Family Decision Making When Two Workers Are Offered Group Coverage

M. Susan Marquis and Kanika Kapur

Background

About 60 percent of married women are in the labor force (U.S. Bureau of the Census, 2002). As a result, many families can now choose among health insurance benefit plans offered by two employers. The choices that families make potentially have important policy implications and distributional consequences.

Recent work using the 1996 Medical Expenditure Panel Survey has shown that two-earner households are more likely to be offered health insurance, to be covered by health insurance, and to have generous benefits than single-earner households (Royalty and Abraham, 2003). Other analyses have demonstrated that a number of families with offers from two employers choose to obtain double coverage, that is, they cover at least some family members under more than one plan (Schur and Taylor, 1991; Monheit, Schone, and Taylor, 1999). By purchasing double coverage, families may be able to reduce the cost-sharing requirements they would face with only one plan and also increase the range of covered benefits. Many employers are trying to control health care costs by increasing cost-sharing requirements to make consumers more cost conscious at the time of use (Lesser and Ginsburg, 2003). By choosing dual coverage, therefore, families may lessen the effectiveness of this approach to cost control.

Economists generally believe that the cost of employer-paid premiums falls on employee wages. However, the evidence about how this generally occurs—that is, whether an individual worker's wages are adjusted based on the worker's choice or whether the adjustment is based on average employer contributions--is limited.[1] While adjustments may be made for different classes of worker based on readily observable characteristics, such as age, it seems implausible that incidence is fully

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[1] Several studies have found evidence that wage adjustments do vary with characteristics of the worker (Gruber 1994; Pauly and Herring 1999; Sheiner, 1999) However, a number of studies have failed to find robust estimates of the expected relationship between wages and health insurance (Jensen and Morrisey, 2001; Levy and Feldman, 2001; Simon 2001).

worker specific within the firm, especially since the compensation packages are announced prior to when workers' specific choices are known. Employers generally contribute less to the coverage of dependents than they do to the employee, however they typically contribute some amount. If the wages of those who do and do not choose family coverage are not differentially adjusted based on this choice, then there may be unintended cross-subsidies occurring within the firm. In addition, there may be distributional consequences stemming from the individual tax subsidy to the purchase of insurance, since choices may influence the size of the subsidy.

There may also be distributional issues across businesses. Earlier research found that about 10 percent of employees and dependents with coverage from a larger firm have a working family member in a small firm, suggesting that large employers may "subsidize" small employers (Monheit and Vistnes, 1994). A business may be able to reduce its compensation costs if it can encourage its workers with working spouses to take family coverage from the other employer. Some empirical support for the idea that employers adopt strategies, such as raising contribution rates, to shift family workers' coverage has been presented (Dranove, Spier, and Baker 2000). In addition, several employers have recently announced plans to alter contribution strategies to discourage workers from enrolling family members (Costello, 2003; Fuhrmans, 2003).

Despite the potential implications of the decisions made by families with dual access to coverage, there has been limited investigation of the topic. Abraham, Vogt, and Gaynor (2003) compare health plan choice among households with single and dual health insurance offers using the 1996 Medical Expenditure Panel Survey and find that premium affects the choice of health plan among both types of households; however the magnitude of the premium effect is small. Monheit and his colleagues (1999) also explored coverage choices for the two earners, though not decisions about the coverage of other family members. They concluded that decisions were strongly influenced by economic considerations—especially the wages of the earners and whether a contribution was required. However, they had limited information about the amount of the contribution and the nature of the benefits offered to explore the role that these factors play in the decision. Moreover, the number of dual worker families has increased in the 15 years since the data covered by their study.

Family decision patterns have also changed dramatically over the period. The share of families with children purchasing dual coverage for all family members fell by about 30 percent between 1988 and 2003 (from 29.1 percent to 19.9 percent) and it fell by about 50 percent for married couples without children (from 23.0 percent to 11.2 percent) (Table 1). In 2003, almost 60 percent of families with children purchased coverage from just one of the two employers, up from 47 percent in 1988. The share of married couples without children purchasing two single policies increased from 24 percent in 1988 to 44 percent today.

Trends in employee contributions and coordination of benefits that occurred over this period suggest that the shift in family choices may have been influenced by changes in the costs and benefits of alternative choices. The period was one during which employee contributions increased substantially. In 2003 dollars, the employee contribution for single coverage increased from $12 per month to $52 per month and contributions for family coverage increased from $65 per month to $201 per month (Kaiser Family Foundation, 2004). Another significant trend occurred in how plans coordinate their benefits. Historically, the most popular method was standard coordination of benefits under which each plan paid its benefits subject to the restriction that total payments did not exceed charges. However, insurers increasingly use the carve-out approach under which the secondary payer subtracts or carves-out from the amount the secondary payer would pay. The result is that the total benefit is the same as would be received from the secondary payer. The carve-out method is now in use by about 2/3 of employers, at least for retiree benefits (Kaiser Family Foundation, 2004).[2]

Our study contributes to the literature by developing a behavioral model of health insurance choice among families offered dual coverage that analyzes the role of price, worker, and family characteristics. Our analysis examines the role of the employee share of the premium costs and insurance benefits available in the alternative choices on family decisions. We also explore which worker provides the coverage for family members and whether characteristics of the worker and the employer affect this choice. Simulations based on our analysis shed light on the

[2] We were unable to locate any statistics on the prevalence of use of alternative COB provisions for employee benefits.

extent of cross-subsidization between small and large firms and between different demographic classes of workers.

Data and Methods

Data

The data for our study come from the Current Population Survey (CPS) and the 1997 Robert Wood Johnson Foundation (RWJF) Employer Health Insurance Survey. The CPS is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. A supplement to the CPS administered in March of each year includes questions on health insurance coverage for each family member. The CPS provides information to identify dual worker families and their characteristics. We use data from the March CPS for the years 1997-2001.[3]

In order to have information about the out-of-pocket premium cost of coverage for employees and the insurance benefits offered by the employer, we synthetically linked workers to business establishments that were included in the sample for the RWJF Employer Health Insurance Survey. The employer survey provides information about state, industry, group size, and the wage composition of the work force, as well as information about the premium for family coverage and single coverage, the employee share of that premium, and the actuarial value of the insurance benefits offered by the employer.[4] The CPS provides data about the worker's state, industry, group size, and wages. We linked workers to businesses based on the known characteristics in each data set—region, industry and group

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[3] We restricted our sample to the years 1997-2001 because the employer data are for the year 1997. Trend data suggest that characteristics of employer offers remained relatively constant over this time (Gabel, Long, and Marquis, 2002). However, beginning in 2002, employer contribution rates began to decline and benefits were cutback as employers sought to control costs. Thus, the 1997 survey data may not reflect the costs and benefits families faced in making decisions post 2001.

[4] The actuarial value of each plan was computed by estimating the share of expenses for a standardized population that the plan would cover. For details see Gabel, Long and Marquis, 2002.

size--and the probability of belonging to a firm with few or many low wage workers, given the individual's wage.[5] In linking workers with group coverage to an employer, we limited the pool of potential employers to those that offer insurance; for other workers, we used the pool of all employers in the match. The linked data provide simulated information about whether the employee is offered health insurance for those who are not enrolled in their employer plan and the out of-pocket price and benefits of the group plan for those with an offer. An advantage of using linked data rather than actual health plan offer data is that linked data is less likely to be endogenous to health insurance choice.

Our analysis examines families in which both workers are offered group insurance. Furthermore, we restricted our analysis to those families that covered all family members on a group policy because only a small fraction of these families do not (about 6-7 percent of families with children and 9 percent of married couples). The factors that affect the choice to leave some family members uninsured are likely to differ from those that affect the choice of coverage option given the decision to insure. Furthermore, conceptually, the decision to leave members uninsured is likely to precede the decision of coverage options, and therefore can be thought of as distinct from the latter decision. Thus, we focus on the latter decision. We classify our sample based on the type of coverage they elect (e.g. two family policies, one family and one single policy) and which worker provides the family coverage. Families with children and married couples without children are analyzed separately. The distribution of choices for our sample of families is given in Table 2.

Because we impute the offer of coverage for workers who are not enrolled in their own group plan, there may be some error in our identification of dual worker families that fall in our sample and also in our determination of the type of coverage elected. To assess the amount of this error, we also used the 1996 SIPP (Survey of

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[5] We have 76 region/industry/size groups. Within each group we identified employers with low-wage workers (2/3 of more earning less than $11 in 2001 dollars) vs other employers. Low-wage (high-wage) workers in a given region/industry/size group were then assigned to low-wage employer with probability equal to the proportion of low-wage (high-wage) workers in the region/industry/size group that are employed by low-wage employers, and then randomly assigned to an employer with the assigned type.

Income and Program Participation) to calculate the share of the population that would fall into our sample (dual workers offered two policies, those offered two policies who cover all family members) and the share of the sample that purchases coverage through only one employer (we observe purchase through both employers in both the CPS and SIPP). The SIPP collects information about the offer of insurance at the 5th wave of the 1996 SIPP panel, and so we can calculate the sample and coverage choices directly based on household survey responses. The comparison of estimates based on the SIPP household responses and our estimates using the synthetically linked CPS and RWJF survey are shown in Table 3. They indicate that our synthetic database represents the reported choices of families in the SIPP.

Analytic methods

Our analysis is based on the random utility model of consumer choice (McFadden, 1974). Families are assumed to choose from among the available insurance options to maximize their expected utility. This framework yields a conditional logit specification of family health insurance choice if we assume that the errors in the model are additive and are independently and identically distributed with a Weibull distribution.[6]

In the classic economic model of health insurance demand, utility depends on final income available for the purchase of non-health services, that is, income net of premium payments for health insurance and expenditures for health care. Health spending in turn depends on health and the health loss. The insurance purchase decision is made before the final health status is known and so the decision to purchase insurance depends on expected health and health care spending. The relevant price of insurance is the employee contribution and we measure the

[6] While it is possible to structure the analysis as a multinomial logit model, we believe that the conditional logit model is more appropriate since it allows a more natural specification of the characteristics of each family coverage choice. Since the primary focus of our study is examining how premiums and benefits affect choice, we chose the conditional logit model.

employee out-of-pocket price for each of the options given in Table 2.[7] Earlier research found that dual workers were more likely to purchase coverage from both employers when the employer contributed in full to both plans. Therefore, we also include indicators for whether both workers have a zero out-of-pocket contribution for family coverage and whether both have a zero out-of-pocket contribution for single coverage. These characteristics do not vary across the alternatives faced by a household, so we obtain estimates of the effect of these variables by interacting them with indicators for the type of option in the choice set. For families with children the option types include two family policies, one family policy, or one family policy and one individual policy; for married couples, the purchase of two single policies is an additional option type.

A family's expected out-of-pocket health care expenses will depend in part on the generosity of coverage it chooses. For each option in the choice set, we include a measure of the actuarial value of the plan—the share of expenses that the family can expect to be covered by the insurance policy. For families with children, we use the actuarial value for the plan covering the children. For married couples, we use the value for the worker with the least generous coverage.[8] A number of studies have found that freedom of choice of provider is a valued characteristic of a plan. To reflect this preference, we include an indicator that the option includes only HMOs and an indicator that it includes only PPOs (vs. options that provide a choice of type of plan and/or offer indemnity plans).

We also include indicators for whether one or both workers are offered plans with an actuarial value below the median of all plan offers and interact this with the

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[7] For workers businesses offering more than one choice of plan, we measure the out-of-pocket cost of single and family coverage as the average cost using enrollment shares as weights. Similarly, we calculate an enrollment weighted average of the actuarial value of the plans offered by the employer.

[8] We tried a variety of specifications, including separate measures for the worker and spouse, specifications that included the actuarial value for persons with high expenses and the actuarial value for persons with low expenses, and specifications that included the deductible and the coinsurance rather than the calculated actuarial value. All measures were statistically insignificant.

type of option. Other factors that we include in our model because they are likely to be related to expected health expenditures are family health, family income, and demographic characteristics of the family including age, race/ethnicity and education.[9]

We hypothesize that transaction costs in switching sources of insurance may lead families to choose family coverage from the primary worker and/or businesses with a greater likelihood of maintaining insurance as a fringe benefit. To capture this, our specification includes several measures of characteristics of the family policyholder for the option: an indicator for the male head, the size of the business the family policyholder works for, the difference in wage between the family policyholder and the other worker, an indicator for employment in the private sector, and whether the family policyholder is new to the labor force.[10]

The complete set of explanatory variables and the parameter estimates are given in the Appendix. We use the fitted models to predict how changes in various characteristics affect family choices. We also use the models to simulate the effect of several contribution strategies that some employers are adopting to try to encourage workers to shift their spouses and dependents to other coverage.

Finally, to illustrate the effect of differences in choices by families with different characteristics, we estimate the potential magnitude of the cross-subsidy to dual worker families that arises if the incidence of employer contributions is not worker specific, but rather wages are adjusted on average for employer contribution payments. We calculate the cross-subsidy to dual worker families from workers electing single coverage as the average difference between the employer contribution given the family choice and the contribution both employers would make to single coverage for the family. To account for differences in the generosity of benefits

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[9] We also explored whether there were interactions between family health and premium and between family health and the actuarial value of the plan. These interactions were not significant and so are not included in our final specification.

[10] Determined by respondents' answers in the CPS to questions about whether they worked last year. For families with children in which both workers choose family coverage, we applied the birthday rule to determine the primary policyholder, and did this by flipping a coin to identify the parent with the earlier birthday.

provided, contributions are adjusted for differences in the actuarial value of plans.[11] This calculation does not rely on the estimates from the conditional logit model.

Results

The family's out-of-pocket price is a significant factor in their choice of option but the magnitude of the effect is small (Table 4). [12] For an option with a 20 percent probability of selection, a 10 percent increase in price would decrease the probability by only about 0.5 percent. The elasticity of demand at the 20 percent baseline probability is -0.03. However, we find that families with children are more likely to purchase two family policies when both employers make full contributions to family coverage and are more likely to purchase at least some plan from both employers when both employers contribute the full premium for single coverage (Table 5). Married couples without children are less likely to purchase two single policies when both employers contribute in full to family coverage and more likely to purchase two single policies when both employers contribute in full to single coverage.

Characteristics of the family policyholder have a much larger effect on family decisions than the out-of-pocket costs. Families prefer to provide family coverage through the male head's employer, through larger businesses, and through the worker with the higher wage and long tenure (Table 4). Married couples also are more likely to choose an option that gives them greater freedom of choice of provider and are less likely to choose an option that restricts them to HMOs. This effect was not significant for families with children.

Our continuous measure of the actuarial value of the option was not significant in explaining choice (see the Appendix); however, we observe a threshold effect when both workers are offered plans that are less generous than the median plan (Table 5). In such case, families with children are significantly more likely to purchase dual coverage for all family members, presumably to improve the coverage

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[11] The findings are not very sensitive to this adjustment because there is not a great deal of variability in the generosity of plans offered by employers.

[12] Because the price imputation depends on size of business, we also explored whether the inclusion of the size indicators reduces the estimate of the price response. However, there was not a significant change.

obtainable from either offer alone. Families without children are also more likely to purchase dual coverage. But they are also more likely to purchase two single policies when both offers are less generous than the median offer than to choose just one of the offers or to choose dual coverage for just one worker.

Family health and demographic characteristics affect choices as we hypothesized (Table 5). Families with children in poorer health are more likely to purchase dual coverage for them.[13] Families with an adult in poor health are also more likely to purchase at least some dual coverage (two family policies, or one family and one single policy.[14] Expected health care expenses will be greater for these families and dual coverage may reduce their expected out-of-pocket payments. Older families are also more likely to purchase dual coverage. Higher income families are more likely to purchase two family policies and less likely to purchase one family policy. Higher income married couples are also more likely to purchase two single policies than lower income couples. We also find differences by race/ethnicity. In particular, blacks are more likely to purchase two family policies. In familes without children, blacks are also more likely to purchase two single policies rather than rely on one family policy.

Policy Implications

We have simulated the effect of several strategies that employers are now adopting to try to discourage workers from enrolling family members. Some employers are increasing family premiums in order to try to shift family members to other coverage. Others are charging a penalty if a working spouse does not enroll in his or her own employer group plan (Costello, 2003; Fuhrmans, 2003). Table 6 shows that these strategies are likely to have very small effects on coverage decisions. The top of the table shows how choices of which family plan to choose changes as the required contribution changes. For example, if the out-of-pocket contribution that the female head's employer requires increases by $50 a month, the probability of purchasing family coverage from her employer falls by 0.6 percentage

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[13] Poorer health is any child reporting good health or worse. Alternative measures of health such as any child reporting fair or poor health were imprecise due to small cell sizes.

[14] Poorer health is an adult reporting fair or poor health.

points and the probability of purchasing family coverage from the male head's employer increases by 0.3 percentage points. The increase in purchase from the male worker's employer is smaller than the decrease in the purchase from the female worker's employer because some families choose to drop two family policies in response to the price increase rather than to shift among family policies. The same increase would lead to a decrease in the probability that a married couple will purchase family coverage through the female worker's employer of 0.3 percentage points.

The bottom panel illustrates the effect of imposing a $50 a month penalty on the purchase of family coverage if the worker's spouse does not elect coverage through his or her own employer. Among families with children, such a strategy would increase the probability that the spouse would enroll in his or her own employer's plan from 42.2 percent to 42.6 percent. Among married couples, the change is a 0.8 percentage point increase in the probability of purchasing one's own group plan.

We noted earlier that other research has shown the potential for cross subsidies from large to smaller businesses stemming from the substantial fraction of workers in small business that are covered under plans offered by large businesses. Our analysis shows this as well (Table 7). Over 1/3 (35.4 percent) of all workers and dependents in families with two group offers have access to plans from both a small and large employer and the majority (62 percent) of these persons are covered by the larger group's plan.[15] Changing contribution strategies to try to encourage workers to shift coverage would have little effect on this mix. An increase in employee contributions of $50 per month by large employers would induce about 39,000 workers and dependents to shift from the large employer offer to the small employer offer, a change of only 0.1 percentage points in the share of workers and dependents enrolled in small employer plans.

We found that the choices that families make are related to their characteristics. This has distributional implications if wages are not adjusted based

[15] Small is defined as fewer than 100 employees.

on the choices.[16] Employers typically contribute more to family coverage than to single coverage, so that workers who elect two family policies will receive greater compensation than workers who elect one family and one single policy, unless the workers wage compensation is adjusted. The potential magnitude of this is shown in Table 8. On average, dual worker families receive a cross-subsidy from workers electing single coverage. The magnitude of this cross-subsidy is greater for families with children than for married couples without children, because a sizeable fraction of the latter population elect two single coverage plans. The subsidy increases with income, poor health, and age, because higher income, older families, less healthy families are more likely to select dual family coverage.

Discussion

Our analysis suggests that changes in contribution strategies to try to encourage workers to shift family coverage elsewhere will have only small effects on decisions about where to obtain coverage. Our estimates are consistent with other estimates of worker take-up of coverage. Studies by Blumberg et al. (2001) and Chernew et al. (1997) estimate the price-elasticity of worker take-up ranges from about -0.03 to -0.1.[17] Based on their estimates, we would expect a $50 monthly out-of-pocket family premium increase (about a 25 percent price increase) to lead to a 0.4 to 1.0 percentage point decrease in the number of married women with children who have coverage from their own employer. Our simulation of a $50 monthly premium increase produced estimates in line with this and suggested a 0.6 percentage point decrease. Moreover, our estimate of a 0.4 percentage point change from a baseline probability of selection of 20 percent following a 10 percentage point own price change is similar to elasticity estimates from the work of Abraham et al. (2003),

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[16] There are also distributional implications because the tax subsidy will depend on the choice. The potential benefits will also depend on the choice as well as family characteristics. But here we are focusing only on the distributional consequences from less than worker-specific incidence of wages.

[17] Cooper and Vistnes (2003) recently studied the effect of contributions on employee take-up using employer level data. They find a bigger response of take-up decisions to single contributions, but no effect of family contribution amounts

which suggest a 0.3 to 0.5 percentage point change in such case for dual worker households. High and growing health insurance premiums have led employers to increase premiums for family coverage in the hope of encouraging workers to obtain family coverage from other sources. Given our small elasticity estimates, our results suggest that these measures are likely to have limited success. Employers may increasingly resort to non-price based measures, such as limiting family coverage to spouses who are not offered coverage by their own employers (Fuhrmans, 2003).

There are, however, a number of shortcomings of our measure that suggest caution in concluding that contribution policies will not alter decisions. First, there may be error in our measure of out-of-pocket price because we do not know when employees are eligible for or participate in Section 125 plans and can pay for their own premium share in before tax dollars. In addition, our price measure is an imputed one; we do not directly observe the price the family would have to pay. The consistency of our estimates with others lends credence to the method, but further work with representative data sets that provide information about the prices of all options facing dual worker families is warranted. Finally, the striking trends over time in both contributions and family choices points to the need to better understand the factors that led to the shifts in family decisions before concluding that price plays a minor role.

Our results indicate that family decisions are influenced by economic and demographic characteristics. They suggest that families prefer to purchase family coverage from businesses that are more likely to maintain coverage and from primary family workers, indicating some transaction costs from switching plans among family members. The results also show that family decisions may have distributional consequences if the incidence of employer contributions is not worker specific. Other work has examined the distribution of net benefits from health insurance that come from pooling workers of diverse risk and the tax subsidy to employer contributions (Monheit, Nichols, and Selden, 1995). In the group markets these factors lead to a transfer from younger to older families, from healthier to sicker families, and from higher income to lower income workers. Our analysis shows that the effects on compensation from choices that dual workers make tend also to favor older and less healthy families. But they also favor higher income families over lower income families, because the former are more likely to elect dual

coverage. A full assessment of the transfers in the group market needs to account for the effects of choice on worker compensation.

The results also provide some evidence that family choices are made to improve the generosity of coverage. These results are consistent with those found by Monheit et. al (1999) and Royalty and Abraham (2003). Families are more likely to purchase dual coverage when both policies offer benefits that are less generous than the median. This may mitigate to some degree employer efforts to use increased cost-sharing to contain the growth in health care costs.

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Table 1. Trends in health insurance choices of two worker families offered coverage 1988-2003.

	Two single policies	One family policy	One family One single	Two family policies
		(percent of families)		
Family with children				
1988	Inap	47.3	23.6	29.1
1997	Inap	55.3	22.1	22.6
2003	Inap	58.5	21.6	19.9
Married couple, no children				
1988	24.3	34.0	18.6	23.0
1997	43.6	35.8	7.1	13.5
2003	44.4	39.6	4.8	11.2

Note: Inap=inapplicable: sample is limited to families that insure all members
Source: March Current Population Surveys

Table 2. Dual worker choices about health insurance: 1997-2001.

Coverage choice	Families with children	Families without children
	(percent of families)	
Two family policies	20.9	11.9
Male head family policy, female self only	12.0	5.1
Female head family policy, male self only	9.4	1.0
Male head family policy, female no takeup	38.9	25.4
Female head family policy, male no takeup	18.8	12.6
Two single policies	Inap	44.0
Number of households in sample 1997-2001	20345	13464

Table 3. Comparison of sample and type of coverage choices based on CPS and SIPP data.

	CPS 1997	SIPP 1997
	(percent of families)	
Dual worker families offered 2 family policies		
Families with children	51	52
Families without children	51	50
Dual worker families both offered coverage who cover all family members		
Famlies with children	93	94
Families without children	91	95
Dual worker families both offered coverage that elect coverage from only one employer		
Families with children	54	59
Families without children	35	39

Table 4. Marginal effect of selected characteristics on choice of option.

	Families with children Probability of selecting option		Families without children Probability of selecting option	
	20%	30%	20%	30%
	(change in probability of selecting option in percent)			
10% price change	-0.43	-0.57 *	-0.50	-0.65 *
Option includes only HMOs	-1.31	-1.96	-3.82	-5.74 *
Male is family policyholder	10.00	13.13 *	12.53	16.44 *
Family policyholder business size				
fewer than 25 employees	-23.68	-31.08 *	-11.81	-15.50 *
25-100 employees	-9.18	-12.05 *	-9.18	-12.05 *
100 or more is omitted group				
$20 hour wage difference family policyholder vs spouse	0.74	0.97 *	0.19	0.25 *
Family policyholder new to labor force	-19.20	-25.20 *	-12.59	-16.53 *

* statistically significant, p< .05.

Table 5. Predicted choices of type of plan as plan and family characteristics vary.

Characteristic	Families with children			Families without children			
	Two family policies	One family one individual	One family policy	Two family policies	One family one individual	One family policy	Two single policies
	(percent of families)						
Plan characteristics							
No contribution for either family policy	24.1	23.0	52.9	11.9	6.0	39.2	42.9
Contribution for at least one family policy	20.9	21.0	58.1	11.7	4.5	36.7	47.1
No contribution for either single policy	22.0	21.3	56.7	13.7	6.6	37.9	41.8
Contribution for at least one single policy	20.8	21.0	58.2	11.3	5.7	39.4	43.6
Both offers have low actuarial value	24.3	23.2	52.5	13.1	4.7	34.1	48.1
One offer has low actuarial value	20.6	21.4	58.0	11.7	6.0	38.6	43.7
Neither offer has low actuarial value	21.1	20.9	58.0	11.9	6.0	39.6	42.5
Family characteristics							
Child in poorer health(a)	24.9	21.3	53.8		Inap		
No child in poorer health	20.4	21.1	58.5		Inap		
Adult in poorer health(b)	22.8	23.0	54.2	12.9	5.7	39.2	42.2
No adult in poorer health	21.0	21.1	57.9	11.8	5.8	39.1	43.3
Family income is 200% poverty	16.0	18.6	65.4	8.5	5.5	48.7	37.3
Family income is 600% poverty	23.4	22.2	54.4	11.7	5.9	39.4	43.0
Both heads under age 35	19.5	25.0	55.5	9.3	6.0	36.8	47.9
Both under 45, at least one over 35	20.5	20.3	59.2	10.9	4.8	38.4	45.9
Both over age 45	22.6	20.0	57.4	12.8	6.1	40.2	40.9
White, non-hispanic	20.0	20.4	59.6	11.7	6.0	40.2	42.1
White, hispanic	20.2	24.0	55.8	9.1	5.6	37.8	47.5
Black	27.9	23.3	48.8	17.6	5.5	28.6	48.3

Table 6 . Effect of employer contribution policies on family choices.

	Families with children		Families without children	
	Family coverage from male head	Family coverage from female head	Family coverage from male head	Family coverage from female head
	(percent of families)			
Increase in family contribution amount				
At current contributions	72.0	49.1(a)	42.8	26.0(b)
$50 increase in female contribution to family plan	72.3	48.5	43.1	25.7
$50 increase in male contribution to family plan	71.4	49.6	42.2	26.3
	Spouse enrolls in employer plan	Spouse not in employer plan	Spouse enrolls in employer plan	Spouse not in employer plan
Penalty if spouse doesn't elect own plan				
At current contributions	42.2	57.8	60.8	39.2
$50 penalty if spouse does not elect	42.6	57.3	61.6	38.4

(a) does not add to 100 because some families elect family coverage from both heads

(b) does not add to 100 because some families elect family coverage from both heads and other families without children do not elect family coverage.

Table 7. Source of coverage for workers and dependents of two-worker families by size of business.

Size of workers business	Size of group for primary coverage	Workers and dependents in families with children		Workers in families without children		All workers and dependents	
		%	millions	%	millions	%	millions
At current contribution amounts							
Small only(a)	Small	9.0	2.93	11.0	1.34	9.5	4.27
Small and large	Small	12.6	4.12	15.1	1.84	13.3	5.96
Small and large	Large	23.2	7.55	19.1	2.33	22.1	9.88
Large only	Large	55.2	17.97	54.8	6.68	55.1	24.65
Large firms increase contribution $50							
Small only(a)	Small	9.0	2.93	11.0	1.34	9.5	4.27
Small and large	Small	12.7	4.14	15.2	1.85	13.4	5.99
Small and large	Large	23.1	7.53	19.1	2.32	22.0	9.86
Large only	Large	55.2	17.97	54.8	6.70	55.1	24.65

(a) Small is defined as fewer than 100 employees.

Table 8. Cross-subsidy to dual worker families from other workers, assuming incidence is not worker specific.

	Families with children	Families without children
	(2003 dollars per month)	
Overall	74	38
By income		
Lt 200% poverty	26	17
200-400 % poverty	62	24
400-600% poverty	79	35
600 % poverty and over	101	45
By age		
Both under 35	62	24
Both under 45, one over 35	69	33
Both under 45, one over 35	87	45
By worker health status		
One worker in poorer health (a)	75	39
No worker in poorer health	71	32
By child health		
One child in poorer health (b)	78	Inap
No child in poorer health	73	

Appendix Table. Conditional Logit Models for Family Choice of Option.

	Families with children		Families without children	
	Coeff	Std Error	Coeff	Std Error
Characteristics of option				
Ln cost of option	-0.027	0.005	-0.031	0.007
Actuarial value	-0.007	0.076	-0.030	0.113
Only HMOs offered	-0.082	0.065	-0.240	0.078
Only PPO's offered	-0.003	0.025	-0.019	0.032
Characteristics of family policyholder				
Male	0.625	0.018	0.783	0.029
In business of lt 25	-1.482	0.052	-0.739	0.047
In business of 25-99	-0.574	0.036	-0.471	0.046
Wage difference family policyholder vs other worker	0.002	0.000	0.001	0.000
New to labor force	-1.293	0.144	-0.787	0.210
Works for private employer	0.000	0.058	0.013	0.070
Characteristics of family by type of choice				
Indicator for one family plan	1.389	0.070	-0.225	0.106
Indicator for one family, one single	-0.332	0.087	-2.685	0.176
Ln poverty level x one family plan	-0.521	0.038	-0.330	0.041
Ln poverty level x one family, one single	-0.186	0.047	-0.072	0.082
Full contribution to single plan both workersxone family plan	-0.082	0.046	0.009	0.055
Full contribution to single plan, both workersxone family, one single	-0.047	0.056	0.217	0.097
Full contribution to family plan both workersxone family plan	-0.248	0.077	-0.167	0.087
Full contribution to family plan both workersxone family, one single	-0.061	0.091	-0.379	0.174
One worker offered low actuarial value planxone family plan	0.022	0.041	-0.056	0.044
One worker offered low actuarial value planxone family, one single	0.042	0.049	-0.024	0.085
Both workers offered low actuarial value planxone family plan	-0.249	0.088	-0.280	0.098
Both workers offered low actuarial value planxone family,onesingle	-0.043	0.104	-0.367	0.211
Child in poorer healthxone family plan (a)	-0.290	0.049	Inap	
Child in poorer healthxone family, one single(a)	-0.195	0.060	Inap	
Adult in poorer healthxone family (b)	-0.154	0.076	0.032	0.071
Adult in poorer healthxone family, one single (b)	-0.106	0.093	0.180	0.138
White hispanic x one family	-0.077	0.058	-0.189	0.073
White hispanic x one family, one single	0.153	0.068	-0.183	0.154
Black x one family	-0.548	0.064	-0.491	0.083
Blackxonefamily, one single	-0.209	0.076	-0.220	0.161
Other race x one family	-0.431	0.081	-0.318	0.104
Other race x one family, one single	-0.156	0.096	-0.385	0.226
Both college graduatesxone family	-0.098	0.055	-0.149	0.058
Both college graduates x one family, one single	0.049	0.064	-0.149	0.114
One college graduate x one family	0.086	0.047	-0.132	0.050
One college graduate x one family, one single	0.177	0.057	-0.012	0.101
Both under age 35 x one family	0.117	0.052	-0.253	0.049
Both under age 35 X one family, one single	0.374	0.062	-0.198	0.103
Both under 45, one over 35 x one family	0.132	0.041	-0.164	0.055
Both under 45, one over 35 x one family, one single	0.114	0.050	-0.360	0.120

Appendix Table con't. Conditional Logit Models for Family Choice of Option.

	Families with children		Families without children	
	Coeff	Std Error	Coeff	Std Error
Indicator for two family plans	Inap		-1.968	0.149
Ln poverty level x two family plans	Inap		0.159	0.064
Full contribution to single plan both workersxtwo family plans	Inap		0.242	0.078
Full contribution to family plan both workersxtwo family plans	Inap		-0.126	0.124
One worker offered low actuarial value planxtwo family plans	Inap		-0.046	0.069
Both workers offered low actuarial value planxtwo family plans	Inap		-0.036	0.139
Adult in poorer healthxtwo family plans (b)	Inap		-0.036	0.139
White hispanic x two family plans	Inap		-0.382	0.127
Black x two family plans	Inap		0.136	0.106
Other race x two family plans	Inap		-0.268	0.161
Both college graduatesxtwo family plans	Inap		-0.197	0.086
One college graduate xtwo family plans	Inap		-0.128	0.075
Both under age 35 x two family plans	Inap		-0.490	0.081
Both under 45, one over 35 x two family plans	Inap		-0.19	0.08

(a) Poorer child health is good/fair/poor
(b) Poorer adult health is fair/poor.