

Private Industry Health Insurance Plans: Type of Administration and Insurer in 1974

by DANIEL N PRICE*

This report examines the major forms of administration of private health insurance plans. Plans are classified according to whether they are employer-only or joint worker-employer operated and according to whether they are negotiated or not. A further focus of examination that often reflects industry patterns is whether the plans cover workers of a single employer or involve multi-employer arrangements. These classifications of administration and the method of insuring benefits are examined in terms of proportions of workers with specified plan characteristics and health benefits.

A SURVEY of health insurance provisions for private industry employees on file with the US Department of Labor in early 1974 provided information representing 51,600 plans. This survey, conducted by the Bureau of Labor Statistics for the Social Security Administration, covered most plans in private industry but excluded those with fewer than 26 participants and those of most nonprofit organizations. Only plans providing at least a basic hospital benefit or a comprehensive major medical benefit were included. Data were collected on the number of workers in these plans, eligibility, benefit, and other provisions, and several plan characteristics. This report¹ from the survey examines the way in which plans are organized to provide workers' health care—that is, who administers the plan and what is the insurance mechanism used to pay benefits.

TYPE OF ADMINISTRATION AND INSURERS

Health plans can be administered by employers alone (or employer representatives and employer

* Division of Retirement and Survivors Studies, Office of Research and Statistics. The data were prepared with the assistance of Andrea Novotny.

¹ For the first report, see Daniel N. Price, "Health Benefits for Laidoff Workers," *Social Security Bulletin*, February 1976, pages 40-45.

associations), by workers (or their representatives), or jointly by workers and employers.² The administrative arrangement can also be usefully classified according to whether it pertains to single or multiemployer plans. This distinction is often associated with the industry in which the plan is established. For example, multiemployer plans are likely to develop in such industries as construction and transportation, characterized by a large number of small companies.

Another pertinent way to study the alternative means of administering health plans is according to whether or not they are collectively bargained. About 17 million or 27 percent of American workers in private industry were in unions in 1974.³ Negotiated plans are even more prevalent in this study of health insurance protection than might be suggested by the extent of union membership nationally. Fifty-five percent of workers were in private industry health plans that were collectively bargained.⁴

As table 1 shows, a substantial number of workers are included in plans operating under six of the types of administration. Of these, three forms of administration dominated the private industry health insurance picture at the beginning of 1974. In this study, 39 percent of the workers were in single-employer, nonnegotiated plans administered by employers, 30 percent in single-employer negotiated plans administered by employers, and 21 percent in multiemployer

² These classifications were abstracted by the Bureau of Labor Statistics from plan description forms filed by administrators. Note that under the Labor-Management Relations (Taft-Hartley) Act of 1947, plans financed by employers through trust funds must be jointly administered.

³ The number of union members is from the US Department of Labor Press Release 75-443, *Labor Union and Employee Association Membership*, August 12, 1975.

⁴ Throughout this report "collectively bargained," "negotiated," and "union" plans are used interchangeably as consisting of plans established through labor-management negotiation. It should be kept in mind that some plans of this type may also cover nonunion members.

TABLE 1—Number and percentage distribution of workers with health care plans, by detailed type of administration and insurer and by type of financing of hospital benefits, 1974

Type of insurer and financing	Total	Employer-administered				Worker-employer administered, ¹ negotiated		Other ²
		Nonnegotiated		Negotiated		Single-employer	Multi-employer	
		Single employer	Multi-employer	Single employer	Multi-employer			
Total number								
Health plans (in thousands)	51 6	36 9	1 1	8 7	0 8	0 3	2 6	1 2
Workers (in millions)	28 4	11 1	1 2	8 5	6	6	5 8	5
Total percent of workers	100	100	100	100	100	100	100	100
Insurer for hospital benefits³								
Commercial insurance	62	71	91	52	80	32	54	77
Blue Cross	30	27	4 8	46	4 19	46	17	4 10
Self-insured	6	4 1	4 1	4 1	0	4 18	25	4 13
Independent (HMO's and non HMO's)	2	4 1	0	2	4 1	4 4	4	0
Type of financing								
Employer	68	48	37	78	80	73	96	55
Worker and employer	28	47	40	19	4 20	27	3	45
Worker	1	4 1	4 2	(⁴)	0	0	(⁴)	0
Not available	3	4	21	2	0	4 1	4 1	0

¹ Includes 300,000 workers in negotiated worker-administered plans
² Includes 300,000 workers in nonnegotiated worker-administered and worker-employer-administered plans (200), and 300,000 workers (in 1,000 plans) for whom data were not available
³ Insurer of basic plan, or where no basic plan is provided, insurer of com-

prehensive major medical plan
⁴ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)
⁵ Less than 0.5 percent

negotiated plans administered jointly by workers and employers. Together they accounted for 90 percent of the workers in the study. The same groups accounted for 94 percent of the plans studied, with 72 percent of the plans in the single-employer, nonnegotiated sector administered exclusively by employers. Three broader classifications of these categories—employer-administered nonnegotiated plans, employer-administered union plans, and jointly administered negotiated plans—encompass 98 percent of all the workers studied (chart 1).

The following tabulation shows that at least

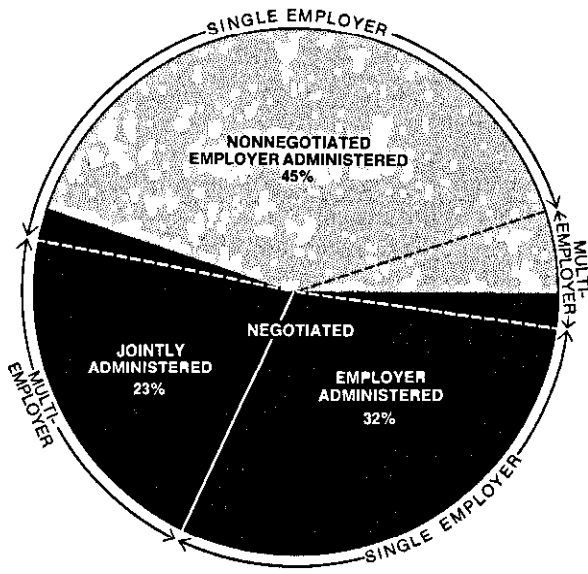
Type of administration	Total number	Percentage distribution, by type of employer unit		
		Total	Single employer	Multi-employer
Workers (in millions)	28 4	100	73	27
Employer-administered	21 7	100	91	9
Negotiated	9 1	100	93	7
Nonnegotiated ¹	12 6	100	90	10
Worker-employer-administered, negotiated²	6 6	100	9	91
Health plans (in thousands)	51 6	100	91	9
Employer-administered	48 4	100	96	4
Negotiated	9 5	100	92	8
Nonnegotiated	39 0	100	97	3
Worker-employer-administered, negotiated	3 1	100	12	88

¹ Includes 300,000 workers in single-employer plans for whom negotiation status was unknown
² Includes 300,000 workers in nonnegotiated worker-employer-administered plans and 300,000 in negotiated worker-administered plans

90 percent of workers in employer-administered plans, whether or not negotiated, were also in plans established on behalf of a single employer, but 91 percent of the workers in jointly administered union plans were in multiemployer plans. In addition to the workers in those plans, 1 percent were in the nearly 200 plans administered exclusively by workers or their representatives. The plans in this group were of varying size, with the number of participants ranging from fewer than 100 to 10,000–49,000. Such plans have been included here—in most of the tables—with the other administrative categories, primarily with the figures for joint administration.

Tables 1 and 2 show the relationship between the form of administration and the insurance vehicle used by health plans. The large majority (62 percent) of workers are in plans that provide health benefits through commercial insurance, most of the remainder (30 percent) were covered by Blue Cross plans, and relatively few workers (8 percent) were in any other type of plan. The data in these tables relate to the insurer of hospital benefits in early 1974. In general the same type of carrier insures each benefit offered. Up to 5 percent of the plans surveyed, however, had different insurers for different benefits. The most common type of variation is Blue Cross coverage of hospital benefits associated with coverage by commercial carrier for medical, surgical,

CHART 1—Percent of workers in private industry health plans, by type of administration¹



¹Includes workers in worker and worker-employer administered nonnegotiated plans (1 percent) and in plans for which data on type of administration are not available (1 percent)

or major medical protection. Therefore, for the later analysis in this article relating to medical, surgical, or supplemental major medical benefits, the "type of insurer" is the insurer of medical, surgical, or supplemental major medical benefits as appropriate.

Some sharp differences in type of insurer according to form of plan administration were apparent. Employer-administered plans as a group were more likely to rely on commercial insurance to provide health benefits than jointly administered plans were. Except for multiemployer, employer-administered negotiated plans, however, a more notable distinction may have been the smaller extent of commercial insurance among negotiated plans than among the nonnegotiated. Seventy-three percent of the workers in nonnegotiated plans were under commercial insurance, but only 53 percent of the workers in negotiated plans had this form of insurance.

Some plans offer comprehensive major medical benefits (having an initial deductible and/or coinsurance feature for hospital expenses) rather than a basic hospital benefit. For most of the discussion in this report, information on basic hospital plans and comprehensive major medical plans are not shown separately. The following

tabulation shows, however, that three-fourths of the workers with comprehensive major medical plans, compared with about two-fifths of the workers with basic hospital benefit plans, are in employer-administered nonnegotiated plans.

Type of administration	Total	Insurer for basic benefit				Comprehensive major medical plan
		Total	Commercial	Blue Cross Blue Shield	Other	
Total number Health plans (in thousands).....	51.6	47.3	29.4	16.5	1.4	4.3
Workers (in millions).....	28.4	26.0	15.4	8.4	2.3	2.4
Total percent of workers.....	100	100	100	100	100	100
Employer administered						
Nonnegotiated						
Single-employer.....	89	37	42	85	8	64
Multiemployer.....	4	4	6	1	(¹)	11
Negotiated						
Single-employer.....	30	31	25	46	10	22
Multiemployer.....	2	2	3	1	(¹)	..
Worker-employer-administered, negotiated						
Single-employer.....	2	2	1	3	5	..
Multiemployer.....	21	23	20	12	73	3
Other.....	2	1	3	1	(¹)	(¹)

¹ Less than 0.5 percent

Self-insured plans and independent plans (including plans called health maintenance organizations, or HMO's, offering prepaid comprehensive health care) together included only 1,500 plans and 2.2 million workers, or fewer than 8 percent of the workers studied. A notable characteristic of these plans is the tendency toward particular forms of administration. Eighty-three percent of all workers in self-insured plans were in negotiated multiemployer plans jointly administered (and 25 percent of those in plans so administered were self-insured). Independent plans, although not as concentrated as the self-insured group, nevertheless appeared for the most part among negotiated plans (82 percent of workers covered by independent plans were under union-negotiated contracts).

Another characteristic related to the form of administration and insurance utilized by health plans is the method of financing health benefits. The benefits of two-thirds of the workers in private industry health plans in early 1974 were paid for by employer contributions exclusively. Almost all the remaining plans provided for payments by both the worker and employer. As

TABLE 2—Number and percentage distribution of workers with health care plans, by detailed type of insurer and administration and by type of financing of hospital benefits, 1974

Type of administration and financing	Total	Insurer for hospital benefits ¹			
		Commercial	Blue Cross	Self-insured	Independent
Total number					
Health plans (in thousands)	51.6	33.4	16.7	0.7	0.8
Workers (in millions)	28.4	17.6	8.5	1.7	0.5
Total percent of workers	100	100	100	100	100
Type of administration					
Employer-administered					
Nonnegotiated					
Single-employer	39	45	36	3	18
Multiemployer	4	6	1	1	0
Negotiated					
Single-employer	30	25	46	3	31
Multiemployer	2	3	1	0	1
Worker-employer-administered					
Negotiated					
Single-employer	2	1	3	6	4
Multiemployer	21	18	12	83	45
Other ⁴	2	2	1	4	0
Type of financing					
Employer	68	64	73	85	71
Worker and employer	28	33	23	12	24
Worker	1	(⁵)	2	0	0
Not available	3	3	3	3	5

¹ Insurer of basic plan, or where no basic plan is provided insurer of comprehensive major medical plan
² Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)
³ Includes 300,000 workers in negotiated worker-administered plans
⁴ Includes 300,000 workers in nonnegotiated worker-administered and worker-employer administered plans
⁵ Less than 0.5 percent

might be expected, collectively bargained plans are much more likely to have been financed by employers alone.⁵ Almost 5.6 million or 96 percent of the 5.8 million workers in negotiated jointly administered multiemployer plans did not have to contribute to their health protection. In contrast, among workers in nonnegotiated plans, about as many workers helped pay for their health benefits as those that did not.

Variations are also noted in the method of financing benefits according to the insurer used (table 2). The costs of commercially insured plans are more likely to be paid for jointly by workers and employers than plans insured in other ways. The greatest contrast is seen in the fact that 33 percent of workers under plans provided through commercial insurance helped pay the cost of their

⁵ Financing provisions are not uniform for all benefits. The workers themselves pay for health benefits received on layoff in many instances, and exclusive worker financing for layoff benefits was found more often among negotiated plans than among others. In addition, some plans permitting immediate protection require that the worker pay full costs during the first few months of coverage.

protection, but only 12 percent of workers in self-insured plans had to contribute.

PLAN CHARACTERISTICS AND BENEFITS

Characteristics

The industry in which a worker is employed has a major influence on the type of health plan coverage he has. The most dramatic instance of this relationship is shown in the construction industry where almost all health plans were jointly administered negotiated (mostly multi-employer).⁶

Table 3 shows that 7 percent of all workers surveyed were from the construction industry but that these workers accounted for 27 percent of those in jointly administered negotiated plans and 30 percent of the self-insured and independent plans. Employer-administered negotiated plans are dominated by manufacturing—77 percent of the workers in health plans thus administered were in manufacturing employment. A higher-than-average proportion of workers in plans insured through Blue Cross (62 percent) were also found in manufacturing.

Employment in wholesale and retail trade and in finance, insurance, and real estate was conspicuous among nonnegotiated plans. Standing out in particular was the 56 percent of wholesale and retail workers in nonnegotiated multiemployer plans administered by employers.

On the average, the largest plans were employer-administered and negotiated, and the smallest were nonnegotiated. The median numbers of workers, as derived from table 3, were 11,100 for negotiated employer-administered plans, 7,500 for jointly administered plans, and 2,100 for nonnegotiated plans. Single-employer plans—the major group of nonnegotiated plans—were even smaller with median employment of 1,800, compared with a median of 4,200 for multiemployer nonnegotiated plans. The former group included 36,900 or 72 percent of all plans included in the study, and 22,300 of those were plans with fewer than 100 participants. No such sharp distinction in size of plan emerged with respect to type of

⁶ Throughout the remainder of this presentation, most jointly administered plans discussed are multiemployer and negotiated.

TABLE 3 —Number and percentage distribution of workers with health care plans, by type of administration and insurer and by specified plan characteristics, 1974

Characteristic	Total	Type of administration				Insurer for hospital benefits *			
		Employer administered			Worker-employer-administered, negotiated †	Commer- cial	Blue Cross	Self- insured or independent	
		Nonnegotiated		Negotiated					
		Total ‡	Single- employer		Multi- employer				
Total number									
Health plans (in thousands).....	51 6	39 0	36 9	1 1	9 5	3 1	33 4	16 7	1 5
Workers (in millions).....	28 4	12 6	11 1	1 2	9 1	6 6	17 6	8 5	2 3
Total percent of workers	100	100	100	100	100	100	100	100	100
Industry									
Manufacturing	53	49	53	12	77	26	53	62	21
Construction	7	1	1	4	(*)	27	5	4	30
Transportation	6	2	2	4	3	19	7	2	15
Communications and public utilities	6	3	3	4	2	13	4	11	4
Wholesale and retail trade	12	17	13	56	3	14	13	10	14
Finance, insurance, and real estate	7	14	14	15	4	4	7	7	4
Services	6	8	8	13	4	8	7	3	7
Mining, farming, forestry	4	6	6	0	4	5	4	2	9
Size of plan (number of workers)									
Less than 100.....	5	10	11	4	2	(*)	6	5	4
100-999	21	32	33	20	14	10	22	21	10
1 000-4 999	26	29	29	36	19	31	27	23	35
5,000-9,999	14	12	9	38	14	18	14	14	21
10 000-24,999	14	12	13	4	14	17	14	13	17
25 000-49 999	6	2	2	0	13	6	6	5	11
50 000 or more.....	14	4	4	0	24	18	12	19	4
Wage status of worker									
Hourly.....	29	9	8	4	11	32	64	26	59
Salaried	14	23	24	15	7	5	14	14	6
Hourly and salaried.....	30	31	31	29	42	11	33	28	13
Not available.....	28	38	37	45	19	21	27	31	22

* Includes 1,000 plans and 300,000 workers for whom data on type of administration were not available

† Includes 300,000 workers in negotiated worker administered plans and 300,000 workers in nonnegotiated worker-administered and worker-employer-administered plans

* Insurer of basic plan, or where no basic benefit is provided, insurer of comprehensive major medical plan

† Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

* Less than 0.5 percent

insurer The median number of workers for each of the three major forms of insurance was between 4,500 and 6,000

The wage status of workers protected by health benefits is very much related to the type of administration Plans that are negotiated—especially those that are administered by workers and employers together—are much more likely to be established for the protection of hourly workers than are nonnegotiated plans The latter include higher proportions of workers under plans covering only the salaried Except for the jointly administered plans, however, the majority of workers are in plans that covered both hourly and salaried workers

The distribution of workers by wage status followed approximately the same pattern for plans insured by commercial companies as for plans under Blue Cross Workers were distributed by wage status in self-insured and independent plans in roughly the same fashion as in jointly administered negotiated plans, and reflected again

the high degree of overlap in these two characteristics

Basic Hospital Benefits

Most workers covered by the survey (92 percent) were protected with at least a basic hospital benefit Remaining workers had comprehensive major medical benefits Seventy-three percent had a supplemental major medical plan provided as well as the basic hospital benefit

Plans covering 62 percent of the workers required the worker to have a specified period of employment before any hospital benefits could be payable⁷ Fifty-five percent of the workers under employer-administered, nonunion, single-employer plans had to work 1 or more months for health

⁷ For a detailed review of employment requirements for health plan benefits, see Andrea Novotny, "Private Industry Health Insurance Plans Employment Requirements for Coverage in 1974," in this issue of the *Bulletin*

benefit eligibility. At the other end of the range, 80 percent of workers in jointly administered union plans were restricted by this type of provision. The main differences were between single-employer and multiemployer plans. Higher proportions of workers were required to wait some specified period for health plan eligibility if they were in multiemployer plans, regardless of negotiation status, as seen in the following tabulation.

Type of administration	Percent of workers with employment waiting period requirement		
	Total	Multi employer plan	Single employer plan
Employer administered			
Nonnegotiated.....	55	69	53
Negotiated.....	69	79	58
Worker-employer-administered			
Negotiated.....	80	86	52

¹ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

A notable difference was also observed in the proportion of workers with employment requirements according to type of insurer. A little more than two-thirds of the workers in commercially insured or self-insured plans had to fulfill a requirement of at least 1 month, compared with only a little more than half of those under Blue Cross plans.

Basic benefits most commonly provided workers early in 1974 to defray hospital expenses were in the form of direct service rather than cash payment. The form of administration favoring this way of paying for hospital care was by far the employer-administered negotiated plan. 79 percent of the workers under this type of plan had service-benefit protection. Table 4 also confirms the survey finding mentioned above that comprehensive major medical provisions were much more widely offered by nonnegotiated plans (14 percent of workers) than by those under collectively bargained contracts (6 percent in employer-administered plans and 2 percent in jointly administered plans). The association of Blue Cross plans with service benefits is evident in that 97 percent of workers in such plans had service or cash-and-service hospital benefits. Where cash benefits were provided for hospital care, negotiated plans tended to offer somewhat higher amounts than nonnegotiated ones. Note, for example, that about seven-tenths of the 32

percent of the workers with cash benefits in jointly administered negotiated plans were entitled to a daily benefit of \$40 or more. In non-negotiated plans less than half of those with cash benefits could receive at least \$40.

Relating the proportions of workers with a cash benefit to the proportions having a dollar amount of benefits offers some insight into the kind of benefits provided with cash-and-service benefits. That is, table 4 shows for a given type of administration, such as that for all nonnegotiated plans, that cash benefits of specified amounts were reported for 29 percent of workers, but just 24 percent are shown as having cash benefits exclusively. It can be assumed then that 5 percent of the workers under nonnegotiated plans had cash-and-service benefits in which the cash part was the basic daily room-and-board rate and the service part was for ancillary services.

Basic ancillary hospital services (such as laboratory, blood, and X-ray treatments) were provided as a full-service benefit for 62 percent of all workers surveyed, a little less than the 67 percent for whom the cost of daily room and board was taken care of through a service benefit. An interesting difference is the much greater extent to which the full cost of ancillary services was provided by employer-administered negotiated plans (with 81 percent of the workers thus covered) than by jointly administered plans (with 49 percent). A higher proportion of workers under self-insured and independent plans (57 percent) was also under this more liberal benefit provision than the proportion for those under commercial insurance (47 percent).⁸

The pattern of potential hospital duration covered by health plans resembled that of ancillary benefits in broad terms. Negotiated employer-administered plans offered more generous periods of protection than negotiated jointly administered plans or nonnegotiated plans. More than one-half of the workers in negotiated employer-administered plans could be reimbursed for 121 or more days, with about one-fifth or fewer of

⁸ It should be understood in discussion of schedules as more or less generous or other "better"/"worse" comparisons of plans by type of insurer that the data reported are for particular plans in force at the time of the study and do not imply that a particular type of carrier offered only the specific level or benefit shown for workers in private plans early in 1974.

TABLE 4—Number and percentage distribution of workers with health care plans, by type of administration and insurer and by basic hospital benefit provisions, 1974

Basic hospital benefit	Total	Type of administration				Insurer for hospital benefits *			
		Employer administered			Worker-employer-administered, negotiated †	Commercial	Blue Cross	Self-insured or independent	
		Nonnegotiated		Negotiated					
		Total †	Single employer						Multi-employer
Total number									
Health plans (in thousands).....	51 6	39 0	36 9	1 1	9 5	3 1	33 4	16 7	1 5
Workers (in millions).....	28 4	12 6	11 1	1 2	9 1	6 6	17 6	8 5	2 3
Total percent of workers.....	100	100	100	100	100	100	100	100	100
Type of hospital benefit									
Cash	20	24	22	36	7	30	28	2	25
Service.....	56	47	49	24	79	43	40	90	54
Cash and service	15	15	15	19	8	25	19	7	10
Major medical benefit †.....	9	14	14	21	6	* 2	13	* 1	* 5
Amount for daily room and board during full benefit period									
Less than \$39.99.....	9	15	14	18	2	9	12	4	* 6
40.00-59.99.....	8	9	8	19	4	12	12	2	8
60.00 or more.....	6	5	5	* 6	3	11	7	2	9
Service benefit.....	67	56	58	36	85	63	55	91	67
Major medical benefit †.....	10	15	15	21	6	5	14	* 1	11
Amount for ancillary services									
Less than \$499.....	12	13	12	19	7	17	16	2	20
500-999.....	9	13	14	* 6	3	12	14	(*)	10
1 000 or more.....	8	5	4	19	3	21	12	(*)	9
Full cost of services.....	62	55	57	36	81	49	47	97	57
Major medical benefit †.....	8	14	14	20	6	* 2	13	* 1	* 5
Duration of hospital benefit (in days)									
Less than 32.....	9	10	11	* 6	4	11	9	6	15
32-70.....	17	18	17	26	8	27	19	10	21
71-120.....	24	23	23	27	23	27	19	37	17
121-365.....	24	14	14	12	46	13	21	35	12
366 or more.....	5	3	4	0	6	8	3	6	10
Dollar maximum.....	9	14	15	* 9	6	4	13	2	7
Major medical benefit †.....	8	14	14	20	6	* 2	13	* 1	* 5
Not available.....	3	4	4	* 1	2	5	3	3	* 6

† Includes 1 000 plans and 300,000 workers for whom data on type of administration were not available

* Includes 300,000 workers in negotiated worker-administered plans and 300,000 workers in nonnegotiated worker administered and worker-employer-administered plans

† Insurer of basic plan, or where no basic benefit is provided, insurer of comprehensive major medical plan

* Includes 2.4 million workers (8 percent of total) with comprehensive major medical benefit, rather than basic hospital benefit payable after an initial deductible and/or coinsurance payment, for most other workers included in this category data not available

† Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

* Less than 0.5 percent

the workers in the other types of plans entitled to this much protection Sixteen percent of workers in self-insured or independent plans were entitled to more than one year of protection—a higher proportion than for those under other forms of insurance If the measure used is 121 or more days of protection (which in most instances means 365 days), those under Blue Cross policies are clearly more likely to have this high level of coverage than those under either commercial insurance or self-insured and independent health plans

Basic Surgical and Medical Benefits

The study shows that 86 percent of private industry workers were under health plans that provided basic benefits for the cost of surgery

(table 5) The remainder had surgical-cost protection under a major medical plan only For 69 percent of those surveyed, major medical plan supplementation was available in addition to a basic surgical benefit Workers under negotiated plans were much more likely to have basic surgical benefits (90 percent for employer-administered plans, 95 percent among the jointly administered) than those in nonnegotiated plans (74 percent) Benefits on a “reasonable and customary” cost basis are generally considered more generous than specified cash payments Cash allowances are the most common form of basic surgical benefit, except among workers in negotiated employer-administered plans where about half (well above half, excluding the 10 percent with major medical benefits) received reimbursement to the extent that costs did not exceed what the plan deemed reasonable and customary

Table 5—Number and percentage distribution of workers with health care plans, by type of administration and by basic surgical and medical benefit provisions, 1974

Basic surgical or medical benefit	Total	Type of administration					Worker-employer administered, negotiated ²
		Employer administered				Negotiated	
		Nonnegotiated			Total ¹		
		Single employer	Multi-employer	Total ¹			
Total number	51 6	39 0	36 9	1 1	9 5	8 1	
Health plans (in thousands).....	28 4	12 6	11 1	1 2	9 1	6 6	
Workers (in millions).....							
Total percent of workers.....	100	100	100	100	100	100	
Type of surgical benefit							
Cash scheduled allowance.....	56	58	57	63	36	80	
Service benefit.....	3	1	2	0	2	8	
Reasonable and customary cost.....	25	15	6	8	52	7	
Major medical benefit ⁴	16	26	26	29	10	5	
Amount for most expensive operation							
Less than \$400.....	13	15	15	7	8	16	
400-599.....	20	17	17	16	15	34	
600-999.....	11	11	11	12	6	18	
1,000 or more.....	11	13	12	26	7	11	
Service benefit.....	2	1	1	0	2	7	
Reasonable and customary cost.....	26	17	18	8	52	9	
Major medical benefit ⁴	17	27	27	31	11	6	
Amount for appendectomy							
Less than \$149.....	6	7	7	4	6	2	
150-199.....	17	21	22	12	11	20	
200-249.....	18	16	14	30	9	35	
250 or more.....	7	4	4	1	7	14	
Service benefit.....	2	1	1	0	2	7	
Reasonable and customary cost.....	28	19	19	20	53	11	
Benefit provided but amount not determinable.....	7	8	9	5	4	8	
Major medical benefit ⁴	14	24	24	29	9	8	
In hospital medical benefit per treatment							
\$1-4.....	8	7	7	8	6	14	
5.....	16	20	18	29	12	15	
6-9.....	15	13	13	21	10	26	
10 or more.....	10	8	9	0	13	8	
Service benefit.....	2	1	1	0	1	7	
Reasonable and customary cost.....	19	10	10	8	40	8	
Major medical benefit ⁴	29	42	42	34	8	21	

¹ Includes 1,000 plans and 300,000 workers for whom data on type of administration were not available.

² Includes 300,000 workers in negotiated worker-administered plans and 300,000 workers in nonnegotiated worker-administered and worker-employer administered plans.

³ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed).

⁴ Includes workers with surgical (4.0 million) or medical (7.4 million) benefit payable after an initial deductible and/or coinsurance payment, rather than basic benefit for most other workers, data not available or benefit different from type shown here.

⁵ Includes 0.5 million workers with no medical benefit.

Exactly four-fifths of the workers in jointly administered plans had benefits offering cash scheduled allowances. Table 6 shows that among workers with basic surgical benefits, reasonable and customary cost benefits predominate under Blue Shield plans (57 percent) and, by a wide margin, cash scheduled allowances are the benefits most commonly provided workers under commercial insurance (77 percent) and self-insured or independent plans (66 percent).

Among plans offering cash benefits for surgery, nonnegotiated plans offer higher dollar allowances than negotiated plans for the most expensive operation included in the workers' surgical package. Thus, 13 percent of the workers in nonnegotiated plans are entitled to maximum surgery of at least \$1,000, compared with somewhat lower

proportions for workers in collectively bargained (employer-administered) plans. Since the most expensive operation for which benefits are offered may not be performed very often and so may not be as significant a measure of benefits provided as a lower-priced but more common procedure, the benefit data shown on appendectomy may be a more useful measure of available protection.

The extent of benefits for appendectomy on a reasonable and customary cost basis closely paralleled that for the most expensive operation for plans under all types of administration but one. The exception was the experience of nonnegotiated multiemployer employer-administered plans, the smallest group included in the table.

Negotiated employer-administered plans make

considerably greater use of this type of provision than do nonnegotiated plans and jointly administered negotiated plans. The latter group of plans demonstrate a better cash benefit schedule for appendectomies than do nonnegotiated plans. Almost half the workers in these negotiated plans are entitled to reimbursement of at least \$200, only 20 percent of those in nonnegotiated plans have benefits at that level. Since all but 3 percent of the workers in jointly administered negotiated plans have a basic surgical benefit (rather than a surgical benefit with deductible and/or coinsurance features), this type of plan, along with negotiated employer-administered plans, clearly

provides higher appendectomy benefits than do plans for workers established without collective bargaining.

Interesting differences in surgical schedules by type of insurer are prominent in table 6. Fifty-eight percent of workers in Blue Shield plans had a benefit paying reasonable and customary costs for the most expensive operation, 35 percentage points more than the corresponding proportion for commercial carriers and 50 more than that for self-insurers and independents. If service benefits are taken into account, self-insurers and independents provided these more liberal benefits to a greater extent than commer-

TABLE 6—Number and percentage distribution of workers with health care plans, by type of insurer and by basic surgical and medical benefit provisions, 1974

Basic surgical or medical benefit	Total	Insurer for basic benefit			Other ¹	
		Total	Commercial	Blue Shield		Self insured or independent
Surgical benefit						
Total number						
Health plans (in thousands)	51 6	41 1	24 8	15 1	1 2	10 5
Workers (in millions)	28 4	24 2	14 9	6 8	2 5	4 2
Total percent of workers	100	100	100	100	100	100
Type of surgical benefit						
Cash scheduled allowance	56	65	77	40	66	2 2
Service benefit	2	3	0	0	25	1 1
Reasonable and customary cost	25	30	22	57	6	(²)
Major medical benefit ⁴	16	2	1	3	3	9 7
Amount for most expensive operation						
Less than \$400	13	15	15	14	16	0
400-599	21	23	28	11	27	1 1
600-999	11	13	16	7	11	0
1,000 or more	11	12	15	8	7	0
Service benefit	2	2	0	0	24	1 1
Reasonable and customary cost	26	32	28	58	8	(²)
Major medical benefit ⁴	17	3	2	3	7	9 8
Amount for appendectomy						
Less than \$149	6	6	7	7	(²)	0
150-199	17	20	23	18	11	1 1
200-249	18	21	28	6	22	(²)
250 or more	7	8	9	4	16	0
Service benefit	2	2	0	0	24	1 1
Reasonable and customary cost	28	33	25	58	12	(²)
Benefit provided but amount not determinable	7	8	7	8	14	1 1
Major medical benefit ⁴	14	(²)	(²)	0	2	9 7
Medical benefit						
Total number						
Health plans (in thousands)	51 6	35 9	20 1	14 8	1 0	15 7
Workers (in millions)	28 4	20 0	10 8	6 6	2 5	8 4
Total percent of workers	100	100	100	100	100	100
In hospital medical benefit per treatment						
\$1-4	8	9	10	7	8	6
5	16	23	32	10	17	(²)
6-9	15	21	28	10	22	(²)
10 or more	10	14	8	25	9	0
Service benefit	2	3	0	0	25	(²)
Reasonable and customary cost	20	27	20	47	1 6	(²)
Major medical benefit ^{4, 5}	29	4	2	(²)	14	9 2

¹ Includes workers for whom no basic benefit was provided or for whom type of insurer was different from type shown here.

² Represents fewer than 142,000 workers (0.5 percent of all workers surveyed).

³ Less than 0.5 percent.

⁴ Includes workers with surgical (4.0 million) or medical (7.4 million) benefit payable after an initial deductible and/or coinsurance payment, rather than basic benefit for most other workers, data not available or benefit different from type shown here.

⁵ Includes 0.5 million workers with no medical benefit.

cial carriers but still not to the degree that the Blue Shield plans did. In similar fashion, the proportion of workers having service or "reasonable and customary cost" benefits for appendectomy was highest for Blue Shield plans (58 percent), it was 36 percent for self-insurers and 25 percent for commercial insurance.

All but about 2 percent of workers in private industry health plans had an in-hospital medical benefit of some type. This was a basic medical benefit for 71 percent of the workers and was in the form of a major medical provision for about 27 percent. For 54 percent, protection was provided by a supplemental major medical plan in addition to a basic in-hospital medical care benefit.

As was true for the surgical benefits, workers in negotiated employer-administered plans were more likely to be entitled to reimbursement for basic medical care expenses on a reasonable and customary cost basis (40 percent of workers) than workers in any other type of plan (8-10 percent). It is evident that, in general, negotiated plans allowed greater in-hospital medical benefits in early 1974 than did nonnegotiated plans, as measured by dollar benefits available (where cash amounts were applicable), by the prevalence of reasonable and customary cost or service benefit provisions, or by the proportion of workers entitled to a basic medical benefit rather than a benefit under a major medical plan provision.

Twenty-five percent of the workers under Blue Shield plans were entitled to a basic in-hospital medical benefit of \$10 or more per treatment, in addition to the 47 percent who received reimbursement on a reasonable and customary basis. In contrast, only 8 percent of the workers under commercial insurance and 9 percent of those in self-insured and independent plans could receive as much as \$10 per treatment. Workers in commercially insured or self-insured plans were also less likely than those under Blue Shield plans to have been paid for reasonable and customary costs for medical treatment (or in the case of self-insured plans to have had a service benefit).

Major Medical and Other Benefits

Twenty-three million workers, or about four-fifths of those included in the survey, were cov-

ered by major medical plan benefits. Most commonly, deductibles are applied to basic plan benefits plus a specified flat amount. This type of provision is called a corridor deductible. Occasionally, other formulas for deductibles are used—a certain percentage of the employee's wage, for example. The initial deductible exclusion,⁹ the amount of coinsurance, and maximum benefits payable are shown in table 7 for all those with major medical benefits.

Relatively few workers are subject to paying initial deductible costs beyond \$100 (6 percent of all the workers, or 8 percent of the 75 percent for whom comparable data are available). Initial deductibles in some instances are \$400 or more, but these are almost always paid in conjunction with a basic benefit covered by the plan. The most common deductible is \$100 (included in the \$51-\$100 category), and the next most common amount is \$50 (included in the \$1-\$50 group).

Workers in nonnegotiated plans were more likely than those in union plans to have major medical coverage, but where major medical coverage is available they were likely to pay a higher deductible amount than participants in collectively bargained plans. The largest contrast in deductible amounts, by type of administration, is between the 66 percent of workers with \$51-\$100 deductibles under nonnegotiated multi-employer plans administered by employers and the 34 percent with those amounts among workers in employer-administered negotiated plans. Distributions of workers by initial deductible amount display only modest variation among the various types of insurer, especially after omission of workers for whom the amount of deductible was not available.

Another typical limitation on major medical benefits is the coinsurance feature. In most instances (68 percent of workers), plans pay 80 percent of allowable expenses and the worker pays the remainder.¹⁰ Eight percent of workers, however, had major medical plans in which the plan paid—under a somewhat more generous formula called a variable coinsurance amount—a specified percentage (usually at least 80 per-

⁹ Other than maternity deductibles.

¹⁰ Almost all workers in the group paying less than 80 percent had a 75-percent coinsurance rate, and most of those in the category of 81 percent or more had a 90-percent rate.

Table 7—Number and percentage distribution of workers with health care plans, by type of administration and insurer and by major medical benefit provision, 1974

Major medical benefit	Total	Type of administration					Insurer for major medical benefit				
		Employer-administered				Worker employer-administered, negotiated ²	Total	Commercial	Blue Shield	Self insured or independent	Other ³
		Nonnegotiated			Negotiated						
		Total ¹	Single employer	Multi employer							
Total number											
Health plans (in thousands).....	51 6	39 0	36 9	1 1	9 5	3 1	43 8	34 1	9 3	0 4	7 8
Workers (in millions).....	28 4	12 6	11 1	1 2	9 1	6 6	23 0	18 5	3 4	1 1	5 4
Total percent of workers	100	100	100	100	100	100	100	100	100	100	100
Amount of deductible per individual (except for maternity)											
\$1-50.....	22	23	23	21	28	12	27	27	30	20	(⁴)
51-100.....	47	57	56	56	34	47	58	58	55	50	11
101 or more.....	6	9	10	4	4	3	8	8	4	10	11
Not available.....	6	3	3	1	11	5	8	6	10	18	11
No major medical benefit.....	19	8	8	8	23	33	(⁴) 8	(⁴) 6	0	2	97
Percent of coinsurance											
Less than 80.....	2	3	3	2	11	2	2	3	(⁴)	5	(⁴)
80.....	68	74	73	76	67	61	84	82	94	82	2
81 or more.....	3	2	2	(⁴) 2	6	2	4	4	2	5	(⁴)
Variable coinsurance.....	8	14	14	14	3	2	9	11	3	6	(⁴)
No major medical benefit.....	19	8	8	8	23	33	(⁴)	(⁴)	(⁴)	2	97
Maximum lifetime benefit											
\$1-10 000.....	9	8	7	14	7	13	11	11	9	11	(⁴)
10,001-20 000.....	17	19	20	6	14	19	22	19	32	32	(⁴)
20,001-30 000.....	13	16	14	32	14	5	16	15	25	5	(⁴)
30,001-50 000.....	11	13	14	10	8	11	14	14	13	7	(⁴)
50,001 or more.....	14	17	16	23	19	2	17	20	5	12	(⁴)
Other ⁵	36	28	29	14	37	48	21	21	15	34	98
Maximum benefit per benefit period or per disability											
\$1-10 000.....	9	7	8	11	9	12	11	8	22	29	1
10 001-20 000.....	9	9	10	1	12	4	11	9	20	10	0
20 001 or more.....	6	8	9	3	5	3	7	8	6	0	(⁴)
Other ⁵	76	76	73	94	74	81	71	75	52	61	99

¹ Includes 1,000 plans and 300,000 workers for whom data on type of administration were not available
² Includes 300,000 workers in negotiated worker-administered plans and 300,000 workers in nonnegotiated worker-administered and worker-employer-administered plans
³ Includes 5,300,000 workers for whom no major medical benefit was provided, and 100,000 workers for whom data on type of insurer were not available or insurer was different from type shown here
⁴ Less than 0.5 percent
⁵ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

¹ Includes 1,000 plans and 300,000 workers for whom data on type of administration were not available
² Includes 300,000 workers in negotiated worker-administered plans and 300,000 workers in nonnegotiated worker-administered and worker-employer-administered plans
³ Includes 5,300,000 workers for whom no major medical benefit was provided, and 100,000 workers for whom data on type of insurer were not available or insurer was different from type shown here
⁴ Less than 0.5 percent
⁵ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)
⁶ Includes workers with no major medical benefit or with different type maximum from type shown here and those for whom data were not available

cent) of the costs up to some limit and then covered the full cost. As table 6 shows, a higher proportion of workers in nonnegotiated plans than in negotiated plans were under variable coinsurance provisions. The corresponding data, by type of insurer, indicate that 11 percent of the workers under commercial insurance plans have major medical plans offering a variable coinsurance payment, several percentage points above the proportion of workers in Blue Shield or self-insured plans.

The maximum benefit payable by major medical plans is usually stated in terms of an amount for an individual's lifetime. Some plans have a maximum per disability or per benefit period in addition to, or instead of, the lifetime amount—as indicated in table 7 for 24 percent of the workers (almost 30 percent, in terms of the 81 percent with major medical coverage). As the

following tabulation indicates, plans that had a benefit maximum for each disability or benefit period, as well as a lifetime limit, tended to allow

Maximum amount payable	Workers under plans with maximum benefits for—	
	Lifetime and per disability	Lifetime only
Total number (in millions).....	2 4	15 9
Total percent.....	100	100
\$1-10 000.....	4	15
10,001-20 000.....	36	26
20,001-30 000.....	35	17
30 001-50 000.....	19	17
50 001 or more.....	(¹)	24

¹ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

a lifetime maximum benefit falling in a narrower range than those imposing only the lifetime limit. Workers in employer-administered plans were

likely to have major medical protection up to similar lifetime limits, regardless of the negotiation status of the plan, but workers in jointly administered plans had lower lifetime limits available. Workers in commercially insured plans were provided somewhat higher maximums than those in other plans. Maximum benefits per benefit period or per disability were somewhat lower for workers in jointly administered plans than in employer-administered plans, following the pattern reported for lifetime benefit allowances.

The extent of coverage for a number of specific types of health benefits is given in table 8 by type of administration. Because coverage is shown whether it is for a basic benefit or is available only as part of a major medical package, the levels shown for some benefits such as for physician care at home are rather high. Data on the insurer were not available for the specific coverages in this table.

One notable difference, evident by type of administration, is in the kind of health care protection being emphasized. The jointly administered plans were more likely than other plans to offer preventive care and coverage in the recently growing benefit areas. Much higher proportions of workers in jointly administered union plans than in employer-administered plans were covered for physician care at a health clinic,¹¹ physical examinations, eye examinations and eyeglasses, and dental care. On the other hand, workers in jointly administered plans were less likely to be covered for physician care or confinements to treat mental ailments in special hospitals, for general physician care at home, and for private-duty nursing care at home or in the hospital. These substantial differences in coverages probably are associated with prevalence of self-insured and HMO plans in the jointly administered group.

Worker coverage in negotiated employer-administered plans differs by at least 10 percentage points from coverage in nonnegotiated employer-administered plans in 10 benefit areas, but the differences show no clear pattern. Among employer-administered plans, for example, 42 percent of the workers in negotiated plans had

nursing-home coverage and 31 percent of the workers in nonunion plans had this kind of protection. More than 90 percent of the latter group had private-duty nursing available (at home or in hospital), compared with well under 80 percent of those in negotiated plans.

SUMMARY

Three main types of private industry health plans can be identified as of early 1974: (1) employer-administered nonnegotiated plans that included 43 percent of workers, (2) employer-administered negotiated plans covering 32 percent of the workers surveyed, and (3) joint-worker-employer-administered negotiated plans that provided for 23 percent of workers. These three types of plans accounted for 98 percent of all those in the study. In addition, most employer-administered plans, whether or not negotiated (9 out of 10 of the workers in these plans) were established to provide benefits to workers of a single company, but 9 out of 10 of the workers in jointly administered (negotiated) programs were in multiemployer plans.

More than 6 out of 10 health benefit plans and workers were covered through commercial insurance, 3 out of 10 through Blue Cross, and the remainder through self-insurers and independent plans. Negotiated plans made more use of Blue Cross than commercial insurance for providing benefits, and most workers in self-insured plans were under negotiated plans (most of which were jointly administered multiemployer plans). Workers in employer-administered negotiated plans were more likely to be employed in manufacturing industry, in plans with large employment, and in plans covering workers paid by the hour than workers in nonnegotiated plans or those administered jointly by workers and employers.

Minimum employment requirements for health plan benefit coverage were more prevalent among jointly administered negotiated plans than among employer-administered ones—largely a reflection of the predominance of multiemployer plans among those jointly administered.

In general, workers in employer-administered negotiated plans were more likely to have basic hospital benefits, service benefits or higher cash allowances, more days-in-hospital coverage, and

¹¹ Note that this service refers to service covered by an HMO type of plan.

basic surgical benefits and higher cash benefits than those in other plans, particularly those in nonnegotiated plans. Higher proportions of workers under Blue Cross plans had liberal benefit coverages than of workers insured otherwise, re-

flecting the greater prevalence of "Blues" among employer-administered negotiated plans than among nonnegotiated or jointly administered negotiated groups.

Proportionately more workers in employer-

TABLE 8 — Number and percentage distribution of workers with health care plans, by specified health care benefit and by type of administration

Health care benefit ¹	Total	Type of administration				Worker-employer-administered, negotiated ²	
		Employer administered			Negotiated		
		Nonnegotiated		Single-employer			Multi-employer
		Total ³	Single-employer				
Total number							
Health plans (in thousands).....	51 6	39 0	36 9	1 1	9 5	3 1	
Workers (in millions).....	28 4	12 6	11 1	1 2	9 1	6 6	
Total percent of workers.....	100	100	100	100	100	100	
Physicians' services							
Clinic, health center							
Covered.....	8	4	4	4 6	4	21	
Not covered.....	92	96	96	94	96	79	
Doctor's office							
Covered.....	86	93	92	92	82	80	
Not covered.....	14	7	7	4 8	18	20	
Home							
Covered.....	86	93	93	95	81	79	
Not covered.....	14	7	7	4 10	19	21	
Radiologists services							
Covered.....	22	17	17	17	32	17	
Not covered.....	78	83	83	83	68	83	
Physical examination, preventive care							
Covered.....	10	5	5	4 1	2	30	
Not covered.....	90	95	95	99	98	70	
Care for mental disorders							
Confinement in general hospital							
Covered.....	95	97	97	100	97	87	
Not covered.....	5	3	3	(⁴)	3	13	
Confinement in special hospital							
Covered.....	44	41	41	32	58	29	
Probably covered ⁵	32	35	35	37	26	37	
Not covered.....	24	24	24	31	16	34	
Clinic, health center							
Covered.....	10	4	3	14	15	15	
Not covered.....	90	96	97	86	85	85	
Doctor's office							
Covered.....	75	80	80	80	82	54	
Not covered.....	25	20	20	20	18	46	
Nursing services							
Nursing home							
Covered.....	32	31	32	27	42	21	
Not covered.....	68	69	68	73	58	79	
Visiting nurse							
Covered.....	11	12	13	4 4	12	8	
Not covered.....	89	88	87	96	88	92	
Private-duty nursing in hospital							
Covered.....	86	95	93	98	79	79	
Not covered.....	14	5	6	4 2	21	21	
Private-duty nursing in home							
Covered.....	80	91	91	90	74	69	
Not covered.....	20	9	9	10	26	31	
Other services							
Eye examinations							
Covered.....	11	2	2	4 1	3	40	
Not covered.....	89	98	98	99	97	60	
Eyeglasses							
Covered.....	11	2	2	4 1	3	40	
Not covered.....	89	98	98	99	97	60	
Prescription drugs, out of hospital							
Covered.....	91	93	93	92	93	83	
Not covered.....	9	7	7	4 8	7	17	
Medical supplies, appliances, out of hospital							
Covered.....	90	96	96	92	86	83	
Not covered.....	10	4	4	4 8	14	17	
Dental							
Covered.....	21	11	11	14	21	40	
Not covered.....	79	89	89	86	79	60	

¹ Covered by either basic benefit and/or major medical benefit
² Includes 1,000 plans and 300,000 workers for whom data on type of administration were not available
³ Includes 800,000 workers in negotiated worker-administered plans
⁴ Represents fewer than 142,000 workers (0.5 percent of all workers surveyed)

⁵ Less than 0.5 percent
⁶ Benefit not specifically excluded, and general provisions of plan appear to encompass this coverage

administered nonnegotiated plans and in commercially insured plans had major medical coverage. In part, the prevalence of major medical plans in these two groups reflected concentration among them of so-called comprehensive major medical coverage (plans not offering first-dollar protection). Workers in jointly administered plans were more likely than others to be protected for certain preventive types of care and for some of the growing forms of protection, such as benefits for dental care and for eye examinations and eyeglasses.

Technical Note

The data presented in this article and in the other articles in this series,¹² are from a study made of plans on file at the Department of Labor in compliance with the Welfare and Pension Plans Disclosure Act. The Bureau of Labor Statistics took a sample of 1,622 plans for the Social Security Administration at the beginning of 1974. Altogether the sample represents 52,000 private industry plans covering 28.4 million workers who receive hospitalization and other health care coverage. Plans with fewer than 26 participants and plans of most nonprofit organizations were excluded.

Only hospital plans providing first-dollar coverage during a full benefit period (or coverage after a nominal deductible charge), or comprehensive major medical plans (that is, plans with an initial deductible and/or coinsurance feature) were included. A plan was defined as one having an identical group of benefits for an identical group of workers. Thus, for example, if all employees in a firm were entitled to a package of basic hospital, surgical, and medical care benefits but only some of these workers were also provided a supplemental major medical benefit, the data were analyzed as two separate plans—one with and one without major medical benefits.

The Welfare and Pension Plans Disclosure Act of 1959 (as amended in 1962) required the administrators of specified employee welfare benefit plans, including health care plans, to file a description of plan provisions with the Secretary of Labor. The report filed had to include,

among other information, the types of benefits provided and schedule of benefits, the source of financing of benefits, and certain identifying information. As indicated already, small plans, plans covering nonprofit enterprises, and plans for government workers were not represented in this study; these plans were excluded from reporting under the law. Consequently the number of workers in this survey, 28.4 million, was well below the 56.8 million wage and salary workers with health plans at the end of 1973 reported in the annual series published by the Social Security Administration.¹³

Sampling Error

The estimates presented here, like those from any sample survey, may differ from figures obtained from a complete census using the same questionnaires and procedures. Interpretation of estimates, as well as differences between estimates, should be evaluated in the light of sampling variability. The importance of sampling variability could be overshadowed, however, by unknown effects of underreporting or misreporting.

A measure of the sampling variability of an estimate is given by the standard error of the estimate. Generally, the chances are about 68 out of 100 that an estimate will differ from the value given by a complete census by less than one standard error. The chances are about 95 out of 100 that the difference will be less than twice the standard error.

Tables I and II give approximate standard errors for estimated numbers and percentages of plans in the universe surveyed, and tables III

¹³ See Alfred M. Skolnik, "Twenty-Five Years of Employee Benefit Plans," *Social Security Bulletin*, September 1976.

TABLE I—Approximate standard errors of estimated number of plans

[68 chances out of 100]	
Estimated number	Standard error
500	85
1 000	135
2 500	255
5 000	410
10 000	685
25 000	1 400
35 000	1 900
50,000	2 600

¹² Andrea Novotny, *op cit*, and Daniel N. Price, *op cit*.

TABLE II—Approximate standard errors of estimated percentage of plans

[68 chances out of 100]

Base of percentage	Estimated percentage								
	2 or 98	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	40 or 60	50
500	1.3	2.2	3.3	4.1	4.8	5.2	5.7	6.3	6.5
1 000	1.0	1.7	2.6	3.2	3.8	4.2	4.5	4.9	5.2
2,500	0.7	1.3	1.9	2.4	2.7	3.0	3.3	3.6	3.8
5 000	0.6	1.0	1.5	1.9	2.2	2.4	2.6	2.8	3.0
10 000	0.4	0.8	1.2	1.5	1.7	1.9	2.0	2.2	2.3
25 000	0.3	0.6	0.8	1.0	1.2	1.3	1.4	1.5	1.6
35,000	0.3	0.5	0.7	0.9	1.0	1.1	1.2	1.3	1.4
50 000	0.2	0.4	0.6	0.8	0.9	1.0	1.0	1.1	1.1

and IV give corresponding estimates for workers included in those plans¹⁴ The standard error for a given percentage of workers with a specified base is somewhat higher than for the same percentage of plans from the corresponding base since the sampling unit was the plan. Workers are a characteristic of the plans and thereby subject to additional sampling variability.

Linear interpolation may be used to obtain values not specifically given. A number of assumptions and approximations were used to

¹⁴ These tables were developed by Bennie A. Clemmer, Division of Retirement and Survivors Studies, and Robert H. Finch, Jr., Division of OASDI Statistics, from sample design data provided by the Bureau of Labor Statistics using a generalized variance procedure prepared in the Division of Statistics.

TABLE III—Approximate standard errors of estimated number of workers (in thousands)

[68 chances out of 100]

Estimated number (in thousands)	Standard error
500	120
750	155
1,000	180
5 000	475
10 000	710
15 000	880
25 000	1,100
30,000	1,200

derive standard errors that are applicable to a wide variety of items. As a result the tables of standard errors provide an indication of the order of magnitude rather than the precise standard error for any specific item. It is estimated, for example, that 49 percent of the 126 million workers in employer-administered nonnegotiated health plans are in the manufacturing industry. By interpolation from table IV, the standard error is 3 percent. Thus with 95-percent confidence the proportion of workers in manufacturing in this type of health plan lies between 43 percent and 55 percent.

To make a rough determination of the statistical significance of the difference between two independent percentages, find estimates of the standard errors of the percentages in question in table II or table IV; square these standard errors to get variances and add the variances. Take the square root of this sum to get the standard error of the difference. If the absolute difference between the two percentages is greater than twice the standard error of the difference, they are said to be significantly different from one another at the 95-percent level.

If, for example, among those in employer-

(Continued on page 42)

TABLE IV—Approximate standard errors of estimated percentage of workers

[68 chances out of 100]

Base of percentage (in thousands)	Estimated percentage								
	2 or 98	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	40 or 60	50
500	2.8	4.4	6.1	7.4	8.3	9.1	9.6	10.4	10.7
750	2.3	3.6	5.1	6.1	6.9	7.6	8.0	8.7	9.0
1 000	2.0	3.2	4.4	5.4	6.1	6.7	7.1	7.7	7.9
5 000	0.9	1.5	2.2	2.7	3.1	3.4	3.6	4.0	4.1
10 000	0.7	1.2	1.8	2.1	2.4	2.6	2.8	3.1	3.2
15 000	0.6	1.0	1.4	1.8	2.0	2.2	2.4	2.6	2.8
25 000	0.5	0.8	1.2	1.5	1.7	1.9	2.0	2.2	2.3
30,000	0.4	0.8	1.1	1.4	1.6	1.8	1.9	2.1	2.2

TABLE M-7—Hospital insurance trust fund Status, 1966-76

(In thousands)

Period	Receipts				Expenditures		Assets at end of period		
	Net contribution income ¹	Transfers from railroad retirement account ²	Reimbursements from general revenues ³	Net interest ⁴	Net hospital and related service benefits ⁵	Administrative expenses ⁶	Invested in U.S. Government securities ⁷	Cash balances ⁸	Total assets
October	\$72,236,062	\$852,834	\$5,561,889	\$2,672,347	\$68,767,724	\$1,937,584	\$10,616,316	\$1,509	\$10,617,825
Fiscal year									
1966	908,797	-	-	5,970	-	63,564	785,758	65,446	851,204
1967	2,688,684	16,200	337,850	45,903	2,607,773	88,848	1,298,188	45,053	1,343,221
1968	3,514,049	43,613	283,631	61,091	3,736,322	78,647	1,370,276	60,360	1,430,636
1969	4,423,236	53,776	770,968	96,063	4,653,976	104,182	2,001,444	15,078	2,016,521
1970	4,784,789	61,307	628,262	139,423	4,804,242	148,660	2,653,322	24,079	2,677,401
1971	4,897,979	63,255	873,849	183,027	5,442,971	149,434	3,029,856	73,250	3,103,106
1972	5,225,891	63,782	551,351	190,105	6,109,139	186,370	2,883,958	-25,233	2,858,725
1973	7,663,119	61,222	429,415	197,844	6,648,819	192,839	4,222,365	146,301	4,368,666
1974	10,606,551	96,163	498,780	408,273	7,806,687	268,048	7,864,355	49,344	7,913,699
1975	11,296,773	126,749	529,353	614,989	10,355,890	266,134	9,760,883	109,156	9,870,039
1976	12,039,194	130,904	658,430	715,744	12,270,382	308,215	10,942,180	-106,465	10,835,714
July-Sept (transitional quarter) ¹⁰	3,367,940	135,863	-	11,951	3,315,278	88,408	11,009,482	-61,699	10,947,783
1975									
October	707,283	-	-	3,078	1,031,621	24,004	9,751,955	-44,685	9,707,270
November	807,418	-	-	5,577	922,283	25,700	9,458,254	113,028	9,572,282
December	978,273	-	668,430	327,038	995,864	23,010	10,499,871	17,279	10,517,150
1976									
January	912,691	-	-	2,525	977,270	22,263	10,397,867	34,965	10,432,832
February	1,033,373	-	-	1,617	981,252	24,947	10,447,892	13,731	10,461,623
March	1,148,985	-	-	1,693	1,161,540	23,879	10,574,791	-147,910	10,426,881
April	1,190,404	-	-	1,695	1,150,885	31,887	10,602,065	-165,557	10,436,508
May	1,150,324	-	-	1,922	1,036,104	25,071	10,479,161	48,119	10,527,280
June	1,177,343	-	-	358,845	1,196,510	31,244	10,942,180	-106,465	10,835,714
July	977,613	-	-	2,317	1,075,997	26,002	10,706,040	7,606	10,713,646
August	1,121,941	-	-	1,237	1,107,695	30,800	10,693,333	4,996	10,698,329
September	1,268,386	135,863	-	8,397	1,131,686	31,607	11,009,482	-61,699	10,947,783
October	819,060	-	-	1,964	1,116,745	34,237	10,616,316	1,609	10,617,825

¹ Represents amounts appropriated (estimated tax collections with suitable subsequent adjustments), after deductions for refund of estimated amount of employee-tax overpayment, and, beginning July 1973, premiums for coverage of uninsured individuals aged 65 and over

² Transfers (principal only) from the railroad retirement account with respect to contributions for hospital insurance coverage of railroad workers

³ Represents Federal Government transfers from general funds appropriations to meet costs of benefits for persons not insured for cash benefits under OASDI or railroad retirement and for costs of benefits arising from military wage credits

⁴ Interest and profit on investments after transfers of interest on reimbursed administrative expenses (see footnote 6) and interest on amounts transferred from railroad retirement account (see footnote 3)

⁵ Represents (1) payment vouchers on letters of credit issued to fiscal intermediaries under sec 1816 and (2) direct payments to providers of services

under sec 1815 of the Social Security Act

⁶ Subject to subsequent adjustment among all 4 social security trust funds for allocated cost of each operation

⁷ Book value Includes net unamortized premium and discount and, when applicable, accrued interest purchased and repayments on account of interest accrued on bonds at time of purchase

⁸ Minus figures, if any, represent overdrafts that are covered by redemption of securities on first working day of following month

⁹ Includes "tool-up" period from date of enactment of Social Security Amendments of 1965 (July 30)

¹⁰ Between end of fiscal year 1976 (June 30) and start of fiscal year 1977 (October 1, 1976) Preliminary

Source Unpublished Treasury monthly reports keyed to *Final Statement of Receipts and Expenditures of U.S. Government*

HEALTH PLANS ADMINISTRATION

(Continued from page 27)

administered plans, the 28-point difference from table 3 between the proportion of workers under nonnegotiated plans who are in manufacturing (49 percent of 12.6 million) and that of workers under negotiated plans in the same industry (77 percent of 9.1 million) is to be examined for

statistical significance, the standard error of the difference is computed as follows: Take the square root of the sum of 3.0 (interpolated from table IV) squared and 2.7 squared, or 16.29, which equals 4.0. Since the absolute difference (28.0) is 7 times the standard error of the difference, (4.0), the proportion of manufacturing workers in negotiated plans is said to be significantly higher than that of manufacturing workers in nonnegotiated plans at the 95-percent level.