

**THE SURVEY OF INCOME AND
PROGRAM PARTICIPATION**

**ESTIMATES OF EMPLOYER
CONTRIBUTIONS FOR HEALTH
INSURANCE BY WORKER
CHARACTERISTICS**

No. 133

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Introduction

In an earlier paper (Haber, 1989), logit regression was used to analyze response rates to a special survey, namely, the Survey of Income and Program Participation (SIPP) Fringe Benefits Survey. The goal of this survey was to determine the feasibility of collecting information from employers about their contributions for health insurance, life insurance, and private pension plans on behalf of specified individuals in their employ. Interest in this objective stems from the continuing effort by the Census Bureau to improve its estimates of income by including in income the value of government and private in-kind transfer payments (see U.S. Bureau of the Census, 1988).

For reasons given in the earlier paper, only the health insurance information in the Fringe Benefits Survey (denoted below as the FBS to distinguish it from the SIPP survey itself) were examined in detail. The major conclusion of that study was that, with minor changes in questionnaire design, it is feasible to collect employer health insurance cost data. This conclusion, however, was based only on considerations of response rates and on internal consistency with other information collected in SIPP but not found in the special survey.

Still to be examined is the question of whether or not the health insurance cost figures provided by employers are consistent with other empirical data and intuition, insofar as intuition helps in distinguishing between reasonable and unreasonable cost estimates. To answer this question, an empirical regression model is estimated from the usable data in the FBS. Based on the regression model, employer health insurance contributions are imputed for individuals with similar characteristics in the much larger parent SIPP sample for which health insurance cost data are absent. These estimates are then summed over all individuals and the total compared with the national income estimate of employer contributions for group health insurance. The major finding of this research is that although the regression sample size is small, the estimated total of employer contributions is fairly close to that reported in the national income accounts. The remaining findings pertain to variations in employer contributions among different groups of workers and the impact of rising health care costs on employer contributions for family plan coverage.

In Section 1, additional background information is provided about the FBS. A description of the regression model for estimating employer contributions for health insurance is found in Section 2. The results of applying the model are given in Section 3. In Section 4, the estimate of the amount employers contribute for health insurance is benchmarked against the national income figure. Section 5 contains estimates of employer health insurance contributions by worker and other characteristics based on the model. In Section 6 we discuss the question of which workers will be most likely affected by rising medical care costs. A short summary of the paper is given in the last section.

1. The Background of the SIPP Fringe Benefits Survey

The FBS was conducted during the last wave, i.e., the 8th wave, of the SIPP 1985 panel. This wave of interviews occurred between August and November of 1987.

The FBS was a random sample of one-half of the respondents of one rotation group in the parent SIPP sample, which, itself, is comprised of four rotation groups of about equal size. The FBS was further restricted to include only employed wage and salary workers age 18 and older. The number of FBS respondents meeting these conditions was 1,352.

In order to conduct the survey it was necessary to obtain a signed waiver from respondents permitting the Census Bureau to obtain the desired data from their employers. Of the 1,352 respondents, 569 or 42 percent signed the waiver. One reason the response rate was not higher is that respondents were asked to sign the waiver whether or not they were covered under an employer provided health plan. A disproportionately large percentage of respondents who reported that they were not covered under an employer health plan did not sign the waiver, possibly because they did not see a useful purpose for doing so.

For individuals signing the waiver, a questionnaire was sent to their employers at the address provided by the respondent and these were then returned to local Census Bureau field offices. The response rate for employers was 96 percent. Taking account of employer nonresponse, questionnaires were returned for 41 percent of the individuals participating in the survey.

Of the questionnaires that were returned, 64 percent, i.e., 330 questionnaires, contained usable cost data, i.e., data that were in the correct format and could be converted to an annual basis. In another 26 percent of the cases, respondents were not covered by a group health plan either because their employer had no plan. or if there was one the individual was not covered by the plan. The remaining 10 percent of the cases could not be resolved because, e.g., no call back was attempted or the firm could or would not provide the cost data requested.

As indicated, respondents were more likely to sign the waiver if they were covered under an employer provided health plan. Given that the waiver was signed and that the employer filled out the questionnaire, relatively few disagreements, 7 percent, were found between the respondent answers in SIPP and employer answers in the FBS as to whether the employee was covered by the firm's plan.

Not so clear is whether the cost figures provided by the responding firm were accurate. In particular, the person filling out the questionnaire may not have known or may not have had access to records indicating the amount contributed by the firm for health insurance for the specified employee. Even where records were available, it may have been deemed

to costly to provide an accurate estimate of the contribution amount. For this reason, in assessing the feasibility of collecting data from employers about their fringe benefit contributions, it is desirable to determine if they are reasonably accurate. The benchmark used in this study to do this is the amount employers spend on health insurance as reported in the national income accounts.

2. An Empirical Regression Model

An empirical regression model was developed using the FBS data. The employer contribution estimates based on this model were then imputed into the SIPP data. Thus, the model variables were limited to those found in SIPP. Besides the demographic and economic variables often included in household surveys, SIPP contains information pertaining to whether or not a worker is covered under an employer policy, and whether the policy covers only the worker or also other family members, i.e., whether it is an individual or family policy. The latter information is important for this study as it was not collected in the FBS, and is a major determinant of employer health costs. Additionally, one of the SIPP questions relating to health insurance is whether the employer pays all or less than all of the total premium cost. As indicated below, all else being the same, the employer contribution is larger in firms paying the entire premium cost.

The regression model was used to predict employer contributions rather than to explain their magnitude as, e.g., would be the case if one wished to determine if unions are able to raise per capita employer contributions above the level that would prevail in their absence. In the latter case, the model would have been specified in a different manner. In particular, since it is plausible that unions may be successful in getting employers to pay all of the premium cost for health insurance, inclusion of the latter information in an explanatory model of the affect of unions on employer health costs would lead to an underestimate of the union effect. Since our objective is to predict an employer's contribution for individual workers, it is appropriate to include an Employer Pays All variable under the presumption that it does affect the contribution amount.

While SIPP contains information that is essential for the calculations of this study, other useful information is missing. For example, no information is available about size of firm.¹ Firm-based studies of per capita employer health contributions² that include size of firm as a variable suggest that they increase as a firm's size diminishes (Rossiter and Taylor, 1982 and Haber and Eargle, 1988). Other firm characteristics, such as a firm's age, may also play a role in determining its ability to provide health benefits. The absence of such information reduces the predictive power of the model.

Using information from the FBS and SIPP, it is possible to determine the relationship between an employer's contribution for health insurance for a given worker and that worker's demographic characteristics. Although plausible relationships between some demographic characteristics and the amount an employer would need to contribute to insure a worker against ill health can be formulated, it not possible a priori to say what empirical data will reveal. One might suppose, e.g., that the premium cost for older workers is greater than that for younger workers, since the former are more prone to illness. Likewise, minority members and those with less education have poorer health, respectively, than whites and those with more education.³ And personal health care expenditures are greater among women than men (Hodgson and Kopstein, 1984). Yet employers may not contribute more in insuring those who are most likely to utilize medical services, because to do so may conflict with the principle of providing a larger compensation package to more productive workers than to those who may be less productive. Moreover, even if all workers were equally productive, it would be administratively difficult to establish an employer contribution schedule (or for that matter an employee contribution schedule) such that the mix of contributions matches the mix of workers characteristics.

There are groups, however, for whom employer health insurance contributions may be higher than others. Union members acting in concert may be able to extract a larger per capita contribution than nonunion workers. As fringe benefits represent nontaxable income, union members, who tend to be higher paid than nonunion workers, will at the margin benefit more than others from a dollar of compensation in the form of a fringe benefit than if that dollar is paid as a wage or salary. Whether unionized or not, higher

¹Information about size of firm is found in some SIPP waves but none is available for the 1985 panel.

²Except in rare instances, such as in this study, estimates of employer health contributions are based on surveys of firms. In firm surveys it is generally the case that the only measure of health costs is an average per employee, whether or not employees are covered by the firm's health plan. Information about worker characteristics, when available, are also averaged over all workers. Average for some variables, however, e.g., educational attainment and marital status, are virtually unattainable, unless the firm data are matched to household survey data.

³However, whites and well educated persons may be more cognizant of and comfortable with health insurance even though they are less likely to require the protection that such insurance offers and, hence, may seek employment with firms that provide superior health plans and pay more for the benefits they offer.

paid workers will gain more from fringe benefits than lower paid workers. Holding other factors constant, firms may provide more expensive benefits to higher paid workers as a means of recruiting and retaining them. The same may be true of full-time workers vis-a-vis part-time workers.

3. Results of the Model

The results of estimating the regression model are shown in Table 1. As can be seen, the model contains demographic, economic, and geographic variables, as well as variables relating to each worker's health policy. The dependent variable is the employer's contribution for health insurance. Only workers covered by such insurance are included in the sample.

The signs of the Age and Female variables are consistent with expectations based on health status. However, none of the demographic variables, including those just noted, as well as variables reflecting race, marital status, and educational level, have coefficients that are statistically different from zero. Of the geographic variables, employer contributions are significantly lower in the South, perhaps because of lower medical costs in this region and/or employers in this region are less inclined to pay fringe benefits than employers located elsewhere. The cost of medical care may also explain the positive sign of the coefficient of the Metro variable, but this coefficient is not statistically significant. Among the economic variables, there is a positive, significant relationship between an employer's contribution and an employee's hourly wage rate. The sign of the Union coefficient, which as noted may be underestimated by the model, is also positive, but falls short of being statistically significant at the .10 level.

Of all the variables, the one having the greatest effect on the amount an employer contributes is the type of health insurance coverage that a worker chooses, i.e., family or individual coverage. The coefficient of the Family Plan variable indicates that, everything else 4 the same, a family plan costs employers 87 percent more than an individual plan.⁴ This estimate is similar in magnitude to one derived from a Small Business Administration survey of firms conducted in August 1986 in which it was found that employer contributions for dual and family plans were 71 and 95 percent greater than for individual plans (Haber and Eargle, 1988), respectively.⁵ While not having as strong an effect, whether or not an employer pays all of the premium cost also exerts a significant, positive influence on the amount that an employer contributes towards a worker's health benefits.

TABLE 1

⁴This figure is obtained by subtracting 1 from the antilog of the coefficient of the Family Plan variable.

⁵In the study cited dual plans are defined as plans covering only a worker and spouse; family plans cover additional members of a worker's family

Coefficients of Least Squares Regression Model for Predicting
Employer Contributions for Health Insurance

Dependent Variable: In Annual Employer Contribution

Intercept	6.168*
Age.	.001
Female	.028
White	.069
Married, Spouse Present	.093
School Years Completed	.011
South	-.224*
Metro	.053
White-collar Occupation	.013
Service Industry	.020
Union Member	.172
Full-time	.114
Hourly Wage	.017*
Employer Pays All	.185*
Family Plan	.625*
R2 =	.347

*Significant at .01 level.

**Significant at .05 level.

***Significant at .10 level.

Source: Fringe Benefit Survey.

The regression model offers insight into the question of how employers allocate their contributions for health insurance among different groups of employees. In particular, are employer contributions for health insurance higher for covered workers for whom it is believed that benefit outlays are higher, or are they higher for those with perceived higher productivity? The positive, significant coefficient for the Hourly Wage variable and absence of statistical significance for any of the demographic variables suggests that employer health insurance contributions complement a worker's wage (rather than being a substitute form of compensation), and are unrelated to expected benefit outlays associated with insuring workers with a given set of characteristics. Still some ambiguity remains as to how employers allocate their contribution among employees. It may be that employers provide better health benefits and contribute more for them for higher vs. lower paid workers within the same firm. On the other hand, high wage firms may contribute more per worker than low wage firms, but in both types of firms the contribution may be the same for all workers. While the latter seems to be more likely, additional information not contained in the FBS is needed to determine which of these two cases is the most prevalent.

4. Benchmarking the FBS Employer Contribution Estimates

Having estimated the regression model, employer health contributions were imputed for the 9,110 workers who reported that they participated in an employer health plan in SIPP Wave 8. In the imputation, all of the model variables were utilized, since those that were not statistically significant when considered separately can introduce economically significant variations when taken together with other variables. For example, race, marital status, and educational attainment by themselves, other factors held constant, may have only a negligible impact on employer health insurance contributions. But because they are highly correlated, they may have effects that when taken together are associated with higher contributions by employers. Imputations based on the model could not be made for about 15 percent SIPP of the respondents because of missing data, principally missing wage data. These respondents were divided into eight groups, depending on whether or not they lived in the South, were covered under a family plan, and their employer paid the entire insurance premium, and assigned the mean employer contribution, computed for respondents similarly classified, for whom it was possible to apply the model.

A problem met in benchmarking the model estimates is that the FBS employer cost figures are based on the presumption that an employee works a full-year. A partial correction for this difficulty was made by adjusting the SIPP employer cost amputations. Workers who worked less than all weeks in the four month reference period were assumed to work the same fraction of a full year as part-year workers, the latter fraction being derived from Bureau of Labor Statistics (BLS) data on work experience.⁶ Lacking information about the work experience of persons who worked au weeks in the four-month reference period, it was assumed that they were full-year workers.⁷

The adjusted estimates of employer contributions summed over an workers reporting coverage under an employer provided health plan was \$107.4 billion. This figure is 11 percent less that the \$120.1 billion reported as being contributed by employers for health insurance in 1987 in the national income accounts.⁸ The latter figure is based on data collected by the Health Care Financing Administration (HCFA) from several sources, including Blue Cross and Blue Shield, the Health Insurance Association of America, and independent health insurers. It is to be noted that the national income account estimate includes employer health contributions on behalf of retired workers, whereas the FBS data

⁶A separate adjustment was made for eight categories of workers, depending on their sex, race, and whether they usually worked full-time or part-time.

⁷This procedure yields an estimate of 81 percent for the proportion of persons with work experience who worked full-year in 1987 versus 69 percent as indicated by the . BLS data.

⁸U.S. Department of Commerce (1989), Table 8.5.

pertain only to currently employed persons.⁹ This difference in scope could account for the smaller FBS estimate.¹⁰ The closeness of the FBS estimate and its benchmark counterpart offers support for the feasibility of using employer provided health insurance contribution data to augment the Census Bureau's measure of money income.

5. Employer Contributions by Workers and Other Characteristics

In this section we look at the amounts contributed by employers for workers covered by firm sponsored health insurance plans, classified in terms of the descriptors entering into the regression model. However, in contrast to the regression model where the coefficients indicate how employer contributions vary for changes in a given variable, holding all other variables constant, the descriptive data of this section focus on groups of workers who although similar with respect to a specific characteristic, e.g., gender, differ among themselves with respect to other characteristics, e.g., race and age.

The distribution of workers by employer contribution amount and average employer contribution, by worker characteristic, are shown in Table 2. From this table it is seen that approximately one out of three workers covered under an employer group health plan received supplements of \$1,000 or more per year in the form of employer contributions. The average amount contributed by employers was slightly more than 1,400 per year.

The largest supplements are obtained by high wage workers. On average, in 1987 employers contributed almost \$2,000 per year for workers earning more than \$15.00 an hour, and about \$925 per year for workers earning less than \$5.00 an hour. Employer contributions were higher, by more than \$500, for union members than those who did not belong to a union. An even larger differential about \$675, is found for married workers with spouse present than for those in other marital categories, because the former typically opt for family plan coverage, which on average costs employers about \$1,000 more per year than individual plan coverage.

Table 2 Employed Persons, 18 years and Over, by Amount of Employer Contribution to Health Insurance, 1987 (1)

Worker	Percent Distribution (2)					Average
	Under	\$500-	\$1,000-	\$1,500-	\$2,000-	

⁹In private conversations, HCFA personnel have also indicated that a small percentage of group health premiums attributed to employers are paid by religious organizations and other associations.

¹⁰Of lesser importance, the FRB survey excludes workers under 18 of age, and this, too, leads to a lower FBS estimate than would otherwise be the case. On the other hand, our adjustment of the FBS estimates overstates employer contributions, since part-year workers are not fully counted.

<u>Characteristic</u>	<u>\$500</u>	<u>\$999</u>	<u>\$1,449</u>	<u>\$1,900</u>	<u>& Over</u>	<u>Amount</u>
Gender						
Men	6.7	20.3	20.9	23.8	28.3	1,535
Women	8.2	34.1	27.3	18.0	12.5	1,218
Race						
White	7.3	25.2	23.1	21.3	23.2	1,428
Nonwhite	7.7	30.6	25.7	22.7	13.3	1,264
Marital Status						
Married Spouse Present	5.8	12.3	19.6	29.7	32.6	1,661
Other Marital Status	9.8	48.4	29.8	7.7	4.1	985
Union Status						
Nonunion	6.6	31.3	24.5	22.9	14.7	011
Union	2.4	10.7	22.3	17.2	47.5	1,833
Age						
18-24 years	11.5	54.3	21.1	10.2	3.0	949
25-44 years	5.5	23.4	25.3	23.3	22.5	1,449
45 years & over	8.9	22.7	21.4	21.5	25.5	1,455
Education						
Under 11 years	10.1	31.9	23.5	19.5	14.9	1,235
12-15 years	7.2	27.2	22.8	22.7	20.3	078
16 years or more	6.0	19.2	25.0	19.9	30.0	1,580
Hourly Wage						
Under \$5.00	15.6	48.0	21.2	12.1	3.2	922
\$5.01 - \$15-.00	5.0	27.4	25.2	23.9	18.4	1,3&3
\$15.01 or More	2.6	7.1	20.2	17.3	52.9	1,984
Region						
South	8.7	38.4	28.7	20.5	3.5	1,103
Other	6.6	19.7	20.8	21.9	31.0	1,557
Metropolitan Area						
Nonmetropolitan	8.8	29.0	25.7	22.5	14.0	1,269
Metropolitan	6.8	24.9	22.7	21.1	24.4	1,451
Occupation						
White-Collar	5.4	25.3	24.0	22.0	23.3	1,463
Other	6.4	28.0	23.9	20.8	20.9	080
Industry						
Goods	5.2	24.4	23.0	23.1	24.4	1,473
Service	6.1	27.4	24.4	20.8	21.3	1,407
Hours Worked						
Part-time	14.0	32.5	22.8	18.8	11.9	1,186
Full-time	5.2	25.9	24.0	21.7	23.1	1,447
Employer Pays						
Some or None	11.3	30.2	20.4	27.4	10.7	1,232
All	2.1	20.2	27.3	13.7	36.6	1,637
Type of Plan						
Individual	10.7	56.6	31.6	0.9	0.1	855
Family	4.8	3.0	17.4	36.7	38.2	1,818
All covered Workers	7.3	25.8	23.4	21.5	21.9	1,407

(1) For workers covered by employer provided health insurance.

(2) Row totals equal 100 percent

Source: Survey of Income and Program Participation and Fringe Benefit Survey.

The smallest contribution differentials are found between whites and nonwhites and men and women. Employers contributed about \$150 more for whites than nonwhites and about \$300 more for women. Although whites and males earn more than nonwhites and females, respectively, families headed by a single parent are more common among nonwhites and females and, hence, a larger fraction of these covered workers may choose a family plan, resulting in the observed narrow differentials. The effects of

marital status on employer contributions are also seen when workers are differentiated by age. Employer contributions are least for covered workers aged 18-24, because they are less likely to be married and thus less likely to opt for a family plan. The contributions for covered workers age 45 years and over, however, are no larger than for prime-age workers, in part, because the absence of a spouse is more likely among the former.

Small contribution differentials are also found between white-collar and blue collar workers, between workers in goods industries and service industries, between workers residing in metropolitan and nonmetropolitan areas, and between full-time and part-time workers. In the latter case, however, the effective cost differential is twice as large as the nominal one, since the hours worked by a part-time employee are typically one-half of those worked by a full-time employee.

More difficult to explain is the finding that employer contributions for college graduates are only about \$350 greater than those for high school dropouts, despite the much higher earnings of the former. An explanation for this small differential can be made if one assumes that high school dropouts are more likely than college graduates to be covered by a family plan. As seen below, this appears to be the case for families other than those with both spouses present.

6. A Policy Implication of the Findings

Since employers pay most of the premium for health insurance, it is plausible to assume that with health care costs rising rapidly, employers will strive to limit the cost of insuring their work force. Employers can do this in several ways. The most obvious way is to reduce the number of covered workers, including dropping their health plan altogether. Another approach, given the high cost of a family policy, would be to restrict the outlays on this type of coverage, either by limiting coverage to only a spouse, or paying only the amount contributed for an individual policy, or requiring workers to pay a greater share of the cost of a family policy than they now pay.

A particularly pertinent policy issue is who will be the likely losers if firms attempt to contain their cost for family coverage rather than risking even greater worker discontent by reducing the fraction of their work force covered by health insurance. Further insight into this issue can be gained by looking at who is most likely to choose a family policy. This is accomplished below using logistic regression to determine how workers who choose family coverage differ from workers who choose individual coverage.

The empirical model estimated is

$$\log p/(1-p) = a + B_1X_1.$$

where p is the probability that a worker covered under an employer provided health plan

has a family policy, $p/(1-p)$ is the odds of being covered by a family policy, the coefficients B show the log of these odds for a unit change in X , and X represents variables associated with each worker. For the logistic model, $\log p/(1-p)$ varies linearly with X . A positive B indicates that the probability of being covered by a family policy increases as the value of X increases; conversely, a negative B indicates that as X increases the likelihood of having family coverage diminishes.

With two exceptions, the independent variables in the logistic model are the same as those in Table 1. For the analysis of this section, the variable Employer Pays AR is omitted. Since employers are much more likely to pay all of the premium for an individual policy than a family policy, inclusion of this supply side variable in the model will result in a statistical artifact, i.e., a negative sign for the Employer Pays All variable. A negative relationship, however, is inconsistent with a "choice" model of behavior that suggests that the greater the percentage of the premium paid for by an employer, the more likely is a worker to opt for a family policy. Additionally, a new variable is added, namely, Own Children under 18, which measures family size, since the larger the size of a worker's family, the greater the likelihood of the worker opting for a family policy. By including this variable in the model, the presence and number of children is taken into account so that the impact of other variables, e.g., gender and race, can be more accurately taken into account.

Because marital status plays such an important role in the choice of a family policy, the model is replicated for two marital groups. The first is married persons with spouse present. For this group, the choice of an individual policy presumably occurs because the family opts to insure only one member, or couples with no children are both able to obtain individual policies from different employers. The second contains all other marital status groups. The choice of a family policy is most prevalent for this group among nonmarried persons with children and those who are married but a spouse is absent from the household. While it is useful to examine the factors that are common to both groups in their choice of a family policy, it is even more so to determine whether there are differences in worker characteristics, given coverage under a family policy, between those who live in a traditional family setting and those who do not.

The empirical results for each group are shown in Table 3. Given the higher cost of a family (vs. individual) policy to an employee, as well as to an employer, it is not surprising that, regardless of marital status, the hourly wage rate is positively and significantly related to the choice of a family policy. For both groups, age is also positively and significantly related to coverage under a family policy, all else the same. As a family ages and becomes more susceptible to illness, it is more likely to insure other members of the family rather than only the breadwinner. Family policies are also more common among union members. And as might be expected, irrespective of marital status, the prevalence of a family policy increases with the number of children in a family.

In terms of other characteristics, however, the propensity to choose a family policy is quite different. Among married families with spouse present, a family policy tends to be in the name of a white male. In sharp contrast, in other households, a family policy tends to be in the name of a black women, and as mentioned above, those with less education are more likely to choose a family policy than those with more education.

These findings suggest that among those who are covered by a family plan, two disparate groups are the most likely to be affected by rising medical costs. The first are traditional families headed by a high-wage white male. The second are families headed by women, particularly, black women, who although having a relatively high wage, tend to earn substantially less than their white male counterparts; moreover, in the nontraditional family, a spouse, and therefore a potential second earner, is absent.

Table 3

Coefficients of Logistics Regression Model:
Covered Workers Choosing a Family Policy

	<u>Married Families, Spouse Present</u>	<u>All Other Marital Status Groups</u>
Intercept	.611***	-2.672*
Age	.009*	.030*
Female	-1.089*	.336*
White	.304**	-.655*
School Years Completed	-.010	-.056**
South	-.385	.038
Metro	-.106	-.344*
White-collar Occupation	.138	-.022
Service Industry	-.334*	-.194
Union member	.743*	.288**
Full-time	.071	.701 *
Hourly Wage	.047*	.0-45*
Own Children Under 18	.583*	1.142*

* Significant at .01 level

** Significant at .05 level

*** Significant at .10 level.

Source: Survey of Income and Program Participation

7. Summary

The major concern of ' this paper is the accuracy of data pertaining to employer contributions for health insurance collected in the Census Bureau's Fringe Benefits Survey (FBS). To establish the accuracy of the data, a regression model was developed for estimating employer contribution amounts as a function of demographic and socio-economic variables characterizing individual workers and variables describing the health plan under which they were covered. After estimating the model using the FBS data, employer contributions were imputed for respondents in the much larger parent sample from which the FBS was drawn, i.e., the 8th Wave of the 1985 panel of the Survey of Income and Program Participation (SIPP). The sum of the employer contributions over all workers was found to be close to the corresponding total reported in the national income accounts.

On the basis of this finding and other data relating to employer contributions for family versus individual health policies, we conclude that the FBS can yield reasonably accurate and timely estimates of the amount by which the earnings of individual workers are augmented by in-kind employer payments for group health insurance.

The analysis suggests that employer contributions for health insurance complement earnings, i.e., are higher for workers whose perceived productivity is high, rather than being related to health insurance payouts incurred on behalf of workers who are more prone to illness.

Our findings also indicate that, all else the same, employer contributions do not vary significantly with demographic characteristics. A substantial difference in contribution amount is found, however, when workers are classified on the single criterion of marital status, since marital status is a primary determinant of whether or not a covered worker chooses a family or individual policy, and employer contributions for the former are much higher than for the latter. Contributions are also relatively large when employers pay all of the premium.

An important policy implication of the study is that rising health insurance costs will have the strongest negative impact on traditional families headed by a white male that are relatively well-off and families headed by black women that are much less well-off.

These findings and conclusions, however, should be considered as tentative pending further verification based on a larger sample of employer contribution data than those contained in the FBS feasibility test.

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