NBER WORKING PAPER SERIES

HEALTH INSURANCE ENROLLMENT DECISIONS: PREFERENCES FOR COVERAGE, WORKER SORTING, AND INSURANCE TAKE UP

Alan C. Monheit
Jessica Primoff Vistnes

Working Paper 12429
http://www.nber.org/papers/w12429

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
August 2006

No official endorsement by AHRQ or the Department of Health and Human Services is intended or should be inferred. Financial support by the Robert Wood Johnson Foundation's Economic Research Initiative on the Uninsured Program administered by the University of Michigan is gratefully acknowledged. The authors wish to thank Chao-Sung Yu of Social and Scientific Systems, Bethesda, Maryland for excellent work in creating the data files used in the analysis and Bobbie Wolfe, participants in the ERIU annual research conference, Jessica Banthin, Steve Hill and Chris Peterson for helpful comments. Jessica Vistnes did not receive any funding for her participation in this project. The views expressed herein are those of the author(s) and do not necessarily reflect the views of the National Bureau of Economic Research.

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NBER Working Paper No. 12429
August 2006
JEL No. I1, J3

ABSTRACT

The weak response by the uninsured to policy initiatives encouraging voluntary enrollment in health insurance has raised concerns regarding the extent to which the uninsured value health insurance. To address this issue, we use data from the 2001 Medical Expenditure Panel Survey to examine the association between health insurance preferences and coverage status. We also consider the role of such preferences in decisions to seek out and enroll in employment-based coverage. We find that adults with weak or uncertain preferences for health insurance are more likely than persons with strong preferences to be uninsured and less likely to acquire coverage. Our econometric work indicates that workers with weak or uncertain preferences are less likely to obtain job offers with insurance, reinforcing prior evidence that workers sort among jobs according to preferences for coverage. We also find that workers with weak or uncertain preferences are less likely to enroll in offered coverage and we estimate the subsidy necessary to compensate such workers for the utility loss were they to enroll. Our results suggest a dual approach to expanding coverage that includes both subsidies and educational efforts to inform targeted groups among the uninsured about the value of health insurance.

Alan C. Monheit
Department of Health Systems and Policy
UMDNJ-School of Public Health
335 George Street, Suite 2200
New Brunswick, NJ 08903
and NBER
monheiac@umdnj.edu

Jessica Primoff Vistnes
Agency for Healthcare Research & Quality
Center for Financing, Access & Cost Trends
540 Gaither Road
Rockville, MD 20850
jvistnes@ahrq.gov

I. Introduction

Policy initiatives seeking to expand health insurance opportunities for uninsured Americans remain prominent on the public agenda. Apart from the system-wide reform of the Clinton Administration's Health Security Act of 1993, most initiatives over the last two decades have been incremental in nature, targeting specific groups among the uninsured and relying upon their voluntary participation.[1] Such proposals have typically been introduced with high expectations of success. However, past evidence from demonstration projects, simulations of responses by the uninsured to proposed subsidies, and experience with public insurance expansions suggest that the response by targeted groups may be disappointing. These findings also indicate that large subsidies may be required to induce participation in private coverage and that intensive outreach efforts may be necessary to overcome informational and administrative impediments to enrollment in public coverage (Bilheimer and Colby 2001; Gruber and Levitt 2000; McLaughlin and Zellers 1992; Thorpe et al. 1992; Selden, Banthin, and Cohen 1999; Marquis and Long, 1995).

The lack of responsiveness to such coverage initiatives has perplexed researchers and policymakers alike who justify the value of expanded health insurance along several dimensions. These include the 'merit good' aspect of health insurance; the negative externalities from underconsumption of medical care; the financing burden on taxpayers and public institutions

[1] Included among such proposed and enacted legislation are the Medicaid expansions of the late 1980s and early 1990s, the State Children's Health Insurance Program (SCHIP) of 1997, tax credits for the purchase of individual heath insurance in the Health Coverage Tax Credits program of the Trade Act of 2002, the proposed Fair Care for the Uninsured Act of 2003, and state premium support programs for employment-based coverage, as well as small group and individual health insurance market reform. In contrast to these voluntary efforts, Massachusetts recently enacted an individual mandate requiring all citizens to obtain health insurance.

from providing care directly to the uninsured; the impact on health care expenditures from the provision of services in inappropriate settings; and the implications for the health of the uninsured from financial barriers to the timely receipt of care.

From a policymaker's perspective, the points noted above may be reasonable rationales for expanded coverage. However, the weak responsiveness of the uninsured, both actual and simulated, has raised the issue of whether targeted groups value health insurance relative to other uses of income, or perceive the benefits of public coverage to be commensurate with any direct and indirect costs of participation. Indeed, in their review of evidence regarding enrollment into a variety of public programs, Remler, Rachlin, and Gleid (2001) note that "[i]t may well be that potential recipients do not value health insurance as strongly as policy analysts do -- a possibility worth exploring in depth." (p.15). Bilheimer and Colby (2001) also acknowledge that "instilling awareness of the value of health insurance" is an important component of strategies to enroll and retain persons eligible for private or public insurance programs. Finally, Peterson (2004) notes that among the 'stark lessons' learned regarding state efforts to expand insurance coverage is that "because many . . . do not understand or are skeptical about the value of insurance, offering coverage does not translate into people accepting it" (p. 174).

While individual valuation of health insurance is fundamental for approaches that would encourage voluntary participation in private and public health insurance, it also has important implications for proposals to mandate employment-sponsored health insurance (ESI). As Summers (1989) has observed, mandated approaches may be more efficient than alternative tax-based approaches provided that workers fully value the mandated benefits. Thus, understanding the extent to which targeted populations value health insurance can not only affect the success of

particular policy instruments but may also govern selection of which instrument to apply.[2]

Finally, from a methodological perspective, individual tastes for coverage underlie the demand relationship for health insurance. Such demand estimation requires that tastes for coverage (or reasonable proxies) be held constant in order to obtain unbiased estimates of price and income effects. For example, estimates of price effects for enrolling in ESI may be overstated should workers with strong preferences for coverage sort into firms with more favorable out-of-pocket premium costs. In empirical work, such tastes are frequently represented by individual characteristics such as age, gender, race/ethnicity, and educational attainment.[3] However, analysts have little sense of whether these commonly used proxies display any relationship to an individual's tastes for coverage. More to the point, Pudney (1989) has cautioned that ". . . not all variation in preferences is likely to be explicable solely in terms of observed demographic and social factors." (page 34).

In this paper, we examine several aspects of the relationship between preferences for health insurance and decisions to seek out and enroll in ESI. Using self-reported attitudinal measures from the 2001 Medical Expenditure Panel Survey (MEPS), we consider the extent to which individuals with weak or uncertain preferences for health insurance are more likely to be

[2] As another example, efforts to expand access to coverage through reform of the small group insurance market may not be effective if workers employed by small firms have weak preferences for coverage.

[3] For example, Blumberg and Nichols (2004) note that in empirical estimates of the demand for health insurance, factors such as age, health status, gender, and family status among others are used as proxies for unobserved aversion to risk. In modeling the decision to participate in nongroup coverage, Marquis and Long (1995) include income, education, and the spouse's employment status as "measures . . hypothesized to reflect the family's aversion to risk and so the value the family attaches to the purchase of insurance." (pages 53-54).

uninsured than those with strong preferences. Focusing on workers, we apply econometric models to examine whether single workers and married couples with weak or uncertain preferences are more likely than those with strong preferences to sort into jobs without health insurance and are less likely to enroll in offered coverage. In doing so, we compute the reduction in out-of pocket premium costs that would be needed to offset the disutility from enrollment by those with weak or uncertain preferences for coverage.

Our findings reveal that persons with weak or uncertain preferences for coverage are more likely to be uninsured than those with strong preferences. Depending on the type of preference measure used, we find that single workers and couples (with at least one worker) having weak or uncertain preferences for coverage are less likely than those with strong preferences to obtain offers of ESI and to enroll. Our results are consistent with a dual approach to expanding coverage that includes both subsidies and educational efforts to inform targeted groups among the uninsured about the value of health insurance.

Our paper is organized as follows. In Section II, we provide a brief review of research on the role of health insurance preferences in coverage decisions and outline our analytical framework. We describe our data and empirical specification in Section III. In Section IV, we present descriptive tabulations of the prevalence of weak or uncertain health insurance preferences, their association with health insurance status, and with the offer and take up of ESI. Our econometric results regarding job sorting and enrollment decisions are presented in Section V and our conclusions are stated in Section VI.

II. Background and Analytical Framework

Previous research on the role of health insurance preferences

It has long been recognized that worker preferences for health insurance are likely to underlie decisions by employers to provide health insurance. For example, early work by Goldstein and Pauly (1976) first explicitly posited that workers sort among alternative employment opportunities according to their tastes for health insurance and subsequent work (e.g., Pauly 1986; Feldman et al. 1997) has also acknowledged such behavior. However, these studies did not provide empirical tests of the sorting hypothesis. Most recently, workforce characteristics (such as age, gender, and wage distribution), presumed to impart information about health insurance preferences, have been used to explore the role of worker preferences in employer decisions regarding the content of health insurance benefits (e.g., Moran, Chernew, and Hirth 2001; Bundorf 2002; Gruber and Lettau 2004).

To date, there have been only a few papers that have explored the role of health insurance preferences on the employment and health insurance decisions by individuals and households. Long and Marquis (1992) inferred that weak preferences for health insurance may contribute to the low take-up rates by young and low-wage workers as they found that the characteristics of workers who turn down offered coverage resembled those of workers in jobs that failed to offer coverage. Using a constructed measure of risk tolerance from the Health and Retirement Survey, Barsky et al. (1997) found that more risk tolerant individuals were less likely to have health insurance. Additionally, they found that for employed persons, "risk tolerance . . . seems to be an important factor sorting individuals into jobs with health insurance" (p.556). Using responses to questions regarding attitudes toward health insurance from the 1987 National Medical Expenditure Survey (NMES), Monheit and Vistnes (1999) found that weak preferences for

coverage were an important factor in decisions by single wage earners to sort into jobs without health insurance. Their analysis also suggested the presence of 'imperfect sorting' as a sizeable proportion (29 percent) of such workers failed to obtain jobs consistent with their preferences for coverage. Hirth et al. (2005), using data from the 2003 Community Tracking Survey, also found evidence consistent with imperfect labor market sorting. Based on predicted probabilities of coverage, they estimated that 20.4 percent of workers were 'mismatched' with regard to their health insurance preferences and employer offers of health insurance. Finally, among the self employed, Monheit and Harvey (1993) applied NMES attitudinal data and found that those with weak tastes for health insurance were less likely to obtain ESI or to provide such coverage to wage earners in their employ. Additionally, Barsky et al. (1997) found that the self employed had high tolerance for risk and on average, were less likely to be insured than wage earners.

Analytical approach

As noted earlier, our examination of the role of preferences for coverage in health insurance enrollment decisions focuses on decisions by workers to seek out and enroll in ESI. First, we consider whether single workers and married couples (with at least one working spouse) sort among jobs that offer or fail to offer health insurance according to their preferences for coverage. Next, given the decision to obtain a job that provides coverage, we examine the role played by preferences and other factors in the decision to take up offered coverage.

i. Obtaining a job offer with health insurance

To examine the first process, we apply and extend the simple model of job search for single workers from our earlier work (Monheit and Vistnes, 1999). In this model, we posit that when selecting a job, an individual will compare the utility of jobs that offer or fail to offer

health insurance and select the former if its utility exceeds that of a job offer without health insurance. The utility of each job is characterized by wage income, search costs, expected out-of-pocket medical expenses (which depend on whether the job provides health insurance), and preferences for health insurance (which affect the position and shape of the individual's utility function). We include search costs in the model as such costs may impede some workers from obtaining their desired jobs and thus may contribute to imperfect sorting according to health insurance preferences.

As shown in Monheit and Vistnes (1999), the above comparison based upon linear utility functions yields the following estimating equation (subscripts O and N indicate jobs that offer/do not offer health insurance, and S and W indicate strong or weak preferences):

Prob (job with health insurance) = $-\alpha(W_N - W_O) + \Gamma M_N + \beta(T_S - T_W) - \gamma(C_O - C_N) > (e_N - e_O)$.

This probability is negatively related to the gain in wage income between jobs without and with coverage ($W_N - W_O$) and positively related to factors associated with the increase in out-of-pocket medical expenditures (M_N) if the job does not offer coverage.[4] This probability decreases as search costs for a job with coverage increase relative to the costs of finding a job without coverage ($C_O - C_N$). Since workers with weak preferences for coverage ($T_W = 1$, $T_S = 0$) obtain higher utility from a job without insurance than from one with coverage, they will be more likely to obtain the former while those with strong preferences will be more likely to obtain the latter.[5]

[4] We assume that $(W_N - W_O) > 0$ as workers bear all or some of the employer contribution to premium costs associated with health insurance. We also assume that jobs with health insurance provide full coverage and hence, zero out-of-pocket medical costs.

[5] Our empirical work also considers uncertain preferences for coverage. For ease of exposition, we present our model in terms of strong and weak preferences.

We assume (e_N - e_O) to have a logistic distribution and estimate the model as a logit equation.

This model also guides our empirical specification of job sorting for married couples using the household as the unit of observation.[6] Here we consider whether a household with at least one working spouse is observed to have a job offer with health insurance and focus on the role played by spousal preferences for coverage.[7] Household utility, which depends upon the aggregate wage income obtained by the couple, the costs associated with the couple's job search, family out-of-pocket medical expenses, and spousal preferences for coverage, is compared across jobs with and without health insurance that are available to the couple. The household obtains at least one job with health insurance if the utility from taking such a job for at least one spouse exceeds that from neither spouse obtaining a job with coverage. This comparison yields the following decision rule:

Prob (household will obtain a job with health insurance) =

$-\alpha(W_N - W_O) + \Gamma M_N + \beta (T_S - T_W - T_{WS}) - \gamma(C_O - C_N)] > (e_N - e_O)$. This probability is negatively related to the first term in the bracket (the potential wage gain for the couple from not taking any jobs with coverage) and positively related to the second term (the household's exposure to out-of-pocket medical expenses for households without health insurance). The third term represents

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[6] See Monheit and Vistnes (2005) and Monheit, Schone, and Taylor (1999) for analyses of health insurance decision making that use the household as the unit of observation.

[7] We consider whether the couple obtains a job offer with health insurance (through either spouse) and enrolls in offered coverage. In doing so, we take the labor supply decisions of each spouse as given, recognizing this to be the outcome of a complex and interdependent decision process regarding each spouse's labor force participation, hours of work, and access to ESI. It is beyond the scope of our analysis to model such decision making. Consequently, we estimate reduced form models of the household's offer and take-up decisions based on exogenous characteristics of the couple and their family members.

household preferences for health insurance with T_S indicating that both spouses have strong preferences for coverage (positively related to the probability of obtaining coverage), T_W indicating both spouses have weak preferences, and T_{WS} representing households with 'mixed' spousal preferences for health insurance (both negatively related to this probability).[8] The last term on the left-hand side is the respective costs to the household of searching for a job with coverage (increases in such costs reduce the probability of a job with coverage). Assuming (e_N - e_O) is logistically distributed, we fit such an equation for the household as a logit model.

ii. Preferences and the decision to enroll in offered coverage

To estimate the role of health insurance preferences on the decision to enroll in offered coverage, we next consider a simple model of insurance participation. For single workers, let $U_I(Y_I, P; T) + e_I$ represent the utility from insurance and $U_N = U_N(Y_N, M; T) + e_N$, represent the utility from not obtaining health insurance. In these equations Y_I and Y_N represent income in the insured and uninsured states, M represents out-of-pocket medical expenses when uninsured (assumed to be zero when insured), P represents out-of-pocket premium costs, T represents preferences for coverage, and e_I and e_N are stochastic error terms. An individual will enroll if $U_I(Y_I, P; T) - U_N(Y_N, M; T) > e_N - e_I$. Expressing this difference as a simple linear function of Y, P, and the difference in tastes, T_S, and T_W, we obtain the rule for the probability of enrollment:

$P(\text{enrollment}) = U_I(Y_I, P; T) - U_N(Y_N, M; T) = \alpha Y - \delta P + \rho M + \beta(T_S - T_W) > (e_N - e_I)$.

This probability increases with income, decreases with higher premiums, increases with expected

[8] As in our model for single workers, the preference variables are mutually exclusive. We hypothesize that compared to both spouses having strong preferences for health insurance, households in which spouses disagree about the value of coverage (e.g., one spouse with strong preferences and the other with weak preferences) will experience a reduction in utility from a job with health insurance and thus will be less likely to obtain an offer of coverage.

medical expenditures, increases for individuals with strong preferences for coverage and decreases for individuals with weak preferences. Assuming $(e_N - e_I)$ to be logistically distributed, coefficient estimates will be derived from a logit equation of the likelihood of enrollment.

This framework also motivates our empirical work on enrollment decisions by households with married couples. In this case, utility is defined for the couple with Y representing aggregate household income, M representing family out-of-pocket medical care expenses, and P representing the lowest premium available to the household from the coverage offered. As before, tastes are represented by whether both spouses have strong, weak, or mixed preference for coverage. The couple will choose to enroll in offered coverage if:
$P(\text{enrollment}) = U_I(Y_I, P; T) - U_N(Y_N, M; T) = \alpha Y - \delta P + \rho M + \beta(T_S - T_W - T_{WS}) > (e_N - e_I)$.
Households with weak or mixed preferences are less likely than those with strong preferences to enroll in offered coverage. As with single workers, the probability of enrollment increases with family income and expected out-of-pocket medical expenditures, and is reduced by higher premium costs.

Finally, in both our analyses of individual workers and couples, the marginal effect of a $1 increase in premiums on enrollment (δ^*) together with the marginal effect on enrollment due to the presence of weak preferences (β^*) will be used to assess the magnitude of the decline in out-of-pocket premiums necessary to encourage enrollment.[9] Note that each dollar decline in

[9] Marginal effects are derived from the estimated premium and preference coefficients in the enrollment equation. As Chernew, Frick, and McLaughlin (1997) note, the estimated price effect from such an equation can provide an estimate of the subsidy necessary to induce participation and is equivalent to the compensating variation measure of welfare loss under a health insurance mandate.

premium P increases the utility from enrollment relative to non-enrollment by δ^* units (i.e., the utility gain per dollar price reduction) and persons with weak preferences for coverage experience a decrease in utility from enrolling of β^*. A price reduction of β^*/δ^* units will offset the effect of weak preferences on the likelihood of enrollment by the single worker or couple.

III. Data and Empirical Specification

The data used in this study are from the 2001 Medical Expenditure Panel Survey (MEPS), a nationally representative two-year household panel survey sponsored by the Agency for Healthcare Research and Quality (AHRQ). MEPS provides national estimates of the civilian, noninstitutionalized population's access to, use of, and expenditures for health care, their health and health insurance status, demographic characteristics, economic status, and employment and job characteristics. The survey also includes questions on respondent attitudes toward health insurance, risk-taking behavior, and the medical care system contained in a self-administered questionnaire (SAQ) asked of adults around the time of the round 2/4 household interview. The 2001 MEPS includes approximately 14,000 households consisting of nearly 33,500 individuals.

For this analysis, our full sample consists of 14,420 individuals (workers and non-workers, excluding full-time students) ages 18 to 64 who responded directly to the SAQ (we excluded proxy respondents).[10] For our analysis of job search and enrollment decisions, we further limit our sample to single wage earners and couples with at least one working spouse. In both cases, the sample consists of persons/couples ages 18-54. We constrained the upper age limit to 54 in order to avoid complications associated with individuals having other ESI through

[10] Ignoring the proxy constraint yields a sample of 16,151observations. In comparison, our analysis sample was slightly more likely to be female (53.9 percent to 50.8 percent) and less likely to have less than a high school education (15.4 percent to 16.5 percent).

a retired spouse or a prior retirement job. For similar reasons, we also excluded 217 observations with coverage from a job other than their current main job (e.g., through COBRA or another job held at the same time) or with military coverage (e.g.,TRICARE). The resulting sample of single wage earners consists of 3,207 persons.[11] Finally, we restricted our sample of couples to those where each spouse individually responded to the SAQ (that is, we excluded couples if one spouse's response was reported by a proxy, typically the other spouse). Our resulting sample consists of 1,954 couples where both spouses responded to the SAQ and at least one spouse was employed as a wage earner.[12] In all analyses of workers our data exclude the self employed.

All estimates presented have been weighted using the MEPS-SAQ weight and standard errors have been adjusted for the complex sample design of MEPS. Unless otherwise indicated, all findings reported in the text are statistically significant at least at the 0.05 percent level.

Health insurance preferences

Respondents to the MEPS-SAQ are asked whether they agree strongly, somewhat, are uncertain, disagree somewhat, or disagree strongly with the following four attitudinal statements regarding health insurance, risk, and the medical care system: 1) I'm healthy enough that I really don't need health insurance; 2) Health insurance is not worth the money it costs; 3) I'm more likely to take risks than the average person; 4) I can overcome illness without help from a

[11] MEPS included 3,443 unmarried wage earners ages 18-54 with SAQ data who were not students. Elimination of proxy respondents reduced this to 3,207 wage earners. There were no statistically significant differences by demographic characteristics such as age, race/ethnicity, income, and educational attainment between the full sample and our analytical sample.

[12] There were 2,676 married couples with SAQ data where each spouse was 18 to 54 years of age and both were not students, and at least one spouse was a wage earner. Eliminating proxy respondents reduced the sample size to 1,954 couples. Compared to all such couples in the MEPS, our analytical sample exhibited no differences in demographic characteristics.

medically trained person. The first two statements are directly related to an individual's preferences for health insurance and capture different aspects of its value. In contrast, the last two statements provide indirect measures that are likely to be associated with attitudes toward health insurance. Finally, it is important to note that responses to these attitudinal questions were obtained independently of survey questions regarding health insurance status (i.e., through a separate survey instrument) thus mitigating concerns that responses indicating weak preferences for coverage might be a rationale for lacking coverage.

Considering each of the attitudinal statements independently, respondents who strongly or somewhat agree with a specific statement are classified as having weak preferences for coverage. Those who respond that they are uncertain with regard to a specific statement are classified as having uncertain preferences, while those who strongly or somewhat disagree with a specific statement are considered to have strong preferences for coverage.

For married couples, we consider responses to each of the attitudinal statements by both spouses in order to characterize the couple's preferences.[13] We classify couples as having strong preferences for coverage only if both spouses report strong preferences. Similarly, we classify couples as having weak preferences if both spouses have weak preferences and couples as having uncertain preferences if both spouses report they are uncertain with regard to the attitudinal statements. We also consider three separate categories of 'mixed' preferences consisting of couples with weak/strong preferences, weak/uncertain preferences, and

[13] We assume that the preferences of each spouse are treated equally in household decisions regarding health insurance. Thus, we do not construct household preference indicators by applying any weighting scheme to each spouse's preferences (e.g., counting those working or contributing higher income to the household as having more input in decision making).

strong/uncertain preferences.

Finally, we include two additional variables in our specifications that also impart information about attitudes toward health risk. The first variable is a dichotomous measure of whether an individual is a smoker. In addition to information on an individual's health status, this variable may convey information about attitudes regarding risk-taking behavior with respect to health. For single workers, this is simply an indicator of whether or not the individual smokes; for couples, the variable measures whether either spouse is a smoker. The second variable is another indirect measure of health risk obtained through responses to a question regarding seatbelt use. For single persons, we include several measures of seatbelt use (whether the individual uses seatbelts always (the omitted category), nearly always, sometime, seldom, or never), and for couples, we construct three measures indicating whether both spouses never use seatbelts, always use seatbelts (the omitted category), or whether there is some combination of the remaining responses.

Specification of econometric models

In addition to the variables described above, our empirical models of job search and enrollment draw upon the following data. In our model of job search, we assume that the wage differential (gain) from taking a job without health insurance will be positively related to the costs of health insurance. We proxy variation in health insurance costs through the inclusion of the worker's occupation, region of residence, urban or rural locale, and the Center for Medicare and Medicaid Services' hospital wage index. Additionally, as in Monheit and Vistnes (1999), we note that workers receiving more generous health plans (such as older, more experienced, and better educated workers) may obtain a larger wage gain by taking a job without coverage

compared to other workers. We also assume that out-of-pocket medical expenses (M_N) depend on the health status of individuals, the number of children in the household, and whether any children or parents are eligible for Medicaid/SCHIP.

As regards the difference in search costs for jobs with and without coverage, we use proxy variables such as the county unemployment rate from the Area Resource File (higher unemployment rates may increase the costs of search for job offers with coverage) and the proportion of establishments in the worker's county of residence with less than 10 employees and between 10 and 19 employees from Department of Commerce's County Business Patterns data base (we posit that search costs for jobs with health insurance rise and for jobs without coverage fall as there are more small employers in the county). Older (presumably more experienced) and more educated workers/couples may also have easier access to jobs with ESI than those who are younger or less educated and therefore, have lower search costs for jobs with insurance offers. In addition, despite limits on insurers' use of pre-existing health conditions, workers with health problems may also incur additional search costs to find jobs for which they may be eligible for coverage.

A key component of our analysis of enrollment in offered coverage is to assess how the explicit use of preference measures affects participation in ESI and whether price and income responsiveness changes when health insurance preferences are excluded. To assess price responsiveness, we constructed state/establishment size-specific means of employee out-of-pocket premium costs derived from establishment-level data in the MEPS Insurance Component (IC). We matched person-level data from the MEPS Household Component to area-specific estimates (mean values of employee out-of-pocket contributions) from the IC based upon state

and establishment size. For analyses of both single workers and married couples, we examine the impact of changes in out-of-pocket contributions for single coverage which represents the lowest price a household confronts in order to participate in ESI. [14]

Since some of the variation in such costs may reflect geographic and firm size differences in health insurance benefits and payment provisions, we also included variables accounting for the presence of particular insurance provisions by state and establishment size in preliminary econometric specifications. However, since such variables were correlated with the premium data, their inclusion yielded statistically insignificant premium coefficients in our enrollment equations. In addition, the coefficients on most of the benefit variables were themselves statistically insignificant. Further, the statistically significant coefficients on the physician co-payment variable obtained inconsistent signs across the single and married worker enrollment equations. Consequently, we excluded the benefit variables from our enrollment equations. Thus, variation in our estimates of premium contributions may reflect some differences in the quantity or quality of insurance provided. Finally, our models of enrollment decisions include family-level characteristics, including family income (as a percent of the federal poverty line), the number of children, and the presence of possible alternatives to ESI, measured by the number of children predicted to be eligible for Medicaid/SCHIP and whether a parent is eligible.

IV. Descriptive Findings

Prevalence of weak preferences

[14] For couples with two workers who were both offered coverage, we selected the employee contribution of the spouse with the lowest single contribution.

Overall, we find that persons reporting weak preferences represent a minority of all adults and that the prevalence of such preferences is lowest for the response to the statement 'healthy enough, don't need coverage' (9.0 percent of adults). We find that over a fifth of respondents report weak preferences for health insurance based on the other measures. Were we to add the prevalence of uncertain preferences to these tabulations (so that we consider all adults without strong preferences for coverage), the tabulations would increase to 14.5 percent with weak or uncertain preferences based upon 'healthy enough, don't need coverage,' 34.4 percent based upon 'health insurance is not worth the cost,' 35.8 percent for 'more likely to take risks,' and 33.8 percent for the 'overcome illness' statement.

In Table 1, we examine the association between health insurance status and preferences for coverage. In panel A, we consider whether persons with weak or uncertain preferences are more likely to be uninsured all year compared to persons with strong preferences. For the two direct preference measures, we find that the former groups are more than twice as likely as the latter to be uninsured throughout 2001. Persons reporting weak or uncertain preferences in response to the indirect 'take risk' statement had roughly the same likelihood of being uninsured all year and are seven to eight percentage points more likely to lack coverage than persons with strong preferences. Finally, we also observe small but statistically significant differences in the likelihood of being uninsured all year for persons who report weak or uncertain preferences in response to the 'overcome illness' statement compared to those with strong preferences.[15]

[15] These tabulations raise the issue of whether such attitudes toward health insurance are simply a correlate of other factors more directly associated with ability to pay or to otherwise obtain access to coverage. To address this issue, we estimated multinomial logistic regressions with health insurance status (insured all year, part year, or uninsured all year) as the outcome variable (results available upon request). We found that adults with weak preferences were more likely to

Next (panel B), we consider persons uninsured during January 2001 and examine whether those with weak or uncertain preferences are less likely than persons with strong preferences to ever acquire coverage during the remainder of the calendar year. For our two direct measures of health insurance preferences, we find that among such uninsured persons, 32.7 percent of those with strong health insurance preferences (in response to 'healthy, don't need coverage') acquired coverage compared to only 23.1 percent of those with weak preferences and roughly a fifth of those with uncertain preferences. Additionally, 34.9 percent of adults uninsured during January reporting strong preferences (in response to the 'too costly' statement) acquired coverage compared to only 24.9 percent of those with weak preferences and 25.2 percent of those with uncertain preferences. In contrast, using the indirect preference measures, we find no statistically significant differences in the likelihood of acquiring health insurance between persons with weak/uncertain preferences and those with strong preferences (in response to the 'take risk' statement). However, we find that uninsured adults with strong preferences (in response to the 'overcome illness' statement) are more likely to acquire coverage than those with weak preferences.

Health insurance preferences, offers of coverage, and enrollment

In Table 2, we provide descriptive data on whether wage earners with weak or uncertain preferences for health insurance are less likely to obtain or "sort" into jobs that offer coverage compared to those with strong preferences, and whether the former groups are also less likely to enroll in offered coverage. For single workers we examine offers of insurance from the worker's current main job and enrollment in such coverage. For couples, we examine whether either

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be uninsured all year (relative to being insured all year) compared to adults with strong preferences, holding age, gender, race/ethnicity, income, education, and health status constant.

spouse received an offer from their current main job and whether either spouse enrolled in such coverage. To conserve space, and as a prelude to our econometric analysis, we examine the two direct preference measures and the 'take' risk measure. Among single workers and couples, we find striking evidence consistent with these differences in behavior. Using the direct preference measures, we find that single workers and couples with weak or uncertain preferences are less likely to obtain jobs with coverage or to enroll in offered coverage than those with strong preferences. Using the 'take risk' measure, we also find that single workers and married couples with weak or uncertain preferences are less likely to obtain job offers with health insurance than their counterparts with strong preferences. However, as regards enrollment, we only find couples with uncertain preferences to be less likely to take up coverage than those with strong preferences.

Presence of imperfect sorting

While the descriptive statistics of Table 2 are consistent with worker sorting by health insurance preferences, we also find such sorting to be imperfect. For example, using the 'healthy, don't need coverage' measure and considering single wage earners ages 18 to 54 who either reported strong or weak preferences, we find that 28.2 percent of such workers are mismatched, having preferences for coverage that are inconsistent with the availability of coverage at their jobs. Of this total, 18.9 percent of such workers have strong preferences for coverage and are without jobs that provide insurance, while 9.3 percent have weak preferences but are offered coverage. Among couples ages 18-54 with at least one working spouse and where both spouses either report strong or both report weak preferences, we find that only 7.6 percent are mismatched: Five percent of such couples have strong preferences and obtain jobs that fail to

offer coverage while 2.6 percent of couples have weak preferences and obtain jobs offering coverage. The lower prevalence of such mismatches among couples may reflect the fact that when both spouses are employed, more opportunities are present to obtain jobs consistent with the couple's health insurance preferences.

As noted in our earlier work (Monheit and Vistnes 1999), such findings, especially for single workers, raise the issue of whether search costs, human capital, or other impediments to jobs preclude some workers from obtaining jobs that meet their preferences for coverage. Despite strong preferences, some workers may lack the requisite human capital to obtain job offers with coverage, while other workers with weak preferences but substantial human capital may find it difficult to avoid employment in jobs that do not offer coverage.

V. Econometric Results

In this section, we apply the empirical models described in Section II to examine the role of preferences and other factors in decisions to seek out and enroll in ESI. Using logit models, we first examine the likelihood of obtaining a job offering ESI and next, we model the decision to enroll in offered coverage. We estimate these models on single workers (Table 3) and on married couples (Table 4). We present findings for each of the direct preference measures. Since findings for the indirect preference measures were not as robust, we limit the presentation of our results to the 'take risk' measure.[16] We report marginal effects (percentage point changes)

[16] We fit separate equations for each of the preference measures to avoid any problems associated with correlation among these measures. For models using the 'overcome illness' preference measure, we found no effect of preferences in estimates of insurance offers. In estimates of the take-up equation, only weak preferences (for single workers $p < 0.10$) and combined weak/strong preferences for couples were statistically significant.

associated with changes in specific variables as well as the corresponding decline in baseline offer and enrollment rates.[17] Unless otherwise indicated, logit coefficients are statistically significant at $p < 0.05$ or better for a two-tailed test.

Single workers

Results presented in Table 3 indicate that preferences for health insurance play a role in decisions by single workers to obtain jobs that offer health insurance and to enroll in offered coverage.[18] Considering responses to 'healthy, don't need coverage,' those with weak or uncertain preferences are 6.15 and 8.43 percentage points less likely to obtain an offer of coverage than persons with strong preferences. We also find that workers reporting weak or uncertain preferences in response to 'health insurance is not worth the cost' are 4.10 and 6.34 percentage points less likely to obtain jobs with health insurance compared to those with strong preferences. In addition, we find some evidence that single individuals who report being risk takers are 2.98 percentage points less likely to obtain jobs with health insurance (coefficient significant at $p < 0.10$). Finally, we also find evidence that other measures of attitudes toward risk are associated with a reduced likelihood of obtaining a job with health insurance. In particular, we find that single persons who smoke and those who nearly always or seldom use

[17] Marginal probabilities were obtained for discrete variables by first assuming each observation to have the characteristic of interest (e.g., parent is eligible for Medicaid/SCHIP), predicting the probability of any ESI or enrollment and averaging. The same procedure was used assuming each observation did not have the characteristic of interest. The difference between predicted mean probabilities with and without the characteristic of interest represents the marginal effect associated with that characteristic. For continuous variables, the marginal effect was calculated for each observation and then averaged.

[18] While the sample and use of preference variables differ somewhat, our findings are consistent with those from Monheit and Vistnes (1999).

seatbelts are 6.50, 6.44 and 9.65 percentage points less likely to obtain such jobs compared to non-smokers and those who always wear seatbelts (results reported from the 'don't need' model).

To put these marginal effects in perspective, we consider their impact as a percent of the baseline offer rate of 75.2 percent. Having weak or uncertain preferences in response to 'healthy don't need coverage' yields a decline in the offer rate of 8.18 and 11.21 percent respectively, while having weak or uncertain preferences in response to the 'too costly' measure yields a 5.45 and 8.43 percent decline. By comparison, we find that persons with 12 years of education are 7.15 percentage points less likely to obtain a job with coverage than those with 16 years, resulting in a 9.51 percent decline in the baseline offer rate. In addition, being a non-smoker or seldom wearing a seatbelt results in an 8.64 and 12.83 percent decline.

Other variables in each of the logit equations are consistent with the underlying search model (full results available upon request). Single workers facing higher search costs for jobs with health insurance, such as those in fair/poor health compared to adults in excellent, very good, or good health, those residing in counties with higher proportions of small employers (establishments with less than 10 employees), and those in counties with higher unemployment rates are less likely to obtain jobs with insurance. However, the coefficients on the latter two variables were not statistically significant. Single workers expected to have lower out-of-pocket medical expenses, such as younger workers, those who have children predicted to be eligible for Medicaid/SCHIP, or who themselves are predicted to be eligible are less likely to have jobs offering coverage, while adults expecting to incur higher medical expenditures, such as those with more children, are more likely to obtain jobs with coverage. Finally, we find that better

educated workers (those graduating or with some years in college) are more likely to obtain jobs with health insurance, reflecting their lower costs of searching for such jobs, given their human capital, and perhaps their greater willingness to invest in health.

We also find evidence that preferences play a role in single workers' decisions to enroll in offered coverage. For the two direct preference measures, we find that single individuals who have weak preferences based on 'healthy, don't need coverage' are 5.87 percentage points less likely to enroll than those with strong preferences, while those stating that 'health insurance is not worth the cost' are 5.93 percentage points less likely. Note that these changes represent 6.48 and 6.55 percent reductions in the baseline take-up rate of 90.6 percent. Single workers with uncertain preferences based on either the 'don't need insurance' or 'too costly' preference measures are, respectively, 3.74 and 3.19 percentage points less likely to enroll than those with strong preferences (both coefficients are significant at $p < 0.10$). Finally, we find that single workers who sometimes and never wear seatbelts are less likely than those who always do to enroll.

The logit results for all specifications reveal that young adults aged 18 to 24 are less likely to enroll in offered coverage than those 40 to 54. We also find that single-workers predicted to be eligible for Medicaid/SCHIP coverage are roughly 14.5 percentage points less likely to enroll compared to those predicted to be ineligible. Affordability also appears to be an impediment to enrollment as those who are poor or near-poor, low, or middle income are less likely to enroll than single workers with high incomes. We also find that college graduates or those with some college ($p < .10$ for some college) are more likely to enroll than those with less education. Finally, we find that higher employee out-of-pocket premium payments for single

coverage are associated with a lower likelihood of enrollment. However, coefficient estimates are not precisely estimated and fail to obtain statistical significance in all specifications.[19]

We fit separate equations for each of the preference measures to avoid any problems associated with correlation among these measures. When the preference variables are omitted from each of the offer and enrollment equations, we find negligible changes in the magnitude and statistical significance of the remaining demographic, health status, income, and premium variables. This comparison suggests that variables directly assessing preferences for coverage independently account for differences in the demand for ESI and that demographic and health status variables may be capturing other factors associated with the ease of access to jobs with coverage or with an individual's expected use of health services. This finding is also consistent with the weak contribution of demographic characteristics in explaining variation in preferences in multinominal logit models of preferences (results available upon request).

Married couples

Results for married couples, displayed in Table 4, also indicate that weak or uncertain preferences for health insurance affect job offer and take-up decisions. In these equations, we specify preferences through several dummy variables indicating whether the couple has weak preferences (both spouses); whether the couple has uncertain preferences (both spouses); and whether couples have mixed preferences using the following combinations: weak/strong

[19] In part, our failure to obtain statistically significant premium effects may reflect our method of constructing the premium variable. Since premiums faced by individual workers are not available from the MEPS household data, our use of geographic averages reduces the variation in premiums across such observations, eliminating the possibility that some workers may face zero out-of-pocket premiums As we report below, our premium effects are more precisely estimated for married couples. Results for married couples are significant at $p < 0.10$ or better but attain significance at the 0.05 level for only one specification (using the 'take risk' preference measure).

preferences, weak/uncertain preferences, or strong/uncertain preferences. The reference group consists of couples with strong preferences for health insurance.

We find that couples reporting uncertain preferences in response to the 'healthy, don't need coverage' statement are 14.03 percentage points less likely to obtain jobs with health insurance compared to couples who both report strong preferences. Since the baseline offer rate is 92.1 percent, the marginal effects correspond closely to their percent impact on this rate. Additionally, we find that couples with a combination of weak/strong preferences are also 4.32 percentage points less likely to obtain job offers with insurance and that those reporting a combination of uncertain and strong preferences are 5.43 percentage points less likely to obtain such offers. Further examining the impact of mixed preferences (regressions not shown), we find that the statistical significance of the former result is driven by the weak preferences of the wife while that of the latter reflects the husband's uncertain preferences.

Using the 'not worth the cost' statement, we find households with both spouses reporting weak preferences to be 2.89 percentage points less likely to obtain job offers with coverage (coefficient significant at $p < 0.10$), while those where both report uncertain preferences are 6.23 percentage points less likely. We also find couples with a combination of weak/uncertain preferences to be 6.93 percentage points less likely to obtain a job offer with coverage, while those with a combination of weak and strong preferences are 3.67 percentage points less likely. For the latter combination, we lack the statistical power to determine which spouse is driving the decision. Finally, in response to the 'take risk' statement, we find that when both spouses report being risk takers, the couple is 11.91 percentage points less likely to obtain a job offering coverage than couples where both spouses are not risk takers.

Finally, using another indirect measure of risk-taking attitudes, we find that couples who never use seatbelts are 15.27 percentage points less likely to obtain a job offer with health insurance (from the 'healthy, don't need coverage specification') compared to those who report that they always wear seatbelts. Similar results are obtained in the other specifications.

Our specifications also reveal that a limited number of other variables display statistical significance and are consistent with the underlying job sorting model. Across all specifications, we find evidence that couples in counties with higher unemployment rates are less likely to obtain job offers with coverage. Similar to single workers, couples with higher educational attainment are more likely to obtain a job offer with coverage as their enhanced human capital is likely to facilitate job search for this employment-related benefit. Our findings also reveal that across specifications, households in which children or a parent are predicted to be eligible for Medicaid/SCHIP are less likely to obtain job offers with coverage, yielding a reduction in this probability of 2.69 percentage points for an additional eligible child and 6.83 percentage points if a parent is eligible (results using 'healthy, don't need coverage'). Finally, we find that households in which the MEPS SAQ questionnaire was administered in Spanish are less likely to obtain job offers with ESI.

Turning to enrollment decisions, we find that households in which both spouses report weak preferences for coverage in response to 'healthy, don't need coverage' or both report uncertain preferences are 4.33 and 4.75 percentage points less likely to take up offered coverage (the former variable is significant at $p < 0.10$). Since the baseline take up rate for married couples is quite high (96.2 percent), these marginal effects correspond closely to their percent reduction in the likelihood of enrollment. We also find that when both spouses report uncertain

preferences for coverage in response to the 'too costly measure', the likelihood of enrollment declines by 3.47 percentage points and when couples report a combination of weak and uncertain preferences the likelihood of enrollment declines by 3.79 percentage points. Couples with a mix of weak and strong preferences (coefficient significant at $p < 0.10$) are 2.56 percentage points less likely to enroll than couples where both spouses report strong preferences (a result driven by the husband's weak preferences for coverage, $p < .10$).

Estimated coefficients on employee contributions to single premiums on enrollment by couples are more precisely estimated than for single workers. In each equation, premium effects are negative and statistically significant at least at $p < 0.10$. Using 'healthy, don't need insurance' as the preference measure, we find that a $100 increase in employee premium contributions reduces the probability of enrollment by 0.598 percentage points (similar results are obtained for specifications using other preference variables).

As noted earlier, the ratio of the marginal effect on enrollment from a $1 change in the out-of-pocket premium to the effect of not having strong preferences can be used to compute the premium subsidy necessary to offset the reduction in enrollment due to weak or uncertain preferences. Applying the marginal effects for premiums and for preferences using the 'healthy don't need coverage' measure, we estimate that a subsidy of $768 would be required to compensate couples for the loss of utility associated with enrolling in health insurance when both spouses have weak preferences for coverage, and a subsidy of $844 would be required for households where both spouses have uncertain preferences. By comparison, using estimates from the 'too costly' specification, we find that a subsidy of $579 would be required when both have uncertain preferences. Comparable to the latter estimate, we estimate a subsidy of $633 for

couples with a combination of weak and uncertain preferences. Finally, note that the differences in subsidy estimates primarily reflect differences in the magnitude of the marginal impact of the different preference measures across the specifications.

Finally, as with single workers, we also find evidence in all specifications that affordability may be an impediment to enrollment as poor/near poor, low income, and middle income couples are less likely to enroll in offered coverage than those with high incomes. In all specifications, couples with children eligible for Medicaid/SCHIP or who are themselves eligible are less likely to enroll in ESI. Having an additional child eligible for Medicaid/SCHIP or a parent eligible reduces the likelihood of take up by 1.58 and 5.34 percentage points, respectively.

VI. Conclusions and Implications

Concern over the weak response by the uninsured to initiatives encouraging voluntary enrollment in health insurance has led policymakers and researchers to question whether the uninsured value health insurance and, thus, whether policy initiatives ought to foster an awareness of the value of coverage. In this paper, we have addressed this issue by examining the role played by preferences for health insurance in decisions by individuals and married couples to seek out and enroll in ESI. Our descriptive tabulations reveal that adults with weak or uncertain preferences for coverage are more likely to be uninsured than those reporting strong preferences. Our econometric work also reveals that single workers and married couples with weak or uncertain preferences are less likely to obtain jobs with health insurance than those with strong preferences. These findings are consistent with earlier work on job sorting for single workers (Monheit and Vistnes, 1999). We also find evidence that single workers and married

couples with weak or uncertain preferences are also less likely to take up offered coverage.

Since our estimated premium coefficients for single workers are not statistically significant, we cannot provide estimates of the premium subsidy for this group to compensate them for the disutility associated with enrollment in offered coverage. Our estimates of the premium subsidy necessary to compensate married couples generally exceed the minimum out-of-pocket premium costs necessary to obtain *any* health insurance coverage (i.e., single coverage). We also find that affordability of coverage is likely to be a factor in enrollment decisions as individuals and families with incomes less than four times the federal poverty line are less likely to enroll than those with high family incomes. Finally, we find little change in the contribution of demographic and health-related characteristics when the preferences are omitted from the specifications.

Our findings also suggest that persons with weak and uncertain preferences for coverage represent a sizeable portion of the workers who were uninsured throughout 2001. Among workers aged 18-54 who were uninsured all year, 31.4 percent reported weak or uncertain preferences in response to 'healthy, don't need coverage,' and 54.6 percent reported weak or uncertain preferences in response to the 'not worth the cost' measure.[20] However, our findings should not be interpreted as ignoring the importance of ability to pay as impeding enrollment in ESI. Among uninsured workers ages 18-54, those with weak preferences tend to be economically vulnerable. Three-quarters have completed 12 years of schooling or less and 49.8

[20] As noted above, since we exclude proxy respondents, our estimates cannot be considered nationally representative. However, our examination of samples with and without proxy respondents revealed only small differences in selected demographic characteristics.

percent have incomes less than twice the poverty line.[21]

Our findings suggest that there may be a considerable gap between the perceptions of policymakers and some of the uninsured regarding the social and private value of health insurance. The equity and efficiency considerations noted in our introductory section may not resonate with some of the uninsured. Apart from human capital considerations, such individuals with weak or uncertain preferences for health insurance select jobs without coverage, perhaps valuing wage income with certainty over the uncertain yield of health insurance benefits, especially when the latter entails out-of-pocket premium contributions, deductibles and co-payments, and excludes valued services or restricts the choice of providers.

Finally, our results also shed light on the relative merits of encouraging enrollment through mandatory versus voluntary approaches. As regards the former, our findings suggest that some of the uninsured are likely to experience welfare losses should mandatory provision of health insurance benefits be imposed without premium or income subsidies to offset required premium contributions. Alternatively, our finding that weak/uncertain preferences reduce the likelihood of enrollment for some workers, apart from considerations of income, suggests that reliance on 'voluntarism' should also be accompanied by educational efforts to inform targeted uninsured groups about the merits of health insurance. Such educational efforts should not merely be restricted to informing targeted groups about the presence of a new program, but provide more generic information regarding the purpose of health insurance, its attendant costs, and its likely impact on improving timely access to services and the quality and continuity of

[21] These tabulations are based upon responses to 'healthy, don't need coverage' and estimates are nearly identical when responses to the 'not worth the cost measure' are used.

care. Such an information exchange might focus on health plan design, soliciting feedback on valued benefits or aggressively marketing low-cost catastrophic coverage to the young and unmarried. Thus, a dual approach which would provide a combination of subsidies and educational efforts to those most likely to exhibit weak or uncertain preferences for coverage might prove more effective than one limited to either component.

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Table 1. Uninsured persons and health insurance preferences, 2001.				
a. Percent uninsured all year by health insurance preferences (Population in thousands: 17,930)				
Preference measure	'Healthy enough, don't need health insurance'	'Health insurance is not worth the cost'	'More likely to take risks than the average person'	'Overcome illness without medical care system'
	Percent uninsured all year (standard error)			
Weak preferences	26.8 (1.44)	20.9 (0.89)	19.6 (0.85)	16.7 (0.87)
Uncertain preferences	30.3 (1.89)	24.2 (1.27)	18.1 (0.94)	17.8 (1.31)
Strong preferences	11.7 (0.44)	9.8 (0.46)	11.3 (0.50)	12.2 (0.50)
b. Percent uninsured in January 2001 who acquire coverage during 2001 (Population in thousands uninsured on January 1: 24,937).				
Preference measure	'Healthy enough, don't need health insurance'	'Health insurance is not worth the cost'	'More likely to take risks than the average person'	Overcome illness without medical care system
Percent acquiring coverage (standard error)				
Weak preferences (agree)	23.0 (1.97)	24.9 (1.75)	28.5 (1.96)	25.6 (1.88)
Uncertain preferences	20.3 (2.67)	25.1 (1.90)	26.9 (2.04)	28.2 (2.18)
Strong preferences (disagree)	32.7 (1.35)	35.0 (1.67)	31.6 (1.50)	31.8 (1.39)

Source: 2001Medical Expenditure Panel Survey.

Table 2. Percentage of single persons and couples who are offered health insurance and take up offered coverage according to health insurance preferences.						
	Healthy enough, don't need coverage		Health insurance is not worth the cost		More likely to take risks	
	% offered coverage	% taking up offered coverage	% offered coverage	% taking up offered coverage	% offered coverage	% taking up offered coverage
Single workers						
Weak preference (agree with statement)	68.3 (2.9)	85.6 (2.5)	70.9 (2.0)	85.3 (2.0)	71.4 (1.8)	89.2 (1.6)
Uncertain preferences	59.6 (3.5)	83.9 (3.5)	63.4 (2.5)	87.3 (2.4)	71.6 (2.4)	88.8 (2.0)
Strong preferences (disagree)	78.1 (1.0)	91.8 (0.8)	79.6 (1.0)	92.9 (0.7)	78.4 (1.1)	91.8 (0.8)
Couples						
Both weak preferences (agree)	85.0 (4.2)	85.9 (5.2)	89.7 (2.1)	93.7 (1.6)	74.3 (4.7)	94.5 (2.4)
Both uncertain preferences	66.2 (9.5)	81.9 (9.5)	76.6 (5.1)	87.5 (4.3)	91.1 (2.5)	92.0 (2.7)
Both strong preferences (disagree)	94.9 (0.6)	97.1 (0.5)	95.5 (0.6)	98.2 (0.4)	94.5 (0.8)	97.5 (0.5)

Table 3: Selected Coefficients from the Logit Estimates for Single Workers			
Independent Variables	**Healthy, Don't Need**	**Not Worth the Cost**	**Take Risk**
Probability of taking a job that offers health insurance			
	Model 1	**Model 2**	**Model 3**
Preferences: Weak	-.4030** (.1658)	-.2767** (.1186)	-.2017* (.1207)
Preferences: Uncertain	-.5398*** (.1893)	-.4172*** (.1391)	-.1227 (.1391)
Education: < 12 years	-.6597*** (.1588)	-.6830*** (.1563)	-.6863*** (.1561)
Education: 13-15 years	.4231*** (.1613)	.4185*** (.1618)	.4329*** (.1613)
Education: 16 years	.4933** (.2106)	.4773** (.2124)	.5052** (.2102)
Education: > 16 years	.5064* (.2670)	.5272** (.2683)	.5451** (.2661)
Individual is a smoker	-.4332*** (.1128)	-.4098*** (.1129)	-.4018*** (.1114)
Nearly always wears seatbelts	-.4221** (.1644)	-.3940** (.1626)	-.4028** (.1652)
Sometimes wears seatbelts	-.0520 (.1852)	-.0485 (.1840)	-.0658 (.1836)
Seldom wears seatbelts	-.6129*** (.2373)	-.6053*** (.2254)	-.6161*** (.2299)
Never wears seatbelts	-.4611 (.2949)	-.4340 (.2860)	-.4711 (.2915)
No. of children predicted eligible for Medicaid/SCHIP	-.7184*** (.1688)	-.7373*** (.1679)	-.7201*** (.1676)
Any parent predicted eligible for Medicaid/SCHIP	-1.4209*** (.2548)	-1.4328*** (.2631)	-1.4292*** (.2589)

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Table 3 (continued).			
Pseudo R-Squared	0.1886	0.1873	0.1849
Number of Observations	3207	3207	3207
Independent Variables	**Healthy, Don't Need**	**Not Worth the Cost**	**Take Risk**
Probability of enrolling in offered coverage			
	Model 1	**Model 2**	**Model 3**
Preferences: Weak	-.7072*** (.2448)	-.7628*** (.2019)	-.2965 (.2067)
Preferences: Uncertain	-.4834* (.2680)	-.4538* (.2495)	-.2293 (.2508)
Income: Poor/near poor	-2.4165*** (.3245)	-2.4110*** (.3275)	-2.3941*** (.3223)
Income: Low income	-1.6405*** (.2820)	-1.5919*** (.2766)	-1.6395*** (.2745)
Income: Middle income	-.6803** (.2677)	-.6661** (.2666)	-.6972*** (.2639)
Nearly always wears seatbelts	-.0593 (.2769)	-.0847 (.2679)	-.0177 (.2763)
Sometimes wears seatbelts	-.4966** (.2464)	-.4696* (.2402)	-.5027** (.2432)
Seldom wears seatbelts	-.4856 (.4191)	-.4111 (.4382)	-.4446 (.4336)
Never wears seatbelts	-.9254** (.3789)	-.8945** (.3762)	-.9151** (.3756)
Any parent predicted eligible for Medicaid/SCHIP	-1.3596*** (.4416)	-1.3702*** (.4350)	-1.3390*** (.4264)
Single Out-of-Pocket Premium	-.0006 (.0007)	-.0006 (.0007)	-.0006 (.0007)
Pseudo R-Squared	0.1868	0.1914	0.1810
No. of Observations	2292	2292	2292

Source: MEPS-Household Component, 2001. *, **, *** Indicates significance at the 10%, 5% and 1% levels, respectively. Other variables in the models are described in Section III of the paper.

Table 4: Selected Coefficients from the Logit Estimates for Couples with at least One Working Spouse			
Independent Variables	**Healthy, Don't Need**	**Not Worth the Cost**	**Take Risk**
Probability that couple obtains a job offer with health insurance			
	Model 1	**Model 2**	**Model 3**
Preferences: Both weak	-.1063 (.4192)	-.5429* (.3271)	-1.5139*** (.3690)
Preferences: Both uncertain	1.6991** (.7621)	-1.0065** (.4496)	-.4767 (.3736)
Preferences: Mixture of weak/strong	-.7091** (.3290)	-.6618** (.3345)	-.0245 (.3009)
Preferences: Mixture of weak/uncertain	-1.0537 (.7721)	-1.0912*** (.3911)	-.5946 (.4265)
Preferences: Mixture of strong/uncertain	-.8526** (.3449)	-.0075 (.3660)	-.1789 (.3497)
Highest Education of Spouse: < 12 years	-.4752* (.2826)	-.5998** (.2903)	-.5827** (.2705)
Highest Education of Spouse: 13-15 years	.7144** (.2979)	.6786** (.2824)	.6196** (.2817)
Highest Education of Spouse: 16 years	.2791 (.3425)	.2460 (.3363)	.2351 (.3496)
Highest Education of Spouse: > 16 years	.2430 (.4674)	.1706 (.4584)	.1602 (.4567)
Couple seatbelt use: other	-.0514 (.2439)	.0252 (.2455)	-.0329 (.2430)
Couple never wears seat belts	-1.7257** (.7064)	-1.8750*** (.6807)	-1.9859*** (.6838)
Parent eligible for Medicaid/SCHIP	-.9531** (.3851)	-.8073** (.389)	-.8162** (.3506)
Pseudo R-Squared	0.2751	0.2721	0.2798
Number of Observations	1954	1954	1954

Table 4 (continued): Selected Coefficients from the Logit Estimates for Couples with at least One Working Spouse			
Independent Variables	**Healthy, Don't Need**	**Not Worth the Cost**	**Take Risk**
Probability couple of enrolls in offered coverage			
	Model 1	Model 2	Model 3
Preferences: Both weak	-1.0784* (.6143)	-.6727 (.4164)	-.3110 (.6046)
Preferences: Both uncertain	-1.1555** (.5870)	-1.1277** (.4874)	-.4979 (.5203)
Preferences: Mixture of weak/strong	.3396 (.5523)	-.9022* (.5469)	-.6454 (.4050)
Preferences: Mixture of weak/uncertain	.1490 (1.0009)	-1.2001** (.5069)	.1098 (.5360)
Preferences: Mixture of strong/uncertain	-.2200 (.5412)	-.8156 (.6327)	-.0489 (.5135)
Income: Poor/near poor	-1.9333** (.7626)	-1.7791** (.7288)	-1.8726** (.7435)
Income: Low income	-1.9111*** (.6891)	-1.7709*** (.6862)	-1.9200*** (.6764)
Income: Middle income	-1.1058* (.5989)	-1.0072* (.5774)	-1.0978* (.5903)
Any spouse smoke	-.9884*** (.2890)	-.9298*** (2892)	-.8912*** (.2830)
No. of children eligible for Medicaid/SCHIP	-.4663*** (.1807)	-.4319** (.1727)	-.4279** (.1754)
Any parent eligible for Medicaid/SCHIP	**-**1.2460** (.5189)	-1.2785** (.5253)	-1.2311** (.5207)
Single Out-of-Pocket Premium	-.0019* (.0011)	-.0021* (.0012)	-.0022** (.0011)
Pseudo R-Squared	0.3109	0.3165	0.3081
Number of Observations	1737	1737	1737

Source: MEPS-Household Component, 2001. *, **, * Indicates significance at the 10%, 5% and 1% levels, respectively.** Other variables in the models are described in Section III of the paper.