medicaid would indicate the relative likelihood of switching from the husband's employer-sponsored health insurance to Medicaid compared to Medicare in the period of retirement. A ratio greater than one indicates that the current category was more likely than the base category, while a coefficient less than one indicates the opposite. Because a transition out of husband's necessarily implies a transition into a different type of coverage, comparisons that use husband's coverage as the base category can be somewhat misleading. To avoid this, all possible pair-wise comparisons are given. Note that the RRR of the pairwise comparisons are reciprocals based on the omitted category. For example, the RRR on Medicare when husband's coverage is the omitted category is one divided by the RRR on husband's insurance when Medicare is the omitted category.

It is not surprising that the RRR on all insurance transitions are greater than one and highly significant when husband's employer-sponsored health insurance is the omitted category for both husbands and wives. This occurs due to the mechanical relationship that arises because the insurance transition variable is mutually exclusive and exhaustive. As was shown in Table 6 and hypothesized, the fraction who maintain coverage from the husband is lower in the period of retirement than other periods, which means that other insurance transitions would be the same or higher. In order to judge the effect of retirement on the alternate insurance transitions, we must consider the relative magnitude of the RRR across transition types. For men, a simple ordering of the coefficients suggests that transitioning to uninsurance and to public insurance are the least likely transitions to be higher in the period of retirement, but each is 2.7 times more likely than maintaining husband's coverage. Transitioning to the wife's insurance plan is the most likely outcome in the period of retirement relative to other transitions and periods. Transitioning to private purchased coverage in the period of retirement is less likely than switching to the wife's

-

²¹ Full regression output is available from the author by request. In Table 7, robust standard errors clustered at the household level were used, and 1992 household level sampling weights were applied.

plan, but is still more likely than switching to Medicare (all relative to maintaining husband's coverage). Using the same logic for the wife's transitions, privately purchased insurance is the most likely transition at the time of her husband's retirement, followed by Medicare. Switching to own employer-sponsored coverage, public coverage, and uninsurance are approximately equally likely.

A simple way to compare the relative likelihood of the alternatives aside from maintaining husband's coverage is to assess the RRR of the alternative transitions compared to each other. For example, in the model with Medicare as the reference group, we see that a husband is 67 percent more likely to get coverage from his wife's employer-sponsored plan in the period of his retirement than accepting Medicare coverage, relative to periods when he does not retire. Similarly, he is 85 percent more likely to transition from his own coverage to his wife's coverage in the period of his retirement than to switch to Medicaid, and transitioning to his wife's coverage is 47 percent more likely than obtaining privately purchased insurance upon losing his own coverage at retirement. It is somewhat surprising that transitioning to coverage from the wife is so much more likely than other transitions after the husband loses his own coverage, given that overall coverage of wives in this age group from their own employer is so low relative to coverage from their spouse. However, this suggests that households where the man plans to retire early may systematically choose to switch from his coverage to her coverage in order to maintain continuous health insurance.

Women do not transition out of their husband's coverage to their own coverage as often as their husbands obtain spousal coverage after retirement. The most common transition among women in the period the husband retires is from his coverage to privately purchased coverage. The RRR when the wife's health insurance is the omitted category indicates that the transition to private coverage is almost three times more common than switching to own employer sponsored coverage. The likelihood of a woman transitioning to either Medicare or Medicaid at the period of the husband's retirement is about the same, each is approximately 65 percent more likely than switching to own employer coverage. Among those who lose their husband's coverage, uninsurance is 60 percent less likely to occur than obtaining privately purchased insurance at the time of retirement. The high probability of obtaining non-group coverage may indicate that households recognize the financial and health risks associated with lacking health insurance, therefore choosing to buy relatively expensive coverage to shelter themselves from such risk.

7. Conclusions and Implications for Retirement Planning

It is worth being upfront about the potential limitations to the analyses in this paper and discuss how those limitations will be addressed in future drafts. First, one limitation of the data is that the HRS in the years considered here does not specifically ask about COBRA coverage. One way to deal with that limitation in the current framework is to extend the analysis to t+2, a time at which both husbands and wives would have lost any COBRA coverage they might have had. Differences in employer-sponsored or purchased coverage in t+2 versus t+1 may help explain how much of the results are due to COBRA. Next, a more careful consideration of sample selection that takes into account missed interview waves and retirement between time periods should be considered to more fully model the time of retirement relative to health insurance transition. Finally, the single variable for health insurance coverage abstracts from multiple sources of coverage that households may have. While the variable was meant to reflect an order of choices that would represent most to least costly or risky, it is rough and needs to be expanded to include more sources of coverage as well as additional types of transitions. For example, many people have Medicare and an employer plan, but would only appear by the current definition to have Medicare. A better model of health insurance choice may also better lend itself to the use of an ordered model, or alternatively, a multinomial probit model to avoid the IIA assumption should be used.

Despite these limitations, descriptive results and those from the multinomial logit model paint a consistent picture about household health insurance choices after retirement. At the time of retirement, married men have similar health insurance transitions as in periods when they do not retire. While the transition from the husband's own employer-sponsored health insurance to Medicare is slightly higher at the time of retirement, the transition to privately purchased insurance and uninsurance is not statistically higher at the time of retirement than otherwise. This corresponds with evidence from the retirement job-lock literature that indicates that men who do not have post-retirement coverage work longer than those who do. These results show that men seem to delay retirement until a viable health insurance option is available to maintain coverage.

For married women, the story is quite different. One-quarter of women take-up coverage from Medicare after losing coverage from their husband at the time of retirement, which is 50 percent higher than in a non-retirement period. Transitions to coverage from the husband's to

the wife's employer are also lower at the time of the husband's retirement for women than in other periods too. If couples choose to retire at the same time, women could lose their coverage even though their husbands would not. The transition into privately purchased insurance is the largest one, and is twice as high at the time of retirement than otherwise. This transition for women at the time of retirement is 57 percent more likely than taking up own employer coverage and about 75 percent more likely than gaining Medicare or Medicaid. The only silver lining to the story for women is that the transition to uninsurance is lower at the time of the husband's retirement than otherwise. In fact, the take-up of purchased coverage is 191 percent more likely than becoming uninsured when the husband retires.

While households seem to recognize the importance of having some sort of insurance coverage, their choices are still potentially costly. For example, suppose a married couple with a 63.5 year old husband and a 62 year old wife retires with COBRA coverage after the husband's retirement at 63.5. Based on average health insurance costs, family coverage for 1.5 years would cost \$16,646 and the additional single coverage for the wife until she reaches age 65 would cost \$6,157. This household would need to have saved at least an additional \$23,000 just to pay for health insurance. For a median household in the sample, this corresponds to 13 percent of median household net worth in the period prior to the husband's retirement. Lacking health insurance coverage altogether has even more serious implications for retirement; those who suffer a serious adverse health events while uninsured can easily spend their retirement savings to pay for medical care, a risk that is potentially doubled if both members in a household lack coverage. Being uninsured also exposes the individual to health risks, if care is delayed while lacking coverage in anticipation of coverage by Medicare at age 65. Schimmel (2005) found that those who were uninsured prior to age 65 delayed care until Medicare coverage, and that particularly for women, this led to the delayed diagnosis of potentially fatal health conditions. Affordable options for continuation of employer-sponsored coverage or subsidies to non-group coverage would limit the number of households facing uninsurance.

What do trends in retirement expectations and health insurance coverage suggest for the relevance of these findings for future cohorts of retirees? Retiree coverage has been declining and expected to continue (Weller et al., 2004, Merlis, 2006). Even among companies that continue to offer such a benefit, cost sharing is becoming more common (Merlis, 2006). If men are able to continue to work until they can claim Medicare, then this may not have an effect on

their coverage. However, this would lead to fewer married women maintaining coverage from their husband and a larger pool switching into purchased insurance. Further, if men quit working because of poor health, decreasing retiree coverage may lead to fewer men covered as well. However, retirement expectations appear to be switching towards people working to older ages. A recent report by Pew Research Center (2006) found that 77 percent of workers expect to continue to work after they retire. Tabulations of the self-reported probability of work at ages 62 and ages 65 from cohorts in the HRS also indicate that younger cohorts expect to work until later ages. If this is the case, declines in retiree coverage may not matter much for the husband's coverage. However, even in the younger cohorts, wives and younger than their husband by several years, and as long as the trend of men as the primary provider of health insurance continues, women could still face the loss of coverage at the time of the husband's retirement. Thus, this paper provides a first look at a question that will continue to be relevant to future cohorts of married couples.

Bibliography

Baker, M. (1999). "The Retirement Behavior of Married Couples: Evidence from the Spouse's Allowance," NBER Working Paper #7138.

Baker D.W. and J.J. Sudano (2005). "Health Insurance Coverage during the Years Preceding Medicare Eligibility." *Archives of Internal Medicine* 165:770-776.

Blau, D.M. (1998). "Labor Force Dynamics of Older Married Couples." *Journal of Labor Economics*, 16(3):595-629.

Blau, D.M. and D.B. Gilleskie (2001). "Retiree Health Insurance and the Labor Force Behavior of Older Men in the 1990's." *Review of Economics and Statistics*, 83:64-80.

Blau, D.M. and D.B. Gilleskie (2003). "Role of Retiree Health Insurance in the Employment Behavior of Older Men." *NBER Working Paper*, Number 10100.

Blau, D.M. and D.B. Gilleskie (Forthcoming 2006). "Health Insurance and Retirement of Married Couples." *Journal of Applied Econometrics*.

Buchmueller, T.C. (1996/1997). "Marital Status, Spousal Coverage and the Gender Gap in Employer-Sponsored Health Insurance." *Inquiry*, 33(4):308-316.

Buchmueller, T.C. and R.G. Valletta (1999). "The Effect of Health Insurance on Married Female Labor Supply." *The Journal of Human Resources*, 34(1):42-70.

Coile, C.C. (2004a) "Retirement Incentives and Couples' Retirement Decisions." *Topics in Economic Analysis & Policy* 4(1).

Coile, C.C. (2004b). "Health Shocks and Couples' Labor Supply Decisions." *NBER Working Paper* 10810.

Distler, E., P. Fisher and C. Gordon (2005). "On the Fringe: The Substandard Benefits of Workers in Part-Time, Temporary, and Contract Jobs." Washington, D.C.: The Commonwealth Fund, No. 879.

French, E. and J.B. Jones (2004). "The Effects of Health Insurance and Self-Insurance on Retirement Behavior." Center for Retirement Research at Boston College.

Gruber, J. and B.C. Madrian (1995). "Health-Insurance Availability and the Retirement Decision." *The American Economic Review*, 85(4):938-948.

Gruber, J. and B.C. Madrian (2002). "Health Insurance, Labor Supply, and Job Mobility: A Critical Review of the Literature." *National Bureau of Economic research*, Working Paper 8817.

Gustman, A. and T. Steinmeier (1994). "Employer Provided Health Insurance and Retirement Behavior." *Industrial and Labor Relations Review.* 48:124-140.

Gustman, A. and T. Steinmeier (2000). "Retirement in a Family Context: A Structural Model." *Journal of Labor Economics*. 18(3):503-545.

Gustman, A. and T. Steinmeier (2002). "Social Security, Pensions, and Retirement Behavior within the Family." *National Bureau of Economic Research* Working Paper, Number 8772.

Hurd, M.D. (1990). "The Joint Retirement Decision of Husbands and Wives." In *Issues in the Economics of Aging*. Ed. David A. Wise. Chicago: University of Chicago Press.

Johnson, R.W., and S. Crystal (1997). "Health Insurance Coverage at Midlife: Characteristics, Costs and Dynamics." *Health Care Financing Review* 18 (3): 123-48.

Johnson, R.W., Davidoff, A.J., and Perese, K. (2003). "Health Insurance Costs and Early Retirement Decisions." *Industrial and Labor Relations Review*, 56:716-729.

Johnson, R.W. and M.M. Favreault (2001). "Retiring Together or Working Alone: The Impact of Spousal Employment on Disability and Retirement Decisions." Washington, DC: The Urban Institute, mimeograph.

Kaiser Family Foundation (2005). *Employer Health Benefits*. Menlo Park, CA: Kaiser Family Foundation and Health Research and Educational Trust.

Karoly, L.A. and J.A. Rogowski (1994). "The Effect of Access to Post-Retirement Health Insurance on the Decision to Retire Early." *Industrial and Labor Relations Review*, 48(1):103-123.

Kapur, K. and J.A. Rogowski (2006). "Love or Money? Health Insurance and Retirement among Married Households." *NBER Working Paper*, No. 12273.

Madrian, B.C. (1994). "Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock?" *The Quarterly Journal of Economics*, 109(1)27-54.

Madrian, B., and N. D. Beaulieu. (1998). "Does Medicare Eligibility Affect Retirement?" In Inquiries in the Economics of Aging, edited by D. Wise. Chicago: University of Chicago Press.

Madrian, B.C., G. Burtless and J. Gruber (1994). "The Effect of Health Insurance on Retirement." *Brookings Papers on Economic Activity*, 1994(1):181-252.

Maestas, N. (2001). "Labor, Love and Leisure: Complementarity of the Timing of Retirement by Working Couples." Berkeley, CA: University of California, Berkeley, mimeograph.

McDonnell, K. and P. Fronstin (1999). *EBRI Health Benefits Databook*. Washington, D.C.: Employee Benefits Research Institute.

Merlis, M. (2006). "Health Benefits in Retirement: Set for Extinction?" Washington, D.C.: National Health Policy Forum, The George Washington University.

Monheit, A.C., B.S. Schone and A.K. Taylor (1999). "Health Insurance Choices in Two-Worker Households: Determinants of Double Coverage." *Inquiry*, 36(1):12-29.

Monheit A.C., Vistnes J.P., & Eisenberg J.M. (2001). "Moving to Medicare: Trends in the Insurance Status of Near Elderly Workers, 1987-1996." *Health Affairs*, 20 (2):204-13.

Olson, C.A. (1998). "A Comparison of Parametric and Semiparametric Estimates of the Effect of Spousal Health Insurance Coverage on Weekly Hours Worked by Wives." *Journal of Applied Econometrics*, 13(5): 543-565.

Pew Research Center (2006). "Working After Retirement: The Gap Between Expectations and Reality." Washington, D.C.: Pew Research Center.

Rogowski, J. and L. Karoly (2000). "Health Insurance and Retirement Behavior: Evidence from the Health and Retirement Survey." *Journal of Health Economics*. 19(4):529-39.

Royalty, A.B. and J.M. Abraham (2004). "Health Insurance and Labor Market Outcomes: Joint Decision-Making within Households." Ann Arbor: University of Michigan, Economic Research Initiative on the Uninsured, mimeograph.

Ruhm, C.J. (1990). "Bridge Jobs and Partial Retirement." *Journal of Labor Economics*, (4):482-501.

Rust, J., and C. Phelan. (1997). "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets." Econometrica, 65(4): 781–831.

Schimmel, J. (2005). The Effect of Health Insurance on the Health, Health Care, and Labor Market Outcomes of the Near-Elderly: Evidence from the Health and Retirement Study. Ann Arbor: University of Michigan.

Schone, B.S. and J.P. Vistnes (2001). "The Relationship between Health Insurance and Labor Force Decisions: An Analysis of Married Women." mimeograph.

Schur, C. and A.K. Taylor (1991). "Choice of Health Insurance and the Two-Worker Household." *Health Affairs*, 10(1):155-163.

Smith, J.P. (2005). "The Impact of SES on Health over the Life Course." *RAND Labor and Population Working Paper*, WR-318.

Weir, D.R. and R.J. Willis (2002). "Widowhood, Divorce, and Loss of Health Insurance among Near-Elderly Women: Evidence from the Health and Retirement Study." University of Michigan, Economic Research Initiative on the Uninsured, Working Paper, No. 7.

Weller, C., J. Wenger, and E. Gould (2004). *Health Insurance Coverage in Retirement: The Erosion of Retirement Security Income.* Washington, D.C.: Economic Progress Institute.

Wellington, A. and D. Cobb-Clark. (2000). "The Labor-Supply Effects of Universal Health Coverage: What Can We Learn from Individuals with Spousal Coverage?" in *Research in Labor Economics*. Ed. S. Polachek. Amsterdam: Elsevier Science, 19:315-344.

Wu, B. (2004). "Health Insurance and the Retirement of Women." University of Wisconsin, Madison, mimeo.

Figure 1: Cross-Wave Comparability of the Health Insurance Questions in the HRS, 1992-2004

_	1992	1994	1996	1998	2000	2002	2004
Questions at household/respondent level	Н	R	R	R	R	R	R
Currently covered by own current or former employer	Χ	Χ	Χ	Χ	Χ	Χ	Х
Offered insurance from current employer			Χ	Χ	Χ	Χ	Χ
Could spouse also have been covered on this employer plan?						X	Х
Currently covered by spouse's current or former employer	X	X	X	X	X	X	Х
Number of employer plans asked about	2	2	2	1	1	3	3
Other family members covered on employer-sponsored plan			Х	Х	Х	Х	Х
Current employer plan available to retirees	Χ	Χ					
If current plan not available, does employer offer some plan to retirees?	X	X					
Can spouse be covered on offered retiree plan?	X	Χ					
Can you continue your current coverage until age 65? (asked of those covered by former employer)			Х	Х			
(If you left your employer now), could you continue coverage until age 65?			X	Х	Х	Х	Х
(If you left your employer now), does your employer offer some coverage after age 65?					Х	Х	Х
(If you left your employer now), could your spouse have coverage until age 65?						Х	Х
(If you left your employer now), does your employer offer some coverage to your spouse after age 65?						X	Х

X means question asked in wave, -- means that question appears in the questionnaire sequence, but skip logic in the survey led to improper response rates (or no responses)

Table 1: Descriptive Statistics of Households in 1992

ean	Std. Dev.		
.32	3.13	Education level of most educated spouse	Percent
64	4.99	Less than high school	10.88
.60	10.44	High school/GED	32.10
		Some college	26.06
		College graduate or higher	30.96
226	8,000		
294	4,912	Percent of households with at least one black spouse	6.32
673	6,448	Percent of households with at least one Hispanic spouse	6.24
,080,	70,878		
		Percent of households where wife works in 1992	67.08
		Percent of households where wife works full-time in 1992	44.71
042	38,833		
162	17,165		
,143	34,447		
,072	753,065		
	32 54 60 2226 294 573 080 042 162 1143	32 3.13 64 4.99 60 10.44 226 8,000 294 4,912 673 6,448 080 70,878 042 38,833 162 17,165 143 34,447	Education level of most educated spouse 4.99 60 10.44 High school/GED Some college College graduate or higher 226 8,000 294 4,912 Percent of households with at least one black spouse 673 6,448 Percent of households with at least one Hispanic spouse Percent of households where wife works in 1992 Percent of households where wife works full-time in 1992 38,833 31,62 17,165 31,43 34,447

Table 2: Retirement Transitions by Wave

		Percent of households
	Number of retirement	at risk for retirement in
Wave	transitions	that wave
1994	236	10.76
1996	275	15.96
1998	235	18.02
2000	230	20.72
2002	207	25.33
2004	159	27.84
Total	1,342	17.36

Table 3: Health Insurance Coverage by Wave

Coverage of Husband

			Husband's	Wife's		
			Employer-	Employer-	Privately	
		Medicaid/Other	Sponsored	Sponsored	Purchased	
	Medicare	Public	Insurance	Insurance	Insurance	Uninsured
1992	0.20	6.12	70.57	11.64	3.64	7.82
1994	0.29	6.18	67.85	11.03	6.37	8.28
1996	5.41	5.51	61.23	7.53	7.09	13.23
1998	19.69	4.33	52.60	6.69	5.35	11.34
2000	35.14	3.45	42.96	9.76	4.35	4.33
2002	53.13	3.64	29.87	6.84	2.60	3.91
2004	71.66	2.42	16.72	5.02	1.82	2.37

Coverage of Wife

			Husband's	Wife's		
			Employer-	Employer-	Privately	
		Medicaid/Other	Sponsored	Sponsored	Purchased	
	Medicare	Public	Insurance	Insurance	Insurance	Uninsured
1992	2.15	4.60	50.89	30.91	2.70	8.75
1994	3.03	4.84	46.10	31.79	6.06	8.18
1996	5.79	4.92	35.06	33.87	7.55	12.81
1998	10.81	4.61	32.36	33.70	7.24	11.30
2000	19.07	3.27	32.36	32.03	7.48	5.79
2002	32.72	4.30	27.14	24.94	5.30	5.60
2004	45.68	3.61	19.47	20.52	5.68	5.05

Table 4: Health Insurance Coverage by Husband's Retirement Status

Husband's Health Insurance

	Husband (Completely
	or Partial	ly Retired
	No	Yes
Medicare	10.70	53.81
Medicaid/Other Public	4.94	4.04
Husband's Employer-Sponored	61.93	25.36
Wife's Employer-Sponsored	9.22	7.08
Privately Purchased	4.52	4.68
Uninsured	8.68	5.03

Wife's Health Insurance

	Husband (Completely
	or Partial	ly Retired
	No	Yes
Medicare	8.00	32.59
Medicaid/Other Public	4.15	4.80
Husband's Employer-Sponored	41.04	23.99
Wife's Employer-Sponsored	32.28	24.82
Privately Purchased	5.23	7.51
Uninsured	9.29	6.29

 Table 5: Observed Health Insurance Transitions by Last Period's Insurance Coverage

Husband's Health Insurance

	This Period Insurance Coverage								
			Husband's	Wife's					
		Medicaid/Other	Employer-	Employer-	Privately				
Last Period Insurance Coverage	Medicare	Public	Sponored	Sponsored	Purchased	Uninsured	Total		
Medicare	97.12	0.58	1.30	0.47	0.31	0.22	100		
Medicaid/Other Public	19.41	64.57	10.07	1.32	0.30	4.34	100		
Husband's Employer-Sponored	12.45	1.02	76.59	3.46	2.89	3.60	100		
Wife's Employer-Sponsored	16.31	1.62	12.56	55.52	2.77	11.22	100		
Privately Purchased	21.35	1.51	21.26	3.27	39.49	13.12	100		
Uninsured	18.44	3.40	16.95	10.40	7.41	43.39	100		

Wife's Health Insurance

	This Period Insurance Coverage									
			Husband's	Wife's						
		Medicaid/Other	Employer-	Employer-	Privately					
Last Period Insurance Coverage	Medicare	Public	Sponored	Sponsored	Purchased	Uninsured	Total			
Medicare	96.34	0.45	1.28	0.77	0.50	0.65	100			
Medicaid/Other Public	11.25	75.21	6.75	3.81	0.84	2.14	100			
Husband's Employer-Sponored	7.63	1.17	70.48	11.79	3.53	5.39	100			
Wife's Employer-Sponsored	7.54	0.52	11.72	73.96	2.51	3.76	100			
Privately Purchased	16.14	0.50	10.22	11.32	52.80	9.02	100			
Uninsured	8.39	3.10	17.22	12.61	10.05	48.64	100			

Table 6: Transitions from Husband's Health Insurance in Last Period Based on Whether Husband Retired Since Last Period

Husband's Health Insurance

	Husband Retired Since Last Wave						
	N	Vo	Yes				
	(a)	(b)	(a)	(b)			
Medicare	4.81	36.6%	17.28	44.3%			
Medicaid/Other Public	0.92	7.0%	2.02	5.2%			
Husband's Employer-Sponored	86.84		60.95				
Wife's Employer-Sponsored	2.45	18.6%	8.46	21.7%			
Privately Purchased	1.92	14.6%	4.99	12.8%			
Uninsured	3.06	23.3%	6.30	16.1%			
Total	100.00	100.0%	100.00	100.0%			

Wife's Health Insurance

	Husband Retired Since Last Wave						
	N	lo	Y	es			
	(a)	(b)	(a)	(b)			
Medicare	2.78	12.4%	10.11	24.6%			
Medicaid/Other Public	1.00	4.5%	2.46	6.0%			
Husband's Employer-Sponored	77.63		58.90				
Wife's Employer-Sponsored	11.20	50.1%	13.48	32.8%			
Privately Purchased	1.98	8.9%	8.16	19.9%			
Uninsured	5.41	24.2%	6.90	16.8%			
Total	100.00	100.0%	100.00	100.0%			

⁽a) Of those who were covered by the husband's employer-sponsored coverage in the previous period, the percent currently covered by the named sources

⁽b) Conditional on not keeping the husband's employer-sponsored coverage, the fraction of transitions that are of this type

Table 7: Coefficients on Retirement in the Multinomial Logit Model, Using Different Health Insurance Transitions as the Reference Category

Husband's Transition from Own Employer-Sponsored Wife's Transition from Husband's Employer-Coverage **Sponsored Coverage** Relative Risk Standard Relative Risk Standard Coefficient Coefficient Ratio error t-statistic Ratio error t-statistic Base group: Husband's Employer-Sponsored 0.239 Medicare 1.110 3.034 0.154 7.22 0.918 2.505 3.84 2.748 0.941 2.562 0.373 2.52 Medicaid/other public 1.011 0.324 3.12 1.531 0.159 2.68 5.085 Wife's employer-sponsored 1.626 0.177 9.20 0.426 1.495 4.461 0.233 6.42 Privately purchased 1.240 3.457 0.209 5.93 Uninsured 1.005 2.733 0.183 5.51 0.553 1.738 0.197 2.80 **Base group: Medicare** Medicaid/other public 0.906 0.347 0.05 -0.099-0.29 0.023 1.023 0.427 0.399 Husband's employer-sponsored -1.110 0.330 0.154 -7.22 -0.918 0.239 -3.84 Wife's employer-sponsored 0.517 1.676 0.223 2.32 -0.492 0.611 0.271 -1.82Privately purchased 0.131 1.139 0.247 0.53 0.577 1.781 0.315 1.83 Uninsured -0.1040.901 0.227 -0.46 -0.366 0.694 0.297 -1.23 Base group: Medicaid/other public 0.099 1.104 0.347 0.29 -0.023 0.977 0.427 -0.05 Medicare Husband's employer-sponsored 0.364 0.324 -3.12 -0.941 0.390 0.373 -2.52 -1.011 Wife's employer-sponsored 0.616 1.851 0.358 1.72 -0.515 0.598 0.392 -1.31 Privately purchased 0.230 1.258 0.379 0.61 0.555 1.741 0.429 1.29 Uninsured -0.005 0.995 0.364 -0.01 -0.388 0.678 0.411 -0.95 Base group: Wife's Employer-Sponsored Medicare 0.223 -0.517 0.597 -2.32 0.492 1.636 0.271 1.82 Medicaid/other public 0.540 0.358 -1.72 0.515 1.673 0.392 1.31 -0.616 Husband's employer-sponsored -1.626 0.197 0.177 -9.20 -0.4260.653 0.159 -2.68 Privately purchased -0.386 0.680 0.263 -1.47 1.069 2.913 0.264 4.05 Uninsured -0.6210.537 0.245 -2.53 0.126 1.135 0.235 0.54

Husband's Transition from Own Employer-Sponsored Coverage

Wife's Transition from Husband's Employer-Sponsored Coverage

	Coverage				Sponsored Coverage				
		Relative Risk	Standard			Relative Risk	Standard		
	Coefficient	Ratio	error	t-statistic	Coefficient	Ratio	error	t-statistic	
Base group: Privately Purchased									
Medicare	-0.131	0.878	0.247	-0.53	-0.577	0.561	0.315	-1.83	
Medicaid/other public	-0.230	0.795	0.379	-0.61	-0.555	0.574	0.429	-1.29	
Husband's employer-sponsored	-1.240	0.289	0.209	-5.93	-1.495	0.224	0.233	-6.42	
Wife's employer-sponsored	0.386	1.471	0.263	1.47	-1.069	0.343	0.264	-4.05	
Uninsured	-0.235	0.791	0.270	-0.87	-0.943	0.390	0.290	-3.25	
Base group: Uninsured									
Medicare	0.104	1.110	0.227	0.46	0.366	1.441	0.297	1.23	
Medicaid/other public	0.005	1.005	0.364	0.01	0.388	1.475	0.411	0.95	
Husband's employer-sponsored	-1.005	0.366	0.183	-5.51	-0.553	0.575	0.197	-2.80	
Wife's employer-sponsored	0.621	1.861	0.245	2.53	-0.126	0.881	0.235	-0.54	
Privately purchased	0.235	1.265	0.270	0.87	0.943	2.567	0.290	3.25	