How firm size and industry affect employee benefits

Smaller establishments and service-producing industries typically provide fewer benefits than larger establishments and goods-producing industries, but the extent of benefit coverage varies widely within industrial and establishment-size groupings

Thomas P. Burke
and
John D. Morton

Thomas P. Burke and John D. Morton are economists in the Division of Occupational Pay and Employee Benefit Levels, Bureau of Labor Statistics. Larry L. Huff, a mathematical statistician in the Office of Compensation and Working Conditions, assisted in the development of data for this article.

Although a majority of U.S. workers receive paid leave, insurance, and retirement benefits from their employers, the incidence and characteristics of these benefits vary significantly by industry group and size of establishment. This conclusion stems from a comparison of benefits for full-time employees in goods-producing and service-producing industries, and in establishments employing 100 to 499 workers and those with 500 or more workers. The analysis shows that:

- Employees in goods-producing industries and larger establishments, on the whole, are more likely to have medical coverage than are their counterparts in service-producing industries and smaller establishments.
- While nearly three-quarters of all full-time workers in goods-producing industries and in larger establishments are covered by defined benefit pension plans, about half of those in service-producing industries and smaller establishments have such plans.
- Types of coverage of short-term disability vary by industry group: Employees in goods-producing industries are more likely to receive sickness and accident insurance than those in service-producing industries, where paid sick leave is the more prevalent practice.
- There is wide variation in benefits coverage within establishment-size and industrial groupings. Service-producing industries, for example, include transportation and public utilities firms, with almost universal benefits coverage, and retail trade establishments, in which coverage is much less extensive.

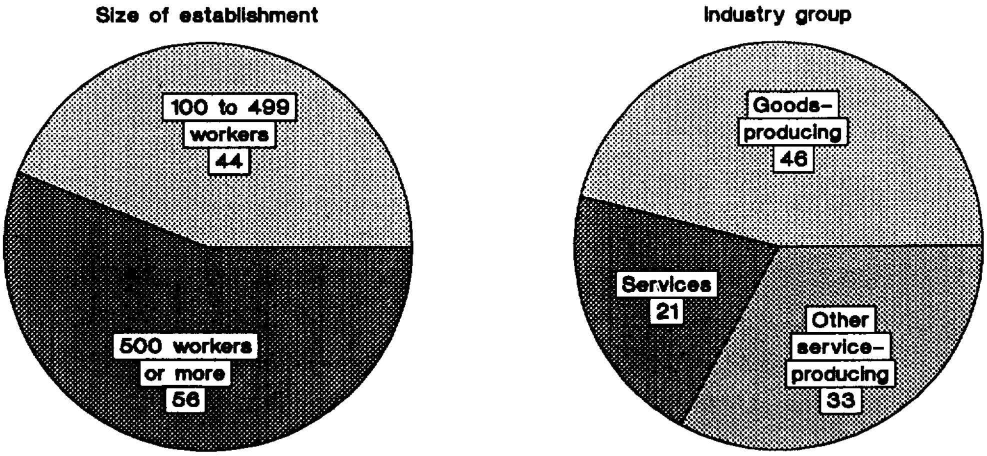
The Employee Benefits Survey

Data for this study come from the Bureau of Labor Statistics 1988 Employee Benefits Survey of private-sector establishments with 100 employees or more. The 1988 survey was the first since the program began to include all industries in the private economy and to have a uniform minimum establishment size of 100 workers across industries.[1] Survey results provide representative data for 31 million full-time workers.

The Employee Benefits Survey provides information on the incidence and characteristics of paid leave, insurance, defined benefit pension plans, defined contribution plans, flexible benefits arrangements, and work schedules.[2] Data on eligibility (but not details of plan provisions) for several additional benefits, such as employee assistance programs and child care, also are provided. With a few exceptions, the survey is limited to benefits financed at least partially by employers.

In this survey, private-sector employees are grouped into three broad occupational categories—professional and administrative, technical and clerical, and production and service workers—to capture possible variations in benefit plan availability and design. The first two groups often are combined to represent white-collar workers

Chart 1. Percent distribution of employment by type of establishment, medium and large establishments, 1988



Type of establishment	Estimated number of full-time employees: Total	White-collar	Blue-collar	Industrial coverage
All establishments	31,058,623	16,158,570	14,900,052	All industries
Goods-producing	14,174,497	5,201,486	8,973,011	Mining; construction; manufacturing
Service-producing	16,884,126	10,957,084	5,927,042	Transportation, communication, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance and real estate; services
Services	6,479,438	4,224,904	2,254,534	Includes health care, education, business, entertainment, and personal services
100 to 499 workers	13,547,402	6,112,773	7,434,628	All industries
500 workers or more	17,511,221	10,045,797	7,465,424	All industries

(as in this article), while production and service employees are referred to as blue-collar workers. Generally, the data presented here relate to all employees, unless differences in benefits among occupations warrant a more detailed treatment.[3]

This article is the first in the Employee Benefits Survey series to be based on separate tabulations for portions of the total survey coverage. Although the sample selected for the survey is designed to provide representative data only at the all-establishment level, examination of the data collected in 1988 suggested the possibility of presenting significant comparisons by broad industry and size-of-establishment groupings.[4] As a result, this analysis contrasts data for employees in service-producing industries, such as public utilities, retail trade, and finance, with those for employees in goods-producing industries, such as construction and durable and nondurable goods manufacturing.

Data also are presented for employees in services industries, such as hotels, hospitals, and schools. (Employees in these industries make up about 40 percent of all employees in the service-producing sector covered by the survey.[5]) In addition to comparisons of data for industrial groupings, comparisons are made for employees in the establishments employing 100 to 499 workers and those employing 500 workers or more. (See chart 1 for details of employment and industrial composition of each of the subgroups studied.)

When comparing benefits among different industry or establishment-size groups, one must consider the composition of benefits packages: whether workers receive a particular benefit often depends on what other benefits they are receiving. For example, only 35 percent of workers in the service-producing industries received sickness and accident insurance in 1988, but 81 percent of these workers received paid sick leave, which lessens the need for sickness and accident insurance.

It is also important to keep in mind that data for a group of establishments, such as those in service-producing industries, are aggregates of data for numerous establishments, among which the types of benefits offered may vary widely. For example, the service-producing group contains data for establishments in several industries, including (1) public utilities (transportation; communications; and electric, gas, and sanitary services) and (2) retail trade. Employees in the first group traditionally have more generous benefits than those in the second group, as is seen in the Bureau's data on employment cost levels. These data show the cost per hour worked for all nonlegally required benefits in public utilities was $4.71 in 1990, the highest among any industry group. By contrast, the cost per hour worked for all benefits in retail trade was $1.04, the lowest of any industry group.[6] The following table presents the cost per hour worked of nonlegally required benefits in March 1990, by industry:

	Cost per hour worked
All workers in private industry	$2.78
Goods-producing	3.71
Construction	2.65
Manufacturing	3.93
Durables	4.38
Nondurables	3.29
Service-producing	2.42
Transportation and public utilities	4.71
Wholesale trade	3.33
Retail trade	1.04
Finance, insurance, and real estate	3.46
Services	2.46

Because of these differences, the data presented in this article must be considered as representative of the aggregate groupings only, rather than of any individual industry.[7]

Table 1. **Percent of full-time employees participating in medical and dental care plans, by type of establishment, medium and large establishments, 1988**

Type of establishment	Medical care			Dental care		
	All employees	White-collar employees	Blue-collar employees	All employees	White-collar employees	Blue-collar employees
All establishments	90	92	88	60	64	55
Goods-producing	95	96	94	65	75	60
Service-producing	85	89	79	56	60	49
Services	67	64	74	51	56	43
100-499 workers	88	90	86	49	54	44
500 workers or more	91	92	90	69	71	66

Differences in the incidence and provisions of benefits for employees in various industry and establishment-size groupings may be interrelated. As will be seen, certain benefits are more prevalent in goods-producing establishments and in establishments with 500 workers or more. This is due in part to a large overlap between the two groups. Data on the numbers of establishments and employees by industry and size show that one-third of goods-producing workers are employed in establishments with 500 or more workers, compared with one-fifth of service-producing workers.[8]

Health care benefits

Ninety-five percent of workers in all goods-producing industries had medical care coverage in 1988, compared to 85 percent in all service-producing industries. This difference is largely traceable to the services industries, in which only 67 percent of workers were covered. The incidence of dental coverage also is markedly different between industry groups: 65 percent of workers were covered in the goods-producing industries, while the coverage was lower in the service-producing (56 percent) and services (51 percent) industries. Just over two-fifths of blue-collar workers in services had dental coverage. (See table 1.)

There was little variation in medical coverage by employment size of establishment: 88 percent of workers in the 100- to 499-worker employment group had coverage, compared to 91 percent in the larger establishment group. There was a noticeable difference, however, in dental coverage between the two groups: 69 percent of workers in the 500 employees or more group were provided coverage, compared to 49 percent in the smaller size group. Again, much of the variance was traced to differences in coverage for blue-

Table 2. **Percent of full-time employees who were medical care plan participants, by type of financing, medium and large establishments, 1988**

Type of financing	Type of establishment					
	All establishments	Goods-producing	Service-producing		100-499 employees	500 employees or more
			Total	Services		
Individual coverage						
Total	100	100	100	100	100	100
Employee contribution required	44	39	48	51	44	44
No employee contribution required	56	61	52	49	56	56
Average monthly employee contribution	$19.29	$16.68	$21.29	$23.72	$20.97	$18.04
Family coverage						
Total	100	100	100	100	100	100
Employee contribution required	65	58	70	87	66	63
No employee contribution required	35	42	30	13	34	37
Average monthly employee contribution	$60.07	$45.34	$71.51	$83.13	$67.86	$54.15

collar workers: 66 percent of these workers in larger establishments had dental coverage, while 44 percent were covered in smaller establishments.

Characteristics of medical care plans tended to be similar among the groups observed, with one significant exception: the percent of participants required to contribute toward the cost of their medical coverage varied by industry, as did the average monthly contribution. For self-only coverage, 39 percent of participants in all goods-producing industries were required to contribute, compared with 48 percent of participants in all service-producing industries. The difference was even greater for family coverage. Fifty-eight percent of participants in all goods-producing industries were required to contribute toward the cost of family coverage, compared with 70 percent in all service-producing industries. Furthermore, workers' average monthly contribution for family coverage in service-producing establishments was nearly $72, compared with $45 in goods-producing establishments. (See table 2.)

Table 3. **Percent of full-time employees participating in defined benefit pension and defined contribution plans, by type of establishment, medium and large establishments, 1988**

Type of establishment	Defined benefit pension			Defined contribution plans		
	All employees	White-collar employees	Blue-collar employees	All employees	White-collar employees	Blue-collar employees
All establishments	63	65	61	45	58	32
Goods-producing	72	73	72	45	66	34
Service-producing	55	60	46	45	54	30
Services	47	50	41	32	40	18
100-499 workers	49	50	48	41	55	29
500 workers or more	74	74	75	49	59	35

Retirement, capital accumulation plans

Defined benefit pension plans, which obligate an employer to calculate retirement benefits using a formula specified in the plan, were provided to nearly three-quarters of employees both in goods-producing industries and in establishments employing 500 workers or more. By contrast, these plans were provided to roughly one-half of workers in service-producing industries and in smaller establishments. (See table 3.)

The three types of benefit-determination formulas common among defined benefit pension plans are flat-dollar amount, percent of career earnings, and percent of terminal earnings. A flat-dollar amount formula specifies a rate per year of service that is multiplied by the number of years of service to compute a monthly benefit. For example, $20 times 25 years of service provides a $500 per month benefit. Earnings-based formulas compute benefits by multiplying a percentage factor, such as 1.5 percent, by years of service. In a career earnings formula, a percentage of each year's pay accrues toward the final benefit. A terminal earnings formula uses average earnings in the final years of service, most commonly the last 3 or 5 years, to compute benefits. For an employee with 30 years of service and average terminal earnings (as specified by the plan) of $20,000, the monthly pension benefit is $750 (1.5 percent times 30 years times $20,000 equals $9,000 annually, or $750 monthly). Table 4 shows the percentage of workers covered in 1988 by each type of pension formula.

What is most notable about these data is the prevalence of dollar-amount formulas among goods-producing establishments, and a contrasting absence of such formulas in the service-producing sector. This pattern stems in part from the frequent incidence of dollar-amount plans among blue-collar workers, who are most numerous in goods-producing industries. Dollar-amount plans also are commonly found among workers covered by collective bargaining agreements. In 1989, 23 percent of employees in goods-producing industries were represented by unions, compared with 10 percent in service-producing industries.[9]

Defined contribution plans (such as savings and thrift and profit sharing plans), which specify the contribution of the employer but do not guarantee the worker a specific benefit amount, are another source of retirement income and capital accumulation.[10] These plans were equally prevalent among employees in goods-producing and service-producing establishments in 1988, but were more often provided to white-collar than to blue-collar employees. (Once again, the low incidence among blue-collar workers may be due in part to coverage by collective bargaining agreements, which typically do not include defined contribution plans.) The incidence in the services industries, however, was lower at 32 percent. About 41 percent of workers in the smaller-establishment size group were covered, compared to 49 percent in larger establishments.

Data from the survey were used to compute the percent of employees covered by some form of retirement plan—either a defined benefit plan, or a defined contribution plan that restricted access to funds prior to retirement age, or both. Employees in goods-producing industries and larger establishments were more likely to have a source of retirement income available, as indicated by the percent of workers participating in at least one retirement plan:

	Percent of workers participating
All establishments	80
Goods-producing	86
Service-producing	76
Services	71
100–499 workers	72
500 workers or more	87

Disability benefits

Protection against loss of income during a short-term disability may be provided through either sick leave or sickness and accident insurance, or a combination of the two. Sick leave is paid time off, usually at full pay, for a set maximum number of days that may increase with length of service. It is paid out of an establishment's operating funds. Sickness and accident insurance, on the other hand, replaces a portion of the worker's regular earnings, typically for up to 26 weeks, and usually requires a short waiting period before benefits begin. The following tabulation shows the percent of workers with protection against short-term disabilities, regardless of type of plan:

	Percent of workers
All establishments	89
Goods-producing	91
Service-producing	88
Services	86
100–499 workers	84
500 workers or more	93

The type of short-term disability coverage provided varied by industry. (See table 5.) Sick

Table 4. **Percent of full-time employees covered by selected pension benefit formulas, by type of establishment, medium and large establishments, 1988**

Type of establishment	All formulas	Terminal earnings	Career earnings	Dollar amount	Other[1]
All establishments	100	55	17	26	2
Goods-producing	100	45	16	38	–
Service-producing	100	67	18	12	3
Services	100	66	18	11	5
100-499 workers	100	56	15	26	2
500 workers or more	100	55	18	25	2

[1] Includes cash balance pension plans and pension plans with formulas based on a percentage of employer contributions. For more details, see *Employee Benefits in Medium and Large Firms, 1989*, Bulletin 2363 (Bureau of Labor Statistics, 1990), pp. 80-81.

Table 5. **Percent of full-time employees participating in short-term disability plans, by type of establishment, medium and large establishments, 1988**

Type of establishment	Sick leave			Sickness and accident insurance		
	All employees	White-collar employees	Blue-collar employees	All employees	White-collar employees	Blue-collar employees
All establishments	69	90	47	46	33	60
Goods-producing	54	89	34	60	38	73
Service-producing	81	89	65	35	31	41
Services	80	86	69	34	33	37
100-499 workers	63	86	44	46	33	56
500 workers or more	74	93	49	46	33	64

leave, predominantly a white-collar benefit, was available to 81 percent of workers in the service-producing industries but to only 54 percent of workers in the goods-producing industries. Conversely, 60 percent of goods-producing workers received sickness and accident insurance, compared to 35 percent of service-producing workers. These differences are largely due to the greater proportion of blue-collar workers in the goods-producing sector. Workers in large establishments were more likely to receive sick leave than their counterparts in the smaller establishments, but the incidence of sickness and accident insurance coverage did not vary by size of establishment.

Life insurance

Life insurance was provided to 96 percent of workers in the goods-producing industries, while coverage in the service-producing and services industries was 90 and 86 percent, respectively. Ninety-five percent of workers in the large-establishment group had coverage compared to 90 percent of those in the smaller-es-

Table 6. **Percent of full-time employees participating in paid holiday and vacation plans, by type of establishment, medium and large establishments, 1988**

Type of establishment	Holidays			Vacations		
	All employees	White-collar employees	Blue-collar employees	All employees	White-collar employees	Blue-collar employees
All establishments	96	97	94	98	98	97
Goods-producing	98	99	98	99	100	98
Service-producing	94	96	89	97	98	96
Services	91	92	89	96	96	97
100-499 workers	94	96	92	97	98	96
500 workers or more	97	98	97	98	99	98

Table 7. **Average number of paid vacation days available at selected service intervals, by type of establishment, 1988**

Type of establishment	Length of service				
	1 year	5 years	10 years	20 years	Maximum
All establishments	9	13	16	20	22
Goods-producing	8	12	16	20	22
Service-producing	10	14	16	20	22
Services	11	15	18	20	21
100-499 employees	8	13	15	19	20
500 employees or more	10	14	17	21	23

Table 8. **Percent of full-time employees eligible for selected benefits, by type of establishment, medium and large establishments, 1988**

Benefits	Type of establishment					
	All establishments	Goods-producing	Service-producing		100-499 workers	500 workers or more
			Total	Services		
Parking	84	91	79	80	86	83
Travel accident insurance	49	49	49	38	38	58
Child care	4	2	6	9	1	7
Adoption assistance	5	5	5	5	2	8
Infirmary	35	44	27	38	12	53
Wellness program	17	17	17	20	6	26
Employee assistance program	43	48	39	37	25	57
Recreation facility	25	31	19	24	13	34
Subsidized meals	21	13	29	46	13	28

tablishment group.

Life insurance benefits usually are stated as a flat dollar amount (for example, $10,000), or expressed as a multiple of earnings (such as 2 times annual salary). Nearly three-quarters of all covered workers in the service-producing industries, services, and large establishments had life insurance plans based on a multiple-of-earnings formula, while slightly under three-fifths of workers in the goods-producing industries and in the smaller establishments had such plans. Once again, this reflects the makeup of the goods-producing labor force, which has large percentages of blue-collar workers and workers represented by a union, who more commonly participate in flat-dollar-amount life insurance plans.

Paid time off

Paid time off can range from a few minutes off for a coffee break to several weeks of vacation. Paid holidays and vacations were widely provided to all workers in the survey. Personal leave, available to employees for any reason, was provided to 32 percent of workers in service-producing industries. Such leave was available to 15 percent of all workers in goods-producing industries, and to only 9 percent of blue-collar workers within those industries.

The incidence of paid vacation was high in all sectors (table 6), but provisions varied. Employees in establishments that require around-the-clock staffing, such as hospitals, may participate in a "leave bank" or receive "all-purpose leave." These plans often combine holidays, vacation, sick leave, and other leave into one block of time off. Employees then coordinate their requests for leave so that adequate staffing is maintained.

The number of paid vacation days usually increases with the worker's length of service. Table 7 details the average number of paid vacation days available at selected service intervals.

These data suggest that workers in the services industries receive longer vacations after fewer years of service than do their goods-producing counterparts, but the difference disappears as length of service increases.

Other benefits

The Employee Benefits Survey also gathers information on the incidence of a number of other benefits. The survey measures the number of workers eligible for each of these benefits, whether or not employees actually use them.

For several benefits, such as inhouse infirmaries and recreation facilities, the incidence in 1988 was greater in goods-producing than in service-producing industries. (See table 8.) In contrast, subsidized meals were found more often in the service-producing and services industries, in part as a result of practices in hotels, restaurants, and retail trade establishments. Finally, employer-subsidized child care, while not a common benefit, was more frequently available to employees in service-producing (6 percent) and service establishments (9 percent) than to those in goods-producing establishments (2 percent).

Establishment-size differences in benefit incidence were even more pronounced. The frequency of several benefits that showed little or no variation in incidence by industry varied widely by size of employing unit, most notably travel accident insurance, adoption assistance, and wellness programs. Employee assistance programs, which provide counseling and referral services for financial, legal, substance abuse, and similar problems, were more common in both goods-producing and larger establishments.[11] □

Footnotes

[1] From 1979, when the annual survey began, to 1986, the Employee Benefits Survey excluded most services industries, such as health and education services, and in many industries, it included only establishments that employed at least 250 workers. In 1987, for the first time, the survey covered State and local government workers. The 1990 survey covers small establishments—that is, units with fewer than 100 workers—as well as State and local governments. These expansions are part of a plan leading to survey coverage of the entire nonfarm economy, excluding Federal Government workers.

For this survey, an establishment is an economic unit which produces goods or services, a central administrative office, or an auxiliary unit providing support services to a company. In manufacturing industries, the establishment is usually at a single physical location. In nonmanufacturing industries, all locations of an individual company in a Metropolitan Statistical Area (MSA) or Primary Metropolitan Statistical Area (PMSA) or nonmetropolitan county are usually considered an establishment.

[2] Data were collected on the number of workers "participating" in benefit plans paid for at least in part by the employer. (There are a few exceptions to this general rule. The survey tabulates the availability of postretirement medical care and life insurance, dependent life insurance, supplemental life insurance, and long-term care insurance even if such coverage must be fully paid for by an employee or retiree. This is because the guarantee of insurability and availability of coverage at group premium rates can be considered a benefit. In addition, reimbursement accounts, salary reduction plans, and parental leave plans are tabulated even if there is no employer cost involved.) All workers were considered participants in wholly employer-financed plans that require a minimum length of service, even if some workers had not met those requirements at the time of the

survey. Where plans—such as medical care or life insurance—required an employee to pay part of the cost (contributory plans), workers were considered participants only if they elected the plan.

[3] For additional details on the survey, see *Employee Benefits in Medium and Large Firms, 1989*, Bulletin 2363 (Bureau of Labor Statistics, 1990); and *Employee Benefits in State and Local Governments, 1987*, Bulletin 2309 (Bureau of Labor Statistics, 1988).

[4] The sample for the 1988 survey was larger than in earlier years.

[5] The services industry division includes establishments primarily engaged in providing services for individuals, business and government establishments, and other organizations. It includes hotels, hospitals, educational institutions, and legal, engineering, and other professional services. The service-producing sector includes the services industries as well as transportation, communications, public utilities, wholesale and retail trade, finance, insurance, and real estate establishments. The goods-producing sector includes mining, construction, and manufacturing establishments.

[6] For data on employment cost levels, see *Employer Cost for Employee Compensation—March 1990*, USDL News Release 90-317, June 19, 1990. In addition to variations in cost, the incidence of certain benefits varies by industry, as described by the Bureau's Industry Wage Surveys. See, for example, *Industry Wage Survey: Department Stores, August 1986*, Bulletin 2311 (Bureau of Labor Statistics, 1988); and *Industry Wage Survey: Electric and Gas Utilities, February 1988*, Bulletin 2338 (Bureau of Labor Statistics, 1989).

[7] While the 1988 Employee Benefits Survey sample was too small to permit presentation of data by individual industry, work is under way on providing more breakouts of survey data.

[8] Information on employment and establishments is compiled by the Bureau of Labor Statistics based on data from State Employment Security Agencies. For more information, see *Employment and Wages Annual Averages, 1988*, Bulletin 2341 (Bureau of Labor Statistics, 1989).

[9] *Union Members in 1989*, USDL News Release 90–59, Feb. 7, 1990.

[10] Retirement plans, as defined in this study, do not allow withdrawal of employer contributions until retirement age, death, disability, separation from service, age 59 1/2, or hardship. Capital accumulation plans, on the other hand, impose less stringent restrictions for withdrawal of employer contributions, for example, permitting one or two withdrawals per year, or withdrawal after 2 or 5 years of service.

It should also be noted, however, that most defined contribution plans can be used to provide retirement income or to accumulate financial assets. Capital accumulation plans may provide retirement income because withdrawals of the employer's contributions are voluntary, not mandatory. Similarly, defined contribution retirement plans can be used to accumulate assets, because these plans nearly always permit preretirement withdrawals of the employer's contributions (for example, at age 59 1/2, upon termination of employment prior to retirement, or upon disability). Many of these plans also permit employees to receive a lump sum, rather than an annuity, upon retirement.

[11] For complete descriptions of these benefits, see *Employee Benefits in Medium and Large Firms, 1989*, pp. 117–18.

APPENDIX: Technical note

Data from the Employee Benefits Survey are estimates derived from a probability sample selected to represent employees in all medium-size and large establishments, as defined by the survey specifications. Results are likely to differ from those obtained from a complete census of the employees within the scope of the survey (the survey population, or universe). The difference between an estimate calculated from a specific sample and an average of estimates for all samples that could be drawn from the survey population using the same methodology for the same statistic is the sample error.

To measure the variability of data collected for the Employee Benefits Survey, statistical measures called "standard errors" are calculated. This is regularly done for estimates that are produced for the total Employee Benefits Survey scope using all sampled establishments. Similarly, this was done for each of the subgroups described in this article (for example, goods-producing establishments or those with 100 to 499 employees), and this analysis determined the comparisons that could be presented in this article.

The sampling errors calculated for the survey data are used to form confidence intervals, which provide an indication of the reliability of the estimates. Confidence intervals can be interpreted in the following manner: Assume that repeated random samples of the same size are drawn from a given population and that an estimate of some value, such as a mean or percentage, is made from each sample. Then, one would be confident that the intervals described by one standard error below and one standard error above each sample's estimate would include the true population value for 68 percent of the samples. Confidence rises from 68 to 90 percent if the intervals surrounding the sample estimates are widened to plus and minus 1.6 standard errors, and to 95 percent if the intervals are increased to plus and minus two standard errors.

Table A-1 provides standard errors for use in evaluating the percentage estimates presented in this article. Standard errors are presented for estimates of from 1- to 99-percent benefit coverage, in multiples of 10 percentage points. For example, the data suggest that 90 percent of all employees in all establishments participated in medical care plans in 1988. Table A-1 shows the standard error for an all-estab-

Table A-1. **Standard errors of percentage estimates made for industry and size subgroups, medium and large establishments, 1988**

Percent estimates	All establishments	Goods-producing	Service-producing		100-499 employees	500 employees or more
			Total	Services		
1 percent . . .	0.4	0.4	0.4	0.7	0.6	0.4
10 percent . .	1.1	1.4	1.3	1.9	1.6	1.5
20 percent . .	1.3	1.9	1.5	2.7	1.8	1.7
30 percent . .	1.5	2.2	1.9	3.0	2.3	1.8
40 percent . .	1.7	2.7	2.5	3.6	2.6	1.9
50 percent . .	2.0	3.0	2.8	4.0	2.7	2.6
60 percent . .	1.8	2.5	2.2	3.6	2.3	2.4
70 percent . .	1.5	2.1	2.0	3.2	2.2	2.1
80 percent . .	1.3	1.8	1.4	2.5	2.0	1.8
90 percent . .	0.8	1.4	1.2	2.2	1.2	1.3
99 percent . .	0.5	0.6	0.5	0.9	0.6	0.5

lishment estimate of 90 percent to be 0.8 percent. Thus, at the 95-percent level, the confidence interval for this estimate is 88 percent to 92 percent (90 percent plus or minus 2 times 0.8 percent).

Standard errors for estimates that lie between those shown in table A-1 can be determined by interpolation. For example, to find the standard error for an estimate of 85-percent benefit coverage in the goods-producing establishments, note that the standard error for an 80-percent estimate is 1.8 percent, and the standard error for a 90-percent estimate is 1.4 percent. The estimate of 85 percent falls midway between these estimates. The midpoint of the two standard errors provided for the 80-percent and 90-percent estimates is used to approximate the standard error for the 85-percent estimate. In this case, the standard error is approximately 1.6 percent (the midpoint of 1.8 percent and 1.4 percent).

As expected, the standard errors for each of the subgroups studied are somewhat greater than for the entire survey. For illustration, consider the percent of employees receiving sick leave plans in goods-producing and service-producing establishments. These figures are 54 and 81 percent, respectively. At the 95-percent level, the confidence interval for the 54-percent estimate is 48 to 60 percent (plus or minus 2 times 2.8). The confidence interval for the 81-percent estimate is 78 to 84 percent. While these ranges are wider than those observed for the full survey coverage, they are small enough to confirm the significance of the difference in the incidence of sick leave plans between the two groups of workers.

All comparisons of estimates in this article have been tested for significance using standard statistical tests at the 95-percent confidence level. For additional information on the computation of standard errors for the survey, see *Employee Benefits in Medium and Large Firms, 1989*, Bulletin 2363 (Bureau of Labor Statistics, 1990), appendix A.

Initiating wage policies

The formulation of wage policies by governments is inherently difficult and contentious, for governments as well as employers and workers are affected directly. For many workers and their families, wages constitute the principal, if not the sole, source of livelihood. On the other hand, wages represent an important component of total costs of production for employers. For the latter, the need to control production costs and remain competitive in an increasingly harsh international economic environment has become more acute. Governments try to accommodate and reconcile these divergent perspectives when articulating wage policies. The authorities also have to consider wage issues from a wider perspective, as wages affect the social and economic life of a nation. Since wages constitute a significant share of national income, the authorities must be concerned with the effects of changes in their level and structure on employment, productivity, investment, prices and the balance of payments, as well as on the social climate of the country. Moreover, governments frequently have a direct interest in wage matters in their role as the largest employer of the nonagricultural work force.

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Government Wage Policy Formulation in Developing Countries: Seven Country Studies (Geneva, International Labour Office, 1989), p. vii.