

# Employee Benefits in Medium and Large Firms, 1986

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# Preface

This bulletin presents results of a 1986 Bureau of Labor Statistics survey of the incidence and provisions of employee benefit plans in medium and large firms. This is the Bureau's eighth survey in this series, and it provides representative data for 21.3 million full-time employees in a cross-section of the Nation's private industries. Appendix A provides a detailed description of the scope and statistical procedures used in the survey.

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Pictured on the cover of this bulletin is *Take Your Medicine* by Norman Rockwell, reprinted with permission from *The Saturday Evening Post* (c) 1936 by The Curtis Publishing Company.

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# Chapter 1. Introduction

The employee benefits survey collects data on employee work schedules and develops information on the incidence and detailed characteristics of 14 private sector employee benefits paid for at least in part by the employer. These benefits include lunch and rest periods, holidays, vacations, and personal, funeral, jury-duty, military, and sick leave; sickness and accident, long-term disability, health, and life insurance; and private retirement/capital accumulation plans. In addition, data are collected on flexible benefits plans and reimbursement accounts.

The survey covers full-time employees in medium and large establishments (generally those with at least 100 or 250 employees, depending upon the industry). Because data collection is limited to provisions of formal plans, the extent of such benefits as rest periods and personal leave may be understated. Furthermore, the data show the coverage of benefit plans but not the actual use of these benefits; for example, that part of available paid sick leave actually used.

Data are presented separately for three occupational groups—professional-administrative, technical-clerical, and production workers. This bulletin often discusses the first two groups jointly as white-collar workers, in contrast with production or blue-collar workers.

Respondents provide information on the number of workers covered by specified benefit plans. Workers are counted as covered by wholly employer-financed plans that require a minimum amount of service prior to receiving benefits, even if they had not met the minimum service requirement at the time of the survey. Where plans—such as health or life insurance—require an employee to pay part of the cost (contributory plans), workers are counted only if they elect the plan and pay their share of the cost. Data on insured benefit plans and private retirement and capital accumulation plans are thus limited to “participants.” Plans for which only administrative costs are paid by the employer are not included in the survey.<sup>1</sup>

Information on other benefits, such as severance pay, non-production bonuses, financial counseling, and child care, was not collected in the 1986 survey. Future plans call for resurveying these benefits in 1988.

<sup>1</sup> An exception, however, is made in tables 29, 30, and 53, which tabulate postretirement health and life insurance coverage. Plans under which retirees pay the full cost are included since the guarantee of insurability at group rates is, in itself, considered a benefit.

## Chapter 2. Highlights

The great majority of full-time workers within the scope of the survey were provided with health and life insurance and private retirement plans, as well as paid holidays and vacations (table 1). Provisions of many employee benefits differed markedly between white- and blue-collar workers.

Most paid leave provisions studied in the survey were available to a majority of employees. On the average, covered employees could expect to receive:

- Rest periods of 26 minutes a day
- 10 holidays each year
- Vacations of 9 days at 1 year of service, 16 days at 10 years, and 21 days at 20 years
- 3 days of funeral leave per occurrence
- 12 days of military leave per year
- Jury duty as needed
- Sick leave of 15 days per year with full pay at 1 year of service
- Sickness and accident insurance plans averaging about 26 weeks of coverage.

Ninety-four percent of the employees had some protection against temporary loss of income due to illness or accident through either sick leave (46 percent), sickness and accident insurance (24 percent), or both (25 percent). Most employees also had some protection against extended loss of income due to disability:

- 48 percent had long-term disability insurance
- 37 percent were covered under pension plans that provided immediate disability benefits.

Virtually all of the employees studied were participants in health and life insurance programs. Of the participants in these plans:

- 57 percent paid nothing for their own health insurance, and 37 percent paid nothing for family coverage
- All but 1 percent received benefits for hospitalization, surgical care, diagnostic testing, and mental health care
- 71 percent received dental care
- 80 percent were protected against catastrophic health expenses, either through stop-loss provisions in major medical plans or enrollment in health maintenance organizations
- 34 percent would receive some employer-financed health care during a layoff
- 66 percent were covered by an amount of life insurance determined by earnings

- 17 percent received insurance on the lives of their spouses.

Seventy-six percent of the employees in the survey were covered by defined benefit pension plans, which have formulas for determining an employee's annuity:

- 72 percent of participants were in plans with formulas based on earnings, most frequently on earnings during the last 5 years of employment
- Benefit formulas were integrated with Social Security benefits in plans affecting 62 percent of participants
- Common eligibility requirements for a normal, or unreduced, pension were age 65 with no specified length of service, age 62 with 10 years' service, and 30 years of service with no age requirement
- 66 percent of covered workers could retire with a reduced pension at age 55, most commonly after 10 years' service.

Sixty percent of the employees participated in one or more of the following defined contribution plans: Savings and thrift, employee stock ownership, profit-sharing, money purchase, or stock bonus plans. One-third of employees were in plans with cash or deferred arrangements, authorized by sections 401(k) and 403(b) of the Internal Revenue Code. The majority of these employees were in salary reduction plans, where current income is channeled to a retirement plan, and taxes on that income are deferred until benefits are distributed.

- Employers matched employee contributions to savings and thrift plans most frequently at the rate of 50 percent, up to the first 6 percent of earnings
- 28 percent of employees were in payroll-based stock ownership plans (PAYSOP's)
- Employer profit sharing was based on a predetermined formula for 59 percent of participants in such plans, and allocation of profits to individual accounts was generally based on earnings.

Defined contribution plans that restricted employee access to employer contributions were considered retirement plans in the survey. Eighty-nine percent of employees had some retirement income benefits, either through defined benefit plans, defined contribution plans, or both.

Flexible benefits plans and reimbursement accounts were included in the survey for the first time in 1986. While such



plans have attracted much attention recently, only 5 percent of all employees covered by the survey were eligible for reimbursement accounts, and only 2 percent were offered flexible benefits plans. Reimbursement accounts are used to pay for expenses not covered by a company's regular benefits

package, such as insurance premiums, child care, or health care deductibles. A flexible benefits plan was defined in the survey as a plan giving employees a choice among two or more types of benefits.

**Table 1. Summary: Percent of full-time employees by participation<sup>1</sup> in employee benefit programs, medium and large firms,<sup>2</sup> 1986**

Employee benefit program	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
<b>Paid:</b>				
Holidays .....	99	99	100	98
Vacations .....	100	99	100	100
Personal leave .....	25	33	35	15
Lunch period .....	10	3	4	17
Rest time .....	72	58	69	82
Funeral leave .....	88	87	87	88
Jury-duty leave .....	93	96	96	90
Military leave .....	66	74	72	58
Sick leave .....	70	93	93	45
<b>Sickness and accident insurance .....</b>				
Wholly employer financed .....	49	28	35	69
Partly employer financed .....	41	22	28	59
Partly employer financed .....	8	6	7	9
<b>Long-term disability insurance .....</b>				
Wholly employer financed .....	48	68	60	30
Partly employer financed .....	38	52	47	24
Partly employer financed .....	10	16	13	6
<b>Health insurance<sup>3</sup> .....</b>				
Employee coverage:	95	96	94	96
Wholly employer financed .....	54	52	45	61
Partly employer financed .....	41	45	49	35
Family coverage:				
Wholly employer financed .....	35	33	28	41
Partly employer financed .....	60	64	66	55
<b>Life insurance .....</b>				
Wholly employer financed <sup>4</sup> .....	96	97	96	95
Partly employer financed .....	87	87	87	86
Partly employer financed .....	10	10	9	9
<b>Retirement<sup>5</sup> .....</b>				
Defined benefit pension .....	89	92	92	87
Wholly employer financed <sup>4</sup> .....	76	78	78	74
Partly employer financed .....	71	73	74	69
Defined contribution plan .....	5	5	3	5
Wholly employer financed <sup>6</sup> .....	47	53	55	40
Partly employer financed .....	33	33	36	31
Partly employer financed .....	15	20	19	9
<b>Capital accumulation<sup>7</sup> .....</b>				
Wholly employer financed <sup>6</sup> .....	23	31	29	16
Partly employer financed .....	6	6	6	5
Partly employer financed .....	18	25	23	11

<sup>1</sup> Participants are workers covered by a paid time off, insurance, retirement, or capital accumulation plan. Employees subject to a minimum service requirement before they are eligible for a benefit are counted as participants even if they have not met the requirement at the time of the survey. If employees are required to pay part of the cost of a benefit, only those who elect the coverage and pay their share are counted as participants. Benefits for which the employee must pay the full premium are outside the scope of the survey. Only current employees are counted as participants; retirees are excluded.

<sup>2</sup> See appendix A for scope of study and definitions of occupational groups.

<sup>3</sup> Includes less than 0.5 percent of employees in plans that did not offer family coverage.

<sup>4</sup> Includes participants in noncontributory basic plans who may contribute to the cost of supplemental plans in these benefit areas. Supplemental plans are not tabulated in this bulletin.

<sup>5</sup> The total is less than the sum of the individual items because

many employees participate in both defined benefit and defined contribution plans. Defined contribution plans include money purchase pension plans, and profit sharing, savings and thrift, stock bonus, and employee stock ownership plans in which employer contributions must remain in the participant's account until retirement age, death, disability, separation from service, age 59 1/2, or hardship.

<sup>6</sup> Employees participating in two or more plans are counted as participants in wholly employer financed plans only if all plans are noncontributory.

<sup>7</sup> Includes plans in which employer contributions may be withdrawn from participant's account prior to retirement age, death, disability, separation from service, age 59 1/2, or hardship. Excludes pure cash profit sharing, stock option, and stock purchase plans.

NOTE: Because of rounding, sums of individual items may not equal totals.

## Chapter 3. Work Schedules and Paid Time Off

Time off with pay is available to employees in several different forms—from daily rest periods to annual vacations of several weeks. In 1986, survey coverage of paid leave benefits included provisions for lunch and rest periods; holidays and vacations; and personal, funeral, jury-duty, and military leave. Information on paid sick leave appears in chapter 4.

### Work schedules (table 2)

Weekly work schedules of 40 hours applied to 82 percent of the employees covered by the survey.<sup>2</sup> Nineteen percent of the professional-administrative employees, 30 percent of the technical-clerical employees, and 7 percent of the production workers had shorter workweeks. Two percent of the work force was scheduled to work other than a 5-day week.

### Paid lunch and rest periods (tables 3 and 4)

Ten percent of the employees received formal paid lunch periods, and 72 percent were provided formal rest time, such as coffee breaks and cleanup time. Both benefits were more common among production employees than among the two other occupational groups.

Production employees who were covered by paid lunch period plans usually received 20 or 30 minutes a day, averaging 24 minutes. The 3 percent of white-collar workers eligible averaged 39 minutes of paid lunch time each day. Paid rest time, averaging 26 minutes a day for white-collar employees and 25 minutes per day for production employees, was provided most commonly as two daily breaks of 10 or 15 minutes each.

### Paid holidays (tables 5—7)

Virtually all full-time employees in each occupational group were provided paid holidays, averaging 10.0 days per year. Extended holiday plans, such as the Christmas-New Year's Day period provided in the auto industry, floating holidays, and "personal holidays," such as employee birthdays, were included in the holiday plans reported.

When a holiday fell on a scheduled day off, such as a Saturday or Sunday, another day off was regularly granted to 84

<sup>2</sup> Work schedules include regularly scheduled overtime and paid lunch and rest periods. Overtime hours were excluded from the 1980-84 surveys.

percent of the employees. Most of the remaining workers received either another day off or an additional day's pay, depending on when the holiday fell.

### Paid vacations (tables 5, 8, and 9)

Virtually all employees in each occupational group were provided paid vacations. Vacation provisions averaged 8.8 days at 1 year of service, 15.8 days at 10 years, and 20.6 days at 20 years; these averages were virtually unchanged since 1980—the first year such estimates were developed. Plans covering professional-administrative employees generally provided more vacation days than those for other employees. Sixty percent of the professional-administrative employees, for example, became eligible for at least 15 days of vacation at 5 years of service; this compared with 36 percent of the production employees. Nearly all white-collar employees received their regular salaries or earnings during vacation periods. About seven-eighths of the production employees received such vacation pay; nearly all of the others were provided vacation payments based on a percentage of annual earnings. Anniversary-year bonus vacation days, such as an extra week of vacation at 10 and 20 years of service, were included in the count of regular vacation time.

Virtually all employees covered by vacation plans had to work for a specified period before being able to take a vacation. The most prevalent length-of-service requirement was 6 months for white-collar employees and 1 year for production employees.

Sixteen percent of the plan participants were allowed to cash in unused vacation time. This option was offered to 10 percent of the white-collar participants and 22 percent of the production participants.

### Paid personal leave (table 10)

Formal personal leave, which allows employees to be absent from work with pay for a variety of reasons not covered by other specific leave plans, was provided to one-fourth of the employees. Slightly over one-third of the white-collar employees received personal leave, more than twice the proportion of production employees with this benefit. Most commonly, employees provided personal leave were eligible for 1 to 5 days, averaging 3.7 days per year. In cases where personal leave was part of an "annual leave" plan

(combined vacation and personal leave) and could not be shown separately, it was reported as vacation time. The survey did not cover the extent of informal personal leave.

**Paid funeral leave, jury-duty leave, and military leave (tables 11-13)**

At least 87 percent of the employees in each occupational group were eligible for paid leave to attend funerals of family members. Four-fifths of the employees received a set number of days per occurrence, averaging 3.2 days. (Three days off were available to a majority of workers in each occupational group.) For 10 percent of the white-collar workers and 3 percent of the blue-collar workers, the number of days off depended upon the employee's length of service. Workers in plans where the number of days off varied by relationship to the deceased were included in the count of workers with a set number of days; the maximum number of days off was reported for each plan with this relationship provision. Nearly one-fourth of the employees were in these plans.

Nine-tenths of the workers were eligible for paid leave while serving as a juror. Paid time off for jury duty was usually provided as needed; employer payments commonly made up the difference between the employee's regular pay and the court's jury allowance.

Military leave, providing pay for absence from work to fulfill military training or duty commitments, was available in establishments employing two-thirds of the employees. The most common provision was 2 weeks off per year, but one-sixth of the workers were in establishments providing military leave as needed. For workers with a specified number of days off, military leave averaged 11.5 workdays per year. Pay for military leave was either regular pay or the difference between regular pay and military pay.

The following tabulation shows the average lengths of several paid leave benefits:

	All participants	Professional and administrative	Technical and clerical	Production
Lunch time—				
minutes per day . . . . .	27	40	38	24
Rest time—				
minutes per day . . . . .	26	26	26	25
Personal leave—				
days per year . . . . .	3.7	3.9	3.6	3.8
Funeral leave—				
days per occurrence . . .	3.2	3.4	3.5	3.1
Military leave—				
days per year . . . . .	11.5	11.7	11.7	11.2

**Table 2. Work schedules: Percent of full-time employees by number of hours scheduled per week,<sup>1</sup> medium and large firms, 1986**

Work schedule	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Hours per week:				
Under 35 .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2
35 .....	4	5	7	1
Over 35 and under 37.5 .....	2	3	5	1
37.5 .....	7	8	13	3
Over 37.5 and under 40 .....	2	4	5	( <sup>1</sup> )
40 .....	82	79	69	90
Over 40 .....	2	2	( <sup>1</sup> )	3
Hours per week not available .....	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )

<sup>1</sup> Work schedule data included regularly scheduled overtime, paid lunch, and paid rest periods. Regularly scheduled overtime was excluded from the 1980-1984 surveys.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 3. Paid lunch time: Percent of full-time employees by minutes of paid lunch time per day, medium and large firms, 1986**

Minutes per day	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid lunch time .....	10	3	4	17
Under 20 minutes .....	1	( <sup>1</sup> )	( <sup>1</sup> )	3
20 minutes .....	3	( <sup>1</sup> )	1	7
Over 20 and under 30 minutes .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )
30 minutes .....	3	1	1	6
Over 30 minutes .....	1	2	2	1
Number of minutes not available .....	1	-	-	1
Not provided paid lunch time .....	90	97	96	83

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 4. Paid rest time: Percent of full-time employees by minutes of paid rest time per day, medium and large firms, 1986**

Minutes per day	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid rest time .....	72	58	69	82
Under 15 minutes .....	1	( <sup>1</sup> )	( <sup>1</sup> )	3
15 minutes .....	4	3	5	4
Over 15 and under 20 minutes .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )
20 minutes .....	25	18	19	33
Over 20 and under 30 minutes .....	4	2	3	6
30 minutes .....	34	33	40	31
Over 30 and under 40 minutes .....	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )
40 minutes .....	1	( <sup>1</sup> )	( <sup>1</sup> )	1
Over 40 minutes .....	2	-	( <sup>1</sup> )	5
Number of minutes not available .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Not provided paid rest time .....	28	42	31	18

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 5. Paid holidays and vacations: Average number of days for full-time participants, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Paid holidays .....	10.0	10.2	9.8	10.0
Paid vacation by length of service:				
At 6 months <sup>1</sup> .....	5.5	6.0	5.7	5.0
At 1 year <sup>1</sup> .....	8.8	10.1	9.6	7.5
At 3 years .....	10.5	11.0	10.5	10.2
At 5 years .....	12.7	13.5	13.0	12.0
At 10 years .....	15.8	16.5	16.0	15.3
At 15 years .....	18.5	19.0	18.9	17.9
At 20 years .....	20.6	21.2	20.7	20.3
At 25 years .....	22.2	22.7	22.5	21.7
At 30 years <sup>2</sup> .....	22.7	23.4	23.0	22.1

<sup>1</sup> Prior to 1985, employees receiving vacation days, but none at 6 months or at 1 year of service, were included in computing the averages for these lengths of service. They are now included only for the service periods for which they receive vacations.

<sup>2</sup> The average (mean) was essentially the same for longer lengths of service.

NOTE: Computation of average included half days and excluded workers with zero holidays or vacation days.

**Table 6. Paid holidays: Percent of full-time employees by number of paid holidays provided each year, medium and large firms, 1986**

Number of days	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid holidays .....	99	99	100	98
Under 5 days .....	2	( <sup>1</sup> )	( <sup>1</sup> )	3
5 days .....	1	1	1	2
6 days .....	4	4	6	4
6 days plus 1, 2, or 3 half days ...	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
7 days .....	6	5	7	7
7 days plus 1, 2, or 3 half days ...	1	( <sup>1</sup> )	1	1
8 days .....	7	7	6	7
8 days plus 1 or 2 half days .....	1	1	2	( <sup>1</sup> )
9 days .....	11	12	14	9
9 days plus 1 or 2 half days .....	1	1	2	1
10 days .....	24	25	26	23
10 days plus 1 or 2 half days .....	1	2	2	1
11 days .....	17	18	18	17
11 days plus 1 or 2 half days .....	1	1	1	( <sup>1</sup> )
12 days .....	10	13	9	9
12 days plus 1 or 2 half days .....	( <sup>1</sup> )	1	1	( <sup>1</sup> )
13 days .....	4	4	2	5
13 days plus 1 or 2 half days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
14 days .....	5	4	2	8
15 days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
More than 15 days .....	( <sup>1</sup> )	1	( <sup>1</sup> )	( <sup>1</sup> )
Number of days not available .....	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )
Not provided paid holidays .....	1	1	( <sup>1</sup> )	2

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 7. Paid holidays: Percent of full-time participants by policy on holidays that fall on a regularly scheduled day off, medium and large firms, 1986**

Holiday policy	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Holiday is not observed .....	2	2	2	1
Another day off granted .....	84	91	89	78
Additional day's pay in lieu of holiday .....	3	1	2	6
Another day off or day's pay, depending on when holiday falls ...	9	4	6	14
Another day off or holiday not observed, depending on when holiday falls .....	1	1	1	( <sup>1</sup> )
Other provision applies <sup>2</sup> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Holiday policy not determinable .....	1	1	1	1

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Includes plans where the policy differs by holiday.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 8. Paid vacations: Percent of full-time employees by amount of paid vacation provided at selected periods of service, medium and large firms, 1986**

Vacation policy	All employees	Professional and administrative employees	Technical and clerical employees	Production employees	Vacation policy	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100					
In plans providing paid vacations <sup>1</sup> .....	100	99	100	100	At 15 years of service:				
At 6 months of service:					5 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
Under 5 days .....	6	3	4	9	10 days .....	4	2	2	6
5 days .....	37	45	45	28	Over 10 and under 15 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Over 5 and under 10 days .....	9	15	13	4	15 days .....	25	19	19	31
10 days .....	4	5	6	2	Over 15 and under 20 days .....	4	4	4	3
Over 10 and under 15 days .....	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	20 days .....	62	69	70	52
15 days .....	( <sup>2</sup> )	1	( <sup>2</sup> )	-	Over 20 and under 25 days .....	2	2	1	2
Over 15 days .....	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	25 days .....	2	3	2	2
At 1 year of service:					Over 25 days .....	1	1	1	1
Under 5 days .....	( <sup>2</sup> )	-	-	( <sup>2</sup> )	At 20 years of service:				
5 days .....	30	9	13	51	5 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
Over 5 and under 10 days .....	1	( <sup>2</sup> )	( <sup>2</sup> )	2	10 days .....	4	1	2	6
10 days .....	62	80	81	42	Over 10 and under 15 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Over 10 and under 15 days .....	2	2	2	1	15 days .....	9	5	6	13
15 days .....	3	6	2	1	Over 15 and under 20 days .....	1	( <sup>2</sup> )	1	1
Over 15 days .....	1	2	1	1	20 days .....	56	61	67	48
At 3 years of service:					Over 20 and under 25 days .....	2	3	3	2
5 days .....	3	( <sup>2</sup> )	1	6	25 days .....	24	27	20	25
Over 5 and under 10 days .....	1	( <sup>2</sup> )	( <sup>2</sup> )	1	Over 25 and under 30 days .....	1	1	2	2
10 days .....	80	79	87	77	30 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
Over 10 and under 15 days .....	8	6	5	10	Over 30 days .....	1	( <sup>2</sup> )	( <sup>2</sup> )	1
15 days .....	6	11	6	3	At 25 years of service:				
Over 15 and under 20 days .....	1	1	( <sup>2</sup> )	( <sup>2</sup> )	5 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
20 days .....	1	2	1	( <sup>2</sup> )	10 days .....	4	1	2	6
Over 20 days .....	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	Over 10 and under 15 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
At 5 years of service:					15 days .....	8	5	5	11
5 days .....	1	( <sup>2</sup> )	( <sup>2</sup> )	1	Over 15 and under 20 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
Over 5 and under 10 days .....	( <sup>2</sup> )	-	( <sup>2</sup> )	-	20 days .....	33	35	37	29
10 days .....	45	33	41	56	Over 20 and under 25 days .....	2	3	3	1
Over 10 and under 15 days .....	6	7	5	6	25 days .....	46	49	47	44
15 days .....	43	52	50	33	Over 25 and under 30 days .....	1	1	1	2
Over 15 and under 20 days .....	1	2	1	1	30 days .....	4	4	4	3
20 days .....	3	6	3	1	Over 30 days .....	1	1	( <sup>2</sup> )	1
Over 20 days .....	1	1	1	( <sup>2</sup> )	At 30 years of service: <sup>3</sup>				
At 10 years of service:					5 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
5 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1	10 days .....	4	1	2	6
Over 5 and under 10 days .....	( <sup>2</sup> )	-	( <sup>2</sup> )	-	Over 10 and under 15 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
10 days .....	7	2	3	11	15 days .....	8	5	5	11
Over 10 and under 15 days .....	1	( <sup>2</sup> )	1	1	Over 15 and under 20 days .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1
15 days .....	66	64	71	64	20 days .....	31	34	35	27
Over 15 and under 20 days .....	7	5	4	10	Over 20 and under 25 days .....	1	1	1	1
20 days .....	17	27	20	10	25 days .....	41	41	43	40
Over 20 days .....	2	2	2	2	Over 25 and under 30 days .....	1	1	1	2
					30 days .....	11	14	11	10
					Over 30 days .....	1	1	1	1

<sup>1</sup> Employees receiving no paid vacations in their early years of service are included in the overall percentage of workers provided paid vacations; however, they are disregarded in computing the distributions by length of service up to the service period at which they become eligible for vacations.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Provisions were virtually the same after longer years of service.

NOTE: Data include anniversary year bonus days. Dash indicates no employees in this category.

**Table 9. Paid vacations: Percent of full-time participants by length of service required to take vacation, medium and large firms, 1986**

Length of service requirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With service requirement .....	97	95	96	98
1 month .....	5	8	7	3
2 months .....	3	4	2	2
3 months .....	9	10	11	9
4-5 months .....	2	1	1	3
6 months .....	37	45	45	29
7-11 months .....	1	1	2	2
1 year .....	39	26	29	51
Over 1 year .....	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )
Without service requirement .....	3	5	3	1
Service requirement not determinable .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 10. Paid personal leave: Percent of full-time employees by number of paid personal leave days provided per year, medium and large firms, 1986**

Number of days	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid personal leave .....	25	33	35	15
1 day .....	2	2	3	1
2 days .....	5	8	8	2
3 days .....	3	4	4	2
4 days .....	4	4	6	3
5 days .....	4	6	5	2
More than 5 days .....	2	3	3	1
No maximum specified <sup>1</sup> .....	3	7	4	1
Varies by length of service .....	2	1	2	3
Not provided paid personal leave .....	75	67	65	85

<sup>1</sup> Workers were provided as much personal leave as they needed.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 11. Paid funeral leave: Percent of full-time employees by number of paid funeral leave days available per occurrence, medium and large firms, 1986**

Number of days	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid funeral leave .....	88	87	87	88
1 day .....	1	1	1	2
2 days .....	2	2	2	3
3 days .....	63	55	54	73
4 days .....	3	3	3	2
5 days .....	10	13	17	5
More than 5 days .....	( <sup>1</sup> )	( <sup>1</sup> )	1	( <sup>1</sup> )
Varies by length of service .....	7	11	9	3
Number of days not available .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Not provided paid funeral leave .....	12	13	13	12
Number of days varies by relationship to deceased <sup>2</sup> .....	23	24	30	19

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> The maximum number of days provided for any occurrence was included in the distribution of funeral leave days.

NOTE: Because of rounding, sums of individual items may not equal totals.



**Table 12. Paid jury-duty leave: Percent of full-time employees by number of paid jury-duty leave days available per occurrence, medium and large firms, 1986**

Number of days	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid jury-duty leave .....	93	96	96	90
Under 10 days .....	1	( <sup>1</sup> )	1	1
10 days .....	2	2	2	2
11-19 days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
20 days .....	2	2	2	1
21-30 days .....	3	3	2	3
More than 30 days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
No maximum specified <sup>2</sup> .....	85	87	89	83
Number of days not available .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Not provided paid jury-duty leave .....	7	4	4	10

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Jury-duty leave is provided as needed.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 13. Paid military leave: Percent of full-time employees by number of paid military leave days available per year, medium and large firms, 1986**

Number of days	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid military leave .....	66	74	72	58
5 days .....	1	1	2	( <sup>1</sup> )
6-9 days .....	( <sup>1</sup> )	-	( <sup>1</sup> )	-
10 days .....	39	42	40	37
11-14 days .....	4	4	5	3
15 days .....	3	3	3	2
16-29 days .....	2	2	3	2
30 days .....	1	2	2	1
More than 30 days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
No maximum specified <sup>2</sup> .....	16	19	17	14
Number of days not available .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Not provided paid military leave .....	34	26	28	42

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Military leave is provided as needed.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

## Chapter 4. Disability Benefits

Through paid sick leave or sickness and accident insurance, workers may be protected against loss of income during temporary absences from work due to illness or accident. During more extended periods of disability, workers' income may be continued through long-term disability insurance or disability pensions.

In 1986, short-term disability protection was available to 94 percent of all employees in the survey through sick leave, sickness and accident insurance, or both. Sick leave usually provides 100 percent of the worker's normal earnings; sickness and accident insurance usually replaces 50 to 70 percent of pay.

Long-term disability insurance (LTD), which typically pays 50 or 60 percent of earnings, was available to 48 percent of the employees; 37 percent (some with LTD insurance) were eligible for immediate disability benefits under their pension plans.

Twenty-five percent of the workers had sick leave plans coordinated with sickness and accident insurance. Coordination is accomplished by either starting insurance benefits after sick leave pay has ended, or paying both benefits concurrently. When payments are made from both sources, sick leave pay is reduced by the amount of the insurance benefits so that the total benefit does not exceed full salary. Regardless of the method of coordination, employers offering sickness and accident insurance tend to allow fewer sick leave days than those without such insurance. At 5 years of service, for example, annual sick leave plans coordinated with insurance granted an average of 14.7 days at full pay—less than half the days provided by plans without insurance. This gap widened as years of service increased.<sup>3</sup>

Long-term disability insurance payments usually begin after sick leave and sickness and accident insurance are exhausted and continue as long as the person is disabled or until retirement age. Career-ending disabilities may entitle an employee to an immediate pension, or the pension may be deferred until other forms of income, such as LTD insurance, have ceased. (Disability provisions of pension plans are discussed in chapter 5.)

Paid sick leave and LTD insurance were more prevalent among white-collar workers, while sickness and accident insurance and immediate disability pension benefits were more prevalent among blue-collar workers.

<sup>3</sup> For further analysis of short-term disability protection, see William J. Wiatrowski, "Employee Income Protection Against Short-term Disabilities," *Monthly Labor Review*, February 1985, pp. 32-38.

### Paid sick leave (tables 14-20)

Seventy-two percent of the employees covered by paid sick leave plans were allowed a specified number of days per year (annual sick leave plans). Another 19 percent of the participants were provided sick leave benefits for each illness (per disability plans), while most of the remainder were covered by both annual and per disability benefits or plans that provided time off as needed. The number of days of sick leave granted varied widely by the type of sick leave plan as well as by specific provisions of each plan. Within individual annual and per disability plans, the maximum number of days granted is either uniform for all covered employees or increases with seniority.

Because annual sick leave plans do not renew benefits after each illness, 43 percent of the employees covered were allowed to carry over and accumulate unused sick leave from year to year (cumulative plans). Such plans typically granted fewer days per year than plans in which unused days were not accumulated. For example, at 20 years' service, cumulative annual plans averaged 17.3 days at full pay, while non-cumulative plans averaged 56.7 days. Three-tenths of the workers with carryover provisions were allowed to accumulate an unlimited amount of sick leave; two-thirds had limits on the amount of sick leave that could be accumulated, ranging from under 10 days to over 130 days; and the remainder had carryover provisions that varied by length of service.

Per disability sick leave plans generally provided more days of paid leave for an illness than annual plans. The average number of days at full pay was 52.2 at 1 year of service, 74.6 at 5 years of service, 106.6 at 15 years of service, and 137.4 at 25 years of service. Under annual plans, the average number of days available was 15.2 days at 1 year, 25.1 days at 5 years, 37.0 days at 15 years, and 41.2 days at 25 years.

One-fourth of sick leave participants with 10 years of service had partial-pay benefits available after full-pay benefits ended. In many of these plans, the number of days with full-pay benefits increases with seniority and the number of days with partial-pay benefits decreases, eventually resulting in all sick leave days at full pay. Another 2 percent of the participants had only partial-pay benefits available.

Sick leave plans commonly had a short service requirement, generally 3 months, before new employees became eligible for benefits. Nearly seven-eighths of the participants were in plans providing benefits on the first day of illness to employees with 1 year of service. The remainder typical-

ly had to wait 1 to 5 workdays, with the waiting period often eliminated after 10 years of service.

### Sickness and accident insurance (tables 14, 21–23)

Half of all employees were protected by sickness and accident insurance plans against income losses due to short-term disabilities. More than four-fifths of the participants had their benefits fully paid by their employer. The one-fifth who were required to contribute toward the cost of coverage most often paid a fixed amount, usually between \$2 and \$3 a month. Most of the others paid a percent of monthly earnings, or had the cost included in the premium for an insurance package.

Benefit payments under sickness and accident insurance plans were either a percent of employee earnings or a scheduled dollar amount. The percent of earnings was usually fixed—typically 50 to 70 percent—although some plans varied the percentage by length of service or length of disability. Plans paying a percent of earnings covered 81 percent of the white-collar participants, compared with 40 percent of the blue-collar participants. These earnings-based plans often had a dollar limit on the amount of the weekly benefit available; such limits have risen steadily since they were first recorded in 1981. For example, 33 percent of the participants had maximum weekly benefits of \$140 or more in 1981; by 1986, this proportion had increased to 57 percent. Blue-collar workers were the most common recipients of scheduled dollar benefits, which provided either a fixed weekly amount (ranging from under \$60 to over \$220) or varying weekly benefits (usually based on earnings).

The maximum weeks of coverage for each disability were fixed for all but 5 percent of participants, for whom duration of coverage varied by length of service. Of those participants with benefits lasting for a fixed period, most had 26 weeks of coverage. Other common periods were 13 and 52 weeks.

Three-fourths of the employees with sickness and accident insurance were required to be on the job for a specified minimum time period before they were covered by the plan. Service requirements were usually under 6 months. Four percent of the participants were in plans requiring 1 year of service before coverage.

Sickness and accident insurance, unlike sick leave, usually requires a waiting period before benefits begin. The most common provision requires an employee to be out of work due to illness or injury some short period, usually 1 to 7 days, before payments begin. Waiting periods may be shortened or eliminated entirely for employees involved in an accident or hospitalized.

Workers in two States, New Jersey and New York, are covered by mandatory temporary disability insurance plans that are at least partially employer financed. Both of these State plans pay benefits based on a percentage of the worker's earnings for up to 26 weeks with a limit on the weekly

benefit (\$145 in New York and \$200 in New Jersey during 1986).<sup>4</sup>

### Long-term disability insurance (tables 24–27)

Long-term disability insurance continues the income of employees during extended periods of disability. Generally, LTD begins after sick leave and sickness and accident insurance are exhausted and continues as long as the employee remains disabled, or until retirement age. If disabled after age 60, however, LTD benefits usually continue for 5 years or to age 70, whichever is earlier.

Forty-eight percent of the employees covered by the study had LTD insurance; one-fifth of the participants were required to contribute toward the cost of the plans. The most common type of employee contribution was a monthly amount per \$100 of covered earnings.<sup>5</sup> The rate was typically between 20 and 40 cents per \$100 of coverage.

Service requirements found in LTD plans were usually more restrictive than for the other insurance benefits. Slightly over one-fifth of the participants had service requirements of from 1 year to 3 years or more. Because of the long-term nature of this benefit, more employers restricted eligibility to employees who had demonstrated some attachment to the company.

The degree of participation varied widely among the employee groups, with white-collar workers twice as likely to have LTD insurance as blue-collar workers. However, many employees not covered under LTD insurance are eligible for an immediate disability pension through their retirement plan; nearly two-fifths of the employees (50 percent of the production workers) were covered by immediate disability retirement provisions.

Long-term disability benefits were usually 50 or 60 percent of monthly pay. Most of the plans that pay a percent of predisability earnings had maximum monthly payments ranging from \$1,000 or less to over \$10,000. Common maximums were \$3,000 and \$5,000.

One-fourth of the participants were in plans that provided a benefit which was not a fixed percent of earnings. These formulas differed sharply by employee group. Nearly three-tenths of the blue-collar participants were in plans paying a dollar amount that varied by the level of the worker's earnings. In contrast, one-sixth of the white-collar participants were in plans with other benefit formulas—a variable percentage of earnings, a flat dollar amount, or a percent of earnings that varied by length of disability.

<sup>4</sup> Both States permit an employer to substitute a private plan for the State plan if the benefits provided are at least equivalent. In New York, many employers agree to pay the employee's share of plan costs. California and Rhode Island also have mandated temporary disability insurance plans, but these plans require no employer contribution and, thus, are not included in this survey.

<sup>5</sup> Covered earnings refers to that portion of a worker's earnings replaced by LTD benefits. For example, if an LTD plan pays 60 percent of earnings up to \$3,000, covered earnings are \$5,000 (60 percent of \$5,000 equals \$3,000.)

A ceiling on income during disability was a common limitation to LTD payments, regardless of the type of plan. These ceilings affected benefits only if the amount payable from the LTD plan plus income from other sources, such as rehabilitative employment and family Social Security payments, exceeded a specified percentage (most commonly 70 or 75 percent) of predisability earnings. Seven-tenths of the LTD participants were limited by these income ceilings, by the dollar maximums in plans that pay a percent of earnings, or by a combination of both.

Survivor benefits after the death of a disabled employee

were available in plans covering 14 percent of the LTD participants. A lump-sum payment, usually equal to 3 times the monthly LTD benefit, was the most common survivor benefit provided.

Nearly four-tenths of the participants were in LTD plans with special limitations on benefits for mental illness. In most of these cases, benefits were provided for a limited period (usually 24 months), unless the participant was institutionalized. In a few cases, benefits were provided only if the participant was institutionalized, or benefits were provided for a limited period, regardless of institutionalization.

**Table 14. Short-term disability coverage: Percent of full-time employees by participation in sickness and accident insurance plans and paid sick leave plans, medium and large firms, 1986**

Type of plan	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
With short-term disability coverage ..	94	97	98	91
Sickness and accident insurance only .....	24	4	5	46
Wholly employer financed .....	21	3	4	40
Paid sick leave only .....	46	69	63	23
Combined sickness and accident insurance/paid sick leave .....	25	24	30	22
Wholly employer financed .....	20	18	23	19
Without short-term disability coverage .....	6	3	2	9

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 15. Paid sick leave: Percent of full-time employees by type of provision, medium and large firms, 1986**

Provision	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided paid sick leave .....	70	93	93	45
Sick leave provided on:				
An annual basis only <sup>1</sup> .....	51	59	68	37
A per disability basis only <sup>2</sup> .....	14	23	16	7
Both an annual and per disability basis .....	3	4	6	1
As needed basis <sup>3</sup> .....	3	7	2	1
Other basis <sup>4</sup> .....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Not provided paid sick leave .....	30	7	7	55

<sup>1</sup> Employees earn a specified number of sick leave days per year. This number may vary by length of service.

<sup>2</sup> Employees earn a specified number of sick leave days for each illness or disability. This number may vary by length of service.

<sup>3</sup> Plan does not specify maximum number of days.

<sup>4</sup> Includes formal plans with provisions that change from a specified number of days per year to a specified number of days per absence after a certain service period.

<sup>5</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 16. Paid sick leave: Percent of full-time employees by sick leave provision, medium and large firms, 1986**

Sick leave policy <sup>1</sup>	All employees	Professional and administrative employees	Technical and clerical employees	Production employees	Sick leave policy <sup>1</sup>	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100	Sick leave provided on a per disability basis <sup>6</sup> .....	17	27	22	8
Provided paid sick leave <sup>2</sup> .....	70	93	93	45	At 6 months of service:				
Sick leave provided annually <sup>3</sup> .....	54	63	74	37	Under 5 days .....	( <sup>4</sup> )	( <sup>4</sup> )	1	-
At 6 months of service:					5 and under 10 days .....	4	6	5	1
Under 5 days .....	14	10	20	13	10 and under 30 days .....	3	5	6	1
5 and under 10 days .....	18	22	28	10	30 and under 60 days .....	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )
10 and under 30 days .....	10	19	14	2	60 and under 120 days .....	1	3	1	( <sup>4</sup> )
30 and under 60 days .....	1	2	1	( <sup>4</sup> )	120 and under 180 days .....	2	6	2	( <sup>4</sup> )
60 and under 120 days .....	1	2	1	( <sup>4</sup> )	180 days or more .....	( <sup>4</sup> )	1	( <sup>4</sup> )	-
120 days or more .....	1	2	1	1	At 1 year of service:				
At 1 year of service:					Under 5 days .....	1	( <sup>4</sup> )	1	1
Under 5 days .....	3	1	2	4	5 and under 10 days .....	2	3	3	1
5 and under 10 days .....	22	16	29	21	10 and under 30 days .....	4	6	7	1
10 and under 30 days .....	23	36	36	8	30 and under 60 days .....	2	4	2	( <sup>4</sup> )
30 and under 60 days .....	2	4	3	1	60 and under 120 days .....	1	3	1	( <sup>4</sup> )
60 and under 120 days .....	1	3	1	( <sup>4</sup> )	120 and under 180 days .....	3	7	3	1
120 days or more .....	1	3	1	1	180 days or more .....	( <sup>4</sup> )	1	( <sup>4</sup> )	-
At 5 years of service:					At 5 years of service:				
Under 5 days .....	2	1	2	3	Under 10 days .....	1	1	2	1
5 and under 10 days .....	19	11	23	21	10 and under 30 days .....	1	2	2	( <sup>4</sup> )
10 and under 30 days .....	18	25	28	8	30 and under 60 days .....	2	4	3	( <sup>4</sup> )
30 and under 60 days .....	7	12	12	2	60 and under 120 days .....	7	10	10	3
60 and under 120 days .....	4	9	6	1	120 and under 180 days .....	4	8	4	1
120 days or more .....	2	5	2	1	180 days or more .....	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )
At 10 years of service:					At 10 years of service:				
Under 5 days .....	2	( <sup>4</sup> )	1	3	Under 10 days .....	1	1	2	1
5 and under 10 days .....	19	11	24	20	10 and under 30 days .....	1	1	2	( <sup>4</sup> )
10 and under 30 days .....	16	22	25	8	30 and under 60 days .....	1	2	1	( <sup>4</sup> )
30 and under 60 days .....	5	9	8	2	60 and under 120 days .....	7	9	10	4
60 and under 120 days .....	7	11	10	2	120 and under 180 days .....	5	10	5	2
120 days or more .....	4	9	5	1	180 days or more .....	1	2	1	( <sup>4</sup> )
At 15 years of service:					At 15 years of service:				
Under 5 days .....	2	( <sup>4</sup> )	1	3	Under 10 days .....	1	1	2	1
5 and under 10 days .....	19	11	24	20	10 and under 30 days .....	1	1	2	( <sup>4</sup> )
10 and under 30 days .....	16	22	25	8	30 and under 60 days .....	1	1	1	( <sup>4</sup> )
30 and under 60 days .....	3	4	5	1	60 and under 120 days .....	3	6	5	1
60 and under 120 days .....	8	14	11	3	120 and under 180 days .....	9	15	11	4
120 and under 180 days .....	4	9	5	1	180 days or more .....	1	2	1	( <sup>4</sup> )
180 days or more .....	2	2	2	1	At 20 years of service:				
At 20 years of service:					Under 10 days .....	1	1	2	1
Under 5 days .....	2	( <sup>4</sup> )	1	3	10 and under 30 days .....	1	1	2	( <sup>4</sup> )
5 and under 10 days .....	19	11	24	20	30 and under 60 days .....	1	1	1	( <sup>4</sup> )
10 and under 30 days .....	16	22	25	8	60 and under 120 days .....	3	6	4	1
30 and under 60 days .....	3	4	5	1	120 and under 180 days .....	6	11	6	2
60 and under 120 days .....	7	13	10	3	180 days or more .....	4	6	6	2
120 and under 180 days .....	5	10	7	1	At 25 years of service: <sup>5</sup>				
180 days or more .....	2	3	2	1	Under 10 days .....	1	1	2	1
At 25 years of service: <sup>5</sup>					10 and under 30 days .....	1	1	2	( <sup>4</sup> )
Under 5 days .....	1	( <sup>4</sup> )	1	1	30 and under 60 days .....	1	1	1	( <sup>4</sup> )
5 and under 10 days .....	19	11	24	21	60 and under 120 days .....	3	5	4	1
10 and under 30 days .....	16	22	25	8	120 and under 180 days .....	6	12	7	2
30 and under 60 days .....	3	4	5	1	180 days or more .....	5	6	7	2
60 and under 120 days .....	5	9	7	2	As needed basis <sup>7</sup> .....	3	7	2	1
120 and under 180 days .....	7	13	9	2	Other basis <sup>8</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
180 days or more .....	2	3	2	1	Not provided paid sick leave .....	30	7	7	55

<sup>1</sup> Employees receiving partial pay only or no sick leave in their early years of service are included in the overall percentages of workers provided sick leave; however, they are disregarded in computing the distributions by length of service up to the service period at which they become eligible for full sick leave pay.

<sup>2</sup> The total is less than the sum of the individual breakdowns because some employees had annual and per disability plans.

<sup>3</sup> Employees earn a specified number of sick leave days per year.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> Provisions were virtually the same after longer years of service.

<sup>6</sup> Employees earn a specified number of sick leave days for each illness or disability.

<sup>7</sup> Plan does not specify maximum number of days.

<sup>8</sup> Includes formal plans with provisions that change from a specified number of days per year to a specified number of days per absence.

**Table 17. Paid sick leave: Average number of days at full pay for full-time participants by type of plan, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Paid annual sick leave <sup>1</sup> by length of service:				
At 6 months .....	11.7	16.4	9.0	9.3
At 1 year .....	15.2	21.6	12.8	11.1
At 3 years .....	19.1	27.2	17.1	12.8
At 5 years .....	25.1	36.4	23.6	15.1
At 10 years .....	32.2	46.2	31.9	18.2
At 15 years .....	37.0	52.3	37.1	21.1
At 20 years .....	39.8	56.2	40.1	22.8
At 25 years .....	41.2	58.0	41.2	24.1
At 30 years <sup>2</sup> .....	41.8	58.7	41.8	24.6
Paid per disability sick leave <sup>3</sup> by length of service:				
At 6 months .....	46.6	58.1	31.7	32.3
At 1 year .....	52.2	63.1	39.7	42.9
At 3 years .....	58.1	68.7	46.7	52.4
At 5 years .....	74.6	82.7	65.1	72.2
At 10 years .....	89.2	100.5	80.9	76.6
At 15 years .....	106.6	112.4	101.1	102.2
At 20 years .....	121.5	121.2	118.8	126.9
At 25 years .....	137.4	132.1	136.8	151.5
At 30 years <sup>2</sup> .....	137.5	132.2	136.9	151.5

<sup>1</sup> Employees earn a specified number of sick leave days per year. This number may vary by length of service.

<sup>2</sup> The average (mean) was virtually the same after longer years of service.

<sup>3</sup> Employees earn a specified number of sick leave days for each illness or disability. This number may vary by length of service.

NOTE: Computation of average excluded days paid at partial pay and workers with only partial pay days or zero days of sick leave.

**Table 18. Paid annual sick leave:<sup>1</sup> Average number of days at full pay for full-time participants by accumulation policy and sickness and accident insurance coordination, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>At 1 year of service:</b>									
Cumulative plan .....	9.3	11.2	9.6	7.4	<b>At 10 years of service—Continued</b>				
With sickness and accident insurance .....	7.6	9.4	8.5	6.1	Noncumulative plan .....	44.6	60.7	43.5	25.4
Without sickness and accident insurance .....	10.5	12.1	10.2	9.0	With sickness and accident insurance .....	25.0	42.3	26.8	12.5
Noncumulative plan .....	19.8	27.5	15.4	14.8	Without sickness and accident insurance .....	58.6	68.7	53.6	45.0
With sickness and accident insurance .....	10.8	17.1	10.6	6.5	<b>At 20 years of service:</b>				
Without sickness and accident insurance .....	26.1	32.1	18.3	26.9	Cumulative plan .....	17.3	22.6	19.3	11.3
<b>At 5 years of service:</b>					With sickness and accident insurance .....	14.6	23.8	18.7	7.9
Cumulative plan .....	12.4	15.6	13.4	8.9	Without sickness and accident insurance .....	19.2	22.0	19.6	15.5
With sickness and accident insurance .....	10.0	14.5	12.2	6.6	Noncumulative plan .....	56.7	74.7	56.6	33.7
Without sickness and accident insurance .....	14.1	16.2	14.1	11.8	With sickness and accident insurance .....	30.8	50.2	33.9	15.8
Noncumulative plan .....	34.6	47.9	31.6	20.9	Without sickness and accident insurance .....	75.1	85.4	70.3	60.9
With sickness and accident insurance .....	18.3	31.6	18.8	9.3	<b>At 25 years of service:</b>				
Without sickness and accident insurance .....	46.1	55.1	39.4	38.6	Cumulative plan .....	17.8	23.4	19.7	11.6
<b>At 10 years of service:</b>					With sickness and accident insurance .....	15.5	25.7	19.5	8.4
Cumulative plan .....	15.7	20.2	17.4	10.7	Without sickness and accident insurance .....	19.4	22.3	19.8	15.6
With sickness and accident insurance .....	12.3	19.1	15.6	7.1	Noncumulative plan .....	58.8	77.1	58.3	35.9
Without sickness and accident insurance .....	18.2	20.7	18.4	15.1	With sickness and accident insurance .....	32.2	51.6	35.6	17.0
					Without sickness and accident insurance .....	77.7	88.2	72.0	64.5

<sup>1</sup> Paid sick leave plans with a specified number of days available each year. Per disability plans were excluded from this table because (1) only one-fifth of the employees with per disability plans were also covered under a sickness and accident insurance plan, and (2) only annual sick leave plans allow the employee to carry over and accumulate unused sick leave from one year to the next year. Instead, the number

of days of paid leave under a per disability plan is renewed for each illness or disability after the employee returns to work for a specified period. Data on per disability plans are presented in table 17.

NOTE: Computation of average excluded days paid at partial pay and workers with only partial pay days or zero days of sick leave.



**Table 19. Paid annual sick leave:<sup>1</sup> Average number of days at full pay for full-time participants by sickness and accident insurance coordination, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>At 1 year of service:</b>				
With sickness and accident insurance .....	9.4	14.2	9.7	6.3
Without sickness and accident insurance .....	19.3	25.1	14.6	17.4
<b>At 5 years of service:</b>				
With sickness and accident insurance .....	14.7	25.1	16.0	8.0
Without sickness and accident insurance .....	32.4	41.6	27.8	24.7
<b>At 10 years of service:</b>				
With sickness and accident insurance .....	19.5	33.6	22.1	10.0
Without sickness and accident insurance .....	41.3	52.1	37.6	29.5
<b>At 20 years of service:</b>				
With sickness and accident insurance .....	23.8	40.3	27.5	12.1
Without sickness and accident insurance .....	51.2	63.4	47.2	37.4
<b>At 25 years of service:</b>				
With sickness and accident insurance .....	25.0	41.8	28.8	13.0
Without sickness and accident insurance .....	52.7	65.4	48.3	39.1

<sup>1</sup> Paid sick leave plans with a specified number of days available each year.

NOTE: Computation of average excluded days paid at partial pay and workers with only partial pay days or zero days of sick leave.

**Table 20. Paid annual sick leave: Percent of full-time participants by unused sick leave policy and carryover provisions, medium and large firms, 1986**

Unused sick leave policy and carryover provisions	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>Unused sick leave policy</b>				
Total .....	100	100	100	100
Carryover only .....	35	32	37	35
Cash-in only .....	9	2	6	18
Carryover and cash-in .....	8	3	8	13
Unused benefit lost .....	48	62	50	34
Data not available .....	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )
<b>Carryover provisions</b>				
Total .....	100	100	100	100
Unlimited accumulation .....	31	36	31	26
Limit on total number of days accumulated .....	68	59	68	74
Under 10 days .....	4	4	3	6
10 days .....	3	2	3	3
11 - 19 days .....	7	2	8	8
20 days .....	3	2	1	4
21 - 24 days .....	1	1	( <sup>1</sup> )	( <sup>1</sup> )
25 days .....	2	1	4	1
26 - 29 days .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
30 - 39 days .....	9	6	7	14
40 - 49 days .....	3	1	4	5
50 days .....	1	1	( <sup>1</sup> )	2
51 - 64 days .....	7	6	4	11
65 days .....	2	3	2	1
66 - 79 days .....	2	3	3	-
80 - 89 days .....	2	1	1	3
90 - 99 days .....	1	2	2	( <sup>1</sup> )
100 - 109 days .....	1	1	( <sup>1</sup> )	2
110 - 119 days .....	2	2	2	2
120 - 129 days .....	3	3	3	2
130 days .....	9	14	11	2
Over 130 days .....	6	3	8	6
Days not available .....	1	2	1	1
Other <sup>2</sup> .....	2	5	2	( <sup>1</sup> )

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Carryover provisions vary by length of service.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 21. Sickness and accident insurance: Percent of full-time participants by type and duration of payments, medium and large firms, 1986**

Type of payment	Total	Maximum weeks of coverage								No maximum
		Less than 13	13	14-25	26	27-51	52	Greater than 52	Varies by service	
<b>All participants</b>										
All types .....	100	1	14	4	59	2	14	( )	5	( )
Fixed percent of earnings .....	48	( )	6	3	35	1	1	( )	2	( )
Less than 50 .....	( )	-	-	-	( )	( )	-	-	-	-
50 .....	20	( )	2	1	16	( )	( )	-	( )	( )
55 .....	( )	-	-	-	( )	( )	-	-	-	-
57 .....	( )	-	-	( )	-	-	-	-	-	-
60 .....	11	( )	1	1	8	( )	( )	( )	( )	( )
62 .....	( )	-	-	-	( )	-	-	-	-	-
65 .....	1	( )	( )	( )	( )	-	( )	-	( )	-
66 .....	( )	-	( )	-	( )	-	-	-	( )	-
67 .....	9	( )	1	-	7	-	( )	( )	( )	-
70 .....	4	-	1	( )	3	-	( )	( )	( )	-
75 .....	2	-	( )	( )	1	1	-	-	( )	-
80 and over .....	1	-	( )	( )	1	-	-	-	( )	-
Percent of earnings varies .....	6	-	( )	-	3	( )	2	-	1	-
By service .....	3	-	( )	-	2	-	1	-	( )	-
By length of disability .....	1	-	( )	-	( )	( )	-	-	( )	-
By both service and length of disability .....	1	-	-	-	1	-	-	-	( )	-
By earnings .....	( )	-	-	-	( )	-	-	-	( )	-
Fixed weekly dollar benefit .....	27	( )	8	1	14	( )	2	-	2	-
Less than \$60 .....	5	( )	3	-	2	( )	-	-	-	-
\$60-\$79 .....	3	-	2	-	1	-	-	-	-	-
\$80-\$99 .....	2	-	( )	-	2	-	-	-	-	-
\$100-\$119 .....	4	-	1	1	3	-	( )	-	-	-
\$120-\$139 .....	4	( )	1	( )	2	( )	1	-	( )	-
\$140-\$159 .....	3	-	( )	-	1	( )	-	-	( )	-
\$160-\$179 .....	2	-	-	( )	2	( )	( )	-	-	-
\$180-\$199 .....	2	-	( )	( )	1	-	( )	-	1	-
\$200-\$219 .....	2	-	( )	-	1	-	1	-	1	-
\$220 or more .....	1	-	( )	-	1	-	( )	-	1	-
Weekly dollar benefit varies .....	19	( )	( )	1	7	( )	9	-	1	-
By earnings .....	18	( )	( )	( )	7	( )	9	-	1	-
By service or length of disability .....	1	-	( )	( )	( )	( )	-	-	( )	-
<b>Professional and administrative</b>										
All types .....	100	1	6	3	75	3	8	( )	3	( )
Fixed percent of earnings .....	68	1	3	3	55	3	1	( )	2	( )
Less than 50 .....	( )	-	-	-	-	( )	-	-	-	-
50 .....	26	( )	-	( )	24	( )	( )	-	( )	( )
57 .....	( )	-	-	( )	-	-	-	-	( )	( )
60 .....	20	( )	1	1	16	( )	( )	( )	1	( )
62 .....	( )	-	-	-	( )	-	-	-	-	-
65 .....	2	( )	-	1	( )	-	( )	-	( )	-
66 .....	( )	-	-	-	( )	-	-	-	( )	-
67 .....	11	( )	2	-	9	-	( )	( )	( )	-
70 .....	5	-	( )	( )	4	-	-	( )	( )	-
75 .....	3	-	( )	( )	( )	2	-	-	( )	-
80 and over .....	1	-	( )	( )	( )	-	-	-	( )	-
Percent of earnings varies .....	11	-	( )	-	3	-	7	-	( )	-
By service .....	6	-	( )	-	2	-	4	-	( )	-
By length of disability .....	3	-	( )	-	( )	-	3	-	( )	-
By both service and length of disability .....	1	-	-	-	1	-	-	-	( )	-
By earnings .....	( )	-	-	-	( )	-	-	-	( )	-

See footnotes at end of table.

**Table 21. Sickness and accident insurance: Percent of full-time participants by type and duration of payments, medium and large firms, 1986—Continued**

Type of payment	Total	Maximum weeks of coverage								No maximum
		Less than 13	13	14-25	26	27-51	52	Greater than 52	Varies by service	
<b>Professional and administrative—Continued</b>										
Fixed weekly dollar benefit .....	11	(0)	2	(0)	8	(0)	(0)	-	-	-
Less than \$60 .....	4	-	(0)	-	4	-	-	-	-	-
\$60-\$79 .....	1	-	1	-	(0)	-	-	-	-	-
\$80-\$99 .....	1	-	(0)	-	1	-	-	-	-	-
\$100-\$119 .....	1	-	-	-	1	-	-	-	-	-
\$120-\$139 .....	1	(0)	(0)	(0)	1	-	-	-	-	-
\$140-\$159 .....	(0)	-	-	-	(0)	-	-	-	-	-
\$160-\$179 .....	(0)	-	-	-	(0)	(0)	-	-	-	-
\$180-\$199 .....	(0)	-	(0)	(0)	-	-	-	-	-	-
\$200-\$219 .....	1	-	(0)	-	1	-	-	-	-	-
\$220 or more .....	(0)	-	(0)	-	-	-	(0)	-	-	-
Weekly dollar benefit varies .....	10	(0)	(0)	-	9	(0)	(0)	-	(0)	-
By earnings .....	10	(0)	(0)	-	9	(0)	(0)	-	(0)	-
<b>Technical and clerical</b>										
All types .....	100	1	14	2	68	4	7	(0)	4	(0)
Fixed percent of earnings .....	73	1	11	2	52	3	1	(0)	2	(0)
Less than 50 .....	(0)	-	-	-	-	(0)	-	-	-	-
50 .....	35	-	5	(0)	30	-	(0)	-	(0)	(0)
55 .....	(0)	-	-	(0)	(0)	(0)	-	-	-	-
57 .....	(0)	-	-	(0)	-	(0)	-	-	-	-
60 .....	14	-	2	1	9	-	(0)	-	(0)	(0)
62 .....	(0)	-	-	-	(0)	-	-	-	-	-
65 .....	1	-	(0)	(0)	(0)	-	(0)	-	(0)	-
66 .....	(0)	-	-	-	(0)	-	-	-	-	-
67 .....	14	1	3	-	9	-	1	(0)	1	-
70 .....	3	-	(0)	(0)	2	-	(0)	-	-	-
75 .....	4	-	1	-	(0)	2	-	-	1	-
80 and over .....	1	-	(0)	-	1	-	-	-	-	-
Percent of earnings varies .....	10	-	1	-	5	(0)	3	-	2	-
By service .....	6	-	-	-	3	-	2	-	(0)	-
By length of disability .....	2	-	1	-	(0)	(0)	1	-	-	-
By both service and length of disability .....	3	-	-	-	1	-	-	-	2	-
By earnings .....	(0)	-	-	-	(0)	-	-	-	-	-
Fixed weekly dollar benefit .....	9	(0)	2	(0)	6	(0)	(0)	-	-	-
Less than \$60 .....	3	-	(0)	-	2	-	-	-	-	-
\$60-\$79 .....	1	-	1	-	(0)	-	-	-	-	-
\$80-\$99 .....	(0)	-	(0)	-	(0)	-	-	-	-	-
\$100-\$119 .....	2	-	(0)	-	1	-	-	-	-	-
\$120-\$139 .....	1	(0)	(0)	(0)	1	-	-	-	-	-
\$140-\$159 .....	1	-	-	-	1	-	(0)	-	-	-
\$160-\$179 .....	1	-	-	-	(0)	(0)	(0)	-	-	-
\$180-\$199 .....	(0)	-	(0)	(0)	-	-	-	-	-	-
\$200-\$219 .....	1	-	(0)	-	(0)	-	(0)	-	-	-
\$220 or more .....	(0)	-	(0)	-	-	-	(0)	-	-	-
Weekly dollar benefit varies .....	8	(0)	(0)	-	5	1	1	-	(0)	-
By earnings .....	8	(0)	(0)	-	5	1	1	-	(0)	-
By service or length of disability .....	(0)	-	(0)	-	-	-	-	-	-	-

See footnotes at end of table.

**Table 21. Sickness and accident insurance: Percent of full-time participants by type and duration of payments, medium and large firms, 1986—Continued**

Type of payment	Total	Maximum weeks of coverage								No maximum
		Less than 13	13	14-25	26	27-51	52	Greater than 52	Varies by service	
<b>Production</b>										
All types .....	100	1	17	5	52	1	17	-	6	( <sup>1</sup> )
Fixed percent of earnings .....	37	( <sup>1</sup> )	5	3	26	( <sup>1</sup> )	1	-	2	( <sup>1</sup> )
Less than 50 .....	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	-
50 .....	14	-	2	2	10	-	( <sup>1</sup> )	-	1	( <sup>1</sup> )
55 .....	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	-	-	-	-	-
57 .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-	-	-	-	-	-
60 .....	8	( <sup>1</sup> )	1	1	6	-	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )
62 .....	1	-	-	-	1	-	-	-	-	-
65 .....	1	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	1	-
66 .....	( <sup>1</sup> )	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-	-	-	-	-
67 .....	7	( <sup>1</sup> )	1	-	6	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-
70 .....	3	-	1	( <sup>1</sup> )	2	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-
75 .....	1	-	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-
80 and over .....	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	-
Percent of earnings varies .....	3	-	( <sup>1</sup> )	-	3	-	-	-	( <sup>1</sup> )	-
By service .....	2	-	-	-	1	-	-	-	( <sup>1</sup> )	-
By length of disability .....	1	-	( <sup>1</sup> )	-	1	-	-	-	-	-
By both service and length of disability .....	1	-	-	-	1	-	-	-	( <sup>1</sup> )	-
Fixed weekly dollar benefit .....	36	( <sup>1</sup> )	11	2	17	1	3	-	2	-
Less than \$60 .....	5	( <sup>1</sup> )	4	-	1	( <sup>1</sup> )	-	-	-	-
\$60-\$79 .....	4	-	3	-	1	-	-	-	-	-
\$80-\$99 .....	2	-	( <sup>1</sup> )	-	2	-	-	-	-	-
\$100-\$119 .....	6	-	1	1	4	-	( <sup>1</sup> )	-	-	-
\$120-\$139 .....	5	( <sup>1</sup> )	2	( <sup>1</sup> )	3	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-
\$140-\$159 .....	4	-	1	-	2	( <sup>1</sup> )	1	-	( <sup>1</sup> )	-
\$160-\$179 .....	3	-	-	( <sup>1</sup> )	2	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-
\$180-\$199 .....	2	-	-	-	1	-	( <sup>1</sup> )	-	1	-
\$200-\$219 .....	3	-	( <sup>1</sup> )	-	1	-	1	-	1	-
\$220 or more .....	1	-	-	-	1	-	( <sup>1</sup> )	-	-	-
Weekly dollar benefit varies .....	24	-	1	1	7	( <sup>1</sup> )	14	-	2	-
By earnings .....	22	-	( <sup>1</sup> )	1	6	( <sup>1</sup> )	14	-	2	-
By service or length of disability .....	1	-	1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 22. Sickness and accident insurance: Percent of full-time participants with benefits based on percent of earnings formula by maximum weekly benefit, medium and large firms, 1986**

Type of payment	Total	Maximum weekly benefit											No maximum
		Total with maximum	Less than \$100	\$100 to \$119	\$120 to \$139	\$140 to \$159	\$160 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 or more	
<b>All participants</b>													
Total .....	100	68	3	7	1	23	9	5	5	4	1	10	32
Fixed percent of earnings .....	89	67	3	7	1	23	9	4	5	4	1	9	23
Less than 50 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
50 .....	37	31	2	4	( )	20	1	1	1	1	( )	1	6
55 .....	1	( )	-	-	-	-	( )	( )	-	-	( )	-	-
57 .....	( )	( )	-	-	-	-	-	-	-	-	-	( )	-
60 .....	21	15	( )	1	( )	1	1	1	3	2	( )	4	5
62 .....	1	( )	-	-	-	-	-	-	-	-	-	-	( )
65 .....	2	( )	-	-	-	( )	-	-	-	-	-	-	( )
66 .....	( )	( )	-	( )	-	-	-	-	-	-	-	( )	( )
67 .....	17	14	1	1	( )	1	6	1	( )	1	( )	3	3
70 .....	7	5	( )	( )	( )	2	-	1	-	( )	( )	1	2
75 .....	4	( )	-	-	-	-	-	-	-	-	-	( )	3
80 and over .....	1	( )	-	-	( )	-	-	-	-	-	-	-	1
Percent of earnings varies .....	11	2	-	-	-	-	-	1	( )	( )	( )	( )	9
<b>Professional and administrative</b>													
Total .....	100	61	1	( )	( )	22	8	4	6	7	1	10	39
Fixed percent of earnings .....	86	61	1	( )	( )	22	8	4	6	7	1	10	25
Less than 50 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
50 .....	32	25	( )	( )	( )	21	-	( )	2	( )	( )	( )	7
57 .....	( )	( )	-	-	-	-	-	-	-	-	-	( )	-
60 .....	26	20	( )	-	( )	( )	1	3	4	6	1	5	6
62 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
65 .....	2	-	-	-	-	-	-	-	-	-	-	-	2
66 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
67 .....	15	12	( )	-	( )	( )	7	( )	( )	1	( )	3	2
70 .....	6	4	( )	( )	-	1	-	1	-	-	( )	2	2
75 .....	4	-	-	-	-	-	-	-	-	-	-	-	4
80 and over .....	1	-	-	-	-	-	-	-	-	-	-	-	1
Percent of earnings varies .....	14	( )	-	-	-	-	-	-	-	( )	-	-	14
<b>Technical and clerical</b>													
Total .....	100	67	2	7	1	29	6	2	4	3	1	12	33
Fixed percent of earnings .....	87	66	2	7	1	29	6	2	4	2	( )	11	22
Less than 50 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
50 .....	42	37	1	5	( )	28	( )	( )	1	( )	-	-	6
55 .....	( )	( )	-	-	-	-	( )	( )	-	-	-	-	-
57 .....	( )	( )	-	-	-	-	-	-	-	-	-	( )	-
60 .....	17	12	( )	1	( )	1	1	1	2	1	( )	4	5
62 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
65 .....	1	( )	-	-	-	( )	-	-	-	( )	-	-	1
66 .....	( )	-	-	-	-	-	-	-	-	-	-	-	( )
67 .....	17	13	( )	1	( )	( )	5	( )	1	( )	( )	5	4
70 .....	3	2	( )	( )	-	( )	-	( )	-	( )	( )	1	1
75 .....	5	1	-	-	-	-	-	-	-	-	-	1	4
80 and over .....	1	( )	-	-	( )	-	-	-	-	-	-	-	1
Percent of earnings varies .....	13	2	-	-	-	-	-	-	-	( )	( )	1	11

See footnotes at end of table.

**Table 22. Sickness and accident insurance: Percent of full-time participants with benefits based on percent of earnings formula by maximum weekly benefit, medium and large firms, 1986—Continued**

Type of payment	Total	Maximum weekly benefit											No maximum
		Total with maximum	Less than \$100	\$100 to \$119	\$120 to \$139	\$140 to \$159	\$160 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 or more	
<b>Production</b>													
Total .....	100	72	5	11	2	21	10	6	5	4	1	8	28
Fixed percent of earnings .....	92	70	5	11	2	21	10	4	4	4	1	8	22
Less than 50 .....	( <sup>1</sup> )	-	-	-	-	-	-	-	-	-	-	-	( <sup>1</sup> )
50 .....	35	30	3	5	1	15	2	1	1	1	-	2	5
55 .....	1	1	-	-	-	-	1	-	-	( <sup>1</sup> )	( <sup>1</sup> )	-	-
57 .....	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	-	-	-	-	-	-	( <sup>1</sup> )	-
60 .....	21	15	( <sup>1</sup> )	3	1	1	1	1	4	1	( <sup>1</sup> )	4	5
62 .....	1	1	-	-	-	-	-	1	-	-	-	-	1
65 .....	2	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	-	-	-	( <sup>1</sup> )	-	-	2
66 .....	1	1	-	1	-	-	-	-	-	-	-	( <sup>1</sup> )	-
67 .....	18	15	2	2	( <sup>1</sup> )	1	6	1	-	1	-	1	4
70 .....	9	7	1	1	( <sup>1</sup> )	4	-	1	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2
75 .....	3	( <sup>1</sup> )	-	-	-	-	-	-	-	-	-	( <sup>1</sup> )	3
80 and over .....	1	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-	-	-	-	-	-	-	1
Percent of earnings varies .....	8	2	-	-	-	-	-	2	( <sup>1</sup> )	-	-	1	6

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 23. Sickness and accident insurance: Percent of full-time participants by length-of-service requirements for participation,<sup>1</sup> medium and large firms, 1986**

Length-of-service requirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With service requirement .....	76	64	76	80
1 month .....	21	24	24	20
2 months .....	11	9	13	12
3 months .....	24	19	25	25
4-5 months .....	10	5	6	12
6 months .....	6	4	5	7
1 year .....	4	3	2	4
Over 1 year .....	( <sup>1</sup> )	( <sup>1</sup> )	1	( <sup>1</sup> )
Without service requirement .....	23	36	24	20
Service requirement not determinable .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )

<sup>1</sup> Length of time employees must be on the job before they are covered by a plan that is at least partially employer financed. There is frequently an administrative time lag between completion of the requirement and the actual start of participation. If the lag was 1 month or more, it was included in the service requirement. Minimum age requirements are rare.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 24. Long-term disability insurance: Percent of full-time participants by method of determining payment, medium and large firms, 1986**

Method	All participants			Professional and administrative participants			Technical and clerical participants			Production participants		
	Total	With maximum coverage provisions <sup>1</sup>	Without maximum coverage provisions	Total	With maximum coverage provisions <sup>1</sup>	Without maximum coverage provisions	Total	With maximum coverage provisions <sup>1</sup>	Without maximum coverage provisions	Total	With maximum coverage provisions <sup>1</sup>	Without maximum coverage provisions
All methods .....	100	71	29	100	75	25	100	78	22	100	58	42
Fixed percent of earnings .....	76	60	16	82	62	20	82	67	15	61	50	11
Less than 50 percent .....	2	2	( <sup>2</sup> )	2	1	1	2	2	-	2	2	-
50 percent .....	20	15	5	19	12	7	21	18	3	21	17	4
55 percent .....	2	2	( <sup>2</sup> )	2	2	( <sup>2</sup> )	2	2	( <sup>2</sup> )	2	1	1
60 percent .....	39	30	9	46	36	11	41	32	10	25	20	5
65 or 67 percent .....	12	11	1	11	10	2	14	13	1	11	9	1
70 percent or more .....	2	2	( <sup>2</sup> )	2	2	( <sup>2</sup> )	2	2	( <sup>2</sup> )	1	1	( <sup>2</sup> )
Percent varies by earnings .....	10	6	4	11	6	4	12	6	6	6	4	3
Percent varies by service .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	-	-	-
Scheduled dollar amount varies by earnings .....	9	1	8	1	1	-	2	1	1	29	2	26
Other <sup>3</sup> .....	4	4	1	5	5	( <sup>2</sup> )	3	3	( <sup>2</sup> )	4	2	2
Data not available .....	( <sup>2</sup> )	-	( <sup>2</sup> )	( <sup>2</sup> )	-	( <sup>2</sup> )	( <sup>2</sup> )	-	( <sup>2</sup> )	-	-	-

<sup>1</sup> Includes dollar maximums in plans that pay a percent of earnings, ceilings on income during disability that limit the amount payable from the long-term disability insurance plans plus other income, or a combination of both.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Includes flat dollar amounts and scheduled percent of earnings varying by length of disability.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 25. Long-term disability insurance: Percent of full-time participants by duration of benefits, medium and large firms, 1986**

Duration of benefits	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Until a specified age <sup>1</sup> .....	16	15	15	19
Under age 65 .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Age 65 .....	12	12	11	13
Age 70 .....	4	3	4	6
Duration of benefit varies .....	78	79	79	75
By length of service .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
By age at time of disability <sup>3</sup> .....	78	79	79	75
Single reduction .....	36	34	30	44
Gradual reduction .....	42	45	48	30
Other <sup>4</sup> .....	6	6	6	6

<sup>1</sup> The age may be directly specified or the designated retirement age.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Under the Age Discrimination in Employment Act, age-based reductions in employee benefit plans are permissible when justified by significant cost considerations. The duration of benefits may be reduced gradually according to an age schedule or reduced once at a specified age.

<sup>4</sup> Includes benefits lasting for life, for a specified number of months, or until some unspecified retirement age.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 26. Long-term disability insurance: Percent of full-time participants by length-of-service requirements for participation,<sup>1</sup> medium and large firms, 1986**

Length-of-service requirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With service requirement .....	67	66	73	62
1 month .....	10	13	11	6
2 months .....	4	2	2	8
3 months .....	15	14	17	13
4-5 months .....	2	1	1	4
6 months .....	14	13	16	14
1 year .....	11	11	14	9
2 years .....	3	3	3	2
3 years .....	1	1	2	( <sup>2</sup> )
Over 3 years .....	7	7	7	6
Without service requirement .....	33	34	27	38
Service requirement not determinable .....	( <sup>2</sup> )	-	-	( <sup>2</sup> )

<sup>1</sup> Length of time employees must be on the job before they are covered by a plan that is at least partially employer financed. There is frequently an administrative time lag between completion of the requirement and the actual start of participation. If the lag was 1 month or more, it was included in the service requirement.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 27. Long-term disability insurance: Percent of full-time participants in plans with limitations on benefits for mental illness, medium and large firms, 1986**

Limitation	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Without limits .....	63	60	59	73
Benefits limited .....	37	40	41	27
Benefits provided only if institutionalized .....	1	2	2	( <sup>1</sup> )
Unless institutionalized, benefit amount reduced .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Unless institutionalized, benefits provided only for limited period .....	30	34	35	22
12 months .....	3	3	6	1
24 months .....	27	30	28	21
Other .....	( <sup>1</sup> )	1	( <sup>1</sup> )	-
Benefits provided only for limited period .....	4	4	5	5
12 months .....	( <sup>1</sup> )	( <sup>1</sup> )	-	-
24 months .....	4	4	4	4
Other .....	1	( <sup>1</sup> )	( <sup>1</sup> )	1

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.



## Chapter 5. Health Care and Life Insurance

Along with paid holidays and paid vacations, health and life insurance are the most widespread employee benefits in medium and large firms. Health care benefits were provided to 95 percent and life insurance to 96 percent of all employees, and the extent of coverage was nearly identical within each of the three occupational groups.

### Health care

Virtually all of the participants in health care plans were covered for the major categories of medical care, such as hospital room and board, care by physicians and surgeons, diagnostic X-ray and laboratory work, prescription drugs, and private duty nursing (table 28). Among benefits less commonly provided were vision care (covering 40 percent of the participants), hearing care (20 percent), and routine physical exams (18 percent). Unlike most other employee benefits, there were few differences in health care provisions among employee groups.

The various categories of medical care are covered under 1 of 3 benefit arrangements: Basic benefits only, major medical benefits only, or basic benefits plus major medical. Basic benefit plans cover a specific medical service (such as hospitalization) and generally do not require deductible or coinsurance payments by insured individuals.<sup>6</sup> Conversely, major medical plans cover many categories of care and usually have both deductible and coinsurance features.

In-hospital care was most commonly covered by an arrangement that offered basic coverage plus supplemental major medical coverage. Certain categories of medical care, such as private duty nursing, visits to a physician's office, and prescription drugs, usually were covered only as major medical benefits. Dental and vision care were almost exclusively covered as basic benefits. Regardless of the benefit arrangement used, most health plans limited the size of benefit payments.

*Coverage for retired or laid-off workers (tables 29-31).* One of the goals of the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) was to reduce gaps in health care benefits for employees who are laid off, retired, or other-

<sup>6</sup> The deductible is a specified amount of medical expense that an insured person must pay before benefits will be paid by the plan. Coinsurance is a provision where both the (insured) participant and the insurer share, in a specified ratio, the health care expenses resulting from an illness or injury. The coinsurance percentage is the share paid by the plan (insurer).

wise separated from employment. COBRA requires employers who maintain health insurance plans to continue insurance to terminated workers for up to 18 months. Workers may be charged up to 102 percent of the premium cost. The Employee Benefits Survey was conducted in the first half of 1986, immediately before the act went into effect.

About three-fourths of the participants were in health plans extending coverage into retirement. These plans nearly always covered retirees up to age 65, and generally provided the same benefits given to active employees. In nine-tenths of the cases, retirees remained insured after 65. Again, there was commonly no change in benefit levels, apart from coordination with Medicare.

Regardless of the retiree's age, premiums for retiree insurance were fully company-paid in plans covering over one-half of covered participants; but for about 15 percent, protection continued only if the retiree paid the full cost. The company shared the costs with the retirees for three-tenths of the participants in plans covering retirees under age 65 and more than one-fifth in plans covering retirees age 65 and older.

Group health coverage could continue for about 1 in 2 participants following a layoff. For 1 in 3, benefits were wholly or partly employer financed; the maximum period of protection in these cases was often 3 months or less. In some plans, employees could extend their protection beyond that point by paying the full premium.

Approximately 1 in 5 participants were in plans where no continuation of group coverage was available. (Employees in commercially insured or Blue Cross-Blue Shield plans could exercise rights to convert to a more expensive individual policy at their own cost.) Remaining participants worked for firms where layoffs had never occurred and no policy had been established.

*Hospital coverage (table 32).* The most costly component of health care is that provided by a hospital. Nearly one-half of all personal health care expenditures in the United States are for hospital care.<sup>7</sup> Virtually all of the participants in health plans analyzed in this study received coverage for hospital expenses.<sup>8</sup>

<sup>7</sup> Ross H. Arnett III, David R. McKusick, Sally T. Sonnefeld, and Carol S. Cowell, "Projections of Health Care Spending to 1990," *Health Care Financing Review*, Spring 1986, pp. 1-36.

<sup>8</sup> A small number of participants, who elected only dental care coverage, were not covered for hospital expenses.

For a majority of employees, insurance covers all initial hospital room expenses; however, a growing minority must pay part of the first-dollar costs. The percent of health plan participants with only major medical coverage increased to 35 percent in 1986, from 33 percent in 1985, 28 percent in 1984, and 19 percent in 1983. These employees typically must pay both an initial deductible and a percentage of subsequent hospital room charges. Of the 64 percent of health insurance participants with basic hospital coverage, 14 percent must pay a specified amount per admission or, in some cases, pay for the first day of confinement.

Of those who received basic hospital coverage, 96 percent were in plans that paid room and board expenses up to the semiprivate rate, providing some protection against rising hospital charges. Seventy-five percent of the participants in basic hospital plans had ceilings on the duration of coverage. Almost three-fifths had plans which specified the maximum number of days covered per confinement, most commonly 120 or 365 days. Most of the remaining plans limited the duration of coverage by specifying a maximum dollar amount per admission or per year.<sup>9</sup> Additional coverage was usually available under a major medical plan for cases that exceeded these limitations.

*Surgical coverage (table 33).* Seventy-five percent of health plan participants had basic coverage for surgery in 1986. Over four-fifths of these participants had plans with payments based on the "usual, customary, and reasonable" charge for the procedure performed, up from 75 percent in 1985 and 69 percent in 1984. Although most of these plans paid 100 percent of such charges, 12 percent of the participants were in plans that paid between 80 and 95 percent or imposed an overall dollar limit on surgical payments. The remaining one-fifth of participants with basic surgical benefits were covered by a schedule of payments, listing the maximum amount payable for each operation. Charges in excess of the scheduled amount were usually covered by a major medical plan.

*Major medical coverage (tables 34-36).* Major medical benefits, provided to 82 percent of the health insurance participants, generally covered a wide range of medical services both in and out of the hospital. Because more employees are selecting health maintenance organizations (HMO's), the proportion of major medical participants has dropped from 92 percent in 1983. (HMO's typically provide first-dollar or basic coverage for most health services and, therefore, rarely provide major medical benefits.)

There are two types of major medical plans: One supplements basic benefits either by covering expenses which exceed basic benefit limitations or by covering expenses not

<sup>9</sup> This limitation is commonly found in comprehensive major medical plans. These plans usually cover hospital expenses in full up to a specified dollar amount per confinement or per year (typically between \$1,000 and \$10,000) and 80 percent thereafter. For this study, the full-coverage portion was treated as a basic benefit and the 80-percent portion as major medical.

paid by the basic plan; the other is comprehensive and stands alone without basic plan coverage. Comprehensive major medical policies have been embraced by employers seeking to contain costs of providing health care, because they may eliminate first-dollar coverage.<sup>10</sup>

With very few exceptions, major medical benefits are not paid until the participants have paid a deductible. The purpose of this deductible is to keep the premium cost down and discourage unnecessary use of medical services. A deductible amount of \$100 has been the most common since the survey's inception in 1979, applying to nearly half of all plan participants. However, 36 percent were required to pay deductibles of \$150 or more in 1986, up from 29 percent in 1985, 21 percent in 1984, and 12 percent in 1983 (chart 1). Higher deductibles were less prevalent for blue-collar workers than for white-collar workers.

Once the worker meets the deductible requirement, the plan pays a specified percentage (coinsurance) of incurred expenses. Almost seven-eighths of the participants were in plans that paid 80 percent of expenses, with the remaining 20 percent to be paid by the worker. For over four-fifths of the participants, however, the percentage paid by the plan increased to 100 percent after a specified level of expenses was incurred during a year. For example, a plan might pay 80 percent of the first \$5,000 of covered expenses and 100 percent thereafter, thus limiting the employee's "out-of-pocket" cost to \$1,000 (in addition to the deductible). Incidence of this protection has increased each year since 1979, when less than one-half of the major medical participants were covered.<sup>11</sup> In 1986, outlays for covered expenses were capped at \$1,200 or less per year for 3 out of 4 participants with "stop-loss" coverage.

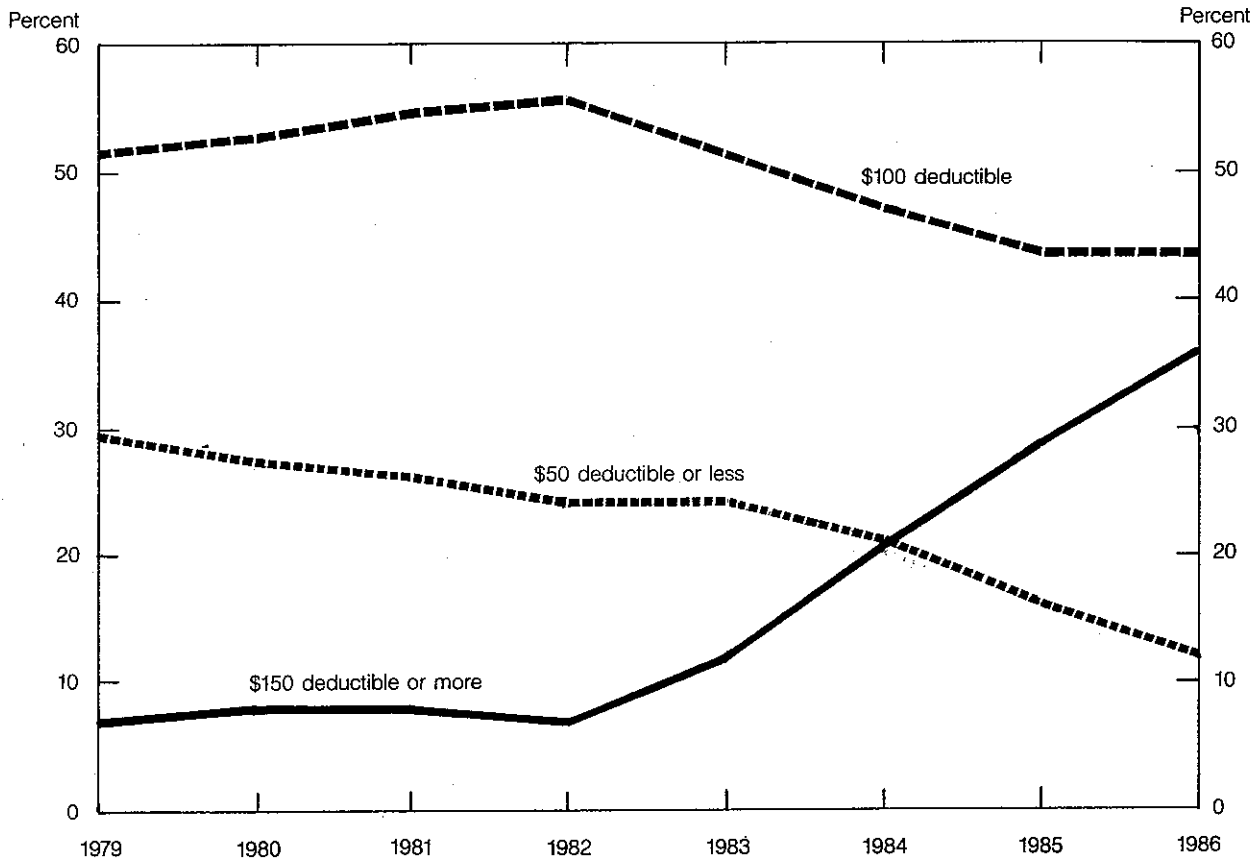
Benefits for 80 percent of major medical participants were subject to a ceiling on the amount payable by the plan, usually a lifetime maximum. In 1986, the most common limitation was \$1 million; \$250,000 had been the most common limit until 1985. The average lifetime maximum was \$570,000—an increase of 67 percent since 1982. The proportion of participants in plans with unlimited payments also increased in that period, from 14 to 20 percent.

*Dental coverage (tables 37-40).* Seventy-one percent of the participants in health insurance plans received coverage for dental expenses, a slight decline from 1985. Nearly all dental plans covered a wide range of services including examinations, X-rays, and restorative procedures such as fillings, periodontal care, and inlays. Plans covering orthodontic ex-

<sup>10</sup> Comprehensive major medical plans can be broken down into strict and modified varieties. All expenses covered are subject to the deductible and coinsurance provisions under the strict version, whereas the modified version might cover hospital, or hospital and surgical, expenses in full up to a specified dollar amount without the application of a deductible. (Also, see footnote 9.)

<sup>11</sup> Trends in major medical benefits are examined by Douglas Hedger and Donald Schmitt in "Trends in Major Medical Coverage During a Period of Rising Costs," *Monthly Labor Review*, July 1983, pp. 11-16.

Chart 1. Trends in selected deductible amount: Percent of full-time participants in major medical plans, medium and large firms, 1979-86



penses, at least for dependent children, covered 75 percent of employees with dental benefits in 1986.

Dental payments were most commonly based on a percentage of the usual, customary, and reasonable charge for a procedure. The percentage covered by a plan generally depended on the type of procedure performed. Less costly procedures such as examinations and X-rays were usually covered at 80 or 100 percent. Fillings, surgery, and periodontal care were more likely to be covered at 80 percent. More expensive procedures—inlays, crowns, and orthodontia—were often covered at 50 percent of the usual, customary, and reasonable charge.

About one-fifth of the dental plan participants were offered reimbursement based on a schedule of cash allowances. In this type of arrangement, each procedure is subject to a specified maximum dollar amount that can be paid to the participant. Preventive procedures and orthodontia were less likely to be subject to this type of schedule than restorative procedures.

Three percent of dental plan participants had services cov-

ered by an incentive schedule. Under this arrangement, the percentage of dental expenses paid by the plan increases each year if the participant is examined regularly by a dentist.

Unlike other basic health benefits, dental plans typically required participants to pay a specified deductible amount before the plan paid any benefits. The most common requirement was a \$25 or \$50 deductible to be met by the participant each year. However, some plans required the participant to pay a deductible (usually \$50) only once while a member of the plan rather than every year. White-collar workers were more likely than blue-collar workers to have plans with deductible requirements.

Eighty-eight percent of dental plan participants were enrolled in plans that limited the amount of payment each year by specifying a yearly maximum benefit. Although many plans have raised their limits since 1980, there was little change between 1985 and 1986. In both years, the most common limit was \$1,000. Orthodontic services were almost always subject to lifetime maximums, which have increased since first tabulated in 1980. Lifetime maximums of \$1,000

or more for orthodontia applied to 50 percent of participants in dental plans providing this benefit in 1986, up from 17 percent in 1980.

**Mental health coverage (table 41).** Of the participants in plans with mental health benefits, 61 percent had more restrictive hospital coverage for mental illnesses than for other ailments in 1986, up from 57 percent in 1985 and 41 percent in 1981. These plans commonly reduced the duration of the hospital stay (often 30 days for mental health care in basic hospital benefits, compared to 120 or 365 days for other illnesses) and sometimes imposed a separate maximum on covered hospital expenses (such as a lifetime maximum of \$50,000 on mental health benefits). Even more restrictive was coverage for mental health care outside the hospital (psychiatric office visits). Outpatient mental health care was usually covered in the major medical portion of a plan, where: (1) ceilings were often placed on the amounts payable for each visit and/or each year, and (2) the coinsurance rate for nonhospital treatment was often 50 percent, compared to 80 percent for other illnesses. Also, limits on annual out-of-pocket major

medical expenses usually did not apply to outpatient mental health care.<sup>12</sup>

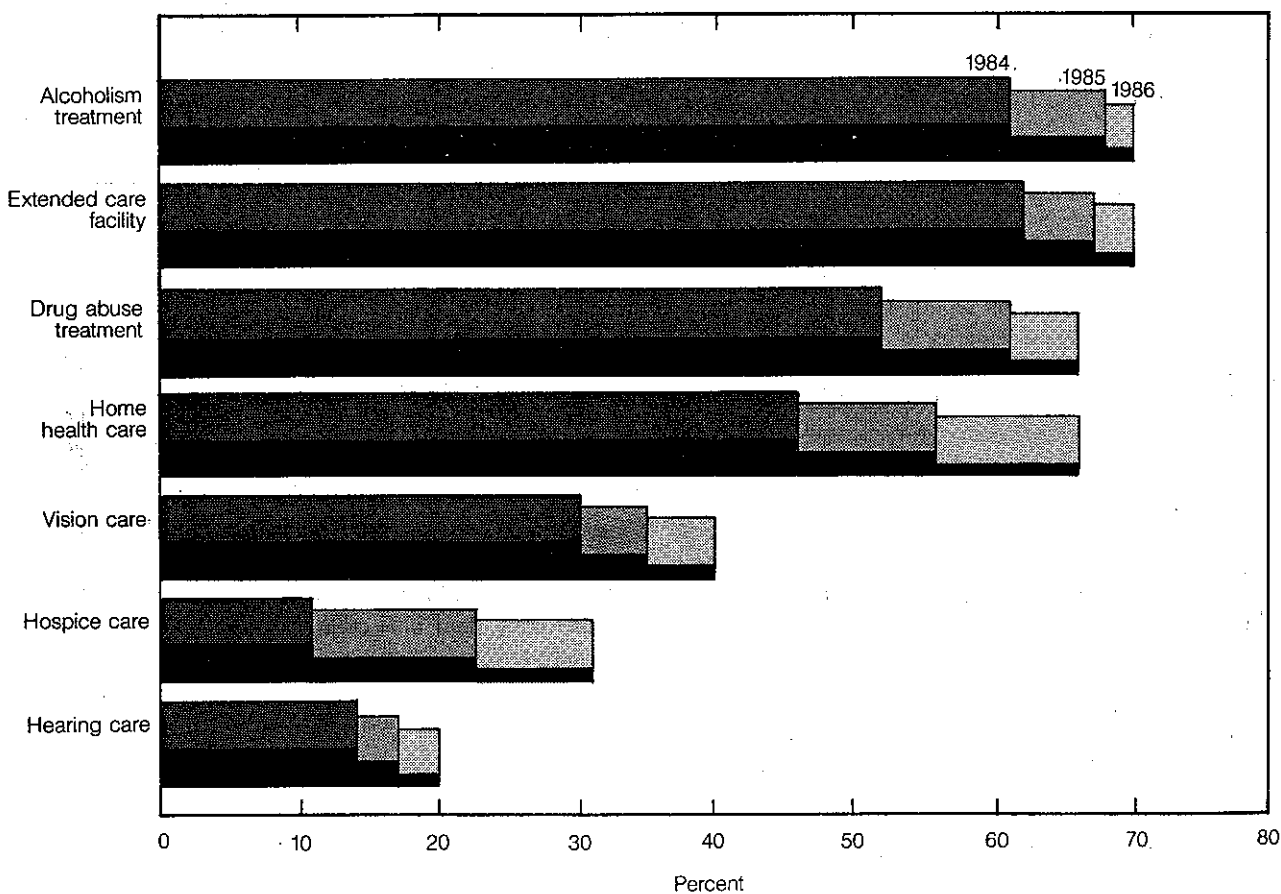
**Other health benefits (tables 42-43).** The incidence of alcohol and drug abuse provisions continued to increase (chart 2). The percent of participants covered for alcoholism treatment rose slightly, from 68 to 70 percent between 1985 and 1986. Drug abuse treatment has steadily increased in availability, from 37 percent when first tabulated in 1982 to 66 percent in 1986.

Forty percent of health insurance participants were covered for vision care expenses in 1986, up from 35 percent in 1985 and 18 percent in 1979. Although gains were made in all three occupational groups, plans for blue-collar workers were typically more comprehensive than those for white-collar workers.

Hearing care was available to 20 percent of participants in 1986, up from 17 percent in 1985 and 10 percent in 1983.

<sup>12</sup> A more detailed examination of mental health care provisions in health care plans is provided by Allan P. Bostin in a *Monthly Labor Review* article scheduled for publication in the summer of 1987.

Chart 2. Coverage for selected types of medical care: Percent of full-time participants in health care benefit plans, medium and large firms, 1984-86



*Cost containment (table 44).* In line with efforts to contain costs of health care, an increasing number of plans provided less expensive alternatives to a hospital stay. Coverage for treatment in extended care facilities increased from 67 percent of plan participants in 1985 to 70 percent in 1986; coverage for home health care rose from 56 percent to 66 percent; and coverage of hospice care rose from 23 percent to 31 percent.

Provisions for prehospitalization testing, a means of decreasing the length of hospitalization, covered nearly half of the participants in both 1985 and 1986. Sixteen percent of participants were provided full plan coverage for hospital confinement only when the plan certified such stays as necessary.

Other cost containment measures encouraged alternatives to inpatient surgery. Twenty-eight percent of the participants received higher reimbursements or paid lower deductible amounts for certain surgical procedures performed at outpatient facilities, including ambulatory surgical centers. Higher payment for childbirth at a birthing center was available to 12 percent of participants in 1986, the first year this provision was tabulated.

Fifty-seven percent of the participants were in plans that paid for a second surgical opinion in 1986, compared to 50 percent in 1985. For 3 in 5 of the 1986 cases, incentives were included for obtaining an additional surgeon's opinion—plan payments for many types of surgery were either lower or not made at all if the second opinion was not obtained.

Provisions such as offering higher reimbursement rates for generic prescription drugs, discouraging nonemergency weekend hospital admissions, and incentives to audit hospital bills were less common than the other cost containment measures previously described.<sup>13</sup>

*Employee contributions (table 45).* The percent of employees whose health insurance premiums are wholly paid by their employers declined sharply in 1986. Fifty-four percent of workers had individual coverage wholly financed by their employers in 1986, down from 61 percent the previous year. Thirty-five percent also could receive fully employer-paid coverage for their families, a 7-percentage-point drop from 1985. The long-term decline in fully employer-financed health insurance coverage is at least in part due to the increased cost of medical care. Wholly paid health care for individual and family coverage was available to 72 and 51 percent of employees, respectively, in 1980.

Exact data on the amount of an employee's contributions for health benefits occasionally were not available because payroll deductions applied to an insurance policy covering both health insurance and one or more other benefits. However, where the amount was reported, employee premi-

ums for individual and family coverage averaged \$13 and \$41 a month, respectively (chart 3). These represented increases of 6 and 8 percent from 1985, paralleling the 7.5-percent increase in the medical care component of the Consumer Price Index for All Urban Consumers in 1986. Employee premiums were somewhat lower for production workers than for the two white-collar groups. Included in the calculation of average employee premiums were some employees contributing only to a supplemental plan, such as an optional dental plan financed jointly by employer and employees.

In addition, a new survey tabulation showed that 14 percent of the employees required to contribute toward their health benefits in 1986 could do so with pretax dollars. These employees had the advantage of reducing their taxable income while buying health care. Some of these employees were in flexible benefit plans, in which they could set aside a portion of their salary to purchase additional benefits. These arrangements will be described in more detail in chapter 8.

*Participation requirements (table 46).* More than half of the participants were allowed to join a health plan immediately upon being hired. Coverage was more immediate for health insurance than for vacations, retirement, capital accumulation, or any other type of insurance plan. There has been a gradual drop in the proportion of participants required to complete a minimum length-of-service period since this provision was first tabulated in 1981—from 59 percent to 49 percent. These service requirements usually were periods of 1, 2, or 3 months. The incidence of service requirements varied markedly among the employee groups. While nearly three-fifths of white-collar employees could participate immediately, approximately the same percentage of production workers had some waiting period.

*Funding medium (table 47).* Employer-provided health care through independent health plans has gained equal footing with commercial insurance policies and Blue Cross-Blue Shield plans. Independent plans, which include health maintenance and preferred provider organizations, and plans which are self-insured, covered 50 percent of the health insurance participants with basic hospitalization benefits (38 percent in 1985). The rise in coverage of independent health plans with basic hospital benefits is largely due to the growing importance of health maintenance organizations (HMO's).

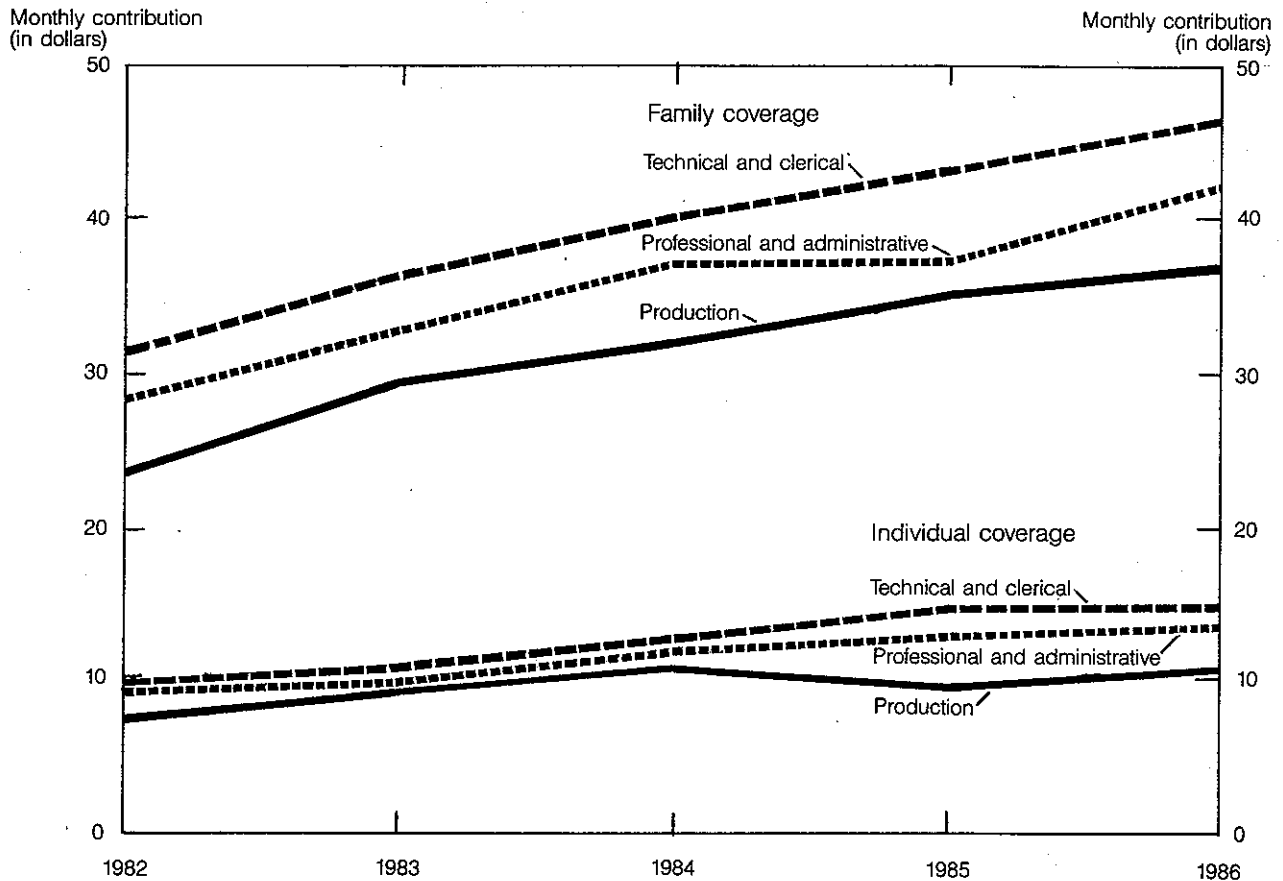
An HMO is a prepaid health care plan that delivers comprehensive medical services to enrolled members for a fixed periodic fee.<sup>14</sup> Thirteen percent of the health insurance participants covered by the survey were enrolled in HMO's, up from 7 percent in 1985 and 5 percent in 1984.

Preferred provider organizations (PPO's), analyzed separately for the first time in 1986, accounted for 1 per-

<sup>13</sup> Despite recent emphasis on cost containment, there have been countervailing improvements in health care coverage. Robert N. Frumkin tracked developments in 209 plans over a 6-year period in "Health Insurance Trends in Cost Control and Coverage," *Monthly Labor Review*, September 1986, pp.3-8.

<sup>14</sup> HMO plans and plans provided through the more traditional health insurers are compared by Allan Blostin and William Marclay in "HMO's and Other Health Plans: Coverage and Employee Premiums," *Monthly Labor Review*, June 1983, pp. 28-33.

**Chart 3. Average employee contributions for health care benefits, medium and large firms, 1982-86**



cent of employees. With a PPO, employers encourage employees to use designated health care providers.

The role of self-insurance in major medical plans increased in 1986. Forty-five percent of major medical plan participants were in self-insured plans, up from 38 percent in 1985. Self-insurance of basic health and dental care remained about the same, ranging from 27 percent of basic hospital and medical participants to 39 percent of those with dental benefits. Commercial carrier and Blue Cross-Blue Shield policies, which in 1980 covered 5 in 6 employees receiving the benefits shown in table 47, accounted for one-half or less of the coverage in 1986. However, employers commonly contract with commercial insurers to protect their self-insured plans against medical claims exceeding a predetermined maximum dollar amount.

#### **Life insurance (tables 48-53)**

Ninety-six percent of full-time employees within the scope of the survey participated in life insurance plans in 1986; nearly all participants (92 percent) had the cost of a basic

plan paid wholly by the employer. Life insurance coverage has kept pace with earnings since 1979, either through an increase in specified dollar amounts of insurance or through increased maximums in formulas linked to earnings.

Basic coverage for two-thirds of all life insurance participants was linked to their earnings, enabling the level of protection to increase automatically with a rise in pay. Earnings-based formulas were much more prevalent among white-collar workers (82 percent) than among blue-collar workers (48 percent). The most common method of tying life insurance protection to earnings was to multiply the employee's annual earnings by a factor of 1 or 2 and round the product to the next \$1,000. For example, an employee earning \$22,700 would receive \$46,000 of coverage under a plan providing 2 times earnings (\$22,700 times 2 equals \$45,400, which is rounded up to \$46,000).

Nearly 1 in 2 employees in multiple-of-earnings plans had insurance equal to their annual earnings. Two in five had coverage equal to twice annual earnings or more. Multiple-of-earnings formulas tended to be higher when employee contributions were required, providing insurance at two or more

times earnings for 3 in 5 participants.<sup>15</sup> Professional-administrative participants had the highest coverage, with noncontributory plans commonly providing multiples of two or more times earnings. And when their plans were contributory, nearly 3 in 4 had coverage of twice annual earnings or more.

There was no upper limit on life insurance for more than one-half of participants in multiple-of-earnings plans. Where limits existed, the proportion of employees with maximums under \$100,000 has declined from one-half to one-fourth since 1979.

Thirty percent of life insurance plan participants had a flat dollar amount of insurance, regardless of earnings. One-half of all production worker participants were covered by a uniform amount, compared with 13 percent of white-collar workers. Uniform amounts for production workers averaged \$10,400, almost \$2,000 more than the average for the other two groups. While usually providing much smaller amounts of insurance than earnings-based formulas, flat amount coverage has improved. Participants in plans providing benefits of less than \$5,000 decreased from 29 percent in 1981 to 19 percent in 1986; most of the offsetting increase was in amounts of \$15,000 or more. The \$15,000 or more amounts grew in incidence from 7 to 22 percent of workers insured by flat amounts during the same period.

Almost three-fourths of all life insurance participants had additional insurance coverage if accidental death or dismemberment occurred. The amount of insurance was usually doubled in the case of accidental death.

In addition to basic coverage, some employers offered their workers supplemental life insurance that was partially employer financed. The typical supplemental plan provided insurance in multiples of 1 to 3 times annual earnings. Eleven percent of the employees were eligible to join these plans. (The survey did not record the number of employees actually contributing.)

Ten percent of participants were in plans which provided monthly income to surviving family members, nearly always in addition to life insurance benefits. There are two types of survivor income benefits. The "transition" type of sur-

vivor benefit pays a monthly amount to a surviving spouse for a limited period (usually 24 months). In some plans, these payments are followed by a subsequent series of payments, known as "bridge" benefits. Bridge benefits continue until a later event, such as remarriage or the surviving spouse's 65th birthday. Benefits generally consisted of either a percent of employee earnings at the time of death or a flat dollar amount.

Survivor benefit plans may also make payments to dependent children or dependent parents. The benefits may be adjusted for the size of the employee's family and the type of dependents who survive.

Life insurance on workers' spouses and unmarried dependent children also is sometimes available. One-sixth of life insurance participants had employer-financed dependent coverage in 1986; in most cases, the employer paid all of the cost. Nearly all plans covered dependent children as well as spouses. The most common coverage for death of either a spouse or a child was a flat amount of \$1,000. Higher amounts, however, were available more often for spouses than for children: Spouse coverage of \$2,000 or more applied to one-half of the participants with dependent life insurance, but similar coverage for a child applied to only one-fifth of these workers. Coverage of \$5,000 or more on the spouse's life was not unusual, but rare in the case of a child. For nearly one-quarter of participants, coverage for a child increased at specified ages: For example, \$250 until 2 years old, followed by \$500 up to 3 years, and \$1,000 thereafter.

Minimum length-of-service requirements for participation were found in plans covering 54 percent of workers with life insurance. As is the case for health and sickness and accident insurance, service requirements are generally 3 months or less.

Basic life insurance continued after retirement for 59 percent of all participants. The preretirement amount of insurance, however, was reduced in nearly all instances.<sup>16</sup> Other forms of life insurance—accidental death and dismemberment, supplemental, and dependent coverage—were seldom available after retirement.

<sup>15</sup> The employee contribution rate was commonly expressed as a fixed monthly rate for each \$1,000 of insurance. Reported rates varied widely from 9 cents to 99 cents per \$1,000, and, in some plans, applied only to amounts of basic scheduled insurance in excess of a free portion (for example, the first \$5,000 of coverage). Data were not available for one-third of contributory plan participants, however, because payroll deductions sometimes applied to an insurance policy covering life insurance and one or more other benefits.

<sup>16</sup> For one-half of the participants, coverage is reduced if they continue working beyond retirement age. However, the reduction in the amount of coverage is usually not as severe as for retirees. For details, see Michael A. Miller, "Age-related Reductions in Workers' Life Insurance," *Monthly Labor Review*, September 1985, pp. 29-34.

**Table 28. Health care benefits: Percent of full-time participants by coverage for selected categories of medical care, medium and large firms, 1986**

Category of medical care	Total	Care provided				Care not provided <sup>1</sup>
		All	By basic benefits only <sup>2</sup>	By major medical only <sup>3</sup>	By basic benefits and major medical	
<b>All participants</b>						
Hospital room and board .....	100	99	24	35	40	1
Hospitalization—miscellaneous services .....	100	99	24	36	40	1
Outpatient care <sup>4</sup> .....	100	99	21	38	41	1
Extended care facility <sup>5</sup> .....	100	70	29	30	11	30
Home health care <sup>5</sup> .....	100	66	30	25	11	34
Surgical .....	100	99	37	25	38	1
Physician visits—in hospital .....	100	99	21	51	27	1
Physician visits—office .....	100	96	16	75	5	4
Diagnostic X-ray and laboratory <sup>6</sup> .....	100	99	29	47	24	1
Prescription drugs—nonhospital .....	100	97	25	69	3	3
Private-duty nursing .....	100	94	14	80	1	6
Mental health care .....	100	99	19	35	45	1
Dental .....	100	71	68	3	-	29
Vision .....	100	40	35	5	(?)	60
<b>Professional and administrative</b>						
Hospital room and board .....	100	99	25	38	36	1
Hospitalization—miscellaneous services .....	100	99	25	39	36	1
Outpatient care <sup>4</sup> .....	100	99	20	40	39	1
Extended care facility <sup>5</sup> .....	100	74	31	31	11	26
Home health care <sup>5</sup> .....	100	71	33	27	11	29
Surgical .....	100	99	37	28	35	1
Physician visits—in hospital .....	100	99	21	58	21	1
Physician visits—office .....	100	99	18	78	2	1
Diagnostic X-ray and laboratory <sup>6</sup> .....	100	99	29	51	19	1
Prescription drugs—nonhospital .....	100	97	25	69	3	3
Private-duty nursing .....	100	97	15	81	(?)	3
Mental health care .....	100	99	18	38	43	1
Dental .....	100	75	71	4	-	25
Vision .....	100	39	33	6	(?)	61
<b>Technical and clerical</b>						
Hospital room and board .....	100	99	24	38	36	1
Hospitalization—miscellaneous services .....	100	99	24	39	36	1
Outpatient care <sup>4</sup> .....	100	99	20	42	37	1
Extended care facility <sup>5</sup> .....	100	69	28	31	11	31
Home health care <sup>5</sup> .....	100	69	31	27	11	31
Surgical .....	100	99	37	27	36	1
Physician visits—in hospital .....	100	99	21	56	22	1
Physician visits—office .....	100	98	18	77	3	2
Diagnostic X-ray and laboratory <sup>6</sup> .....	100	99	30	50	20	1
Prescription drugs—nonhospital .....	100	95	22	71	3	4
Private-duty nursing .....	100	96	15	81	(?)	4
Mental health care .....	100	99	18	40	41	1
Dental .....	100	72	68	4	-	28
Vision .....	100	41	34	6	(?)	59

See footnotes at end of table.



**Table 28. Health care benefits: Percent of full-time participants by coverage for selected categories of medical care, medium and large firms, 1986—Continued**

Category of medical care	Total	Care provided				Care not provided <sup>1</sup>
		AN	By basic benefits only <sup>2</sup>	By major medical only <sup>3</sup>	By basic benefits and major medical	
Production	HMO/Fee	HMO/Fee	AHO/Fee	HMO/Fee	HMO/Fee	HMO/Fee
Hospital room and board .....	100	100	23	32	44	0
Hospitalization—miscellaneous services .....	100	100	23	33	44	0
Outpatient care <sup>4</sup> .....	100	100	21	35	44	0
Extended care facility <sup>5</sup> .....	100	68	28	30	10	32
Home health care <sup>5</sup> .....	100	61	27	23	10	39
Surgical .....	100	100	37	22	41	0
Physician visits—in hospital .....	100	100	22	45	33	0
Physician visits—office .....	100	93	13	73	7	7
Diagnostic X-ray and laboratory <sup>6</sup> .....	100	100	28	42	29	0
Prescription drugs—nonhospital .....	100	97	26	69	3	3
Private-duty nursing .....	100	92	12	79	1	8
Mental health care .....	100	99	21	31	47	1
Dental .....	100	68	66	3	-	32
Vision .....	100	40	36	4	0	60

<sup>1</sup> Includes employees who elected to waive participation in their employer's medical program but who enrolled in dental and/or vision plans.

<sup>2</sup> A provision was classified as a basic benefit when it related to the initial expenses incurred for a specific medical service. Under these provisions, a plan paid covered expenses in one of several ways: (1) in full with no limitation; (2) in full for a specified period of time, or until a dollar limit was reached; or (3) a cash scheduled allowance benefit that provided up to a dollar amount for a service performed by a hospital or physician. For a specific category of care, a plan may require the participant to pay a specific amount each disability or year (deductible) or a nominal charge each visit or procedure (copayment) before reimbursement begins or services are rendered.

<sup>3</sup> Major medical benefits cover many categories of expenses, some of which are not covered under basic benefits, and others for which basic coverage limits have been exhausted. These benefits are character-

ized by deductible and coinsurance provisions that are applied across categories of care.

<sup>4</sup> Coverage for any of the following services charged by the outpatient department of the hospital: Treatment for accidental injury or emergency sickness; surgical procedures; rehabilitative or physical therapy; and treatment for chronic illness (radiation therapy, etc.).

<sup>5</sup> Some plans provide this care only to a patient who was previously hospitalized and is recovering without need of the extensive care provided by a general hospital. Excludes provisions for hospice care that are shown in table 43.

<sup>6</sup> Charges incurred in the outpatient department of a hospital and outside of the hospital.

<sup>7</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 29. Health care benefits: Percent of full-time participants by provision for coverage after retirement, medium and large firms, 1986**

Provision	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With retiree coverage <sup>1</sup> .....	76	79	78	73
Without retiree coverage .....	21	18	19	25
Provision not determinable .....	2	2	1	2
Retiree policy not established .....	1	1	1	( <sup>2</sup> )
Dental plan only <sup>3</sup> .....	1	1	1	( <sup>2</sup> )

<sup>1</sup> These employees participate in employer-financed plans that provide group health coverage during all or part of a worker's retirement lifetime. Some benefits available to current employees may either be discontinued at retirement or offered at reduced levels of protection. Coverage for retirees may be wholly or partly employer financed or wholly retiree financed.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Participants who elected dental coverage only were not included in this tabulation.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 30. Health care benefits: Percent of full-time participants in plans with coverage after retirement by benefit provisions and age of retiree, medium and large firms, 1986**

Benefit provision	All participants		Professional and administrative participants		Technical and clerical participants		Production participants	
	Retiree under 65	Retiree 65 and over	Retiree under 65	Retiree 65 and over	Retiree under 65	Retiree 65 and over	Retiree under 65	Retiree 65 and over
Total .....	100	100	100	100	100	100	100	100
With retiree coverage <sup>1</sup> .....	99	90	99	94	99	92	99	86
<b>Effect of retirement on benefit level<sup>2</sup></b>								
No change in coverage <sup>3</sup> .....	78	71	83	76	81	77	74	65
Reduced coverage .....	18	16	14	16	15	13	24	18
Increased coverage .....	1	1	1	1	2	1	1	1
Not determinable .....	1	1	1	2	1	1	1	1
<b>Retiree share of cost</b>								
Full cost .....	15	14	14	14	13	11	18	15
Partial cost .....	30	22	32	22	33	23	28	21
No cost .....	51	52	51	55	50	55	51	48
Not determinable .....	2	2	3	3	3	3	2	2
Without retiree coverage <sup>4</sup> .....	1	10	1	6	1	8	1	14

<sup>1</sup> This tabulation shows covered workers as a percent of all participants in plans with employer- or employee-financed group insurance for retirees under age 65, those 65 and over, or both groups. It covers plans in which insurance was continued for longer than 1 month after retirement. It excludes plans which provide only the retiree's share of premium for medical insurance under Medicare (Part B).

<sup>2</sup> If dental insurance was provided under a separate plan, it was not used in comparing benefit levels.

<sup>3</sup> For retirees eligible for Medicare, benefits may be calculated and reduced by the extent to which covered expenses are reimbursed by the Federal program.

<sup>4</sup> Retiree coverage was provided to one age group but not the other.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 31. Health care benefits: Percent of full-time participants by provision for coverage during a layoff, medium and large firms, 1986**

Benefit provision	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With coverage continuation during layoff <sup>1</sup> .....	52	47	46	59
Initial cost for employees on layoff <sup>2</sup> paid by:				
Employee only .....	15	14	15	17
Employer and employee .....	7	8	8	6
Employer only .....	27	23	20	33
Not determinable .....	3	3	2	3
Duration of employer-financed coverage:				
1-2 months .....	10	9	8	11
3 months .....	5	5	4	5
4-5 months .....	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )
6 months .....	3	4	3	3
7-11 months .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1 year .....	5	5	3	6
Over 1 year .....	1	1	1	2
Varies by service .....	3	2	2	3
Until rehire .....	3	2	2	5
Not determinable .....	4	2	4	4
Without coverage continuation during layoff .....	22	23	23	22
No policy established .....	24	29	30	18
Layoff policy not determinable .....	1	2	1	1

<sup>1</sup> Benefits may be financed by employer, employer and employee jointly, or employee only.

<sup>2</sup> Administrative costs were excluded from the tabulations.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 32. Health care benefits: Percent of full-time participants in plans with basic hospital room and board coverage by type of benefit payments and limits to coverage, medium and large firms, 1986**

Type of payment	Total	Subject to limit on days of coverage per hospital confinement <sup>1</sup>						Subject to other limits <sup>2</sup>	Unlimited
		All	Under 120 days	120 days	121 - 364 days	365 days	366 days or more		
<b>All participants</b>									
Total .....	100	58	7	16	4	27	3	17	25
Daily dollar allowance .....	4	4	2	( <sup>3</sup> )	( <sup>3</sup> )	1	-	1	-
Less than \$50 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	-	( <sup>3</sup> )	-
\$50-\$99 .....	1	1	1	-	-	-	-	-	-
\$100-\$149 .....	2	2	1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	( <sup>3</sup> )	-
\$150-\$199 .....	2	1	1	-	-	1	-	( <sup>3</sup> )	-
\$200 or more .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	( <sup>3</sup> )	( <sup>3</sup> )	-	( <sup>3</sup> )	-
Semiprivate rate .....	96	54	5	16	4	26	3	16	25
<b>Professional and administrative</b>									
Total .....	100	51	5	17	3	24	3	20	28
Daily dollar allowance .....	2	2	1	( <sup>3</sup> )	( <sup>3</sup> )	1	-	-	-
Less than \$50 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	-	-	-
\$50-\$99 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-	-	-	-
\$100-\$149 .....	1	1	1	( <sup>3</sup> )	-	( <sup>3</sup> )	-	-	-
\$150-\$199 .....	1	1	-	-	-	1	-	-	-
\$200 or more .....	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-
Semiprivate rate .....	98	49	4	17	3	23	3	20	28
<b>Technical and clerical</b>									
Total .....	100	53	4	20	3	24	2	17	30
Daily dollar allowance .....	2	1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1	-	( <sup>3</sup> )	-
Less than \$50 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	-	-	-
\$50-\$99 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-	-	-	-
\$100-\$149 .....	1	1	( <sup>3</sup> )	( <sup>3</sup> )	-	( <sup>3</sup> )	-	( <sup>3</sup> )	-
\$150-\$199 .....	1	1	-	-	-	1	-	-	-
\$200 or more .....	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-
Semiprivate rate .....	98	51	3	20	3	23	2	17	30
<b>Production</b>									
Total .....	100	64	11	14	6	30	4	15	21
Daily dollar allowance .....	7	6	4	( <sup>3</sup> )	1	1	-	1	-
Less than \$50 .....	1	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-	-	1	-
\$50-\$99 .....	1	1	1	-	-	-	-	-	-
\$100-\$149 .....	3	3	2	( <sup>3</sup> )	1	( <sup>3</sup> )	-	( <sup>3</sup> )	-
\$150-\$199 .....	2	2	1	-	-	1	-	( <sup>3</sup> )	-
\$200 or more .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-	-	( <sup>3</sup> )	-	( <sup>3</sup> )	-
Semiprivate rate .....	93	58	7	14	5	29	4	14	21

<sup>1</sup> In some plans, the limit on days of coverage varied by length of participation in the plan; in these cases, the participant was assumed to have been in the plan for 15 years.

<sup>2</sup> Includes workers in plans where the basic benefit is limited by a maximum dollar amount per confinement or per year, and other plans where the limit on the number of days of coverage applies within a

specified time period.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 33. Health care benefits: Percent of full-time participants in plans with basic surgical benefits by maximum allowance for selected procedures, medium and large firms, 1986**

Maximum allowance	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Maximum allowance	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100	Appendectomy:—Continued				
Usual, customary, and reasonable charge .....	82	89	89	75	\$401-\$500 .....	1	1	( <sup>1</sup> )	2
With overall dollar limit on basic surgical payments .....	2	3	2	3	\$501-\$750 .....	4	1	3	5
Without overall dollar limit on basic surgical payments .....	80	86	87	72	More than \$750 .....	1	1	1	1
Plan pays:					Not determinable <sup>2</sup> .....	1	1	1	1
80 percent .....	3	4	4	2	Tonsillectomy:				
85 percent .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	\$50 or less .....	1	1	1	2
90 percent .....	1	1	1	( <sup>1</sup> )	\$51-\$100 .....	4	3	2	6
95 percent .....	4	4	6	3	\$101-\$150 .....	5	4	3	7
100 percent <sup>3</sup> .....	72	77	76	67	\$151-\$200 .....	4	1	2	6
Maximum scheduled allowance .....	18	11	11	25	\$201-\$300 .....	2	2	1	2
Most expensive surgical procedure:					More than \$300 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$201-\$300 .....	1	( <sup>1</sup> )	1	1	Not determinable <sup>2</sup> .....	1	1	1	1
\$301-\$400 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1	Hysterectomy:				
\$401-\$500 .....	2	1	1	3	\$200 or less .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$501-\$750 .....	2	2	1	3	\$201-\$300 .....	2	2	2	3
\$751-\$1,000 .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2	\$301-\$400 .....	3	2	2	3
\$1,001-\$1,250 .....	1	1	1	1	\$401-\$500 .....	3	2	2	5
\$1,251-\$1,500 .....	2	1	2	3	\$501-\$750 .....	3	1	2	5
\$1,501-\$2,000 .....	5	3	2	6	\$751-\$1,000 .....	3	1	2	5
\$2,001-\$2,500 .....	1	1	( <sup>1</sup> )	1	\$1,001-\$1,250 .....	1	1	1	1
\$2,501-\$3,000 .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2	More than \$1,250 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
More than \$3,000 .....	1	1	1	2	Not determinable <sup>2</sup> .....	2	1	1	2
Not determinable <sup>2</sup> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Normal delivery:				
Appendectomy:					\$100 or less .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2
\$101-\$150 .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2	\$101-\$150 .....	1	1	1	1
\$151-\$200 .....	2	1	1	2	\$151-\$200 .....	1	1	1	2
\$201-\$300 .....	3	2	2	4	\$201-\$250 .....	1	1	1	2
\$301-\$400 .....	5	3	3	8	\$251-\$300 .....	5	3	2	6
					\$301-\$400 .....	3	1	2	5
					\$401-\$500 .....	1	1	1	1
					\$501-\$750 .....	2	2	1	2
					More than \$750 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1
					Not determinable <sup>2</sup> .....	2	1	1	2

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Information necessary to classify was not provided.

<sup>3</sup> Includes full service benefits provided by health maintenance organizations.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 34. Health care benefits: Percent of full-time participants in plans with major medical coverage by amount of deductible and applicable benefit period,<sup>1</sup> medium and large firms, 1986**

Amount of deductible <sup>2</sup>	All participants			Professional and administrative participants			Technical and clerical participants			Production participants		
	Total	Benefit period		Total	Benefit period		Total	Benefit period		Total	Benefit period	
		1-year period	Other period		1-year period	Other period		1-year period	Other period		1-year period	Other period
Total .....	100	96	4	100	97	3	100	97	3	100	94	6
Deductible specified .....	100	96	4	100	97	3	100	97	3	100	94	6
Based on earnings <sup>3</sup> .....	4	4	-	4	4	-	6	6	-	3	3	-
Flat dollar amount .....	96	91	4	95	92	3	94	91	3	96	91	6
Less than \$25 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )
\$25 .....	1	1	1	1	1	1	1	1	1	2	1	1
\$50 .....	10	10	( <sup>1</sup> )	9	9	( <sup>1</sup> )	8	7	( <sup>1</sup> )	13	13	( <sup>1</sup> )
\$51-\$74 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$75 .....	3	2	( <sup>1</sup> )	2	2	( <sup>1</sup> )	2	1	( <sup>1</sup> )	3	3	( <sup>1</sup> )
\$76-\$99 .....	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	-
\$100 .....	44	42	2	43	41	2	40	39	1	46	43	3
\$125 .....	1	1	-	1	1	-	1	1	-	1	1	-
\$150 .....	15	15	( <sup>1</sup> )	17	17	( <sup>1</sup> )	20	20	( <sup>1</sup> )	11	11	( <sup>1</sup> )
\$151-\$199 .....	( <sup>1</sup> )	( <sup>1</sup> )	-	1	1	-	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-
\$200 .....	15	14	1	14	13	( <sup>1</sup> )	15	14	( <sup>1</sup> )	15	14	1
\$201-\$249 .....	( <sup>1</sup> )	( <sup>1</sup> )	-	1	1	-	1	1	-	-	-	-
\$250 .....	3	3	-	3	3	-	3	3	-	2	2	-
\$251-\$299 .....	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	-
\$300 .....	2	2	-	2	2	-	2	2	-	2	2	-
Over \$300 .....	1	1	( <sup>1</sup> )	1	1	( <sup>1</sup> )	2	2	( <sup>1</sup> )	1	1	-
No deductible .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-	-	( <sup>1</sup> )	-	-

<sup>1</sup> The deductible is the amount of covered expenses that an individual must pay before any charges are paid by the insurance plan. The benefit period is the length of time within which a single deductible requirement applies. Some plans require that expenses equal to the deductible be incurred within a shorter period, such as 90 days.

<sup>2</sup> Amount of deductible described is for each insured person. However, many plans contain a maximum family deductible. In some plans, the individual and family deductibles are identical.

<sup>3</sup> These plans have deductibles which vary by the amount of the participants' earnings. A typical provision is 1 percent of annual earnings with a maximum deductible of \$150.

<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 35. Health care benefits: Percent of full-time participants in plans with major medical coverage by coinsurance provisions,<sup>1</sup> medium and large firms, 1986**

Final coinsurance provision	All participants					Professional and administrative participants					Technical and clerical participants					Production participants				
	Total	Initial coinsurance				Total	Initial coinsurance				Total	Initial coinsurance				Total	Initial coinsurance			
		80 per-cent	85 per-cent	90 per-cent	Other		80 per-cent	85 per-cent	90 per-cent	Other		80 per-cent	85 per-cent	90 per-cent	Other		80 per-cent	85 per-cent	90 per-cent	Other
Total .....	100	86	5	6	3	100	85	5	7	2	100	84	5	8	2	100	88	5	5	3
Final coinsurance changes to 100 percent .....	81	69	5	6	2	86	72	5	7	1	88	73	5	8	1	74	64	5	4	2
When covered expenses <sup>2</sup> reach:																				
\$1-\$2,000 .....	10	9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10	9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9	8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10	10	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$2,001-\$4,000 .....	22	21	( <sup>1</sup> )	( <sup>1</sup> )	1	26	25	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	24	23	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19	18	( <sup>1</sup> )	( <sup>1</sup> )	1
\$4,001-\$6,000 .....	30	24	3	2	( <sup>1</sup> )	33	25	4	3	( <sup>1</sup> )	31	26	3	2	( <sup>1</sup> )	28	23	3	2	( <sup>1</sup> )
\$6,001-\$8,000 .....	6	4	1	1	( <sup>1</sup> )	7	5	1	1	1	7	5	1	1	1	5	3	1	( <sup>1</sup> )	( <sup>1</sup> )
\$8,001-\$10,000 .....	9	7	( <sup>1</sup> )	2	-	7	5	( <sup>1</sup> )	1	-	12	9	( <sup>1</sup> )	3	-	9	7	( <sup>1</sup> )	1	-
More than \$10,000 .....	4	3	( <sup>1</sup> )	1	( <sup>1</sup> )	5	3	( <sup>1</sup> )	2	-	4	2	( <sup>1</sup> )	1	( <sup>1</sup> )	3	2	( <sup>1</sup> )	( <sup>1</sup> )	-
Final coinsurance changes to other than 100 percent .....	( <sup>1</sup> )	( <sup>1</sup> )	-	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-
Coinsurance unchanged .....	19	17	( <sup>1</sup> )	( <sup>1</sup> )	1	13	12	-	( <sup>1</sup> )	1	12	11	( <sup>1</sup> )	( <sup>1</sup> )	1	26	24	( <sup>1</sup> )	1	1

<sup>1</sup> Coinsurance is the percent of covered expenses paid by the plan. The balance is paid by the employee. If coinsurance provisions varied by the category of medical care, the provision applying to hospital room and board charges was tabulated.

<sup>2</sup> Amount of covered expenses described is for each insured person. In rare cases, the limits for the individual and family are identical.

cal. In nearly all instances, covered expenses must reach specified amounts within a calendar year; 2 year periods are infrequent.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 36. Health care benefits: Percent of full-time participants in plans with major medical coverage by maximum benefit provisions, medium and large firms, 1986**

Type and dollar amount of maximum <sup>1</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With maximum limits <sup>2</sup> .....	80	76	74	86
Lifetime maximum only .....	68	66	66	70
Less than \$25,000 .....	( <sup>3</sup> )	-	-	( <sup>3</sup> )
\$25,000 .....	1	( <sup>3</sup> )	( <sup>3</sup> )	2
\$25,001-\$49,999 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-
\$50,000 .....	3	1	1	5
\$50,001-\$99,999 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
\$100,000 .....	2	1	1	3
\$100,001-\$249,999 .....	3	2	3	4
\$250,000 .....	16	15	13	18
\$250,001-\$499,999 .....	5	5	5	6
\$500,000 .....	13	14	14	12
\$500,001-\$999,999 .....	2	2	2	2
\$1,000,000 .....	22	25	26	18
More than \$1,000,000 .....	1	1	1	1
Annual or disability maximum only .....	7	7	5	8
Both lifetime and annual or disability maximums .....	5	3	2	9
Without maximum limits .....	20	24	26	14

<sup>1</sup> Maximum described is for each insured person.

<sup>2</sup> Most plans with a lifetime maximum have a reinstatement clause. By furnishing satisfactory medical evidence of insurability, an employee can apply for restoration of the full lifetime maximum. Regardless of a member's physical condition, however, a typical plan automatically restores up to \$1,000 of the major medical maximum each year.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.



**Table 37. Health care benefits: Percent of full-time participants in plans with dental benefits by extent of coverage for selected procedures, medium and large firms, 1986**

Type of dental procedure	Total	Sched-uled cash allow-ance	Incen-tive sched-ule <sup>1</sup>	Sub-ject to copay-ment <sup>2</sup>	Percent of usual, customary, and reasonable charge										Not cov-ered	Not deter-min-able
					Total	Less than 50	50	60	61-74	75	80	85	90	100 <sup>3</sup>		
<b>All participants</b>																
Examinations .....	100	17	3	(*)	80	-	1	-	2	1	18	(*)	1	57	(*)	-
Dental X-rays .....	100	17	3	(*)	80	-	1	-	2	2	21	4	7	44	(*)	-
Fillings .....	100	27	3	1	69	-	4	(*)	3	5	38	4	6	9	1	-
Dental surgery .....	100	25	2	1	70	-	5	(*)	3	4	37	4	6	10	1	(*)
Periodontal care .....	100	25	2	1	69	-	8	1	3	4	35	4	6	9	2	(*)
Inlays .....	100	27	1	1	68	-	34	5	3	2	12	2	6	4	3	(*)
Crowns .....	100	27	1	2	68	-	34	5	3	2	12	2	6	4	2	(*)
Orthodontia <sup>5</sup> .....	100	15	-	2	58	(*)	47	3	1	1	3	-	(*)	3	25	(*)
<b>Professional and administrative</b>																
Examinations .....	100	18	2	(*)	79	-	1	-	1	1	21	(*)	1	54	(*)	-
Dental X-rays .....	100	18	2	(*)	79	-	1	-	3	2	24	2	3	45	(*)	-
Fillings .....	100	29	2	1	68	-	4	(*)	3	3	44	3	3	8	1	-
Dental surgery .....	100	26	1	2	70	-	6	(*)	3	2	43	3	3	10	1	(*)
Periodontal care .....	100	26	1	2	69	-	8	1	3	2	40	3	3	9	2	(*)
Inlays .....	100	29	(*)	1	68	-	36	5	4	2	14	1	2	3	2	(*)
Crowns .....	100	29	(*)	2	68	-	36	5	4	2	14	1	2	3	1	(*)
Orthodontia <sup>5</sup> .....	100	17	-	2	56	(*)	46	3	1	1	2	-	(*)	3	24	(*)
<b>Technical and clerical</b>																
Examinations .....	100	16	2	(*)	81	-	1	-	1	1	23	(*)	1	54	(*)	-
Dental X-rays .....	100	16	2	(*)	81	-	1	-	2	1	27	2	3	44	1	-
Fillings .....	100	27	2	1	69	-	4	(*)	2	4	44	3	3	8	1	-
Dental surgery .....	100	26	2	2	70	-	6	(*)	2	3	44	3	3	9	1	(*)
Periodontal care .....	100	25	2	2	69	-	8	1	2	3	41	3	3	8	3	(*)
Inlays .....	100	28	(*)	1	69	-	38	5	4	1	14	1	2	3	2	(*)
Crowns .....	100	28	(*)	2	69	-	38	5	4	1	14	1	2	3	1	(*)
Orthodontia <sup>5</sup> .....	100	17	-	2	53	(*)	44	3	1	2	1	-	(*)	2	27	(*)
<b>Production</b>																
Examinations .....	100	17	3	(*)	80	-	1	-	2	2	12	(*)	2	61	(*)	-
Dental X-rays .....	100	17	3	(*)	80	-	1	-	2	3	15	5	11	43	(*)	-
Fillings .....	100	26	3	(*)	70	-	5	(*)	3	6	30	6	10	9	(*)	-
Dental surgery .....	100	24	3	1	71	-	5	(*)	3	6	30	5	10	11	2	-
Periodontal care .....	100	25	3	1	70	-	7	(*)	3	6	28	5	10	10	1	-
Inlays .....	100	26	1	1	68	-	30	5	2	3	10	3	10	5	4	-
Crowns .....	100	26	2	1	68	-	30	5	2	3	10	3	10	5	3	-
Orthodontia <sup>5</sup> .....	100	14	-	1	62	-	50	2	2	(*)	5	-	(*)	2	24	-

<sup>1</sup> Reimbursement arrangement in which the percentage of dental expenses paid by the plan increases if regular dental appointments are scheduled.

<sup>2</sup> Participant pays a specific amount per procedure and plan pays all remaining expenses.

<sup>3</sup> Includes plans which paid the full cost.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> Participants were included as having coverage for orthodontia in cases where benefits were limited to children.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 38. Health care benefits: Percent of full-time participants in plans with dental benefits by deductible provision,<sup>1</sup> medium and large firms, 1986**

Type of deductible <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Subject to basic dental deductible <sup>3</sup> ..	63	65	70	59
Yearly deductible only .....	53	53	56	51
Under \$25 .....	1	1	2	1
\$25 .....	22	23	20	22
\$26-\$49 .....	1	1	1	1
\$50 .....	26	25	28	25
\$51-\$99 .....	1	1	1	1
\$100 .....	2	2	3	1
Over \$100 .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Lifetime deductible only .....	5	5	6	4
\$50 .....	4	5	6	3
Over \$50 .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1
Both yearly and lifetime deductibles .....	6	6	8	4
Subject to major medical deductible .....	4	5	5	4
No deductible .....	32	30	25	38

<sup>1</sup> Excludes separate deductibles for orthodontic procedures.  
<sup>2</sup> Amount of deductible described is for each insured person. In some plans, the individual and family deductibles are identical.  
<sup>3</sup> Deductibles may not apply to all covered dental procedures. If separate deductibles applied to different procedures, the sum of the deductible amounts was tabulated.  
<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 39. Health care benefits: Percent of full-time participants in plans with dental benefits by yearly maximum amount of insurance,<sup>1</sup> medium and large firms, 1986**

Dollar amount	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Yearly maximum specified <sup>2</sup> .....	88	86	85	90
Less than \$500 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
\$500 .....	4	2	2	5
\$501-\$749 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1
\$750 .....	19	19	20	19
\$751-\$999 .....	1	1	1	2
\$1,000 .....	42	40	41	44
\$1,001-\$1,499 .....	4	4	3	5
\$1,500 .....	10	13	12	8
\$1,501-\$1,999 .....	1	1	( <sup>3</sup> )	1
\$2,000 .....	3	3	3	3
\$2,001-\$2,999 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
\$3,000 .....	1	1	2	2
Greater than \$3,000 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1
No yearly maximum .....	12	14	15	10
Maximum provision not determinable	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-

<sup>1</sup> Includes all covered dental procedures except orthodontia. Amount of maximum specified is for each insured person.  
<sup>2</sup> If separate yearly maximums applied to different procedures, the sum of the maximums was tabulated.  
<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 40. Health care benefits: Percent of full-time participants in plans with orthodontic benefits by lifetime maximum amount of coverage, medium and large firms, 1986**

Dollar amount	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Lifetime maximum specified .....	94	94	94	94
Less than \$500 .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
\$500 .....	9	9	8	10
\$501-\$749 .....	6	5	4	8
\$750 .....	19	21	21	17
\$751-\$999 .....	10	6	5	14
\$1,000 .....	39	37	40	39
\$1,001-\$1,499 .....	4	7	5	2
\$1,500 .....	5	5	8	2
Greater than \$1,500 .....	2	2	3	1
No lifetime maximum .....	6	6	6	6

<sup>1</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 41. Health care benefits: Percent of full-time participants in plans with mental health benefits by extent of benefits, medium and large firms, 1986**

Coverage limitation	All participants		Professional and administrative participants		Technical and clerical participants		Production participants	
	Hospital care	Outpatient care	Hospital care	Outpatient care	Hospital care	Outpatient care	Hospital care	Outpatient care
Total .....	100	100	100	100	100	100	100	100
With coverage .....	99	97	99	99	98	98	99	96
Covered the same as other illnesses .....	37	6	37	7	34	5	39	5
Subject to separate limitations <sup>1</sup> .....	61	91	62	92	64	93	60	90
Limit on days or visits .....	38	33	36	31	38	34	40	34
Limit on dollars .....	26	68	26	66	28	66	26	70
Major medical coinsurance limited to 50 percent .....	2	48	2	46	2	51	3	47
No major medical ceiling on out-of-pocket expenses .....	13	49	16	58	14	55	10	44
Other limitations <sup>2</sup> .....	7	22	8	22	9	22	6	22
Not covered .....	1	3	1	1	2	2	1	4

<sup>1</sup> The total is less than the sum of the individual items because many plans had more than one type of limitation on mental health coverage.

<sup>2</sup> Includes plans requiring copayments or a separate deductible for inpatient or outpatient care, and plans where the rate of reimbursement

for outpatient care varied during the treatment period.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 42. Health care benefits: Percent of full-time participants in plans with vision benefits by extent of benefits, medium and large firms, 1986**

Benefit	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Eye examinations only .....	19	26	26	13
Examinations and eyeglasses .....	7	6	7	7
Examinations, eyeglasses, and contact lenses .....	64	59	56	71
Orthoptics <sup>1</sup> only .....	3	5	3	3
Other combinations .....	7	6	8	6

<sup>1</sup> Exercises to improve the function of the eye muscles.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 43. Health care benefits: Percent of full-time participants by coverage for selected special benefits, medium and large firms, 1986**

Benefit item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Covered by at least one of the listed special benefits <sup>1</sup> .....	89	93	92	85
Second surgical opinion .....	57	62	62	51
Alcoholism treatment .....	70	74	73	65
Drug abuse treatment .....	66	70	69	63
Hearing care <sup>2</sup> .....	20	18	17	22
Hospice care .....	31	36	32	28
Physical examinations .....	18	22	22	14
Not covered by any one of the listed special benefits .....	11	7	8	15

<sup>1</sup> The total is less than the sum of the individual items because many participants receive more than one benefit.

<sup>2</sup> Plan provided, as a minimum, coverage for hearing examination expenses.

**Table 44. Health care benefits: Percent of full-time participants by coverage with selected cost containment features, medium and large firms, 1986**

Cost containment feature	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Covered by at least one of the listed cost containment features <sup>1</sup> ..	68	70	70	65
Incentive to seek second surgical opinion .....	35	40	40	28
Higher coinsurance, or lower or no deductible for outpatient surgery .....	28	31	33	23
Higher payment for generic prescription drugs .....	7	7	7	6
No or limited reimbursement for nonemergency weekend admissions to hospital .....	10	13	13	8
Separate deductible for hospital admission .....	9	10	9	7
Urging prehospitalization testing .	47	51	52	43
Preadmission certification requirement .....	16	18	15	16
Higher payment for delivery at birthing center .....	12	15	12	11
Incentive to audit hospital statement .....	2	3	2	1
Not covered by any of the listed cost containment features .....	32	29	29	34
Dental plan only <sup>2</sup> .....	1	1	1	( <sup>3</sup> )

<sup>1</sup> The total is less than the sum of the individual items because many workers participate in plans with more than one feature.

<sup>2</sup> Participants who elected dental coverage only were not included in this tabulation.

<sup>3</sup> Less than 0.5 percent.

**Table 45. Health care benefits: Percent of full-time participants in contributory plans by type and amount of employee contribution, medium and large firms, 1986**

Type and amount of contribution <sup>1</sup>	All participants		Professional and administrative participants		Technical and clerical participants		Production participants	
	Single coverage	Family coverage <sup>2</sup>	Single coverage	Family coverage <sup>2</sup>	Single coverage	Family coverage <sup>2</sup>	Single coverage	Family coverage <sup>2</sup>
Total .....	100	100	100	100	100	100	100	100
Flat monthly amount .....	89	89	89	89	87	88	89	89
Less than \$5.00 .....	19	4	18	3	16	3	21	5
\$5.00-\$9.99 .....	20	7	18	6	16	5	26	9
\$10.00-\$14.99 .....	15	7	17	7	16	5	13	9
\$15.00-\$19.99 .....	11	7	12	8	14	6	8	6
\$20.00-\$29.99 .....	13	11	16	11	16	10	10	12
\$30.00-\$39.99 .....	2	11	3	12	3	12	2	10
\$40.00-\$49.99 .....	1	10	1	11	2	13	1	7
\$50.00-\$59.99 .....	( <sup>3</sup> )	8	( <sup>3</sup> )	8	( <sup>3</sup> )	9	( <sup>3</sup> )	6
\$60.00-\$69.99 .....	( <sup>3</sup> )	6	( <sup>3</sup> )	5	1	6	( <sup>3</sup> )	6
\$70.00-\$79.99 .....	-	5	-	5	-	5	-	4
\$80.00-\$89.99 .....	-	2	-	3	-	4	-	1
\$90.00-\$99.99 .....	-	2	-	2	-	2	-	2
\$100.00 or greater .....	-	5	-	5	-	6	-	4
Composite rate <sup>4</sup> .....	6	4	4	3	4	3	8	6
Amount varies by earnings .....	( <sup>3</sup> )	-	( <sup>3</sup> )	-	( <sup>3</sup> )	-	-	-
Amount varies by employee <sup>5</sup> .....	5	4	5	4	9	6	3	2
Contribution not determinable .....	6	8	5	7	4	6	8	9

<sup>1</sup> Participants were counted as being in contributory plans if enrolled in a noncontributory medical plan and in an optional contributory dental program. Therefore, lower contribution rates shown partly reflect the cost of dental care only.

<sup>2</sup> If the amount of contribution varied by either size or composition of family, the rate for an employee with a spouse and one child was used. For a small percentage of employees, the employee contributes the same amount for single and family coverage.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> A composite rate is a set contribution covering more than one benefit area, for example, health insurance and sickness and accident insurance. Cost data for individual plans cannot be determined.

<sup>5</sup> Amount varies by options selected under a cafeteria plan or balance of employer-sponsored reimbursement account.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 46. Health care benefits: Percent of full-time participants by length-of-service requirements for participation,<sup>1</sup> medium and large firms, 1986**

Length-of-service requirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With service requirement .....	49	39	44	58
1 month .....	15	15	14	16
2 months .....	8	5	5	11
3 months .....	17	13	17	19
4-5 months .....	3	1	1	5
6 months .....	5	5	6	5
7-11 months .....	1	1	( <sup>3</sup> )	1
1 year .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Without service requirement .....	50	60	55	41
Service requirement not determinable .....	1	1	1	1

<sup>1</sup> Length of time employees must be on the job before they are covered by a plan that is at least partially employer financed. There is frequently an administrative time lag between completion of the requirement and the actual start of participation. If the lag was 1 month or more, it was included in the service requirement. Minimum age requirements are rare.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 47. Health care benefits: Percent of full-time participants by funding medium for selected types of coverage, medium and large firms, 1986**

Funding medium	Basic hospital <sup>1</sup>	Basic surgical <sup>1</sup>	Basic medical <sup>1</sup>	Major medical <sup>2</sup>	Dental	Basic hospital <sup>1</sup>	Basic surgical <sup>1</sup>	Basic medical <sup>1</sup>	Major medical <sup>2</sup>	Dental
	All participants					Technical and clerical				
Total .....	100	100	100	100	100	100	100	100	100	100
Provided coverage .....	64	75	49	82	71	61	72	43	82	72
Blue Cross-Blue Shield .....	18	12	11	9	4	17	9	8	9	4
Commercial carrier .....	14	21	10	33	34	12	19	8	32	34
Independent health plans .....	32	41	27	39	32	31	43	26	40	34
Self-insured <sup>3</sup> .....	18	27	13	37	28	15	26	9	39	30
Health maintenance organizations <sup>4</sup> .....	13	13	13	( <sup>5</sup> )	2	15	16	15	( <sup>5</sup> )	2
Preferred provider organization <sup>6</sup> .....	1	1	1	1	1	1	1	2	1	( <sup>5</sup> )
Other <sup>7</sup> .....	-	-	-	-	2	-	-	-	-	1
Combined .....	( <sup>5</sup> )	1	1	1	1	( <sup>5</sup> )	2	1	1	1
Not provided coverage .....	36	25	51	18	29	39	28	57	18	28
	Professional and administrative					Production				
Total .....	100	100	100	100	100	100	100	100	100	100
Provided coverage .....	62	72	42	83	75	67	78	55	81	68
Blue Cross-Blue Shield .....	18	10	9	9	3	19	15	14	9	5
Commercial carrier .....	13	19	8	34	36	16	23	13	33	33
Independent health plans .....	30	41	25	38	35	33	39	28	39	30
Self-insured <sup>3</sup> .....	14	25	8	36	30	22	29	17	38	26
Health maintenance organizations <sup>4</sup> .....	15	15	15	( <sup>5</sup> )	2	10	10	10	( <sup>5</sup> )	2
Preferred provider organization <sup>6</sup> .....	1	1	1	2	1	( <sup>5</sup> )	1	1	1	( <sup>5</sup> )
Other <sup>7</sup> .....	-	-	-	-	2	-	-	-	-	1
Combined .....	( <sup>5</sup> )	2	( <sup>5</sup> )	1	1	( <sup>5</sup> )	1	( <sup>5</sup> )	1	1
Not provided coverage .....	38	28	58	17	25	33	22	45	19	32

<sup>1</sup> A plan provision was classified as a basic benefit when it covered the initial expenses incurred for a specific medical service. Under these provisions, a plan paid covered expenses in one of several ways: 1) in full with no limitation; 2) in full for a specified period of time, or until a dollar limit was reached; and 3) a cash scheduled allowance benefit that provided up to a dollar amount for a service performed by a hospital or physician. For a specific category of care, a plan may require the participant to pay a lump sum amount each disability or year (deductible) or a nominal charge each visit or procedure (copayment) before reimbursement begins or services are rendered.

<sup>2</sup> Major medical benefits cover many categories of expenses, some of which are not covered under basic benefits, and others for which basic coverage limits have been exhausted. These benefits are characterized by deductible and coinsurance provisions that are applied across categories of care.

<sup>3</sup> Includes plans that are financed by general revenues of a company on a pay-as-you-go basis, plans financed through contributions to a trust fund established to pay benefits, and plans operating their own facilities if at least partially financed by employer contributions. Includes plans that are administered by a commercial carrier through Ad-

ministrative Services Only-Minimum Premium Plan (ASO-MPP) contracts and plans in which a commercial carrier provides protection only against extraordinary claims.

<sup>4</sup> Includes federally qualified (those meeting standards of the Health Maintenance Organization Act of 1973, as amended) and other HMO's delivering comprehensive health care on a prepayment rather than fee-for-service basis. All HMO's are included here regardless of sponsorship, e.g., Blue Cross-Blue Shield or a commercial insurance carrier.

<sup>5</sup> Less than 0.5 percent.

<sup>6</sup> A preferred provider organization (PPO) is a group of hospitals and physicians who contract to provide comprehensive medical services. To encourage use of these provider members, the PPO limits reimbursement rates when participants use nonmember services. All PPO's are included here regardless of sponsorship, e.g., Blue Cross-Blue Shield or a commercial insurance carrier.

<sup>7</sup> Dental benefits plans sponsored by local dental societies are in this category.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 48. Life insurance: Percent of full-time participants by method of determining amount of basic life insurance and frequency of related coverages, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Basic life insurance <sup>1</sup> .....	100	100	100	100
Based on earnings .....	66	83	80	48
Multiple <sup>2</sup> .....	54	73	72	32
Graduated schedule .....	12	10	8	15
Flat amount .....	30	12	15	50
Flat amount based on service .....	4	4	5	2
Other <sup>3</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
With accidental death and dismemberment coverage .....	72	65	65	79
With survivor income benefit <sup>5</sup> .....	10	12	9	10
With availability of partly employer-financed supplemental life insurance .....	11	13	12	8
With dependent coverage .....	17	19	18	16

<sup>1</sup> A few participants received only accidental death and dismemberment insurance.

<sup>2</sup> Includes participants in plans in which insurance equaled a multiple of earnings, plus or minus a specific amount.

<sup>3</sup> Includes participants in plans with insurance based on family size.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> Consists of monthly income, usually a percent of earnings, for the spouse or dependent children for a specified period after death of employee.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 49. Life insurance: Percent of full-time participants in plans with multiple-of-earnings formulas<sup>1</sup> by amount of basic insurance and maximum coverage provisions, medium and large firms, 1986**

Formula	Total	In plans without maximum coverage	In plans with maximum coverage					
			All	Less than \$50,000	\$50,000-\$99,999	\$100,000-\$249,999	\$250,000-\$499,999	\$500,000 or more
<b>All participants</b>								
Total .....	100	48	52	4	9	20	11	8
Life insurance is equal to annual earnings times: <sup>2</sup>								
Less than 1.0 .....	3	2	2	( <sup>1</sup> )	1	1	-	( <sup>1</sup> )
1.0 .....	45	26	19	3	2	10	2	2
1.1-1.4 .....	1	( <sup>1</sup> )	1	-	-	1	-	( <sup>1</sup> )
1.5 .....	7	2	4	( <sup>1</sup> )	2	1	( <sup>1</sup> )	1
1.6-1.9 .....	1	-	1	-	-	1	-	-
2.0 .....	34	14	19	( <sup>1</sup> )	3	6	7	3
2.1-2.4 .....	2	1	1	-	-	( <sup>1</sup> )	1	-
2.5 .....	2	1	1	-	1	-	( <sup>1</sup> )	( <sup>1</sup> )
2.6-2.9 .....	( <sup>1</sup> )	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-	-	( <sup>1</sup> )
3.0 .....	3	1	2	-	-	( <sup>1</sup> )	1	1
More than 3.0 .....	1	( <sup>1</sup> )	1	-	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Multiple varying with earnings .....	1	( <sup>1</sup> )	1	1	-	( <sup>1</sup> )	( <sup>1</sup> )	-
<b>Professional and administrative</b>								
Total .....	100	47	53	2	9	19	14	9
Life insurance is equal to annual earnings times: <sup>2</sup>								
Less than 1.0 .....	3	1	2	( <sup>1</sup> )	1	1	-	( <sup>1</sup> )
1.0 .....	36	21	15	2	3	6	2	2
1.1-1.4 .....	2	( <sup>1</sup> )	1	-	-	1	-	( <sup>1</sup> )
1.5 .....	7	3	4	-	1	2	1	( <sup>1</sup> )
1.6-1.9 .....	1	-	1	-	-	1	-	-
2.0 .....	41	19	22	( <sup>1</sup> )	3	6	9	4
2.1-2.4 .....	2	1	1	-	-	( <sup>1</sup> )	1	-
2.5 .....	2	1	1	-	( <sup>1</sup> )	-	( <sup>1</sup> )	1
2.6-2.9 .....	( <sup>1</sup> )	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-	-	-
3.0 .....	3	1	2	-	-	1	1	1
More than 3.0 .....	1	1	1	-	-	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Multiple varying with earnings .....	1	( <sup>1</sup> )	1	( <sup>1</sup> )	-	1	( <sup>1</sup> )	-
<b>Technical and clerical</b>								
Total .....	100	47	53	2	9	21	12	9
Life insurance is equal to annual earnings times: <sup>2</sup>								
Less than 1.0 .....	3	1	1	( <sup>1</sup> )	1	1	-	( <sup>1</sup> )
1.0 .....	45	28	18	1	3	11	2	2
1.1-1.4 .....	1	( <sup>1</sup> )	1	-	-	1	-	( <sup>1</sup> )
1.5 .....	6	2	5	-	2	1	1	1
1.6-1.9 .....	1	-	1	-	-	1	-	-
2.0 .....	32	13	18	( <sup>1</sup> )	3	5	7	3
2.1-2.4 .....	2	1	1	-	-	( <sup>1</sup> )	1	-
2.5 .....	2	1	2	-	1	-	( <sup>1</sup> )	( <sup>1</sup> )
2.6-2.9 .....	( <sup>1</sup> )	-	( <sup>1</sup> )	-	( <sup>1</sup> )	-	-	-
3.0 .....	4	1	3	-	-	1	1	2
More than 3.0 .....	2	1	1	-	-	1	( <sup>1</sup> )	( <sup>1</sup> )
Multiple varying with earnings .....	1	( <sup>1</sup> )	1	1	-	1	( <sup>1</sup> )	-

See footnotes at end of table.



**Table 49. Life insurance: Percent of full-time participants in plans with multiple-of-earnings formulas<sup>1</sup> by amount of basic insurance and maximum coverage provisions, medium and large firms, 1986—Continued**

Formula	Total	In plans without maximum coverage	In plans with maximum coverage					
			All	Less than \$50,000	\$50,000-\$99,999	\$100,000-\$249,999	\$250,000-\$499,999	\$500,000 or more
<b>Production</b>								
Total .....	100	48	52	9	10	21	8	5
Life insurance is equal to annual earnings times: <sup>2</sup>								
Less than 1.0 .....	4	3	1	( <sup>3</sup> )	( <sup>3</sup> )	1	-	( <sup>3</sup> )
1.0 .....	56	31	25	7	2	12	2	2
1.1-1.4 .....	1	1	( <sup>3</sup> )	-	-	( <sup>3</sup> )	-	( <sup>3</sup> )
1.5 .....	7	2	5	1	3	1	( <sup>3</sup> )	( <sup>3</sup> )
1.6-1.9 .....	1	-	1	-	-	1	-	-
2.0 .....	26	10	16	( <sup>3</sup> )	3	6	5	2
2.1-2.4 .....	( <sup>3</sup> )	( <sup>3</sup> )	-	-	-	-	-	-
2.5 .....	2	( <sup>3</sup> )	2	-	1	-	( <sup>3</sup> )	( <sup>3</sup> )
2.6-2.9 .....	1	-	1	-	1	-	-	-
3.0 .....	2	1	( <sup>3</sup> )	-	-	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
More than 3.0 .....	( <sup>3</sup> )	-	( <sup>3</sup> )	-	-	-	( <sup>3</sup> )	( <sup>3</sup> )
Multiple varying with earnings .....	1	-	1	1	-	-	( <sup>3</sup> )	-

<sup>1</sup> Includes participants in plans in which insurance equated a multiple of earnings, plus or minus a specific amount.

<sup>2</sup> When the multiple-of-earnings formula varied with age, the maximum multiple was tabulated. A few plans varied the multiple-of-earnings formula according to service; in these cases, a participant was as-

sumed to have 15 years of service.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 50. Life insurance: Percent of full-time participants in plans with flat dollar insurance<sup>1</sup> by amount of basic insurance, medium and large firms, 1986**

Amount of insurance	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Less than \$2,000 .....	2	3	3	2
\$2,000-\$4,999 .....	17	19	27	15
\$5,000-\$9,999 .....	29	33	27	30
\$10,000-\$14,999 .....	30	25	29	30
\$15,000-\$19,999 .....	12	9	7	13
\$20,000-\$24,999 .....	3	6	2	2
\$25,000-\$29,999 .....	4	3	3	5
\$30,000 and over .....	3	2	2	4

<sup>1</sup> Excludes participants in plans where insurance was a flat amount based on service.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 51. Life insurance: Percent of full-time participants with dependent coverage by type and amount of coverage, medium and large firms, 1986**

Type and amount of coverage	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Death of spouse .....	100	100	100	100
Flat benefit .....	88	86	84	91
Less than \$1,000 .....	2	( <sup>1</sup> )	2	3
\$1,000 .....	26	15	23	36
\$1,500 .....	12	16	14	7
\$2,000 .....	14	13	9	18
\$2,500 .....	8	7	8	8
\$3,000 .....	3	1	2	4
\$4,000 .....	1	1	( <sup>1</sup> )	1
\$5,000 .....	21	30	23	13
More than \$5,000 .....	2	4	3	( <sup>1</sup> )
Benefit varies .....	12	14	16	7
By age of spouse .....	( <sup>1</sup> )	1	1	-
By employee earnings .....	2	3	2	2
By employee option .....	9	11	13	5
Amount of coverage not determinable .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2
Death of child .....	97	99	98	96
Flat benefit .....	65	68	63	63
Less than \$1,000 .....	6	5	6	6
\$1,000 .....	26	20	19	34
\$1,500 .....	14	19	13	11
\$2,000 .....	10	10	10	9
\$2,500 .....	6	9	9	3
\$3,000 .....	1	2	2	( <sup>1</sup> )
\$4,000 .....	( <sup>1</sup> )	1	( <sup>1</sup> )	-
\$5,000 .....	2	2	3	( <sup>1</sup> )
More than \$5,000 .....	( <sup>1</sup> )	( <sup>1</sup> )	1	( <sup>1</sup> )
Benefit varies .....	32	30	34	31
By age of child <sup>2</sup> .....	23	21	22	24
By employee earnings .....	2	3	2	2
By employee option .....	7	7	10	5
Amount of coverage not determinable .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2
Insurance on child not provided .....	3	1	2	4

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Amount of insurance increases at some point after 1 year of age.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 52. Life insurance: Percent of full-time participants by length-of-service requirements for participation, medium and large firms, 1986**

Length-of-service requirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
With service requirement .....	54	42	54	62
1 month .....	17	17	16	19
2 months .....	7	3	2	11
3 months .....	19	14	24	20
4-5 months .....	1	( <sup>1</sup> )	( <sup>1</sup> )	2
6 months .....	7	6	9	7
7-11 months .....	( <sup>1</sup> )	-	( <sup>1</sup> )	1
1 year .....	1	1	1	1
Over 1 year .....	1	1	1	1
Without service requirement .....	46	58	46	38
Service requirement not determinable .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Not applicable—plan not available to new employees .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Length of time employees must be on the job before they are covered by a plan that is at least partially employer financed. There is frequently an administrative time lag between completion of the requirement and the actual start of participation. If the lag was 1 month or more, it was included in the service requirement. Minimum age requirements are rare.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 53. Life insurance: Percent of full-time participants by effect of retirement on basic life insurance coverage, medium and large firms, 1986**

Effect of retirement	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Insurance continues <sup>1</sup> .....	59	64	60	56
Continues for life .....	57	61	59	53
Continues in full .....	2	3	3	2
Reduced once .....	29	29	28	29
Reduced more than once during retirement .....	25	29	27	21
Continues in form of paid-up insurance <sup>2</sup> .....	( <sup>1</sup> )	1	1	( <sup>1</sup> )
Ceases during retirement .....	2	2	1	3
Provision not determinable .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Insurance discontinued immediately .....	39	34	38	43
Effect not determinable .....	1	2	2	1

<sup>1</sup> Includes plans in which coverage is fully paid by retiree.

<sup>2</sup> Plan accumulates permanent amounts of insurance through the contributions of active employees.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

## Chapter 6. Defined Benefit Pension Plans

In medium and large firms, defined benefit pension plans are the predominant type of employer-sponsored retirement plan. These plans use formulas for calculating retirement benefits and obligate the employer to provide the benefits so determined. In 1986, three-fourths of the employees had defined benefit pension plans—down slightly from earlier years. (Other sources of retirement income, such as savings plans, have been growing in importance recently. They will be discussed in chapter 7, “Defined Contribution Plans.”)

*Benefit formulas (tables 54–58).* Earnings-based formulas applied to 72 percent of the employees covered by defined benefit pension plans. Such formulas pay a percent of the employee’s annual earnings per year of service (for example, 1 percent of earnings times 30 years of service). Variations are common, however, in the approach to calculating annual earnings and the rate paid per year of service. For 79 percent of the participants with earnings-based formulas, pensions were based on earnings in the final years of employment (terminal earnings formula); for the remainder, an average of career earnings was used. Terminal earnings were defined as the average over a 5-year period for 84 percent of the participants with terminal-earnings formulas. Such formulas usually designated the 5 consecutive years with the highest earnings out of the last 10 years before retirement.

Three-fifths of participants with formulas based on career earnings were in plans having benefit rates per year of service that varied according to service, earnings, or age. Career-earnings formulas typically applied one rate to annual earnings below a specified amount, and a higher rate above the amount. (This is often done to lower employer costs for wage levels upon which Social Security taxes are paid, as described in the next section.) For example, a plan will credit an employee with 1 percent of earnings up to the first \$12,000 in each year of service plus 1.5 percent of the earnings exceeding that amount. The annual pension payment is the sum of these credits.

Formulas based on terminal earnings typically provided participants with a flat percent of earnings per year of service. For plans providing flat rates per year of service, the rates averaged 1.62 percent for terminal-earnings formulas and 1.66 percent for career-earnings formulas. This slightly higher benefit percentage for career-earnings formulas is more than offset by the lower earnings to which these formulas are applied.<sup>17</sup> Conversely, benefits under a terminal-earnings formula are more likely to be offset by a retiree’s

Social Security payments. (See next section.)

Most plans that did not use a percent-of-earnings benefit formula specified a dollar amount to be paid for each year of service, such as \$15 monthly per year of service, yielding a pension of \$450 after 30 years. Dollar-amount formulas applied to one-fourth of pension plan participants, continuing a decline from 32 percent in 1981. While the dollar amount in these formulas sometimes varied with an employee’s earnings or service, the predominant method was to multiply a uniform (single) dollar amount by years of service. Uniform amounts credited per year averaged \$15.51 a month.

The basis of pension payments differed sharply by employee group. While a large majority of white-collar participants were provided earnings-based pensions, dollar-amount formulas applied to nearly half of the blue-collar participants.

Thirty-seven percent of all pension plan participants would receive benefits from either primary or alternative formulas, whichever was greater. Alternative formulas were often included to provide at least a minimum level of benefits for persons with short service or low earnings. For example, a plan may have a primary formula of 1.25 percent of average career earnings times years of service, and an alternative formula of \$15 a month for each year of service. In this case, the alternative formula would provide a higher benefit for persons with average career earnings of less than \$14,400 a year.

*Private benefits and Social Security payments (table 59).* Employers providing private retirement plans also share the cost of Social Security coverage equally with their employees. Because many plan sponsors feel that private pension and Social Security benefits should not be duplicative, formulas for calculating private pensions often contain an offset provision requiring part of the Social Security pension to be subtracted from the annuity. Other plans have “excess” formulas that apply lower pension benefit rates to an employee’s earnings below a specified level (which is either the Social Security taxable wage base—usually the career

<sup>17</sup> An employee who worked 30 years with a 5-percent pay increase each year and who earned \$25,000 in the last year of service would have career average earnings of \$13,451 a year, while the final 5-year average would be \$22,730. The difference between the career and final averages lessens with shorter lengths of service.

average—or a dollar amount equal to a past taxable wage base).

Sixty-two percent of all pension plan participants had benefit formulas “integrated” with Social Security. Terminal-earnings formulas of integrated plans tended to adopt the offset approach, while career-earnings formulas tended to incorporate the excess approach. Dollar-amount formulas were rarely coordinated with Social Security; blue-collar employees, therefore, were less likely to have integrated benefits.<sup>18</sup>

*Maximum benefit provisions (table 60).* The Employee Retirement Income Security Act (ERISA) and subsequent amendments place ceilings on the size of annual pension benefits from defined benefit plans. These restrictions largely affect only highly compensated employees. Many plans, however, have provisions that restrict benefit levels for all participants. For example, 36 percent of participants were in plans that limited the number of years of service included in benefit computation; maximums of 30 or 35 years were most common. For 7 percent of the participants, annual pensions (usually including Social Security payments) could not exceed a specified percent of average annual career or terminal earnings.

*Replacement rates (table 61).* A commonly used indicator of pension adequacy is the portion of a retiree’s final year’s earnings that is “replaced” by the retirement benefit. To calculate replacement rates for 1986 pension plans, the maximum private benefit under each surveyed plan, not reduced for early retirement or joint-and-survivor annuity, was determined under several assumed combinations of final annual earnings and years of service. These benefit levels were then expressed as percents of earnings in the last year of employment. The calculations assume employees retired on January 1, 1986, and final earnings are for 1985.<sup>19</sup>

Table 61 presents average replacement rates resulting from defined benefit pension plans alone and in combination with primary Social Security benefits (that is, excluding benefits for spouse and other dependents).<sup>20</sup> For private pension formulas that are integrated with Social Security and for computation of Social Security benefits, the worker is assumed to have retired at age 65 and to have paid into Social Security for 40 years. (For workers who reached age 65 in 1986, however, the Social Security benefit was the same for workers with similar final earnings who had 26 years or more under Social Security.)

<sup>18</sup> For a comprehensive analysis of formulas with Social Security integration characteristics, see Donald Bell and Diane Hill, “How Social Security Payments Affect Private Pensions,” *Monthly Labor Review*, May 1984, pp. 15-20.

<sup>19</sup> Earnings histories, necessary for applying the pension formulas, were constructed for each final earnings level based on data provided by the Social Security Administration.

<sup>20</sup> The Social Security spouse benefit, which is 50 percent of the primary benefit, is paid in addition to the primary benefit while both partners are live (unless the spouse is eligible for a larger primary benefit).

Chart 4 displays replacement rates based on 30 years of service for each of the earnings assumptions. Except for the lowest earnings assumption (\$15,000), the private pension plan replaced on average about 28 percent of the final year’s earnings; the rate for \$15,000 was about 32 percent.

When combined with primary Social Security payments available at age 65, however, replacement rates differed substantially as earnings increased. They ranged from nearly three-fourths at the lowest assumed level of earnings to just over one-half at the highest earnings level computed. Except for the two highest assumptions (\$35,000 and \$40,000), the primary Social Security benefit payment was larger than the average private pension.

Although private pension replacement rates (excluding Social Security) for white-collar employees remained fairly constant at higher earnings levels, rates for blue-collar workers dropped by almost a third. Table 54 provides an explanation: Nearly half of all production workers have dollar-amount formulas, paying workers with the same years of service the same benefit, regardless of earnings history. The result is a steady decrease in the replacement rate as final earnings increase. Average replacement rates for earnings-based formulas, on the other hand, increase slightly with higher final earnings.

While average replacement rates show a consistent relationship between pensions and service, earnings, and type of formula, the range of pensions payable is quite broad. Chart 5 shows that calculated monthly pensions for employees retiring with 20 or 30 years’ service and final earnings of \$30,000 varied from less than \$200 to \$1,000 or higher.<sup>21</sup>

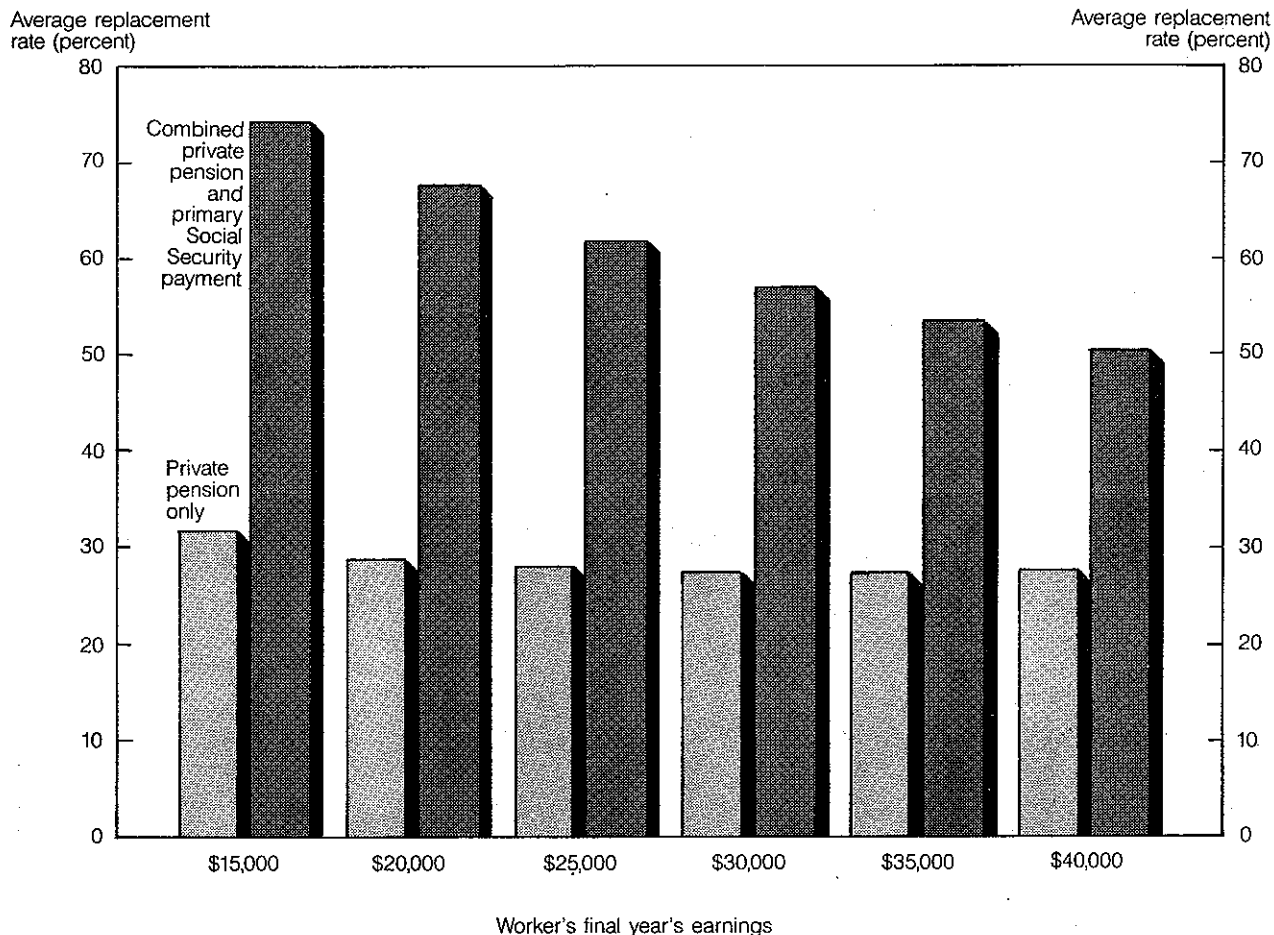
*Normal retirement (table 62).* Although unreduced Social Security benefits are not available before age 65, most private pension plan participants were not required to work to that age for full private pensions (normal retirement). Thirty-six percent were covered by plans that specified age 65 as the earliest age for normal retirement. While employees in plans specifying age 65 usually did not have to satisfy a minimum service requirement, plans permitting normal retirement at earlier ages typically had length-of-service requirements. One to ten years’ service were required for half of the 36 percent of participants who could first retire at ages 60 through 64; 20 or more years were typically needed for retirement at ages 55 through 59 (affecting 4 percent of participants).<sup>22</sup>

Another 11 percent of participants could qualify when the sum of age plus service reached a specific amount, such as

<sup>21</sup> For a more complete discussion of replacement rates, see Donald G. Schmitt, “Today’s Pension Plans: How Much Do They Pay?” *Monthly Labor Review*, December 1985, pp. 19-25.

<sup>22</sup> In 1980, 45 percent of participants had to work until age 65 to be eligible for an unreduced benefit. Gradual liberalization of retirement requirements has contributed to an increase in average replacement rates for both normal and early retirement since 1974, as observed by Donald Bell and William Marclay, “Trends in Retirement Eligibility and Pension Benefits, 1974-1983,” *Monthly Labor Review*, April 1987, pp. 18-25.

**Chart 4. Replacement rates under pension plans including and excluding Social Security payments: Average benefits based on 30 years of service, medium and large firms, 1986**



85. A minimum age of 55 was generally included for meeting these requirements. Minimum lengths of service were less common.

Thirteen percent of all participants were covered by plans permitting normal retirement at any age with 30 years of service; the major concentration (19 percent) was among production workers. Plans that featured such a provision almost always offered other normal retirement opportunities at specified ages with lower service requirements. (If a plan had alternative age and service requirements, the earliest age and associated service were tabulated for this survey; if one alternative did not specify an age, it was the requirement that was tabulated.)

*Early retirement (tables 63 and 64).* Virtually all of the employees participating in a pension plan could retire before normal retirement age and receive an immediate, reduced pension. In some cases, employer approval was required for such early retirement benefits.

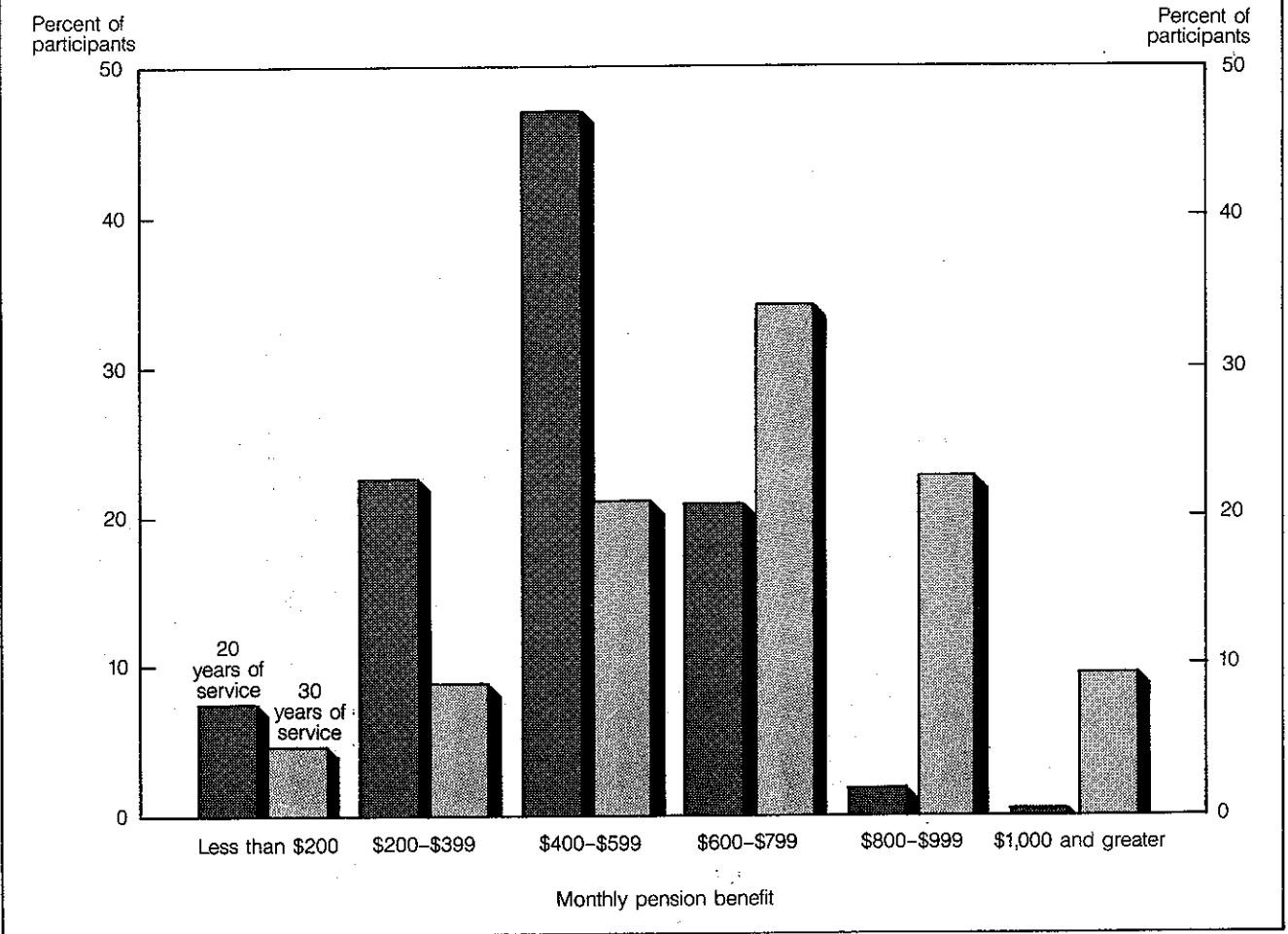
The amount of an early retirement pension is lower for two reasons: First, fewer years of service are applied to the

benefit formula because an employee has not worked until normal retirement age. Second, because benefits begin at an earlier age, the retiree is expected to receive plan payments over a longer period of time.

The normal benefit is reduced by a percentage (factor) for each year between the actual and normal retirement ages. If a plan's normal retirement age is 62, for example, and the reduction factor is 6 percent, a person retiring at age 59 would receive 82 percent of the normal formula amount (100 percent minus 3 years times 6 percent). In addition to the 18-percent reduction for early retirement, the annuity in this example would be based on fewer years of service and possibly lower earnings than at age 62.

The reduction factor may be uniform or may vary by age or service. Reduction factors that differed for each year of early retirement, based on the employee's life expectancy at that age (actuarial reductions), were used in plans covering one-eighth of participants with early retirement opportunities. Other methods of reducing benefits approximate an actuarial reduction. For example, for three-eighths of the participants, the reduction factor differed for age brackets of

Chart 5. **Monthly benefits under private defined benefit pension plans: Distribution of participants assuming earnings of \$30,000 in the final year of work, medium and large firms, 1986**



several years instead of changing each year. Nearly one-half of the participants had uniform reduction factors, most commonly 3, 5, or 6 percent for each year of early retirement. In plans with a low uniform reduction, such as 3 percent per year, the employer is subsidizing some of the early retirement benefit by making the reduction less severe than if benefits were computed actuarially.

Two-thirds of all participants were covered by plans permitting early retirement at age 55; generally, 10 to 15 years of service were required. Fifteen percent of all participants could retire earlier than age 55 if service requirements were satisfied. Nine percent of the participants in plans with early retirement could qualify when the sum of age plus service reached a specific amount. Such plans usually included minimum service requirements ranging from 1 to 25 years; age requirements of 50, 55, or 56 were sometimes specified.

The early retirement pension for 14 percent of participants was supplemented by additional monthly payments if employees retired after meeting a specified age or length-of-service requirement higher than the minimum needed to retire. Plan sponsors include these special early retirement

benefits either to induce older workers to retire or as a reward for long service.

Supplemental benefits from the private pension help to fill the gap during the period between retirement and the start of Social Security payments. Generally, supplemental payments end when Social Security payments begin (either reduced payments at age 62 or full benefits at age 65), and the reduced pension is then payable for life. (For most employees in this study, at least half of their retirement pension will be Social Security payments—see section on replacement rates.) Other employers elect to offer similar incentives outside of formal plan provisions to employees who retire within a specified time period.<sup>23</sup>

*Disability retirement (table 65).* A career-ending disability may entitle an employee to a pension before the normal retire-

<sup>23</sup> For the results of a survey of the incidence of early retirement incentive programs, the types of incentives offered, and how successful they have been, see Hewitt Associates, *Plan Design and Experience in Early Retirement Windows and Other Voluntary Separation Plans* (Lincolnshire, Illinois: Hewitt Associates, 1986).

ment age. If the disability satisfies the plan's definition of total disability, pension benefits often begin immediately. When an employer provides other sources of disability income, such as long-term disability insurance, the disability retirement benefit might be deferred until the other forms of income have ceased. Eighty-nine percent of pension plan participants were covered by disability retirement provisions in 1986.

Each year since this retirement provision was first tabulated in 1980, employees in plans with immediate disability retirement have outnumbered those in plans with benefits deferred until normal or early retirement age, although this gap has been narrowing. There has been a 15-percentage-point drop in immediate disability benefits over the 7-year period, with a comparable rise in deferred benefits.

Seventy-five percent of the production workers with disability retirement coverage were in plans with immediate benefits. White-collar workers with disability benefits in their pension plans were more likely to be in plans with deferred benefits. Workers with deferred benefits were usually given long-term disability insurance (LTD) benefits that typically provided 50 or 60 percent of earnings at the time of disability; this was more than that generally provided by pension plans with immediate disability retirement.<sup>24</sup> Furthermore, most deferred retirement benefits were greater than immediate pensions, primarily because the time during which LTD benefits were paid was typically added to an employee's length of service for computation of pension benefits. (See chapter 4 for details of LTD benefit plans.)

Requirements for disability retirement were usually based on specified years of service such as 10 years or more. Thirteen percent of the participants, however, had no age or service requirement for disability retirement, and 25 percent had to meet the qualifications for the LTD plan, which usually had a minimal service requirement.

*Postponed retirement (table 66).* Employees who continue on the job after age 65 rarely receive private pension payments before retirement. Moreover, postponed retirement is rarely fully reflected in the size of pension benefits; full recognition of postponed retirement would require crediting service after age 65, and adjusting pensions upward for the shorter retirement period. Nevertheless, almost one-half of the participants were in plans that made some allowance for postponed retirement.

Forty percent of all participants were in plans with benefit formulas that included credit for service after age 65; 22 percent were subject to limits on the number of credited years (frequently, only years up to age 68 or 70). Some plans with earnings-based benefit formulas recognized earnings levels after age 65, even when service was not credited for these years. Production workers were more likely than white-collar employees to receive full credit for service after age 65. Col-

lectively bargained multiemployer plans, accounting for 8 percent of blue-collar participants, frequently provide for employer contributions to the pension fund for covered employees regardless of age.

In contrast to early retirees, who typically receive reduced pensions over an extended time period, late retirees seldom receive pensions that are increased to compensate for the shorter time they will draw benefits. Only 8 percent of the participants were in plans that actuarially adjust the size of pensions or increase the payment by a specified percentage for each additional year of work beyond the normal retirement age. (This includes 1 percent of participants with both full credit for service and an actuarial increase in benefits.)<sup>25</sup>

*Postretirement pension increases (table 67).* Inflation can severely erode the purchasing power of a fixed pension throughout a worker's retirement years. Thirty-eight percent of pension plan participants were in plans that increased pensions for current retirees at least once during the 1981-85 period. Most of these increases were discretionary, or ad hoc, rather than automatic adjustments specified in the pension plans.

The amounts of ad hoc increases were not directly linked to a cost-of-living index. Instead, retirees' current pensions were usually increased by either a percentage varying by the length of retirement, or a dollar amount per year of service. The latter type of increase more often affected the pensions of production workers, and frequently resulted from collective bargaining agreement provisions.

Since the survey reports only the number of current employees covered by pension plans and not the number of retirees, it cannot specify the proportion of annuitants actually receiving postretirement pension increases. A rough measure of the incidence of postretirement increases among pensioners can be derived by assuming that the number of retirees is proportionate to the number of active plan participants.

In 1986, 35 percent of the pension plan participants were in plans granting ad hoc increases. This number has decreased steadily from a high of 51 percent in 1983. That high level was due in part to the relatively high rate of price increases over the preceding 5 years (1978-82).

The size of ad hoc pension increases during 1981-85 was computed for each plan granting such an increase, using three retirement periods (5, 10, and 15 years) and two monthly pension amounts (\$250 and \$750) in effect on December 31, 1980. Where increases varied by a retiree's length of service, 25 years of service was assumed. These increases were then averaged, using as weights the number of active work-

<sup>24</sup> For a more complete discussion of disability retirement, see Donald Bell and William Wiatrowski, "Disability Benefits for Employees in Private Pension Plans," *Monthly Labor Review*, August 1982, pp. 36-40.

<sup>25</sup> The 1986 Budget Reconciliation Act requires most qualified plans to credit service after a plan's normal retirement age, beginning in 1988, subject to any maximum credited service provisions in the plan (see table 60). In addition, a February 1987 court ruling indicates that employers may have to begin crediting service immediately after normal retirement age, although the ruling is being appealed (*American Association of Retired Persons v. Equal Employment Opportunity Commission*, U.S. District Court for the District of Columbia, February 26, 1987).

ers participating, to provide surveywide estimates for each example. As shown in the tabulations below, the length of retirement was a significant factor in determining the size of pension adjustments, with larger increases paid to persons retired longest. Also where maximum increases were specified, retirees with higher original pensions had lower percentage increases.

Monthly pension on December 31, 1980	Years of retirement		
	5	10	15
<b>\$250:</b>			
Average pension on December 31, 1985 . . . . .	\$292	\$319	\$344
Percent change, December 31, 1980-85 . . . . .	17	27	37
<b>\$750:</b>			
Average pension on December 31, 1985 . . . . .	\$832	\$914	\$988
Percent change, December 31, 1980-85 . . . . .	11	22	32

The BLS Consumer Price Index for All Urban Consumers (CPI-U) rose 31 percent over the 5-year period studied.<sup>26</sup> For retirees in plans with ad hoc adjustments, and with monthly pensions and years of retirement shown above, average adjustments ranged from 35 to 119 percent of the price rise.

Only 3 percent of all participants were in plans that provided for automatic increases in pension benefits to compensate for increases in the cost of living. In most instances, these cost-of-living-adjustment formulas provided for benefit adjustments proportional to increases in the BLS Consumer Price Index. Nevertheless, ceilings on individual increases limited periodic adjustments to 4 percent or less for most of the covered workers. Nearly all of the affected participants were in plans calling for annual adjustments. Lifetime ceilings on increases were uncommon.

For the first time, the survey collected information on the incidence of lump-sum payments made to current retirees. In 1986, 6 percent of participants were in plans which gave retirees at least 1 lump-sum payment during the 1981-85 period. These payments ranged from \$100 to \$1,000. Retirees receiving these lump sums normally also received permanent pension increases between 1981 and 1985. In fact, they often received both adjustments in the same year.

*Vesting (table 68).* Even when an employee leaves an employer without qualifying for either a normal, early, or disability retirement benefit, a pension may ultimately be paid. If certain conditions are satisfied at the time of separation, workers have a vested interest in all or a portion of their accrued pension benefits and may begin receiving benefits years later.

Although all pension participants are entitled to vested benefits under the Employee Retirement Income Security Act of 1974 (ERISA), some variations exist as to when this oc-

<sup>26</sup> The rate of increase was determined by dividing the annual average CPI-U for 1985 by the annual average CPI-U for 1980. For a discussion of postretirement increases, see Donald G. Schmitt, "Postretirement Increases Under Private Pension Plans," *Monthly Labor Review*, September 1984, pp. 3-8.

curs. Most pension plans require 10 years of service before benefits are guaranteed. While over two-thirds of the participants were covered by the 10-year rule regardless of age, one-sixth were affected by the plan sponsor's right to exclude years of service before a specified age in determining vesting eligibility.<sup>27</sup>

Unreduced vested pension payments begin at a plan's normal retirement age, based on the benefit formula in effect when an employee left the plan. Also, terminated and vested participants can receive a reduced pension under a plan's early retirement provision if the participant had satisfied the corresponding service requirement when leaving the plan.

For terminated and vested employees who wish to receive a pension beginning at the early retirement age, ERISA requires the benefit to be at least the actuarial equivalent of what would have been received starting at age 65. The actuarial equivalent benefit is a reduced amount determined by the life expectancy at the age that pension payments begin. Although under ERISA the reduction factor used in determining the pension for a terminated employee can be more severe than for early retirement, the same factor was used in plans covering 65 percent of the participants with early retirement provisions.<sup>28</sup>

*Postretirement survivor benefits (table 69).* ERISA also requires the availability of a form of pension in which at least 50 percent of the retiree's payments continue to the spouse after the retiree's death. When this type of pension—called a joint-and-survivor annuity—is paid, the employee will generally receive a lower benefit during retirement since payments are likely to be made over a longer period of time. When the retiree dies, the spouse will receive part or all of the retiree's monthly pension benefits.<sup>29</sup>

Joint-and-survivor annuities are based on an actuarial or arithmetic reduction of the employee's pension. Nearly one-fifth of the participants were in plans offering only a joint-and-survivor option that provides a surviving spouse 50 percent of the retiree's adjusted pension. Sixty-six percent of

<sup>27</sup> Among other provisions, the Retirement Equity Act of 1984 amended ERISA by lowering from 25 to 21 the age after which employers must enroll workers in defined benefit and defined contribution plans, and lowering from 22 to 18 the age after which employees must earn vesting credits. In addition, the act requires that the spouse of a deceased vested employee be entitled to survivor benefits regardless of employee's age at death. For most plans, the Internal Revenue Service extended the deadline for compliance with provisions of the act until June 30, 1986. (Collectively bargained plans had to comply by January 1, 1987.) Since the survey was conducted from January to June 1986, previous ERISA rules were in effect when the surveyed establishments were visited.

<sup>28</sup> Due to changes in the Tax Reform Act of 1986, benefits from most defined benefit plans will vest more rapidly beginning in 1989. Vesting provisions differ significantly between defined benefit and some types of defined contribution plans. The next chapter discusses these differences.

<sup>29</sup> ERISA requires that the joint-and-survivor coverage be automatic for married retirees, and that waiver of this option must be requested in writing. The Retirement Equity Act (see footnote 27) further directs that spouse coverage can be waived only if both husband and wife sign the request. For a more complete discussion of survivor benefits, see Donald Bell and Avy Graham, "Surviving Spouse's Benefits in Private Pension Plans," *Monthly Labor Review*, April 1984, pp. 23-31.



participants (up from 59 percent in 1980) had a choice of two or more alternative percentages (frequently 50, 67, and 100 percent) to be continued to the spouse, with corresponding reductions in their annuities.

Two percent of participants were in plans where the spouse receives a joint-and-survivor annuity and either a monthly cash payment or a portion of the retiree's pension. A larger group, 7 percent of participants, were in plans providing a portion of the retiree's benefit. In these latter plans, the spousal annuity is close to what a 50-percent joint-and-survivor annuity might provide. In both of these types of plans, there is no reduction to the employee's pension for the joint-and-survivor annuity.

*Preretirement survivor benefits (table 70).* Nearly all participants were in plans providing for survivor payments in case the employee died before retirement. Pensions usually had to be vested before any death benefits were payable.<sup>30</sup> For nearly two-thirds of the participants, a surviving spouse would receive an annuity equivalent to the amount payable if the employee had retired on the day prior to death with a joint-and-survivor form of payment in effect. Most survivor pensions of this nature were based on an early retirement benefit and were provided at no cost to the employee. However, for 14 percent of participants (down from 24 percent in 1980), preretirement joint-and-survivor protection involved an extra cost to the employee and was available only if elected. The cost was usually paid by the employee through a small deduction in the pension ultimately payable to either employee or spouse.

The remaining one-third of pension plan participants generally had a preretirement survivor annuity calculated as a portion of the employee's accrued benefit (the benefit earned as of the date of the employee's death). The incidence of this type of annuity increased by slightly over 40 percent between 1984 and 1986, in part due to the Retirement Equity Act of 1984. If an active employee dies after completion of the vesting requirement, a typical survivor would receive an annuity equal to 50 percent of the employee's accrued benefit to date. Payments would be reduced by the early retirement adjustment, and would begin when the employee would have

reached early retirement age. If the employee lives to become eligible for early retirement, the survivor benefit in many cases switches to the equivalent of a 50-percent joint-and-survivor benefit calculated as if the employee had retired on the day of death. (The earliest available preretirement survivor annuity was tabulated.)

*Employee contributions.* The employer paid the full cost of defined benefit pension plans for 94 percent of the participants. Of the employees who had to pay part of the cost, virtually all paid a percent of earnings. The majority of participants in contributory plans paid one rate (usually 2 to 4 percent) on earnings above a specified level, and a lower rate (or frequently zero) below that earnings level. The annual earnings level at which this break occurred ranged from \$3,000 to the \$42,000 Social Security taxable wage base in effect during 1986. Plans with varying employee contributions usually coordinate private benefits with Social Security payments; as discussed earlier, pension benefit computation rates used in these plans are higher on earnings above the Social Security taxable wage base. One-fourth of the participants in contributory plans paid a flat rate—none paid more than 3 percent.

*Participation requirements (table 71).* Two-fifths of the employees with pension plans had immediate coverage. Another one-fifth could participate regardless of age but had a service requirement, seldom more than 1 year. The remaining employees could not enter the pension plan until they reached a specified age and completed 1 year of service, the most restrictive requirement permitted under ERISA.<sup>31</sup>

Three-fifths of pension plan participants were in plans with a maximum age, usually 59, beyond which newly hired employees were not eligible. Maximum age conditions are permitted under ERISA regulations as long as the specified age is within 5 years of a plan's normal retirement age.<sup>32</sup>

<sup>31</sup> See footnote 27 regarding the Retirement Equity Act's changes to ERISA.

<sup>32</sup> The 1986 Budget Reconciliation Act (described in footnote 25) changes the ERISA requirements beginning in 1988. Plans will no longer be allowed to exclude employees from participation due to age. Instead, the plan may require the employee to participate for 5 years before becoming eligible for benefits, even if that date is beyond the normal retirement age.

<sup>30</sup> See footnote 27 for changes required by the Retirement Equity Act.

**Table 54. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by method of determining retirement payments, medium and large firms, 1986**

Basis of payment <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Terminal earnings formula .....	57	72	72	40
No alternative formula .....	29	35	40	18
Terminal earnings alternative .....	10	13	13	7
Career earnings alternative .....	2	3	2	2
Dollar amount alternative <sup>3</sup> .....	15	19	17	12
Percent of contributions alternative .....	1	1	( <sup>4</sup> )	1
Career earnings formula .....	15	23	15	11
No alternative formula .....	8	12	8	6
Career earnings alternative .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Dollar amount alternative <sup>3</sup> .....	7	10	6	5
Percent of contributions alternative .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Dollar amount formula <sup>3</sup> .....	26	5	11	48
No alternative formula .....	25	4	11	46
Dollar amount alternative <sup>3</sup> .....	1	( <sup>4</sup> )	( <sup>4</sup> )	2
Percent of contributions alternative .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Percent of contributions formula .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1
No alternative formula .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1
Other formula .....	1	1	1	-

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Alternative formulas are generally designed to provide a minimum benefit for employees with short service or low earnings.

<sup>3</sup> Includes formulas based on dollar amounts for each year of service and schedules of benefits that vary by length of service.

<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 55. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans with percent of terminal earnings benefit formulas by type and amount of formula, medium and large firms, 1986**

Type and amount of formula <sup>2</sup>	Total	Provision for maximum benefit <sup>3</sup>		Provision for integration with Social Security benefit		Type and amount of formula <sup>2</sup>	Total	Provision for maximum benefit <sup>3</sup>		Provision for integration with Social Security benefit	
		Subject to maximum	Not subject to maximum	With integrated formula	Without integrated formula			Subject to maximum	Not subject to maximum	With integrated formula	Without integrated formula
<b>All participants</b>						<b>Technical and clerical</b>					
Total .....	100	100	100	100	100	Total .....	100	100	100	100	100
Flat percent per year of service .....	57	65	49	53	82	Flat percent per year of service .....	57	71	43	54	95
Less than 1.00 .....	1	-	3	-	10	Less than 1.00 .....	( <sup>4</sup> )	-	1	-	4
1.00-1.24 .....	6	3	9	( <sup>4</sup> )	37	1.00-1.24 .....	2	2	2	( <sup>4</sup> )	23
1.25-1.49 .....	8	3	13	8	12	1.25-1.49 .....	11	4	20	10	27
1.50-1.74 .....	24	29	19	25	21	1.50-1.74 .....	24	32	15	23	34
1.75-1.99 .....	5	7	3	6	-	1.75-1.99 .....	5	7	4	6	-
2.00-2.24 .....	10	18	2	11	3	2.00-2.24 .....	11	19	2	11	7
2.25 or greater .....	3	6	-	3	-	2.25 or greater .....	4	8	-	4	-
Percent per year varies .....	43	35	51	47	18	Percent per year varies .....	43	29	57	46	5
By service .....	16	15	17	16	18	By service .....	17	12	22	18	5
By earnings .....	20	18	23	24	-	By earnings .....	18	16	21	20	-
By age .....	2	-	4	2	-	By age .....	3	-	6	3	-
By earnings and service .....	5	2	7	5	-	By earnings and service .....	5	1	8	5	-
<b>Professional and administrative</b>						<b>Production</b>					
Total .....	100	100	100	100	100	Total .....	100	100	100	100	100
Flat percent per year of service .....	55	65	43	51	93	Flat percent per year of service .....	60	60	61	56	74
Less than 1.00 .....	1	-	2	-	10	Less than 1.00 .....	3	-	6	-	12
1.00-1.24 .....	4	3	4	( <sup>4</sup> )	37	1.00-1.24 .....	12	4	19	1	42
1.25-1.49 .....	5	3	9	5	8	1.25-1.49 .....	8	4	12	8	8
1.50-1.74 .....	27	32	21	26	34	1.50-1.74 .....	22	22	22	26	10
1.75-1.99 .....	6	8	4	7	-	1.75-1.99 .....	4	7	2	5	-
2.00-2.24 .....	9	15	3	10	4	2.00-2.24 .....	10	20	( <sup>4</sup> )	12	1
2.25 or greater .....	3	5	-	3	-	2.25 or greater .....	2	5	-	3	-
Percent per year varies .....	45	35	57	49	7	Percent per year varies .....	40	40	39	44	26
By service .....	16	14	17	16	7	By service .....	15	19	12	12	26
By earnings .....	24	20	29	26	-	By earnings .....	18	17	18	24	-
By age .....	2	-	3	2	-	By age .....	2	-	3	2	-
By earnings and service .....	4	2	7	5	-	By earnings and service .....	5	4	6	7	-

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> If a plan contained more than one terminal earnings formula, a primary formula was selected and tabulated.

<sup>3</sup> These maximum provisions are independent of Internal Revenue Code ceilings on pensions payable from defined benefit plans.

<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 56. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans with terminal earnings formulas by definition of terminal earnings, medium and large firms, 1986**

Definition of terminal earnings	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Three years .....	13	14	11	14
Last 3 .....	1	1	1	-
High 3 .....	1	2	1	1
Of last 5 .....	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )
Of last 10 .....	1	1	1	1
High consecutive 3 .....	11	11	8	13
Of last 5 .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-
Of last 10 .....	8	8	6	8
Of career .....	3	3	2	5
Five years .....	84	84	87	80
Last 5 .....	4	5	5	3
High 5 .....	10	9	12	10
Of last 10 .....	5	6	5	4
Of career .....	5	3	7	5
Other .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
High consecutive 5 .....	69	70	69	68
Of last 10 .....	51	51	51	51
Of last 15 .....	1	2	1	( <sup>2</sup> )
Of career .....	16	15	16	16
Other period <sup>3</sup> .....	3	3	3	5

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Formulas based on earnings during period other than 3 or 5 years' service, or periods not immediately before retirement (for example, first 5 of last 10 years' service).

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 57. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans with percent of career earnings benefit formulas by type and amount of formula, medium and large firms, 1986**

Type and amount of formula <sup>2</sup>	Total	Provision for maximum benefit <sup>3</sup>		Provision for integration with Social Security benefit		Type and amount of formula <sup>2</sup>	Total	Provision for maximum benefit <sup>3</sup>		Provision for integration with Social Security benefit	
		Subject to maximum	Not subject to maximum	With integrated formula	Without integrated formula			Subject to maximum	Not subject to maximum	With integrated formula	Without integrated formula
<b>All participants</b>						<b>Professional and administrative</b>					
Total .....	100	100	100	100	100	Total .....	100	100	100	100	100
Flat percent per year of service .....	40	9	42	14	98	Flat percent per year of service .....	45	9	48	12	98
Less than 1.00 .....	1	-	2	2	-	Less than 1.00 .....	1	-	1	2	-
1.00-1.24 .....	4	-	5	-	15	1.00-1.24 .....	2	-	2	-	6
1.25-1.49 .....	6	2	7	9	1	1.25-1.49 .....	5	2	5	7	1
1.50-1.74 .....	23	7	25	1	74	1.50-1.74 .....	33	6	36	1	86
1.75-1.99 .....	(*)	-	(*)	(*)	-	1.75-1.99 .....	(*)	-	(*)	(*)	-
2.00-2.24 .....	3	-	3	(*)	8	2.00-2.24 .....	2	-	2	1	4
2.25 or greater .....	1	-	1	1	1	2.25 or greater .....	1	-	2	2	1
Percent per year varies .....	60	91	58	86	2	Percent per year varies .....	55	91	52	88	2
By service .....	4	-	5	5	2	By service .....	5	-	5	6	2
By earnings .....	56	91	53	80	-	By earnings .....	51	91	47	82	-
By age .....	(*)	-	(*)	(*)	-	By age .....	(*)	-	(*)	(*)	-

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> If a plan contained more than one career earnings formula, a primary formula was selected and tabulated. This table includes plans with career earnings formulas that serve as an alternative to a terminal earnings formula.

<sup>3</sup> These maximum provisions are independent of Internal Revenue

Code ceilings on pensions payable from defined benefit plans.

<sup>4</sup> Less than 0.5 percent.

NOTE: Data were insufficient to show technical-clerical and production workers separately. Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 58. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans with dollar amount benefit formulas<sup>2</sup> by type and amount of formula, medium and large firms, 1986**

Type and amount of formula <sup>3</sup>	Total	Provision for maximum benefit <sup>4</sup>		Type and amount of formula <sup>3</sup>	Total	Provision for maximum benefit <sup>4</sup>	
		Subject to maximum	Not subject to maximum			Subject to maximum	Not subject to maximum
<b>All participants</b>				<b>Production</b>			
Total .....	100	100	100	Total .....	100	100	100
Flat monthly amount per year of service .....	59	73	55	Flat monthly amount per year of service .....	58	72	54
Less than \$5.00 .....	4	11	2	Less than \$5.00 .....	5	12	2
\$5.00-\$9.99 .....	10	12	9	\$5.00-\$9.99 .....	11	11	10
\$10.00-\$14.99 .....	10	7	11	\$10.00-\$14.99 .....	10	7	11
\$15.00-\$19.99 .....	21	20	21	\$15.00-\$19.99 .....	22	18	23
\$20.00-\$24.99 .....	10	7	11	\$20.00-\$24.99 .....	5	7	5
\$25.00-\$29.99 .....	3	10	1	\$25.00-\$29.99 .....	3	11	1
\$30.00 or greater .....	2	6	1	\$30.00 or greater .....	3	6	1
Amount per year varies by service ...	6	11	5	Amount per year varies by service ...	7	12	6
Amount per year varies by earnings .....	34	13	40	Amount per year varies by earnings .....	34	14	40
Scheduled dollar amount varies by service .....	( <sup>5</sup> )	2	-	Scheduled dollar amount varies by service .....	1	2	-

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Excludes plans with dollar amount formulas that serve as a minimum benefit alternative to a percent of earnings formula.

<sup>3</sup> If a plan contained more than one dollar amount formula, a primary formula was selected and tabulated.

<sup>4</sup> These maximum provisions are independent of Internal Revenue Code ceilings on pensions payable from defined benefit plans.

<sup>5</sup> Less than 0.5 percent.

NOTE: Data were insufficient to show professional-administrative and technical-clerical workers separately. Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 59. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by provision for integration of pension with Social Security benefit, medium and large firms, 1986**

Provision	Type of benefit formula <sup>2</sup>				Provision	Type of benefit formula <sup>2</sup>			
	Total <sup>3</sup>	Terminal earnings	Career earnings	Dollar amount		Total <sup>3</sup>	Terminal earnings	Career earnings	Dollar amount
<b>All participants</b>					<b>Technical and clerical</b>				
Total .....	100	100	100	100	Total .....	100	100	100	100
With integrated formula .....	62	90	69	1	With integrated formula .....	79	93	74	1
Offset by Social Security payment <sup>4</sup> .....	43	71	13	1	Offset by Social Security payment <sup>4</sup> .....	58	75	19	1
Based on service <sup>5</sup> .....	36	60	9	1	Based on service <sup>5</sup> .....	50	66	10	1
Not based on service <sup>6</sup> .....	7	11	5	-	Not based on service <sup>6</sup> .....	8	9	10	-
Dollar amount .....	( <sup>7</sup> )	1	( <sup>7</sup> )	-	Dollar amount .....	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	-
Percent of payment .....	7	11	4	-	Percent of payment .....	8	9	9	-
Pure excess <sup>8</sup> .....	1	1	1	-	Pure excess <sup>8</sup> .....	1	1	1	-
Step-rate excess <sup>9</sup> .....	23	25	54	-	Step-rate excess <sup>9</sup> .....	25	23	54	-
Integrated with a Social Security breakpoint .....	10	10	23	-	Integrated with a Social Security breakpoint .....	13	11	29	-
Integrated with a specific dollar breakpoint .....	14	15	32	-	Integrated with a specific dollar breakpoint .....	13	13	25	-
Without integrated formula .....	38	10	31	99	Without integrated formula .....	21	7	26	99
<b>Professional and administrative</b>					<b>Production</b>				
Total .....	100	100	100	100	Total .....	100	100	100	100
With integrated formula .....	81	94	62	1	With integrated formula .....	42	83	74	( <sup>7</sup> )
Offset by Social Security payment <sup>4</sup> .....	55	72	12	1	Offset by Social Security payment <sup>4</sup> .....	28	65	11	( <sup>7</sup> )
Based on service <sup>5</sup> .....	46	62	7	1	Based on service <sup>5</sup> .....	22	50	10	( <sup>7</sup> )
Not based on service <sup>6</sup> .....	9	10	5	-	Not based on service <sup>6</sup> .....	6	15	1	-
Dollar amount .....	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	-	Dollar amount .....	1	2	( <sup>7</sup> )	-
Percent of payment .....	9	10	5	-	Percent of payment .....	5	13	1	-
Pure excess <sup>8</sup> .....	2	2	1	-	Pure excess <sup>8</sup> .....	( <sup>7</sup> )	( <sup>7</sup> )	1	-
Step-rate excess <sup>9</sup> .....	31	27	49	-	Step-rate excess <sup>9</sup> .....	17	24	62	-
Integrated with a Social Security breakpoint .....	14	13	20	-	Integrated with a Social Security breakpoint .....	6	7	24	-
Integrated with a specific dollar breakpoint .....	19	16	30	-	Integrated with a specific dollar breakpoint .....	12	18	38	-
Without integrated formula .....	19	6	38	99	Without integrated formula .....	58	17	26	100

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> If a plan contained more than one benefit formula based on terminal earnings, career earnings, or dollar amounts, each integrated formula was tabulated. Participants were included as under nonintegrated formulas only if none of the formulas was integrated.

<sup>3</sup> Includes plans with benefit formulas based on a percent of employee or employer contributions.

<sup>4</sup> Benefit as calculated by formula is reduced by portion of primary Social Security payment.

<sup>5</sup> Offset is equal to the product of a percent of primary Social Security payments and the participant's years of service with the employer. A maximum offset is frequently applied, for example, 50 percent.

<sup>6</sup> Benefit formula includes a reduction by a specified percent of pri-

mary Social Security payments or a specific dollar amount. Although generally offsets of up to 83.33 percent were permitted by the Internal Revenue Service for plan qualification, offsets in excess of 50 percent were uncommon.

<sup>7</sup> Less than 0.5 percent.

<sup>8</sup> Formula does not apply to earnings subject to FICA (Social Security) taxes or below a specific dollar breakpoint.

<sup>9</sup> Formula applies lower benefit rate to earnings subject to FICA (Social Security) taxes or below a specific dollar breakpoint.

NOTE: Sums of individual items may not equal totals either because of rounding or because more than one benefit formula within a plan was integrated. Dash indicates no employees in this category.

**Table 60. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by maximum benefit provisions,<sup>2</sup> medium and large firms, 1986**

Maximum benefit provision	Type of benefit formula <sup>3</sup>				Maximum benefit provision	Type of benefit formula <sup>3</sup>			
	Total <sup>4</sup>	Terminal earnings	Career earnings	Dollar amount		Total <sup>4</sup>	Terminal earnings	Career earnings	Dollar amount
<b>All participants</b>					<b>Technical and clerical</b>				
Total .....	100	100	100	100	Total .....	100	100	100	100
Subject to maximum .....	41	56	8	26	Subject to maximum .....	45	56	7	26
Limit on years of credited service .....	36	50	8	20	Limit on years of credited service .....	41	53	7	20
Less than 20 .....	2	1	-	1	Less than 20 .....	2	2	-	3
20 .....	1	2	-	1	20 .....	1	1	-	( <sup>5</sup> )
25 .....	5	5	( <sup>5</sup> )	4	25 .....	7	7	-	7
26-29 .....	( <sup>5</sup> )	1	-	-	26-29 .....	1	1	-	-
30 .....	12	17	1	7	30 .....	14	16	1	7
31-34 .....	1	1	-	( <sup>5</sup> )	31-34 .....	1	1	-	( <sup>5</sup> )
35 .....	9	14	( <sup>5</sup> )	2	35 .....	10	14	-	1
36-39 .....	( <sup>5</sup> )	( <sup>5</sup> )	-	( <sup>5</sup> )	36-39 .....	( <sup>5</sup> )	( <sup>5</sup> )	-	-
40 .....	6	8	4	2	40 .....	8	10	4	2
More than 40 .....	1	1	2	1	More than 40 .....	1	1	1	-
Other maximum <sup>6</sup> .....	7	9	( <sup>5</sup> )	9	Other maximum <sup>6</sup> .....	6	7	( <sup>5</sup> )	6
Not subject to maximum .....	59	44	92	74	Not subject to maximum .....	54	44	93	74
<b>Professional and administrative</b>					<b>Production</b>				
Total .....	100	100	100	100	Total .....	100	100	100	100
Subject to maximum .....	47	59	8	27	Subject to maximum .....	34	52	9	27
Limit on years of credited service .....	42	54	8	17	Limit on years of credited service .....	29	43	8	20
Less than 20 .....	2	1	-	3	Less than 20 .....	1	2	-	( <sup>5</sup> )
20 .....	1	1	-	( <sup>5</sup> )	20 .....	2	3	-	2
25 .....	4	4	1	4	25 .....	4	5	-	3
26-29 .....	1	1	-	-	26-29 .....	( <sup>5</sup> )	( <sup>5</sup> )	-	-
30 .....	15	19	1	5	30 .....	10	16	2	8
31-34 .....	1	1	-	( <sup>5</sup> )	31-34 .....	1	1	-	( <sup>5</sup> )
35 .....	12	16	( <sup>5</sup> )	1	35 .....	6	10	-	2
36-39 .....	( <sup>5</sup> )	( <sup>5</sup> )	-	-	36-39 .....	( <sup>5</sup> )	( <sup>5</sup> )	-	1
40 .....	8	10	5	3	40 .....	3	4	3	2
More than 40 .....	1	1	1	-	More than 40 .....	2	2	3	1
Other maximum <sup>6</sup> .....	8	8	( <sup>5</sup> )	10	Other maximum <sup>6</sup> .....	8	11	( <sup>5</sup> )	9
Not subject to maximum .....	52	41	92	73	Not subject to maximum .....	66	48	91	73

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> These maximum provisions are independent of Internal Revenue Code ceilings on pensions payable from defined benefit plans.

<sup>3</sup> If a plan contained more than one benefit formula based on terminal earnings, career earnings, or dollar amounts, each formula containing a maximum benefit provision was tabulated. Participants were included as under formulas without maximum benefit provisions only if none of the formulas contained a maximum.

<sup>4</sup> Includes plans with benefit formulas based on a percent of employee or employer contributions.

<sup>5</sup> Less than 0.5 percent.

<sup>6</sup> The benefit yielded under the formula is limited to either a percent of terminal or career earnings, often coordinated with primary Social Security payments, or to a flat dollar amount.

NOTE: Sums of individual items may not equal totals because more than one benefit formula within a plan may have a maximum benefit provision. Also, some benefit formulas contain a limit on years of credited service and another maximum provision. Dash indicates no employees in this category.



**Table 61. Defined benefit pension plans:<sup>1</sup> Average replacement rates for specified final earnings and years of service,<sup>2</sup> medium and large firms, 1986**

Final annual earnings	Years of service <sup>3</sup>						
	10	15	20	25	30	35	40
<b>Private pension only</b>							
<b>All participants</b>							
\$15,000 .....	11.1	16.4	21.6	26.7	31.5	35.9	39.9
\$20,000 .....	10.0	14.8	19.5	24.2	28.5	32.4	35.9
\$25,000 .....	9.7	14.4	18.9	23.4	27.6	31.2	34.4
\$30,000 .....	9.7	14.4	18.9	23.3	27.4	30.9	34.0
\$35,000 .....	9.7	14.5	19.1	23.4	27.4	30.8	33.7
\$40,000 .....	9.8	14.6	19.2	23.5	27.5	30.8	33.6
<b>Professional and administrative</b>							
\$15,000 .....	10.8	15.9	21.0	25.9	30.6	34.6	38.3
\$20,000 .....	10.3	15.1	19.8	24.5	28.9	32.6	35.9
\$25,000 .....	10.3	15.2	19.9	24.6	28.9	32.5	35.6
\$30,000 .....	10.6	15.7	20.5	25.2	29.6	33.1	36.0
\$35,000 .....	10.9	16.2	21.2	25.9	30.3	33.7	36.5
\$40,000 .....	11.2	16.6	21.7	26.6	31.0	34.4	37.1
<b>Technical and clerical</b>							
\$15,000 .....	10.6	15.6	20.6	25.6	30.2	34.4	38.1
\$20,000 .....	10.1	15.0	19.8	24.7	29.0	33.0	36.4
\$25,000 .....	10.2	15.2	20.1	25.1	29.5	33.4	36.7
\$30,000 .....	10.5	15.8	20.9	25.9	30.4	34.2	37.5
\$35,000 .....	10.8	16.3	21.6	26.7	31.2	35.0	38.2
\$40,000 .....	11.1	16.7	22.1	27.3	31.9	35.6	38.7
<b>Production</b>							
\$15,000 .....	11.5	17.1	22.6	27.8	32.9	37.6	41.9
\$20,000 .....	9.8	14.5	19.2	23.7	28.0	31.9	35.6
\$25,000 .....	9.0	13.4	17.6	21.8	25.7	29.3	32.5
\$30,000 .....	8.6	12.8	16.9	20.7	24.5	27.8	30.7
\$35,000 .....	8.3	12.4	16.4	20.1	23.6	26.7	29.5
\$40,000 .....	8.2	12.2	16.0	19.6	23.0	25.9	28.5
<b>Combined private pension and primary<sup>4</sup> Social Security benefit</b>							
<b>All participants</b>							
\$15,000 .....	53.6	58.9	64.2	69.3	74.1	78.5	82.5
\$20,000 .....	49.3	54.1	58.8	63.5	67.8	71.7	75.2
\$25,000 .....	44.0	48.7	53.2	57.7	61.9	65.6	68.8
\$30,000 .....	39.2	43.9	48.4	52.8	56.9	60.4	63.5
\$35,000 .....	35.5	40.3	44.8	49.2	53.2	56.6	59.5
\$40,000 .....	32.6	37.4	42.0	46.4	50.3	53.6	56.4
<b>Professional and administrative</b>							
\$15,000 .....	53.4	58.5	63.5	68.5	73.1	77.2	80.9
\$20,000 .....	49.5	54.4	59.1	63.8	68.2	71.9	75.2
\$25,000 .....	44.7	49.5	54.2	58.9	63.2	66.8	69.9
\$30,000 .....	40.1	45.2	50.0	54.7	59.0	62.6	65.5
\$35,000 .....	36.7	42.0	46.9	51.7	56.0	59.5	62.3
\$40,000 .....	34.0	39.4	44.5	49.4	53.8	57.2	59.9
<b>Technical and clerical</b>							
\$15,000 .....	53.1	58.1	63.2	68.2	72.7	76.9	80.7
\$20,000 .....	49.4	54.3	59.1	64.0	68.3	72.3	75.7
\$25,000 .....	44.6	49.6	54.5	59.4	63.8	67.7	71.0
\$30,000 .....	40.0	45.2	50.4	55.4	60.0	63.7	67.0
\$35,000 .....	36.6	42.1	47.3	52.5	57.0	60.8	64.0
\$40,000 .....	33.9	39.5	44.9	50.1	54.7	58.4	61.6

See footnotes at end of table.

**Table 61. Defined benefit pension plans:<sup>1</sup> Average replacement rates for specified final earnings and years of service,<sup>2</sup> medium and large firms, 1986—Continued**

Final annual earnings	Years of service <sup>3</sup>						
	10	15	20	25	30	35	40
Combined private pension and primary <sup>4</sup> Social Security benefit							
<b>Production</b>							
\$15,000 .....	54.1	59.7	65.1	70.4	75.4	80.1	84.5
\$20,000 .....	49.1	53.8	58.4	63.0	67.3	71.2	74.9
\$25,000 .....	43.4	47.7	52.0	56.1	60.1	63.6	66.8
\$30,000 .....	38.1	42.3	46.3	50.2	54.0	57.3	60.2
\$35,000 .....	34.1	38.2	42.1	45.8	49.4	52.5	55.3
\$40,000 .....	31.0	35.0	38.8	42.4	45.8	48.7	51.3

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Retirement annuity as a percent of earnings in the final year of work. The maximum private pension available to an employee, not reduced for early retirement or joint-and-survivor annuity, was calculated under each pension plan using the earnings and service assumptions shown. This benefit level was then expressed as a percent of earnings in the last year of employment.

These calculations assume employees retired on January 1, 1986, and final earnings are for 1985. Earnings histories, necessary for applying the pension formulas, were constructed for each final earnings level based on data provided by the Social Security Administration.

For private pension formulas that are integrated with Social Security (see table 59) and for computation of Social Security benefits, the worker is assumed to have retired at age 65 and paid into Social Security for 40 years. Computations exclude 2 percent of participants in cash account pension plans or plans with benefits based on career contributions.

<sup>3</sup> The years of service intervals represent total service with the employer. Time spent satisfying service requirements for plan participation was excluded from the calculation of replacement rates, unless the pension plan specified that such time was to be included in benefit computations.

<sup>4</sup> Excludes benefits for spouses and other dependents.

**Table 62. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by minimum age and associated service requirements for normal retirement,<sup>2</sup> medium and large firms, 1986**

Age and service requirement <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Age and service requirement <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100	Age 62 .....	19	19	20	18
No age requirement .....	13	5	10	20	No service requirement .....	4	4	5	4
30 years' service .....	13	5	10	19	1-4 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
More than 30 years' service .....	( <sup>1</sup> )	-	( <sup>1</sup> )	( <sup>1</sup> )	5 years' service .....	1	1	1	( <sup>1</sup> )
Age 53 .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )	8 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-
30 years' service .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )	10 years' service .....	7	7	6	8
Age 55 .....	3	5	1	3	14 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-
20 years' service .....	2	4	1	1	15 years' service .....	2	3	4	1
25 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20 years' service .....	2	2	2	3
30 years' service .....	1	1	1	2	25 years' service .....	1	1	1	1
More than 30 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	30 years' service .....	1	1	1	1
Age 56-59 .....	1	( <sup>1</sup> )	1	2	Age 63-64 .....	2	2	4	2
15 or 20 years' service .....	( <sup>1</sup> )	-	( <sup>1</sup> )	1	No service requirement .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-
30 years' service .....	( <sup>1</sup> )	-	( <sup>1</sup> )	1	10 years' service .....	2	2	3	1
More than 30 years' service .....	1	( <sup>1</sup> )	( <sup>1</sup> )	1	20 years' service .....	( <sup>1</sup> )	-	-	1
Age 60 .....	14	20	15	10	Age 65 .....	36	33	36	38
No service requirement .....	4	6	5	3	No service requirement .....	32	31	34	32
1-5 years' service .....	3	5	3	1	1-4 years' service .....	( <sup>1</sup> )	-	-	( <sup>1</sup> )
10 years' service .....	3	3	3	3	5 years' service .....	2	1	1	3
15 years' service .....	1	1	1	1	10 years' service .....	2	1	1	3
20 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1	Sum of age plus service <sup>5</sup> .....	11	14	13	7
25 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Equals less than 80 .....	1	2	2	( <sup>1</sup> )
30 years' service .....	3	4	4	2	Equals 80 .....	1	1	( <sup>1</sup> )	( <sup>1</sup> )
More than 30 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	-	-	Equals 85 .....	5	7	4	4
Age 61 .....	1	1	1	( <sup>1</sup> )	Equals 90 .....	3	2	6	2
5 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Equals more than 90 .....	1	1	1	1
20 years' service .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-					
26 years' service .....	( <sup>1</sup> )	1	1	( <sup>1</sup> )					

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Normal retirement is defined as the point at which the participant could retire and immediately receive all accrued benefits by virtue of service and earnings, without reduction due to age.

<sup>3</sup> If a plan had alternative age and service requirements, the earliest age and associated service were tabulated; if one alternative did not specify an age, it was the requirement tabulated.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> In most plans, participants must also satisfy a minimum age or service requirement.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 63. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by minimum age and associated service requirements for early retirement,<sup>2</sup> medium and large firms, 1986**

Age and service requirement <sup>3</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Age and service requirement <sup>3</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100	Age 56-59 .....	1	1	1	1
Participants in plans permitting early retirement .....	98	98	99	98	30 years' service .....	1	1	1	1
No age requirement .....	5	9	4	3	Age 60 .....	7	2	3	12
Less than 30 years' service .....	1	( <sup>4</sup> )	( <sup>4</sup> )	1	No service requirement .....	( <sup>4</sup> )	( <sup>4</sup> )	1	( <sup>4</sup> )
30 years' service .....	5	9	4	2	5 years' service .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Less than age 55 .....	10	7	15	9	10 years' service .....	4	1	1	7
No service requirement .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1	15 years' service .....	2	( <sup>4</sup> )	( <sup>4</sup> )	3
5 years' service .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	20 years' service .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1
10 years' service .....	4	4	7	3	Age 62 .....	( <sup>4</sup> )	( <sup>4</sup> )	-	1
15 years' service .....	2	2	3	2	10 years' service .....	( <sup>4</sup> )	( <sup>4</sup> )	-	1
20 years' service .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1	Sum of age plus service <sup>5</sup> .....	9	9	9	10
25 years' service .....	3	( <sup>4</sup> )	6	3	Equals 70 or less .....	2	3	2	1
Age 55 .....	66	70	67	62	Equals 71-74 .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	-
No service requirement .....	10	12	9	9	Equals 75 .....	1	1	1	( <sup>4</sup> )
5 years' service .....	3	5	5	2	Equals 76-79 .....	1	1	2	1
10 years' service .....	41	41	40	42	Equals 80 .....	1	2	2	1
11 years' service .....	( <sup>4</sup> )	1	( <sup>4</sup> )	-	Equals 85 .....	4	2	2	8
15 years' service .....	7	8	8	7	Participants in plans without early retirement .....	2	2	1	2
20 years' service .....	4	4	4	3					

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Early retirement is defined as the point at which a worker could retire and immediately receive accrued benefits based on service and earnings but reduced for each year prior to normal retirement age.

<sup>3</sup> If a plan had alternative age and service requirements, the earliest age and associated service were tabulated; if one alternative did not specify an age, it was the requirement tabulated.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> In most plans, participants must also satisfy a minimum age or service requirement.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 64. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans permitting early retirement by reduction factor for immediate start of payments, medium and large firms, 1986**

Reduction for each year prior to normal retirement age	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Uniform percentage <sup>2</sup> .....	46	42	45	49
Less than 3.0 .....	2	4	2	1
3.0 .....	10	10	10	9
3.1-3.9 .....	2	3	2	1
4.0 .....	5	5	6	4
4.1-4.9 .....	2	2	2	3
5.0 .....	9	10	11	8
5.1-5.9 .....	( <sup>3</sup> )	-	-	( <sup>3</sup> )
6.0 .....	13	7	12	17
6.7 .....	2	1	1	4
More than 6.7 .....	1	1	( <sup>3</sup> )	1
Percentage varies by age .....	51	52	53	50
Reduction differs for each year of early retirement <sup>4</sup> .....	13	11	11	16
Reduction differs by age bracket <sup>5</sup> .....	38	41	42	34
Percentage varies by service .....	2	5	1	1
Other basis <sup>6</sup> .....	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> In specific cases, uniform percentage reductions may approximate actuarial reductions, such as early retirement at age 55 with a 6 percent a year reduction between age 55 and the plan's normal retirement age of 62.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> Reduction schedule is related to actuarial assumptions of the life expectancy at age that pension payments begin.

<sup>5</sup> Rate of reduction is held constant within age brackets, but differs among brackets, sometimes in approximation of an actuarial table. For example, benefits may be reduced by 6.7 percent for each year between age 60 and the plan's normal retirement age, and by 3.3 percent for each year retirement precedes age 60. Also includes some plans which reduce benefits arithmetically for each year immediately below normal retirement age and actuarially below a specified age, usually 55.

<sup>6</sup> Reduced benefit was not derived from normal retirement formula.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 65. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by provisions for disability retirement, medium and large firms, 1986**

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Percent of participants in plans with disability retirement benefits .....	89	89	88	90
<b>Minimum requirements for disability retirement</b>				
Total .....	100	100	100	100
No age or service .....	13	14	15	11
Age only .....	( <sup>2</sup> )	-	( <sup>2</sup> )	-
Service only .....	50	39	40	62
Age and service .....	12	9	11	14
Receipt of long-term disability benefits .....	25	38	33	13
<b>Benefit provisions</b>				
Total .....	100	100	100	100
Immediate disability retirement <sup>3</sup> .....	55	36	39	75
Unreduced normal formula <sup>4</sup> .....	41	24	26	60
Reduced normal formula <sup>5</sup> .....	6	5	3	7
Other than normal formula <sup>6</sup> .....	8	7	10	8
Deferred disability retirement .....	45	64	61	25
With benefits based on:				
Service when disabled .....	7	9	9	5
Service plus credit to early retirement date or later .....	37	53	51	18
Service with some credit .....	1	2	1	1
Not based on service .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> Immediate disability pensions may be supplemented by additional allowances until an employee reaches a specified age or becomes eligible for Social Security.

<sup>4</sup> The disabled worker's pension is computed under the plan's normal benefit formula and is paid as if retirement had occurred on the plan's normal retirement date, either based on years of service actually completed or projected to a later date.

<sup>5</sup> The disabled worker's pension is computed under the plan's normal benefit formula, based on years of service actually completed, and then reduced for early receipt.

<sup>6</sup> The disabled worker's benefit is not computed by the plan's normal benefit formula. The methods used include flat amount benefits, dollar amount formulas, percent of unreduced normal benefits less Social Security, and percent of earnings formulas both with and without Social Security offsets.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 66. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by provision for credit for service after age 65, medium and large firms, 1986**

Type of credit	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
No credit for service .....	59	59	66	55
Pension deferred with no change in amount .....	51	52	55	49
Pension deferred, but increased actuarially .....	5	5	6	5
Pension deferred, but increased by percent per additional year of service <sup>2</sup> .....	2	2	3	1
Pension begins at age 65 .....	1	( <sup>3</sup> )	1	1
Credit for service, with no actuarial increase for later retirement age <sup>4</sup> ..	40	39	34	44
All service credited .....	22	23	21	21
Service credited to specified maximum age .....	18	16	12	23
Service credited to specified maximum years of service .....	( <sup>3</sup> )	-	( <sup>3</sup> )	-
Credit for service, with actuarial increase for later retirement age <sup>5</sup> ..	1	1	1	1
All service credited .....	1	1	1	1
Service credited to specified maximum years of service .....	( <sup>3</sup> )	-	-	( <sup>3</sup> )
Provision not determinable .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> The pension amount computed at age 65 is increased by a specified percent (not part of the benefit formula) for each year the employee remains active.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> Additional service is included in the benefit formula, but the pension is not increased for later retirement date.

<sup>5</sup> Additional service is included in the benefit formula and the pension is increased for later retirement date.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 67. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans granting ad hoc postretirement annuity increases,<sup>2</sup> medium and large firms, 1986**

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Percent of participants in plans with at least one postretirement increase in the 1981-85 period ....	35	32	29	39
<b>Number of increases granted in past 5 years</b>				
Total .....	100	100	100	100
One .....	46	55	59	35
Two .....	24	25	21	25
Three .....	9	10	8	8
Four .....	22	9	12	32
Five or more .....	( <sup>a</sup> )	1	1	-
<b>Provision for minimum increase in most recent adjustment</b>				
Total .....	100	100	100	100
No minimum .....	86	82	84	88
With minimum .....	14	18	15	12
Monthly dollar amount .....	13	17	14	11
Less than \$5 .....	1	1	1	2
\$10 .....	6	9	7	4
\$11-\$14 .....	1	( <sup>a</sup> )	( <sup>a</sup> )	2
\$15 .....	3	4	4	1
\$20 .....	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )
\$25 .....	1	( <sup>a</sup> )	( <sup>a</sup> )	1
More than \$25 .....	1	1	1	1
Percent of present benefit .....	1	( <sup>a</sup> )	( <sup>a</sup> )	1
Greater of a monthly dollar amount or a percent of present benefit .....	( <sup>a</sup> )	1	( <sup>a</sup> )	-
Not determinable .....	( <sup>a</sup> )	1	1	( <sup>a</sup> )
<b>Provision for maximum increase in most recent adjustment</b>				
Total .....	100	100	100	100
No maximum .....	80	74	76	85
With maximum .....	19	25	23	15
Monthly dollar amount .....	5	5	4	6
\$100 or less .....	2	3	3	1
\$101-\$150 .....	3	2	1	4
More than \$200 .....	1	( <sup>a</sup> )	( <sup>a</sup> )	1
Percent of present benefit .....	14	19	19	9
Less than 10 .....	3	2	7	2
10-14 .....	6	10	6	3
15-19 .....	( <sup>a</sup> )	1	1	( <sup>a</sup> )
25-29 .....	1	1	1	1
30 or more .....	4	5	3	3
Greater of a monthly dollar amount or a percent of present benefit .....	( <sup>a</sup> )	1	( <sup>a</sup> )	-
Not determinable .....	1	1	1	( <sup>a</sup> )

See footnotes at end of table.

**Table 67. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants in plans granting ad hoc postretirement annuity increases,<sup>2</sup> medium and large firms, 1986—Continued**

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>Benefit formula for most recent increase</b>				
Total .....	100	100	100	100
Flat increase .....	38	40	44	35
Monthly dollar amount .....	5	2	1	8
Less than \$10.00 .....	2	-	-	4
\$10.00 .....	1	( <sup>3</sup> )	( <sup>3</sup> )	2
\$10.01-\$15.00 .....	( <sup>3</sup> )	( <sup>3</sup> )	-	-
\$15.01-\$20.00 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
More than \$20.00 .....	1	-	-	1
Varies by date of retirement .....	1	1	1	1
Percent of present benefit .....	32	38	43	25
Less than 5.0 .....	4	6	5	3
5.0 .....	2	1	1	3
5.1-7.4 .....	1	2	2	( <sup>3</sup> )
7.5-9.9 .....	1	3	( <sup>3</sup> )	( <sup>3</sup> )
10.0 .....	1	( <sup>3</sup> )	1	( <sup>3</sup> )
10.1-14.9 .....	3	2	1	4
15.0 .....	1	1	1	1
More than 15.0 .....	( <sup>3</sup> )	( <sup>3</sup> )	1	( <sup>3</sup> )
Varies by date of retirement .....	20	22	31	14
Type of flat increase not determinable .....	1	-	-	1
Increase per year of retirement .....	32	39	39	24
Monthly dollar amount .....	2	3	1	1
Percent of present benefit .....	30	36	38	23
Less than 2.0 .....	6	6	10	5
2.0 .....	3	5	3	2
3.0 .....	4	5	6	2
4.0 .....	2	3	2	2
4.1-4.9 .....	6	6	8	5
5.0 .....	4	4	3	4
6.0 .....	1	1	1	( <sup>3</sup> )
Varies by date of retirement .....	4	5	4	4
Increase per year of service .....	28	17	14	39
Monthly dollar amount .....	27	16	13	38
Less than \$.50 .....	1	-	-	2
\$.50 .....	3	2	2	3
\$1.00 .....	18	11	8	26
\$1.01-\$1.99 .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-
\$2.00 .....	1	1	1	1
More than \$2.00 .....	1	1	1	1
Varies by date of retirement .....	3	1	2	5
Percent of present benefit .....	1	1	1	1
Combination of two or more benefit formulas .....	2	4	2	2
Type of formula not determinable .....	( <sup>3</sup> )	1	1	( <sup>3</sup> )

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Unscheduled increases in pension payments for employees retiring prior to 1986. Excludes one-time lump-sum payments.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 68. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by type of vesting schedule, medium and large firms, 1986**

Type of vesting schedule	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total <sup>2</sup> .....	100	100	100	100
Immediate full vesting .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Cliff vesting, <sup>4</sup> with full vesting after:				
10 years of service at any age ...	69	67	66	72
10 years of service after age 18 .....	9	9	6	10
10 years of service after age 19 or later <sup>5</sup> .....	9	8	12	7
Other <sup>6</sup> .....	2	1	1	2
Graduated vesting, <sup>7</sup> with full vesting after:				
Less than 10 years of service .....	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )
10 years of service .....	6	7	8	4
11 years of service .....	1	1	1	1
12-14 years of service .....	( <sup>3</sup> )	1	1	( <sup>3</sup> )
15 years of service <sup>8</sup> .....	3	3	4	2
Other <sup>9</sup> .....	3	4	3	2
Vesting provision not determinable ..	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Because plans may adopt alternative vesting schedules, sums of participants covered by individual vesting schedules may exceed 100 percent.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> Under a cliff vesting schedule, an employee is not entitled to any benefits accrued under a pension plan until satisfying the requirement for 100 percent vesting. The Employee Retirement Income Security Act (ERISA) specifies 10 years as the maximum requirement for this form of vesting.

<sup>5</sup> The Retirement Equity Act of 1984 requires that sponsors of most pension plans count years of service completed after age 18 towards satisfaction of minimum vesting requirements. For noncollectively bargained plans, compliance was required by June 30, 1986; collectively bargained plans were required to comply by the earlier of: (1) the expiration date of the collective bargaining agreement, or (2) January 1, 1987. Since the survey was conducted in January-June of 1986, previous ERISA rules were in effect when the surveyed establishments were visited.

<sup>6</sup> Includes participants in plans containing service requirements for vesting more liberal than ERISA standards.

<sup>7</sup> Graduated vesting schedules give an employee rights to a gradually increasing share of pension benefits determined by years of service, eventually reaching 100 percent vesting status.

<sup>8</sup> Participants in this group were in plans that adopted ERISA's longest time span for graduated vesting, which calls for 25 percent vesting with 5 years of service, with the vested percentage increasing 5 percentage points each year for 5 succeeding years, then 10 percentage points for each of the next 5 years. Thus, 15 years is the maximum requirement for this form of vesting.

<sup>9</sup> Participants in this group were in plans which call for 50 percent vesting after 5 years of service if age plus service equals 45. Thereafter, the vested percentage increases 10 percentage points each of the next 5 years.

**Table 69. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by provision for postretirement survivor annuity, medium and large firms, 1986**

Type of annuity for surviving spouse	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Spouse's share of joint-and-survivor annuity <sup>2</sup> only .....	92	93	94	90
50 percent of retiree's pension ...	18	14	17	22
51-99 percent of retiree's pension .....	6	4	3	10
100 percent of retiree's pension .	1	( <sup>3</sup> )	( <sup>3</sup> )	1
Alternative percentages at retiree's option .....	66	75	73	56
Spouse's share of joint-and-survivor annuity plus portion of retiree's pension .....	2	( <sup>3</sup> )	( <sup>3</sup> )	3
Portion of retiree's accrued pension only .....	7	6	6	7

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> An annuity that provides income during the lifetime of both the retiree and the surviving spouse. The accrued pension will usually be actuarially reduced at retirement because of the longer length of time that payments are expected to be made. ERISA requires that plans provide this annuity as an automatic form of pension payment. Employees and their spouses must waive the spouse annuity in writing if they desire a pension during the employee's lifetime only or another option offered by the plan, such as guarantee of payments for a specified period.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.



**Table 70. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by provision for preretirement survivor annuity, medium and large firms, 1986**

Type of annuity for surviving spouse	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Preretirement survivor annuity provided	99	100	99	99
Equivalent of joint and survivor annuity <sup>2</sup> .....	65	64	63	68
Based on early retirement <sup>3</sup> .....	60	58	56	63
Less than 50 percent of employee pension .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
At extra employee cost <sup>5</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
50 percent of employee pension .....	48	43	45	52
At extra employee cost <sup>5</sup> .....	13	13	10	16
51-99 percent of employee pension .....	4	3	3	5
At extra employee cost <sup>5</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
100 percent of employee pension .....	3	4	3	3
At extra employee cost <sup>5</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Alternative percentages of pension at employee's option .....	5	7	5	3
At extra employee cost <sup>5</sup> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	1
Based on normal retirement <sup>6</sup> .....	6	6	6	5
At extra employee cost <sup>5</sup> .....	( <sup>4</sup> )	-	-	( <sup>4</sup> )
Portion of accrued employee benefit .....	31	33	35	28
Reduced for early retirement .....	18	21	23	14
Unreduced for early retirement ..	11	10	10	13
Based on service projected to normal retirement date .....	2	2	2	1
Other annuity <sup>7</sup> .....	2	2	2	3
Type of annuity not determinable ...	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
No preretirement survivor annuity provided <sup>8</sup> .....	1	( <sup>4</sup> )	1	1

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> The spouse annuity is computed as if the employee had retired with a joint-and-survivor annuity. That is, the accrued pension is first reduced because of the longer length of time that payments were expected to be made to both the retiree and the surviving spouse. The spouse's share is then the specified percent of the reduced amount.

<sup>3</sup> Survivor annuity is based upon the benefit the employee would have received if early retirement had occurred on the date of death.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> Plan reduces the accrued employee pension benefit for each year survivor protection is in force.

<sup>6</sup> Survivor annuity is based on the benefit the employee would have received if eligible for normal retirement on the date of death.

<sup>7</sup> Includes annuity based on a dollar amount formula or percent of earnings.

<sup>8</sup> The Retirement Equity Act of 1984 requires that most pension plans provide an automatic annuity for the surviving spouse of an employee with vested benefits at the time of death. For noncollectively bargained plans, compliance was required by the earlier of: (1) the expiration date of the collective bargaining agreement, or (2) January 1, 1987. Since the survey was conducted in January-June of 1986, previous ERISA rules were in effect when the surveyed establishments were visited.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 71. Defined benefit pension plans:<sup>1</sup> Percent of full-time participants by age and length-of-service requirements for participation,<sup>2</sup> medium and large firms, 1986**

Age and service requirement provision <sup>3</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>Minimum requirement</b>				
Total .....	100	100	100	100
With minimum age and/or service requirement .....	59	58	66	57
Service requirement only .....	21	21	22	19
3 months or less .....	1	1	1	1
4-5 months .....	( <sup>4</sup> )	-	-	( <sup>4</sup> )
6 months .....	2	2	2	2
1 year .....	14	16	14	13
3 years .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Over 3 years .....	3	3	5	3
Age 20 or less .....	1	1	1	1
1-11 months of service .....	1	1	1	1
1 year .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Age 21 .....	20	22	22	18
No service requirement .....	2	2	2	1
1-6 months of service .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
1 year .....	18	20	20	17
Over 1 year .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Age 22 or greater <sup>5</sup> .....	17	14	21	18
No service requirement .....	1	1	1	1
1-11 months of service .....	1	1	1	1
1 year .....	15	12	18	16
Over 1 year .....	( <sup>4</sup> )	-	-	( <sup>4</sup> )
Without minimum age and/or service requirement .....	40	41	34	43
Age and service requirement not determinable .....	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )
<b>Maximum age requirement</b>				
Total .....	100	100	100	100
With maximum age limitation <sup>6</sup> .....	58	64	67	50
Without maximum age limitation .....	42	36	33	50

<sup>1</sup> Excludes supplemental pension plans.

<sup>2</sup> Excludes maximum 6-month administrative time lags allowed by ERISA. Most plans with time lags adopt the beginning of designated 6-month periods as participation dates.

<sup>3</sup> If a plan had alternate participation requirements, one of which was service only, the service only requirement was tabulated.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> The Retirement Equity Act of 1984 requires that nearly all plans must allow participation to full-time employees who have reached the age of 21 and who have completed one year of service. For noncollectively bargained plans, compliance was required by June 30, 1986; collectively bargained were required to comply by the earlier of: (1) the expiration date of the collective bargaining agreement, or (2) January 1, 1987. Since the survey was conducted in January-June of 1986, previous ERISA rules were in effect when surveyed establishments were contacted.

<sup>6</sup> ERISA legislation permitted plan administrators to impose a maximum age for participation. Maximum age must have been within 5 years of the plan's normal retirement date. The Omnibus Budget Reconciliation Act of 1986 will not permit such exclusions for plan years beginning in 1988.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

## Chapter 7. Defined Contribution Plans

Sixty percent of the employees within the scope of the 1986 survey (seven-tenths of the white-collar workers and one-half of the blue-collar workers) participated in one or more defined contribution plans. These plans, which are wholly or partly financed by employers, are designed to provide retirement income, capital accumulation, or both. 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.<sup>33</sup> Examples of these less stringent restrictions include permitting only one or two withdrawals per year, or imposing a service requirement of 2 or 5 years before withdrawal.

Two-thirds of the employees within the scope of the survey were in retirement plans only, and 22 percent were in both retirement and capital accumulation plans; 1 percent had capital accumulation but no retirement plans (table 72).

As noted in chapter 6, three-fourths of employees participated in a defined benefit pension plan. But when defined contribution retirement plans are considered along with defined benefit pension plans, retirement coverage rises to 89 percent.

Whether for retirement or capital accumulation, defined contribution plans usually specify a contribution rate by the employer, but not a formula for determining benefits, as in a defined benefit pension plan. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts, plus investment earnings.

As shown in table 73, various types of defined contribution plans are available for retirement and capital accumulation purposes: 30 percent of the employees participated in employee stock ownership plans, 28 percent in savings and thrift plans, 22 percent in profit-sharing plans, 2 percent in money purchase pension plans, and less than one-half of 1 percent in stock bonus plans.<sup>34</sup> Another 3 percent of the employees were currently purchasing company stock, through

<sup>33</sup> BLS used these definitions for analytic purposes, but it should be noted that most defined contribution plans can be used to provide retirement income or 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 59½, 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).

payroll deductions, at less than market price (stock purchase plans), and less than one-half of 1 percent of employees were eligible to purchase stock in the future at a designated price (stock option plans). As table 74 shows, it was common for employees to participate in more than one defined contribution plan.

Seventy percent of participants in defined contribution retirement plans had their benefit wholly financed by the employer. In contrast, capital accumulation plans were jointly financed for 78 percent of the participants. A large majority of capital accumulation plans were savings and thrift plans, which involve employer matching of employee contributions.

It was common for employees to participate in both a defined benefit or money purchase pension plan and one or more other retirement or capital accumulation plans. Sixty percent of participants in pension plans of medium and large firms (70 percent of white-collar and 45 percent of blue-collar participants) also had at least one additional plan, up from 50 percent in 1985.

The likelihood of a combination of plans varied with the type of plan. For example, two-thirds of profit-sharing plan participants did not have a pension plan available to them. Conversely, almost 90 percent of savings and thrift plan participants were also defined benefit plan participants. Profit-sharing plans often substitute for pensions, while savings and thrift plans commonly are supplements.

### Cash or deferred arrangements (table 75)

One-third of the employees within the scope of the survey were in plans with a cash or deferred arrangement.<sup>35</sup> These arrangements allow participants to choose between receiving currently taxable income, or deferring taxation by placing the money in a retirement account. Cash or deferred arrangements took the form of either salary reduction plans or deferrals of profit-sharing allocations.

<sup>34</sup> A money purchase pension plan provides for a pension annuity or other form of retirement income that is determined by fixed contribution rates plus earnings credited to the employee's account. A stock bonus plan is a plan whereby the employer or the employee and the employer jointly contribute to a trust fund which invests in various securities. Proceeds from the investments are usually paid to the employees in the form of company stock. Savings and thrift, employee stock ownership, and profit-sharing plans are described later in this chapter.

<sup>35</sup> The survey determined the number of employees actually contributing to freestanding 401(k) plans. It also determined the number participating in employer-financed plans allowing employee contributions with pretax dollars, but not the number of employees actually making such contributions.

Salary reduction plans (available to 31 percent of employees) allowed employees to contribute a part of their earnings to a retirement plan, and defer income taxes on those contributions and their earnings until distribution. Such contributions are referred to as "employee elective deferrals" or "pretax contributions."

Deferrals of profit-sharing allocations (available to 2 percent of employees) provide employees with the choice of receiving an employer's profit-sharing contribution immediately, or deferring the contribution and postponing taxation until distribution.

Participation in plans with salary reduction features, which are authorized by sections 401(k) and 403(b) of the Internal Revenue Code, increased from 26 to 31 percent of employees between 1985 and 1986.<sup>36</sup> Forty-two percent of the white-collar and 19 percent of the blue-collar employees participated. Two-thirds of all participants (white- and blue-collar combined) could elect to make their contributions to an existing savings and thrift plan where the employer matched at least part of the employee's contribution; the remaining one-third of the participants were in freestanding plans (no employer contribution), profit-sharing plans, or money purchase pension plans.

From a different perspective, 49 percent of all participants in defined contribution plans could make tax-deferred contributions to their plan. The incidence, again, was higher for white-collar (55 percent) than for blue-collar (38 percent) employees. The following tabulation shows the percent of defined contribution plan participants in plans with salary reduction features:

	<i>Percent of participants</i>
Savings and thrift .....	75
Deferred profit sharing .....	28
Money purchase pension .....	34

### **Savings and thrift plans**

Twenty-eight percent of employees participated in savings and thrift plans—38 percent of white-collar and 17 percent of blue-collar workers. Under these plans, employees contribute a predetermined portion of earnings to an account, all or part of which is matched by the employer. Contributions are invested in various ways, such as stocks, bonds, and money market funds, as directed by the employee or employer, depending upon the provisions of the plan. Although usually designed as a long-term savings program, savings and thrift plans allow for withdrawals subject to specified conditions and, possibly, penalties.

*Employee contributions (tables 76–77).* Savings and thrift plans allow employees to choose from a range of possible

<sup>36</sup> Most participants in cash or deferred arrangements were in plans that qualified under section 401(k) of the Internal Revenue Code. A small number of plans under section 403(b) were observed in not-for-profit organizations.

contribution rates. A typical plan allows employees to contribute (in whole percentages) anywhere from 6 to 16 percent of pay. Nearly three-tenths of the participants could contribute up to 16 percent of their earnings; 10 percent and 12 percent were other common maximums.

Three-fourths of the participants in savings and thrift plans were allowed to make pretax contributions, up from 65 percent in 1985. Thirty-nine percent were given the option to contribute either pretax or posttax earnings in 1986, while 36 percent were required to make contributions on a pretax, salary reduction basis. Half of the participants in plans mandating pretax contributions were required to contribute only an initial amount pretax. For example, a plan may allow a maximum contribution of 16 percent with only the first 6 percent required on a pretax basis.

*Employer matching contributions (table 78).* Employers provide an incentive for participation in a savings and thrift plan by matching all or a portion of the employee's contribution and adding this amount to the employee's account. Usually the employer matches a portion of the employee's contribution up to a specified percent of the employee's earnings. For example, the most common provision found in 1986 was for an employer to match 50 percent of the employee's contribution up to the first 6 percent of earnings. Assuming the employee contributed 8 percent of earnings, the employer would add 3 percent (50 percent of the first 6 percent of the employee's earnings). In contrast with these straight percentage matches, nearly one-fourth of the participants received matching contribution rates varying by length of service, level of employee contribution, or company profits.

*Investment decisions (table 79).* Nine out of ten participants in savings and thrift plans were allowed to choose how they wanted their own contributions invested. Common investment vehicles offered by these plans included company stock, common stock funds, guaranteed investment contracts, government securities, corporate bonds, and money market funds. The number of choices in these plans varied from two to five or more, with three choices being the most common. Employees were nearly always allowed to split their contributions among the various options and were allowed to change their investment choices periodically.

Employees generally had less flexibility when it came to employer contributions. Only one-half of the participants were permitted to choose how the matching contribution was to be invested. Where no choice was permitted, the plan typically specified that the matching contribution was invested in company stock.

*Withdrawals and loans (table 80).* Eight-tenths of the participants in savings and thrift plans were allowed to withdraw all or a portion of employer contributions prior to normal payout (retirement, disability, or termination of employment). Twenty-six percent, however, were only allowed to withdraw employer contributions for hardship reasons

(medical, educational, home improvements, etc.). The remaining participants could withdraw employer contributions for any reason. Two-thirds of the participants who could withdraw for any reason were subject to a penalty—usually suspension of employer and employee contributions for 6 or 12 months, or forfeiture of non-vested employer contributions.

The ability of the participants to withdraw their own contributions prior to retirement, death, disability, age 59 1/2, or termination of employment depends upon whether the money was contributed pretax or posttax. Pretax contributions are subject to Internal Revenue Code provisions and can only be withdrawn for hardship. Posttax contributions are not subject to hardship rules, and many plans allow these amounts to be withdrawn for any reason. However, a penalty in the form of a 6- or 12-month suspension from further contributions to the plan is common.

Another method of accessing an employee's account prior to final payout is through loan provisions—one-fourth of participants in savings and thrift plans were allowed to borrow from their accounts. One-half of the participants in plans permitting loans were also able to withdraw part of their account for any reason. The other half were in plans that prohibited withdrawals or allowed them only for hardship reasons. Interest rates on employee loans were typically determined by a specific economic indicator (such as the prime rate or U.S. Treasury bill rate) or were at the discretion of the plan sponsor (employer, employer association, or union). Loans were generally required to be repaid within 5 years, but longer payment periods applied for home purchase or renovation loans.

*Distribution (table 81).* At retirement, savings and thrift plans virtually always allowed for payout in the form of a lump sum, lifetime annuity, or installments over a specified time period. Many participants were given a choice from among two or all three of these options.

### **Employee stock ownership plans (table 82)**

Thirty percent of all employees in medium and large firms participated in an employee stock ownership plan (ESOP), up from 24 percent in 1985.<sup>37</sup> These plans, usually funded entirely by the employer, provide employees with stock in their company. The employer pays a designated amount to a fund that is invested primarily in company stock and makes benefit distributions in either company stock or cash. The majority of participants in ESOP's were in payroll-based plans (PAYSOP's). Companies received a Federal tax credit of up to 0.5 percent of the plan participants' payroll for funds used to purchase company stock to distribute to the participants' accounts. This tax credit expired on December 31, 1986.

While the maximum employer contribution to a PAYSOP

was fixed by law at 0.5 percent of payroll, employers had some discretion in allocating that money to individual employees. Nearly 80 percent of 1986 participants were in plans that allocated benefits in proportion to salaries. (By law, only salaries up to \$100,000 per year could be included in such calculations.) The remaining participants were in plans that allocated benefits equally to all participants.

The PAYSOP provisions in the Internal Revenue Code allowed employer contributions to be distributed after they had been held in an employee's account for 7 years. Despite this provision, 85 percent of PAYSOP participants had to wait until termination of employment, death, or disability to have benefits distributed. Only 15 percent of participants could gain access to their benefits after 7 years. With the expiration of the PAYSOP tax credit, employers who terminate their plans may distribute accumulated benefits immediately.

Final distribution of PAYSOP benefits was in the form of stock for 58 percent of participants. The remaining participants could choose between a distribution in stock or the equivalent in cash.

### **Profit-sharing plans (table 83)**

Twenty-two percent of all employees had profit-sharing plans in 1986, up from 18 percent in 1985. There are three types of profit-sharing plans—cash plans (covering 1 percent of the workers), deferred plans (18 percent), and plans that offer a combination of cash and deferred benefits (3 percent). In a cash plan, benefits are paid directly to the participants in cash, usually at the end of the year, while a deferred plan holds money in employee accounts until retirement or another condition stipulated by the plan (disability, death, etc.). In a combined plan, the employee may automatically receive a portion of the profits in cash, with the remainder placed in a deferred account, or the employee may be given a choice of cash or deferred benefits.

Three-fifths of 1986 participants in deferred profit-sharing plans had employer contributions determined by a specified formula, such as 4 percent of profits if annual sales were \$2-5 million, 8 percent if sales exceeded \$5 million. The remaining participants were in plans where the employer contribution was determined at the discretion of the employer.

Once the employer contribution is determined, it may be allocated to individual participants in a number of ways. The most common method of allocation was in proportion to salary (81 percent of plan participants). Other allocation methods included formulas based on earnings and service (10 percent) and equal allocations to all participants (1 percent). Another plan feature, loans from employee accounts, was available to one-fourth of the participants in deferred profit-sharing plans.

### **Participation and vesting (tables 84 and 85)**

Minimum age and/or service participation requirements are more common in defined contribution plans than in de-

<sup>37</sup> This proportion is limited to plans where stock was credited to employee accounts during 1986.

defined benefit plans. To begin accumulating benefits from a savings and thrift plan, 90 percent of participants had to meet such requirements. Participation requirements were also common for profit-sharing plans (86 percent), and employee stock ownership plans (74 percent). In contrast, only 59 percent of defined benefit pension plan participants faced such provisions.

Of those defined contribution plans with participation requirements, most required a minimum amount of service, commonly 1 year, and did not require an employee to be a designated minimum age. Conversely, defined benefit pension plans that included participation requirements most often specified a minimum age and a minimum amount of service.

Defined contribution plans are subject to ERISA vesting rules in the same manner as defined benefit pension plans. Vesting schedules vary significantly, however, between defined benefit and defined contribution plans, and variations are also common between individual types of defined contribution plans. All vesting schedules apply to employer contributions; employee contributions (including pretax contributions) are always 100-percent vested.

Twenty-six percent of savings and thrift plan participants

and 29 percent of deferred profit-sharing participants had immediate full vesting, a feature rarely found in defined benefit plans. PAYSOP's, by law, are always 100-percent vested. Class-year vesting, where employer contributions for a particular year (class) become nonforfeitable after a specific period of time, was available to nearly 30 percent of savings and thrift plan participants. Such vesting was uncommon in profit-sharing plans.

Graduated vesting, where an employee's nonforfeitable percentage increases over time and reaches 100 percent, usually after 5 or 10 years, was most common in deferred profit-sharing plans, with 2 of 3 participants covered by such a provision. One-fourth of savings and thrift plan participants had graduated vesting, and only about 10 percent of defined benefit plan participants had such vesting. Finally, "cliff" vesting, where no vesting occurs until an employee satisfies the service requirements for 100-percent vesting, is found in the majority of defined benefit plans, but was required of only 20 percent of savings and thrift plan participants and 2 percent of deferred profit-sharing plan participants.

**Table 72. Retirement and capital accumulation plan coverage: Percent of full-time employees by participation in retirement plans and capital accumulation plans, medium and large firms, 1986**

Type of plan	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Covered by retirement or capital accumulation plan .....	91	93	93	88
Retirement <sup>1</sup> only .....	67	62	64	72
Capital accumulation <sup>2</sup> only .....	1	1	1	1
Retirement and capital accumulation .....	22	30	28	14
Not covered by retirement or capital accumulation plan .....	9	7	7	12

<sup>1</sup> Includes defined benefit pension plans and defined contribution plans such as money purchase pension, profit sharing, savings and thrift, stock bonus, and employee stock ownership plans in which employer contributions must remain in the participant's account until retirement age, death, disability, separation from service, age 59 1/2, or hardship.

<sup>2</sup> Includes plans in which employer contributions may be withdrawn from participant's account prior to retirement age, death, disability, separation from service, age 59 1/2, or hardship. Excludes pure cash profit sharing, stock option, and stock purchase plans.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 73. Defined contribution and stock plans: Percent of full-time employees participating by type of plan, medium and large firms, 1986**

Type of plan	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Savings and thrift <sup>1</sup> .....	28	39	36	17
Profit sharing <sup>2</sup> .....	22	22	22	22
Immediate cash only .....	1	1	1	1
Deferred benefits only .....	18	18	18	17
Combination .....	3	3	4	4
Employee stock ownership <sup>2</sup> .....	30	32	32	27
Payroll based employee stock ownership .....	28	30	31	26
Other .....	2	3	2	2
Money purchase pension .....	2	2	1	2
Stock bonus .....	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )
Stock option .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Stock purchase .....	3	4	3	2

<sup>1</sup> Includes 0.2 percent of employees in plans with both matching and nonmatching employer contributions. Not all participants in such plans may elect or be required to contribute.

<sup>2</sup> The total may be less than the sum of the individual items because some employees participate in more than one type of profit sharing or employee stock ownership plan.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 74. Retirement and capital accumulation plans: Percent of full-time participants by combinations of plans, medium and large firms, 1986**

Type of plan	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Defined benefit or money purchase pension .....	85	86	85	85
With:				
No other plan .....	35	26	26	46
Profit sharing <sup>1</sup> .....	5	6	8	3
Savings and thrift .....	15	21	19	8
Stock <sup>2</sup> .....	11	10	12	11
Profit sharing <sup>1</sup> and savings .....	1	1	( <sup>3</sup> )	( <sup>3</sup> )
Profit sharing <sup>1</sup> and stock <sup>2</sup> .....	7	5	5	9
Savings and stock <sup>2</sup> .....	11	15	14	7
Two or more stock <sup>2</sup> plans .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Other combinations .....	( <sup>3</sup> )	1	1	( <sup>3</sup> )
Profit sharing <sup>1</sup> .....	11	10	10	11
With:				
No other plan .....	8	7	8	9
Savings and thrift .....	1	1	1	1
Stock <sup>2</sup> .....	1	1	1	1
Savings and stock <sup>2</sup> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Two or more stock <sup>2</sup> plans .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Savings and thrift .....	3	3	3	2
With:				
No other plan .....	2	2	3	1
Stock <sup>2</sup> .....	1	1	1	( <sup>3</sup> )
Stock <sup>2</sup> plan .....	1	1	2	1
With:				
No other plan .....	1	1	2	1

<sup>1</sup> Excludes pure cash profit sharing plans.

<sup>2</sup> Employee stock ownership plans (ESOP's), including payroll based employee stock ownership plans (PAYSOP's), and stock bonus plans.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 75. Cash or deferred arrangements:<sup>1</sup> Percent of full-time employees participating in plans permitting employee contributions with pretax dollars, medium and large firms, 1986**

Item	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Percent of all employees in plans with cash or deferred arrangement	33	48	39	20
Salary reduction plans	31	46	37	19
Deferral of profit sharing allocation	2	1	2	1
<b>Salary reduction plans</b>				
Total	100	100	100	100
Savings and thrift plans	67	70	69	60
Profit sharing plans	19	15	19	25
Money purchase pension plans	2	2	1	3
Freestanding plans <sup>2</sup>	11	13	10	10
Other	1	( <sup>3</sup> )	( <sup>3</sup> )	2

<sup>1</sup> Tabulations show percent of employees participating in plans to which they may make contributions with pretax dollars, deferring otherwise taxable income. Not all participants may elect to make such contributions.

<sup>2</sup> Employer contributions are not made to the plan. Includes employee contributions permitted under either section 401(k) or 403(b) of the Internal Revenue Code.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 76. Savings and thrift plans: Percent of full-time participants by maximum allowable employee contribution,<sup>1</sup> medium and large firms, 1986**

Maximum allowable contribution <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total	100	100	100	100
Percent of employee earnings	98	99	99	94
Less than 5 percent	1	1	1	( <sup>3</sup> )
5 percent	( <sup>3</sup> )	-	( <sup>3</sup> )	1
6 percent	4	4	5	3
8 percent	5	7	4	4
9 percent	1	1	1	( <sup>3</sup> )
10 percent	13	12	14	13
10.01-10.99 percent	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-
11 percent	1	1	1	1
11.01-11.99 percent	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
12 percent	13	12	15	11
12.01-12.99 percent	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
13 percent	4	4	5	3
14 percent	2	2	1	1
14.01-14.99 percent	( <sup>3</sup> )	-	-	1
15 percent	9	11	11	5
16 percent	29	27	28	34
16.01-16.99 percent	( <sup>3</sup> )	-	-	1
17 percent	5	6	3	7
17.01-17.99 percent	1	( <sup>3</sup> )	( <sup>3</sup> )	1
18 percent	2	3	2	1
20 percent	2	3	2	1
21.01-24.99 percent	2	3	2	1
25 percent	2	2	1	3
Greater than 25 percent	1	( <sup>3</sup> )	( <sup>3</sup> )	4
Specified dollar amount	2	( <sup>3</sup> )	1	5
Other <sup>4</sup>	1	1	1	1

<sup>1</sup> Includes contributions that may not be matched by the employer.

<sup>2</sup> If maximum varied by participant's length of service, age, or both, the highest possible percentage was tabulated.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> Includes participants in plans where the employee's contribution was a fixed percent of earnings up to a specified dollar level and a higher percentage above that level.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.



**Table 77. Savings and thrift plans: Percent of full-time participants by provisions for pretax employee contributions,<sup>1</sup> medium and large firms, 1986**

Item <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Item <sup>2</sup>	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100					
Pretax contribution allowed .....	75	82	72	69	Initial contributions must be pretax <sup>3</sup> —Continued				
All contributions must be pretax	18	21	18	14	11 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	-	-
Maximum contribution is:					12 percent of earnings .....	4	4	4	3
4 or 5 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	13-14 percent of earnings .....	1	1	1	1
6 percent of earnings .....	2	2	2	1	15 percent of earnings .....	1	1	1	1
8 percent of earnings .....	3	5	3	2	16 percent of earnings .....	1	2	( <sup>1</sup> )	-
9 percent of earnings .....	1	1	1	( <sup>1</sup> )	Greater than 16 percent of earnings .....	( <sup>1</sup> )	1	1	( <sup>1</sup> )
10 percent of earnings .....	2	3	3	2	Contributions may be pretax at the employee's option <sup>5</sup> .....	39	39	33	45
11 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Maximum pretax contribution is:				
11.01-11.99 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Less than 5 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
12 percent of earnings .....	3	3	3	3	5 percent of earnings .....	1	1	1	1
12.01-14.99 percent of earnings .....	1	1	( <sup>1</sup> )	( <sup>1</sup> )	6 percent of earnings .....	7	5	10	7
15 percent of earnings .....	2	3	3	2	7 percent of earnings .....	2	2	1	5
16 percent of earnings .....	3	2	3	4	8 percent of earnings .....	4	5	3	3
Greater than 16 percent of earnings .....	1	1	1	( <sup>1</sup> )	9 percent of earnings .....	( <sup>1</sup> )	1	( <sup>1</sup> )	( <sup>1</sup> )
Initial contributions must be pretax <sup>3</sup> .....	18	23	20	10	10 percent of earnings .....	8	8	7	8
Maximum pretax contribution is:					11-12 percent of earnings .....	2	2	2	3
3 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	13-14 percent of earnings .....	2	3	1	3
4 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	1	-	15 Percent of earnings .....	3	3	3	3
5 percent of earnings .....	1	1	( <sup>1</sup> )	( <sup>1</sup> )	16 percent of earnings .....	7	7	5	11
6 percent of earnings .....	3	3	4	1	18 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
7 percent of earnings .....	( <sup>1</sup> )	1	( <sup>1</sup> )	-	20 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1
8 percent of earnings .....	2	3	3	( <sup>1</sup> )	Pretax contribution not allowed .....	25	18	28	31
9 percent of earnings .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-					
10 percent of earnings .....	4	6	3	3					

<sup>1</sup> Pretax contributions are allowed under sections 401(k) and 403(b) the Internal Revenue Code.

<sup>2</sup> If maximum contributions varied by participant's length-of-service, age, or both, the highest possible percentage was tabulated.

<sup>3</sup> Contributions above the maximum pretax level must be on a post-tax basis.

<sup>4</sup> Less than 0.5 percent.

<sup>5</sup> In most of these plans, all contributions may be either pretax or

posttax at the employee's option. In some, however, an initial contribution must be on a pretax basis, with a choice between pretax and posttax contributions for higher amounts. In these cases, the largest percentage available for pretax contributions has been tabulated.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 78. Savings and thrift plans: Percent of full-time participants by provision for employer matching contributions, medium and large firms, 1986**

Employee earnings to be matched <sup>1</sup>	Total	Matching percentage <sup>2</sup>					
		25 percent	50 percent	75 percent	100 percent	Other fixed percentages	Varies <sup>3</sup>
<b>All participants</b>							
Total .....	100	4	43	5	12	12	24
Up to first:							
2 percent .....	1	( <sup>4</sup> )	( <sup>4</sup> )	-	( <sup>4</sup> )	-	-
3 percent .....	7	1	1	-	3	-	1
4 percent .....	4	1	2	-	1	-	1
5 percent .....	16	( <sup>4</sup> )	2	1	2	5	5
6 percent .....	54	2	27	1	4	5	15
7 percent .....	3	-	2	1	-	1	-
8 percent .....	4	( <sup>4</sup> )	1	2	1	-	1
10 percent .....	3	( <sup>4</sup> )	1	1	-	1	( <sup>4</sup> )
12 percent or greater .....	1	-	1	-	-	-	1
Specified dollar amount .....	7	( <sup>4</sup> )	5	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )
<b>Professional and administrative</b>							
Total .....	100	4	32	8	14	17	25
Up to first:							
2 percent .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	-	( <sup>4</sup> )	-	-
3 percent .....	7	1	1	-	4	-	1
4 percent .....	3	1	1	-	1	-	( <sup>4</sup> )
5 percent .....	19	1	1	1	3	7	6
6 percent .....	53	2	24	1	4	8	15
7 percent .....	4	-	1	2	-	1	-
8 percent .....	7	( <sup>4</sup> )	2	3	1	-	1
10 percent .....	4	( <sup>4</sup> )	( <sup>4</sup> )	1	-	2	1
12 percent or greater .....	1	-	( <sup>4</sup> )	-	-	-	( <sup>4</sup> )
Specified dollar amount .....	2	-	( <sup>4</sup> )	-	1	( <sup>4</sup> )	( <sup>4</sup> )
<b>Technical and clerical</b>							
Total .....	100	4	40	4	15	9	28
Up to first:							
2 percent .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	-	( <sup>4</sup> )	-	-
3 percent .....	7	1	( <sup>4</sup> )	-	4	-	1
4 percent .....	4	( <sup>4</sup> )	2	-	1	-	( <sup>4</sup> )
5 percent .....	17	( <sup>4</sup> )	1	1	3	4	7
6 percent .....	56	2	28	1	5	3	18
7 percent .....	2	-	1	1	-	( <sup>4</sup> )	-
8 percent .....	3	( <sup>4</sup> )	1	1	1	-	1
10 percent .....	2	( <sup>4</sup> )	1	( <sup>4</sup> )	-	1	( <sup>4</sup> )
12 percent or greater .....	1	-	1	-	-	-	( <sup>4</sup> )
Specified dollar amount .....	7	( <sup>4</sup> )	5	-	1	( <sup>4</sup> )	( <sup>4</sup> )
<b>Production</b>							
Total .....	100	5	60	2	4	8	20
Up to first:							
2 percent .....	1	( <sup>4</sup> )	1	-	( <sup>4</sup> )	-	-
3 percent .....	7	( <sup>4</sup> )	3	-	1	-	2
4 percent .....	5	1	3	-	( <sup>4</sup> )	-	1
5 percent .....	9	( <sup>4</sup> )	3	( <sup>4</sup> )	( <sup>4</sup> )	3	2
6 percent .....	53	4	32	1	1	4	12
7 percent .....	4	-	3	-	-	1	-
8 percent .....	2	( <sup>4</sup> )	( <sup>4</sup> )	1	-	-	1
10 percent .....	2	-	2	( <sup>4</sup> )	-	-	1
12 percent or greater .....	2	-	1	-	-	-	1
Specified dollar amount .....	14	( <sup>4</sup> )	11	( <sup>4</sup> )	1	( <sup>4</sup> )	( <sup>4</sup> )

<sup>1</sup> Employee may contribute a percent of salary up to a specified maximum; ceilings on contributions to be matched by employers generally are lower. If the maximum varied by participant's length-of-service, age, or both, the highest possible percentage was tabulated.

<sup>2</sup> The percentage of matchable employee contributions added by employers. Some plans specified a maximum annual employer contribution.

<sup>3</sup> Includes percentages which vary by length of service, level of employee contribution, and company profits.

<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 79. Savings and thrift plans: Percent of full-time participants by provisions for investment of employer and employee contributions, medium and large firms, 1986**

Characteristic	All participants		Professional and administrative participants		Technical and clerical participants		Production participants	
	Employer contributions	Employee contributions	Employer contributions	Employee contributions	Employer contributions	Employee contributions	Employer contributions	Employee contributions
Total in plans permitting investment choices by employees <sup>1</sup> .....	49	89	54	90	45	87	45	90
<b>Investment choice</b>								
Total .....	100	100	100	100	100	100	100	100
Company stock .....	58	65	63	67	55	67	52	59
Common stock fund .....	86	74	86	79	86	73	84	67
Corporate bonds .....	32	31	29	32	36	32	32	27
Diversified mix of stocks and bonds .....	18	17	19	20	21	19	14	11
Government securities .....	35	33	43	41	29	26	27	29
Guaranteed investment contracts .....	71	73	72	71	64	71	79	77
Money market funds .....	32	26	35	31	35	25	24	20
Other <sup>2</sup> .....	10	7	9	7	9	7	11	8
<b>Number of choices</b>								
Total .....	100	100	100	100	100	100	100	100
Two .....	24	28	18	19	25	30	34	40
Three .....	36	35	35	34	36	36	37	37
Four .....	25	24	31	33	23	22	16	13
Five or more .....	15	12	16	14	16	12	14	10

<sup>1</sup> Excludes plans that limit investment options to participants age 55 or greater.

<sup>2</sup> Includes purchases of life insurance or annuities, real estate, mortgages, and deposits in credit union or savings accounts.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 80. Savings and thrift plans: Percent of full-time participants by provisions for withdrawal of employer contributions prior to disability, retirement age, or termination of employment, medium and large firms, 1986**

Least restrictive provision	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Withdrawals permitted .....	82	83	79	84
For hardship reasons <sup>1</sup> .....	26	28	24	25
Full withdrawal, no penalty .....	19	21	16	18
Full withdrawal, with penalty .....	5	6	5	5
Partial withdrawal, no penalty .....	2	2	2	2
Partial withdrawal, with penalty .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-
For any reason .....	56	54	55	59
Full withdrawal, no penalty .....	18	20	15	18
Full withdrawal, with penalty .....	34	31	35	37
Partial withdrawal, no penalty .....	1	1	1	1
Partial withdrawal, with penalty .....	3	3	4	2
Not determinable .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-
No withdrawals permitted .....	18	17	21	16
Provision not determinable .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	-

<sup>1</sup> Commonly expressed reasons for withdrawal were: Purchase or repair of primary residence, education of an immediate family member, death or illness in the family, or sudden uninsured loss.

<sup>2</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 81. Savings and thrift plans: Percent of full-time participants by method of distribution of account at retirement, medium and large firms, 1986**

Method of distribution available	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total .....	100	100	100	100
Cash distribution <sup>1</sup> .....	99	98	99	99
Lifetime annuity (including joint-and-survivor forms) .....	25	26	29	21
Installments .....	52	55	53	47
Lump sum .....	98	98	98	99
Stock distribution <sup>2</sup> .....	1	1	1	1
Not determinable .....	( <sup>3</sup> )	1	1	( <sup>3</sup> )

<sup>1</sup> The total is less than the sum of the individual items because many participants are offered optional forms of cash distribution.

<sup>2</sup> Employer and employee contributions are invested solely in company stock, which is automatically distributed upon retirement or termination of employment. Stock may also be distributed under plans providing for cash distributions.

<sup>3</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 82. Payroll-based employee stock ownership plans:<sup>1</sup> Percent of full-time participants by selected provisions, medium and large firms, 1986**

Provision	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>Formula for allocation of stock</b>				
Total .....	100	100	100	100
Equally to all participants .....	22	24	20	23
Based on participant's earnings .....	78	76	80	77
<b>Earliest distribution of stock</b>				
Total .....	100	100	100	100
Seven years after allocation <sup>2</sup> .....	15	17	15	14
Upon termination, death, or disability only .....	85	83	85	86
<b>Form of distribution</b>				
Total .....	100	100	100	100
Stock only .....	58	55	56	62
Cash or stock <sup>3</sup> .....	42	45	44	38

<sup>1</sup> In a payroll-based stock ownership plan (PAYSOP), the employer creates individual company stock accounts for employees. The employer earns a tax credit equal to the value of the contribution. A 1986 amendment to the Internal Revenue Code has repealed PAYSOP tax credits for compensation paid or accrued after December 31, 1986.

<sup>2</sup> Active employees may receive the value of their accounts at the end of the 84th month after the stock is allocated. The 1986 amendments to the Internal Revenue Code permit the distribution of accounts immediately upon plan termination.

<sup>3</sup> Includes plans which distributed cash unless stock was demanded, and vice versa.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 83. Deferred profit-sharing plans: Percent of full-time participants by selected provisions, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>Method of determining employer contributions</b>				
Total .....	100	100	100	100
Based on stated formula .....	59	55	55	64
No predetermined formula .....	41	45	45	36
<b>Allocation of profits to individual employees</b>				
Total .....	100	100	100	100
Equally to all participants .....	1	( <sup>1</sup> )	( <sup>1</sup> )	3
Based on participant's earnings .....	81	80	76	84
Based on participant's earnings and service .....	10	11	10	9
Other <sup>2</sup> .....	8	8	14	5
<b>Loans from employees' accounts</b>				
Total .....	100	100	100	100
Permitted .....	25	28	24	24
Not permitted .....	75	72	76	76

<sup>1</sup> Less than 0.5 percent.

<sup>2</sup> Allocation of profits was based on either participant contributions as a percent of total contributions, participant earnings and performance of staff, or some other formula combining elements of the above.

NOTE: Because of rounding, sums of individual items may not equal totals.

**Table 84. Selected defined contribution plans: Percent of full-time participants by age and length-of-service requirements for participation, medium and large firms, 1986**

Age and service requirement provision <sup>1</sup>	All participants			Professional and administrative participants			Technical and clerical participants			Production participants		
	Savings and thrift plans	Deferred profit-sharing plans	Employee stock ownership plans	Savings and thrift plans	Deferred profit-sharing plans	Employee stock ownership plans	Savings and thrift plans	Deferred profit-sharing plans	Employee stock ownership plans	Savings and thrift plans	Deferred profit-sharing plans	Employee stock ownership plans
Total .....	100	100	100	100	100	100	100	100	100	100	100	100
With minimum age and/or service requirement .....	90	86	74	88	83	72	91	86	84	92	88	69
Service requirement only .....	73	69	68	72	64	66	72	65	79	77	74	62
3 months or less .....	7	4	4	7	3	2	7	4	3	8	5	5
6 months .....	8	7	5	8	4	5	6	8	4	10	9	5
7-11 months .....	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	-	-	-
1 year .....	50	49	36	50	44	41	49	41	45	53	56	27
2 years .....	5	2	10	4	1	5	8	1	10	5	2	13
3 years .....	2	7	13	3	12	11	2	12	17	2	2	12
Over 3 years .....	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	-	-	-
Age 20 or less .....	6	3	1	6	2	1	6	1	1	7	5	2
No service requirement .....	( <sup>2</sup> )	( <sup>2</sup> )	-	( <sup>2</sup> )	( <sup>2</sup> )	-	1	-	-	-	( <sup>2</sup> )	-
1-11 months of service .....	4	1	( <sup>2</sup> )	4	( <sup>2</sup> )	( <sup>2</sup> )	2	( <sup>2</sup> )	( <sup>2</sup> )	5	1	1
1 year .....	2	2	1	2	1	( <sup>2</sup> )	3	1	( <sup>2</sup> )	2	3	1
Age 21 .....	10	12	4	9	16	4	13	14	3	7	8	4
No service requirement .....	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	1
1-6 months of service .....	1	3	-	2	4	-	2	4	-	( <sup>2</sup> )	3	-
1 year .....	8	7	3	7	11	3	10	9	3	6	5	3
Over 1 year .....	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )
Age 22 or older <sup>3</sup> .....	( <sup>2</sup> )	3	1	1	2	1	( <sup>2</sup> )	5	1	( <sup>2</sup> )	1	1
1-11 months of service .....	-	2	-	-	2	-	-	5	-	-	1	-
1 year .....	( <sup>2</sup> )	( <sup>2</sup> )	1	1	1	1	( <sup>2</sup> )	( <sup>2</sup> )	1	( <sup>2</sup> )	-	1
Over 1 year .....	-	-	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	( <sup>2</sup> )	-	-	-
Without minimum age and/or service requirement .....	10	14	26	12	17	28	9	14	16	8	12	31
Age and service requirement not determinable .....	-	( <sup>2</sup> )	( <sup>2</sup> )	-	( <sup>2</sup> )	( <sup>2</sup> )	-	( <sup>2</sup> )	( <sup>2</sup> )	-	-	( <sup>2</sup> )

<sup>1</sup> If a plan had alternate participation requirements, one of which was service only, the service only requirement was tabulated.

<sup>2</sup> Less than 0.5 percent.

<sup>3</sup> The Retirement Equity Act of 1984 requires that nearly all plans must allow participation to full-time employees who have reached age 21 and who have completed 1 year of service. Plans may impose a service requirement of up to 3 years if the employee is vested immediately upon participation. The Internal Revenue Service announced that

the compliance date for most plan sponsors is June 30, 1986. However, collectively bargained plans need not comply until the earlier of: 1) the expiration date of the collective bargaining agreement, or 2) January 1, 1987.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.

**Table 85. Savings and thrift and deferred profit-sharing plans: Percent of full-time participants by type of vesting schedule, medium and large firms, 1986**

Type of vesting schedule	All participants		Professional and administrative participants		Technical and clerical participants		Production participants	
	Savings and thrift plans	Deferred profit-sharing plans	Savings and thrift plans	Deferred profit-sharing plans	Savings and thrift plans	Deferred profit-sharing plans	Savings and thrift plans	Deferred profit-sharing plans
Total <sup>1</sup> .....	100	100	100	100	100	100	100	100
Immediate full vesting .....	26	29	23	35	27	34	29	23
Cliff vesting <sup>2</sup> with full vesting after: .....	20	2	22	2	21	2	14	2
1-2 years .....	5	1	6	( <sup>3</sup> )	6	( <sup>3</sup> )	4	1
3-4 years .....	7	-	7	-	8	-	5	-
5 years .....	7	( <sup>3</sup> )	8	1	6	( <sup>3</sup> )	5	-
More than 5 years .....	1	1	1	1	1	1	( <sup>3</sup> )	1
Graduated vesting <sup>4</sup> with full vesting after: .....	25	66	24	57	26	60	25	74
4 or fewer years .....	2	-	2	-	3	-	1	-
5 years .....	15	3	15	3	14	5	17	1
6 years .....	2	5	2	5	3	4	1	5
7 years .....	1	7	( <sup>3</sup> )	6	( <sup>3</sup> )	7	1	8
8 years .....	1	1	( <sup>3</sup> )	2	1	1	1	-
9 years .....	( <sup>3</sup> )	1	( <sup>3</sup> )	1	( <sup>3</sup> )	1	( <sup>3</sup> )	2
10 years .....	4	24	3	24	4	24	3	23
11 years .....	( <sup>3</sup> )	5	( <sup>3</sup> )	4	( <sup>3</sup> )	6	( <sup>3</sup> )	5
12-14 years .....	( <sup>3</sup> )	14	( <sup>3</sup> )	6	( <sup>3</sup> )	4	-	25
15 years .....	( <sup>3</sup> )	6	( <sup>3</sup> )	5	( <sup>3</sup> )	6	1	6
Other <sup>5</sup> .....	-	( <sup>3</sup> )	-	1	-	( <sup>3</sup> )	-	( <sup>3</sup> )
Class vesting <sup>6</sup> with each class fully vested after: .....	29	4	30	7	26	5	32	2
1 year .....	1	-	1	-	( <sup>3</sup> )	-	2	-
2 years .....	16	2	14	3	16	2	19	1
3 years .....	8	1	12	1	7	1	5	1
4 years .....	3	-	3	-	2	-	6	-
5 years .....	( <sup>3</sup> )	1	1	2	1	2	( <sup>3</sup> )	( <sup>3</sup> )
Vesting provision not determinable .....	( <sup>3</sup> )	-	( <sup>3</sup> )	-	( <sup>3</sup> )	-	-	-

<sup>1</sup> Because plans may adopt alternative vesting schedules, sums of participants covered by individual vesting schedules may exceed 100 percent.

<sup>2</sup> Under a cliff vesting schedule, an employee is not entitled to any benefits accrued under the plan until satisfying the requirements for 100 percent vesting.

<sup>3</sup> Less than 0.5 percent.

<sup>4</sup> Graduated vesting schedules give an employee rights to a gradually increasing share of accrued benefits, determined by years of service, eventually reaching 100 percent vesting status.

<sup>5</sup> Participants in this group were in plans which call for 50 percent

vesting at any age after 5 years of service if age plus service equals 45. Therefore, the vested percentage increases 10 percent in each of the next 5 years.

<sup>6</sup> Under class-year vesting, employers' contributions for a particular year (class) become nonforfeitable after employees satisfy vesting requirements. Subsequent years become fully vested as each class matures. Included here are class year schedules with both graduated and cliff vesting features.

NOTE: Dash indicates no employees in this category.

## Chapter 8. Plan Administration

In addition to the data on individual benefit plans, the survey looked at how various benefits are administered. The great majority of the insurance and retirement plans were sponsored by individual employers, and benefits typically were offered independently, rather than as part of a flexible benefits program.

### Plan sponsor (table 86)

Single employers were the predominant sponsors of health, life, sickness and accident, and long-term disability insurance, and defined benefit pension plans in medium and large firms. Nearly all plan participants in life insurance, health insurance, long-term disability insurance, and defined benefit pension plans were in single-employer plans. Eighty-seven percent of sickness and accident insurance participants were in single-employer plans; most of the remaining participants were in State temporary disability benefit plans. (State disability plans are discussed in chapter 4.)

Multiemployer plans result from agreements between employers within an industry or related industries and one or more labor unions. These plans allow employees moving from one employer to another within the industry to receive the same or similar benefits. Defined benefit pension and health insurance plans were the most common benefits sponsored by multiemployer groups, and production employees were the most likely recipients of such benefits. The scope of the survey, which excludes several service industries and small firms in other industries, such as contract construction and trucking, accounts for the small representation of multiemployer plans.

### Flexible benefits plans and reimbursement accounts (table 87)

Traditionally, employers have offered their workers benefit plans in a number of areas, such as health insurance, life insurance, and retirement. Employees may have a choice between one or more plans in a benefit area, for example, between a commercial health insurance plan and a health maintenance organization, but benefits in each area are offered separately. In recent years, however, a new approach to offering benefits has attracted considerable attention—flexible benefits. In 1986, the Employee Benefits Survey

looked for the first time at two arrangements for offering such benefits—flexible benefits plans and reimbursement accounts.

Five percent of employees in medium and large firms were offered flexible benefits plans, reimbursement accounts, or both. These plans were more common among white-collar workers (8 percent) than among blue-collar workers (2 percent).

Flexible benefits plans, also known as cafeteria plans, allow employees to choose between two or more types of benefits.<sup>38</sup> The most common choices offered were health, life and long-term disability insurance, pretax savings (salary reduction plans), added vacation days, and the option of receiving cash instead of benefits. Less common choices were added sick leave days, sickness and accident insurance, educational assistance, child care expenses, legal expenses, and adoption assistance. Pensions are usually fixed benefits and not part of a flexible benefits program.

A reimbursement account, also called a flexible spending account, provides employer funds, employee pretax money, or both, to be used for expenses not included in a benefits package. Typical expenses that may be reimbursed through the account include health care coinsurance, deductibles, and other out-of-pocket health expenses; and insurance premiums, child care costs, and legal assistance. Reimbursement accounts may be part of a flexible benefits plan or they stand alone.

A large majority of employees participating in flexible benefits plans or reimbursement accounts were required to contribute toward the cost of their benefits, or were allowed to contribute to obtain additional benefits. Most of these contributions were in the form of a salary reduction arrangement.<sup>39</sup>

Individual benefit plans offered through a flexible benefits plan were analyzed and included in the tabulations for specific benefit areas in this bulletin.

<sup>38</sup> For this survey, a plan had to allow choices among two or more types of benefits to be classified as a flexible benefits plan. Thus, plans that permitted a selection in only one benefit (for example, a choice among several health insurance options or plans) were not classified as flexible benefits plans.

<sup>39</sup> Regulations covering section 125 of the Internal Revenue Code allow employees to designate a portion of their salary for full or partial payment of certain benefit costs. Amounts so designated are known as salary reduction arrangements and are exempt from Federal income tax.

**Table 86. Plan administration: Percent of full-time participants in selected benefits by type of plan sponsor, medium and large firms, 1986**

Plan sponsor	Health insurance	Life insurance	Sickness and accident insurance	Long-term disability insurance	Defined benefit pension
<b>All participants</b>					
Total .....	100	100	100	100	100
Single employer .....	96	97	87	100	96
Multiemployer <sup>1</sup> .....	4	3	2	-	4
Mandated benefits <sup>2</sup> .....	-	-	11	-	-
Employer association <sup>3</sup> ..	(*)	(*)	-	(*)	-
<b>Professional and administrative</b>					
Total .....	100	100	100	100	100
Single employer .....	100	99	82	100	100
Multiemployer <sup>1</sup> .....	(*)	(*)	-	-	(*)
Mandated benefits <sup>2</sup> .....	-	-	18	-	-
Employer association <sup>3</sup> ..	(*)	(*)	-	(*)	-
<b>Technical and clerical</b>					
Total .....	100	100	100	100	100
Single employer .....	97	98	81	99	99
Multiemployer <sup>1</sup> .....	2	1	(*)	-	1
Mandated benefits <sup>2</sup> .....	-	-	19	-	-
Employer association <sup>3</sup> ..	(*)	1	-	1	-
<b>Production</b>					
Total .....	100	100	100	100	100
Single employer .....	93	94	90	100	92
Multiemployer <sup>1</sup> .....	7	6	3	-	8
Mandated benefits <sup>2</sup> .....	-	-	7	-	-
Employer association <sup>3</sup> ..	(*)	(*)	-	-	-

<sup>1</sup> Individual employers in the same or in a related industry contributing a negotiated amount to trust fund providing benefits for employees covered under a collective bargaining agreement.

<sup>2</sup> The majority of the participants with mandated sickness and accident insurance benefits were covered by State temporary disability plans. The remaining employees (1 percent) were covered by the Railroad Unemployment Insurance Act.

<sup>3</sup> Band of small employers in a common trade or business, for example, savings and loan associations. The plan sponsored by the association is not negotiated with the employees.

<sup>4</sup> Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals. Dash indicates no employees in this category.



**Table 87. Flexible benefits plans and reimbursement accounts:<sup>1</sup> Percent of full-time employees eligible, medium and large firms, 1985**

Coverage	All employees	Professional and administrative employees	Technical and clerical employees	Production employees
Total .....	100	100	100	100
Provided flexible benefits and/or reimbursement accounts .....	5	9	8	2
Flexible benefits .....	2	4	2	1
With reimbursement accounts	2	3	2	( <sup>2</sup> )
Reimbursement accounts .....	5	9	7	1
Freestanding reimbursement accounts .....	3	5	5	1
Not provided flexible benefits or reimbursement accounts .....	95	91	92	98

<sup>1</sup> Flexible benefits plans, also known as, flexible compensation and cafeteria plans, allow employees to choose between two or more benefits or benefit options, including cash, in determining their individual benefit packages. Reimbursement (flexible spending) accounts, which are used to finance benefits or expenses unpaid by insurance or benefit plans, may be part of a flexible benefits program or stand alone (freestanding accounts). These accounts may be financed by the employer, employee, or both. The employee contribution is made through a salary reduction arrangement.

<sup>2</sup> Less than 0.5 percent.

# Appendix A: Technical Note

## Scope of survey

This survey of the incidence and characteristics of employee benefit plans covers private sector establishments<sup>1</sup> in the United States, excluding Alaska and Hawaii, employing at least 50, 100, or 250 workers, depending on the industry. Industrial coverage includes: Mining; construction; manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; and selected services (table A-1).

Establishments meeting the minimum size criteria as of the reference date of the sampling frame are included in the survey, even if they employed fewer workers at the time of data collection. Establishments found to be outside the industrial scope of the survey at the time of data collection are excluded.

Table A-1 shows the estimated number of establishments and employees within the scope of the survey and the number within the sample actually studied for each major industry division.

## Occupational groups

Data were collected individually for the following three broad occupational groups:

*Professional-administrative:* Includes occupations that require a foundation of knowledge in the theories, concepts, principles, and practices of a broad field of science, learning, administration, or management acquired through a college-level education or the equivalent in progressively responsible experience. Above entry levels, the exercise of a high degree of creativity, originality, analytical ability, and independent judgment to solve varied and complex problems in the field of work is characteristic.

*Technical-clerical:* Includes office and sales clerical, technical support, protective services, and other such occupations that do not require full knowledge of a professional or administrative field of work or the application of a high level of creativity, originality, analytical ability, or independent judgment. Job performance skills are typically acquired through on-the-job experience and/or specific training which

<sup>1</sup> For this survey, an establishment is an economic unit that produced goods or services, a central administrative office, or an auxiliary unit providing support services to a company. In manufacturing industries, the establishment is usually a single physical location. In nonmanufacturing industries, all locations of an individual company within a Metropolitan Statistical Area (MSA) or within a nonmetropolitan county are usually considered an establishment.

is less than that usually represented by a baccalaureate degree. These skills include the application of a practical knowledge of established procedures, practices, precedents, and guidelines.

*Production:* Includes skilled, semiskilled, and unskilled trades; craft and production occupations; manual labor occupations; custodial occupations; and operatives.

Excluded from the survey are executive employees (defined as those whose decisions have direct and substantial effects on an organization's policymaking); part-time, temporary, and seasonal employees; and operating employees in constant travel status, such as airline flight crews and long-distance truckdrivers.

## Benefit areas

Sampled establishments were requested to provide data on work schedules and details of plans in each of the following benefit areas: Paid lunch periods, paid rest periods, paid holidays, paid vacations, paid personal leave, paid funeral leave, paid military leave, paid jury-duty leave, paid sick leave, sickness and accident insurance, long-term disability insurance, health insurance, life insurance, retirement and capital accumulation plans, and flexible benefits plans and reimbursement accounts.

## Sampling frame

The industrial scope of this survey was the same as that of the Bureau's 1986 National Survey of Professional, Administrative, Technical, and Clerical Pay (PATC). The list of establishments from which the sample was selected (called the sampling frame) was the same as that used for the 1986 PATC survey, except that small establishments (below the Employee Benefits Survey's employment cutoffs noted in table A-1) were not included. This sampling frame was developed by refining data from the most recently available State Unemployment Insurance (UI) reports for the 48 States covered by the survey and the District of Columbia. The reference date of the available UI reports was generally March 1984. The refinement procedures included an effort to ensure that most sampling frame units corresponded to the definition of an establishment developed for this survey. (A small number of sampling frame units were not refined to correspond to the definition of an establishment because of limited reporting ability of companies.)

## Sampling design

To reduce the costs and resources required for data collection, the sample for this survey was a subsample of the 1986 PATC sample. The sample of 1,503 establishments<sup>2</sup> was selected by first stratifying the sampling frame by broad industry group and establishment size group based on the total employment in the establishment. The industry groups consisted of the eight major industry divisions, as defined by the Office of Management and Budget, which are covered by the survey and shown in table A-1.

The establishment size groups are defined as follows:

<i>Employment size group</i>	<i>Establishment employment</i>
3.....	50-99
4.....	100-249
5.....	250-499
6.....	500-999
7.....	1,000-2,499
8.....	2,500-4,999
9.....	5,000-9,999
10.....	10,000 and over

The number of sample establishments allocated to each stratum (defined by industry and size) was approximately proportional to the total employment of all sampling frame establishments in the stratum. Thus, a stratum that contained 1 percent of the total employment within the scope of the survey received approximately 1 percent of the total sample establishments.

A sample was then selected within each stratum using a probability technique to maximize the probability of retaining the establishments selected in the 1985 survey.<sup>3</sup> This method of selection reduced collection costs by decreasing the number of new establishments in the sample.

Each sampled establishment was selected with a probability approximately proportional to the average establishment employment within its stratum. For example, consider two strata: A and B, with respective average establishment employment of 5,000 and 1,000. An establishment in stratum A was 5 times more likely to be selected than an establishment in stratum B.

## Data collection

Data for the survey were collected by visits of Bureau field representatives to the sampled establishments. To reduce the reporting burden, respondents were asked to provide documents describing their flexible benefits plans and reimbursement accounts, retirement and capital accumulation plans,

<sup>2</sup> The number of sample units selected in this survey is, at present, largely determined by resources and operational constraints and may be adjusted up or down in future surveys.

<sup>3</sup> This method modifies the method introduced by Nathan Keyfitz in "Sampling with Probabilities Proportional to Size: Adjusting for Changes in the Probabilities," *Journal of the American Statistical Association*, 1951, No. 46, pp. 105-9.

and plans covering the four insured benefit areas within the scope of the survey. These were analyzed by BLS staff in Washington to obtain the required data on plan provisions. Data on paid leave generally were obtained directly from the employer at the time of the visit.

Data were collected during the months of January through June, reflecting an average reference period of April 1986. Respondents were asked for information as of the time of the data collection visit.

## Data tabulation

The tables presented in this bulletin show the percent of employees who were covered by paid leave plans; participated in insurance, retirement, or capital accumulation plans; or were eligible for flexible benefits plans or reimbursement accounts. Except in table 87, counts of workers covered by noncontributory benefit plans included those who had not met possible minimum length-of-service requirements at the time of the survey. Workers were counted as participants in employee benefit plans that require the employee to pay part of the cost only if they elected the plan and paid their share. Plans for which the employee paid the full premium were outside the scope of the survey, even if the employer paid administrative costs. When tabulating the effect of retirement on life insurance and health insurance coverage, however, cases where the retiree must pay the full cost of the insurance were counted since the guarantee of insurability at group rates is considered a benefit.

Most of the tables in this bulletin show the percent of workers covered by individual benefit plans or plan provisions. Percentages are calculated in three ways. One technique, followed in tables 1-4, 6, 8, 10-16, and 72-73, shows the number of covered workers as a percent of all workers within the scope of the survey; table 87 shows the number of eligible workers as a percent of all workers. It is designed to show the incidence of the individual employee benefit.

A second approach is followed in tables 7, 9, 21, 23-29, 31, 43-44, 46-48, 52-54, 59-60, 62-63, 66, 68-71, 74, 76-79, and 81-86. These tables show the number of workers covered by specific features in a benefit area as a percent of all employees who participate in that general benefit area. They also give data concerning the typical coverage provided to persons with a given insurance, retirement, or capital accumulation plan; for example, the percent of all employees with health insurance receiving dental coverage.

The third approach provides a close look at an important aspect of a benefit (tables 22, 30, 32-42, 45, 49-51, 55-58, and 64); for example, the percent of all employees with dental coverage in their health insurance who are covered for orthodontic work. Tables 65, 67, 75, and 80 combine the second and third types above, indicating in the first row of data the percent of persons in the benefit area who have a particular coverage, while the remainder of the table is based on all employees with that coverage. Table 20 uses a similar approach.

**Table A-1. Estimated number of establishments and workers within scope of survey and number studied, medium and large firms, United States,<sup>1</sup> 1986**

Industry division <sup>2</sup>	Minimum employment in establishments within scope of survey	Number of establishments	Number of workers in establishments			
			Total <sup>3</sup>	Professional and administrative	Technical and clerical	Production
Within scope of survey <sup>4</sup>						
All industries .....	-	45,525	24,110,418	5,906,430	5,369,631	10,026,761
Manufacturing .....	<sup>5</sup> 100-250	18,810	11,390,401	2,744,932	1,647,309	6,798,243
Nonmanufacturing .....	-	26,714	12,720,017	3,161,498	3,722,322	3,228,518
Mining .....	250	560	364,144	104,777	67,344	183,275
Construction .....	250	573	244,841	59,814	34,890	122,634
Transportation, communications, electric, gas, and sanitary services .....	<sup>6</sup> 100-250	4,126	2,887,408	723,689	737,576	1,117,508
Wholesale trade .....	100	5,094	1,095,915	315,001	261,084	449,235
Retail trade .....	250	5,910	4,496,307	567,860	909,086	1,207,833
Finance, insurance, and real estate .....	100	7,574	2,729,827	938,933	1,432,516	86,620
Selected services <sup>7</sup> .....	<sup>8</sup> 50-100	2,878	901,575	451,424	279,827	61,413
Studied <sup>9</sup>						
All industries .....	-	1,308	4,346,361	1,222,928	958,054	1,784,137
Manufacturing .....	<sup>5</sup> 100-250	578	2,395,432	727,229	374,163	1,266,553
Nonmanufacturing .....	-	730	1,950,929	495,699	583,891	517,584
Mining .....	250	21	33,544	15,050	9,311	8,912
Construction .....	250	20	29,491	7,086	4,293	14,249
Transportation, communications, electric, gas, and sanitary services .....	<sup>6</sup> 100-250	153	1,052,775	248,431	262,961	390,489
Wholesale trade .....	100	112	38,698	13,687	10,402	11,594
Retail trade .....	250	135	370,350	43,931	79,235	78,291
Finance, insurance, and real estate .....	100	207	341,699	122,918	192,108	5,169
Selected services <sup>7</sup> .....	<sup>8</sup> 50-100	82	84,372	44,596	25,581	8,880

<sup>1</sup> Excludes Alaska and Hawaii.

<sup>2</sup> As defined in the 1972 edition of the *Standard Industrial Classification Manual*, U.S. Office of Management and Budget. Industry data are shown for informational purposes only and are subject to larger than sample error. See section on reliability of estimates.

<sup>3</sup> This figure includes out-of-scope workers. These workers—executive management, part time, temporary, seasonal, and operating personnel in constant travel status (e.g., airline pilots)—are excluded from the counts of employment by occupational group.

<sup>4</sup> Number of establishments and workers shown within the scope of the survey are estimates. These estimates differ from those developed in the 1986 PATC Survey, since each is based on the findings of its respective survey.

<sup>5</sup> Minimum employment size was 100 for chemical and allied products; petroleum refining and related industries; machinery, except electrical; electrical machinery, equipment, and supplies; transportation equipment; and instruments and related products. Minimum size was 250 in all other

manufacturing industries.

<sup>6</sup> Minimum employment size was 100 for railroad transportation; local and suburban transit; deep sea foreign and domestic transportation; air transportation; communications; electric, gas, and sanitary services; and pipelines; and 250 for all other transportation industries. U.S. Postal Service is excluded from the survey.

<sup>7</sup> Limited to advertising; credit reporting and collection agencies; computer and data processing services; research and development laboratories; commercial testing laboratories; management and public relations services; engineering and architectural services; noncommercial research organizations; and accounting, auditing, and bookkeeping services.

<sup>8</sup> Minimum employment size was 50 for accounting, auditing, and bookkeeping services; and 100 in all other selected services.

<sup>9</sup> These figures refer to all respondents to the survey, whether or not they provided data for all items studied. See the section on survey response.

This multilevel approach has the advantage of clearly pointing out typical benefit plan characteristics after the prevalence of the benefit has been established. Any of the second or third types of tables, if desired, can be converted to the first type by multiplying each data cell by the appropriate factors. For example, to calculate the percent of all employees with orthodontic coverage, multiply the percent of those with dental plans that cover orthodontia (table 37) by the percent of health insurance participants with dental coverage (table 28), and multiply that product by the percent of all employees who have health insurance coverage (table 1).

Tables 5, 17-19, and 61 differ from other tables because they display average benefit values rather than percentages

of workers. These tables present the averages for all covered employees; calculations exclude workers without the benefit.

### Survey response

Each combination of occupational group and work schedule or benefit area (e.g., health insurance for production employees) was treated as an individual survey, and separate estimates were developed for each. This treatment facilitated the use of partially completed establishment reports in the survey. Therefore, the actual number of responses for the survey varies for each combination.

The following summary is a composite picture of the establishment responses to the survey:

*Number of establishments:*

In sample .....	1,503
Out of business and out of scope .....	54
Refusing to respond .....	129
Nonresponse other than refusal .....	12
Responding fully or partially .....	1,308

There are three procedures used to adjust for missing data from partial schedules and total refusals. First, imputations for the number of plan participants are made for cases where this number was not reported (about 4 percent of participants in insurance and retirement plans and less than 1 percent in paid leave plans in 1986). Each of these participant values is imputed by randomly selecting a similar plan from another establishment in a similar industry and geographic region. The participation rate from the randomly selected plan is then used to approximate the number of participants for the plan which is missing a participation value but is otherwise usable.

Second, in the case of health insurance plans and retirement and capital accumulation plans, imputations for plan provisions are made when they were not available and plan participation data are reported.

For other forms of missing data (or nonresponse), an adjustment is made using a weight adjustment technique based on sample unit employment. This technique assumes that the mean value of the nonrespondents is equal to the mean value of the respondents at some detailed "cell" level. These cells are defined in a manner that groups establishments together that are homogeneous with respect to the characteristics of interest. In most cases, these cells are the same as those used for sample selection. The specific weight adjustments used in this survey were calculated in four stages for each occupational group and benefit area combination. This allowed a maximum amount of data from partially completed establishment reports to be incorporated into survey estimates. For example, data on the number of an occupational group's employees in an establishment or participants in a plan, or information on the existence of a plan, could be used even if the plan provisions could not be obtained.

**Survey estimation methods**

The survey design uses an unbiased estimator, the Horvitz-Thompson, which assigns the inverse of each sample unit's probability of selection as a weight to the unit's data. The estimator is modified to account for a weight adjustment factor developed during the adjustment for nonresponse. The general form of the estimator for a population total is:

$$Y = \sum_{i=1}^n \frac{Y_i}{P_i}$$

where n = sample size

$Y_i$  = value for the characteristics of the  $i^{\text{th}}$  unit

$P_i$  = the probability of including the  $i^{\text{th}}$  unit in the sample

The basic form of the estimator, after modification to account for the weight adjustment factor,  $f_i$ , developed during the adjustment for nonresponse, was:

$$Y = \sum_{i=1}^{n'} \frac{f_i Y_i}{P_i}$$

where  $n'$  = number of responding units

$f_i$  = weight adjustment factor for the  $i^{\text{th}}$  unit.

Appropriate employment or establishment totals are used to calculate the proportion, mean, or percentage that was desired.

**Reliability of estimates**

The statistics in this bulletin are estimates derived from a sample of approximately 1,500 establishments, rather than tabulations based on all 45,500 medium and large establishments within the scope of the survey. Consequently, the data are subject to sampling errors, as well as nonsampling errors.

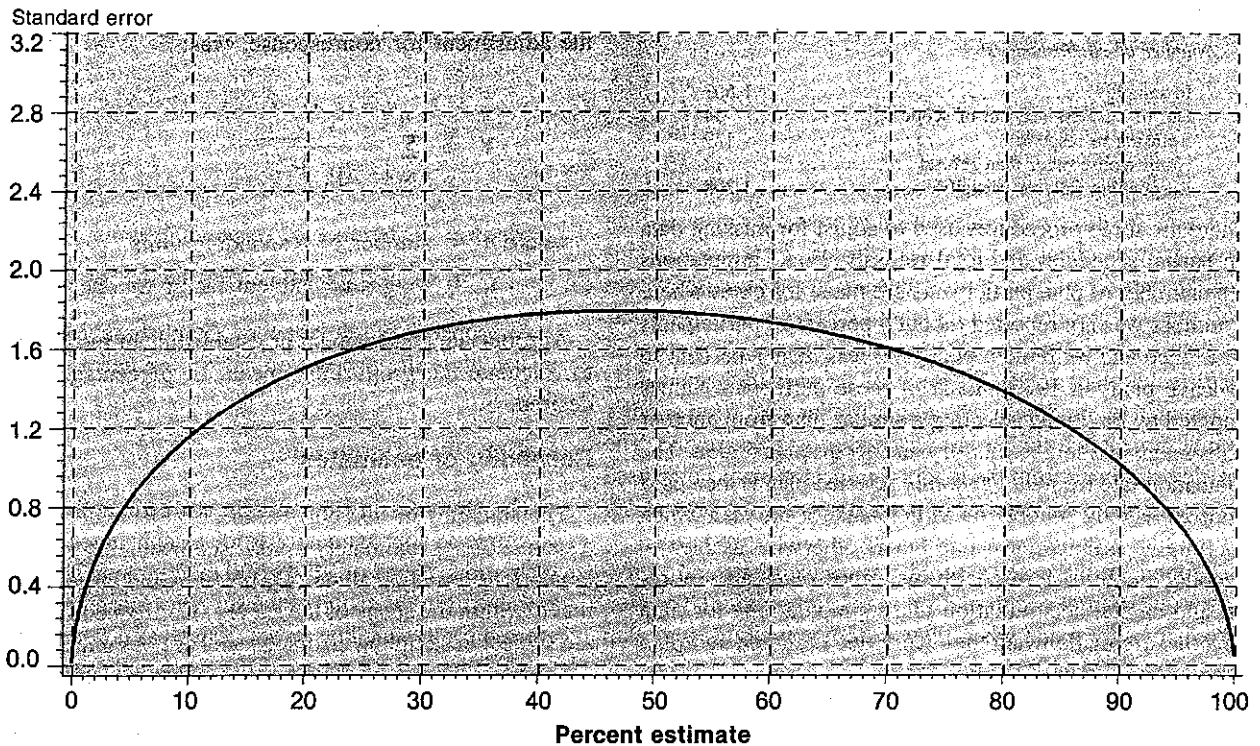
Sampling errors are the differences that can arise between results derived from a sample and those computed from observations of all units in the population being studied. When probability techniques are used to select a sample, as in the Employee Benefits Survey, statistical measures called "standard errors" can be calculated to measure possible sampling errors.

This evaluation of survey results involves the formation of confidence intervals that can be interpreted in the following manner: Assume that repeated random samples of the same size are drawn from a given population and an estimate of some value, such as a mean or percentage, is made from each sample. Then, the intervals described by one standard error below each sample's estimate and one standard error above would include the population's value for 68 percent of the samples. Confidence rises to 90 percent if the intervals surrounding the sample estimates are widened to plus or minus 1.6 standard errors, and to 95 percent if the intervals are increased to plus or minus 2 standard errors.

Chart A provides standard errors for use in evaluating the estimates in the 82 tables of this bulletin containing percentage estimates. For example, table 1 shows that 70 percent of all employees participated in sick leave plans in 1986. Chart A shows a standard error of approximately 1.6 percent for this estimate. Thus, at the 95-percent level, the confidence interval for this estimate is 67 percent to 73 percent (70 percent plus or minus 2 times 1.6 percent).

Standard errors for tables 5, 17, 18, and 19 could not be generalized into graphic representation. They are presented as tables A-2, A-3, A-4, and A-5. For example, the first entry on table 17 shows an average of 11.7 days of annual sick leave at 6 months of service. According to table A-3, the standard error for this estimate is 0.9 days. Standard errors for table 61 are not yet available.

**Chart A. Employee benefits survey generalized standard errors**



Nonsampling errors also affect survey results. They can be attributed to many sources: Inability to obtain information about all establishments in the sample; definitional difficulties; differences in the interpretation of questions; inability or unwillingness of respondents to provide correct information; mistakes in recording or coding the data; and other errors of collection, response, processing, coverage, and estimation for missing data. Through the use of computer edits of the data and professional review of both individual and summarized data, efforts are made to reduce the nonsampling errors in recording, coding, and processing the data. However, to the extent that the characteristics of nonrespondents are not the same as those of respondents, nonsampling errors are introduced in the development of estimates. Because the impact of these limitations on the Employee Benefits Survey estimates is unknown, reliability measurements are incomplete.

For those readers interested in further mathematical details, the next section describes how chart A was derived from 1982 survey data.

*Mathematical details on estimates and generalized standard errors chart*

Each estimator used in the production of the tables in this bulletin is approximately normally distributed.

Standard errors for the percentage estimates were computed from the 1982 survey data. To simplify their presen-

tation, a curve was fitted to the standard-error estimates, by regression techniques.

The curve's equation is:

$$S = e^{[a + b \{\ln(P)\}^2 + c \{\ln(100-P)\}^2 + d \ln(P) \ln(100-P)]}$$

where:

- S = standard error
- P = percentage estimate from the bulletin
- e = exponential function
- ln = natural logarithm function

For the 1982 Employee Benefits Survey, a = -0.64683, b = -0.02603, c = -0.017458, and d = 0.123726.

These are regression coefficients. The curve fits the data with  $R^2=0.85$  and no pattern in the residuals. Moreover, differences between curves using 1982 and 1983 data are negligible.

The equation of the curve was obtained empirically, by starting with the equation:

$$S = a P^b (100 - P)^c$$

More information describing survey response and reliability may be obtained from the Office of Wages and Industrial Relations, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212.

**Table A-2. Standard errors for table 5—Paid holidays and vacations: Average number of days for full-time participants, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Paid holidays .....	0.1	0.1	0.1	0.1
Paid vacation by length of service:				
At 6 months .....	.1	.1	.1	.1
At 1 year .....	.1	.1	.1	.1
At 3 years .....	.1	.1	.1	.1
At 5 years .....	.1	.1	.1	.1
At 10 years .....	.1	.1	.2	.1
At 15 years .....	.1	.1	.1	.2
At 20 years .....	.2	.1	.2	.2
At 25 years .....	.2	.1	.2	.3
At 30 years .....	.2	.2	.2	.3

**Table A-3. Standard errors for table 17—Paid sick leave: Average number of days at full pay for full-time participants by type of plan, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Paid annual sick leave by length of service:				
At 6 months .....	0.9	1.2	0.4	2.8
At 1 year .....	.7	1.1	.4	2.0
At 3 years .....	.7	1.1	.6	1.9
At 5 years .....	.9	1.5	1.3	1.9
At 10 years .....	1.4	1.9	2.2	2.0
At 15 years .....	1.8	2.5	2.7	1.9
At 20 years .....	2.3	3.2	3.4	2.0
At 25 years .....	2.4	3.2	3.4	2.2
At 30 years .....	2.4	3.2	3.4	2.2
Paid per disability sick leave by length of service:				
At 6 months .....	4.5	5.4	3.5	7.9
At 1 year .....	4.6	5.3	4.6	6.6
At 3 years .....	3.2	3.9	3.3	5.4
At 5 years .....	2.7	3.2	3.0	5.0
At 10 years .....	2.3	2.7	3.4	4.9
At 15 years .....	2.5	2.7	3.4	6.6
At 20 years .....	3.3	3.2	4.1	8.9
At 25 years .....	4.4	3.6	5.5	5.6
At 30 years .....	4.3	3.6	5.5	5.6

**Table A-4. Standard errors for table 18—Paid annual sick leave: Average number of days at full pay for full-time participants by accumulation policy and sickness and accident insurance coordination, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants	Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>At 1 year of service:</b>					<b>At 10 years of service—Continued</b>				
Cumulative plan .....	0.5	0.7	0.4	0.7	Noncumulative plan .....	2.4	3.3	4.3	3.1
With sickness and accident insurance .....	.4	.5	.4	.4	With sickness and accident insurance .....	2.0	3.5	3.1	1.3
Without sickness and accident insurance .....	.7	.8	.5	.8	Without sickness and accident insurance .....	3.6	3.6	5.6	5.5
Noncumulative plan .....	1.3	2.3	.7	3.1	<b>At 20 years of service:</b>				
With sickness and accident insurance .....	.7	1.4	.8	.8	Cumulative plan .....	1.6	2.3	2.2	1.1
Without sickness and accident insurance .....	1.9	2.8	.9	4.9	With sickness and accident insurance .....	1.9	3.2	2.3	1.5
<b>At 5 years of service:</b>					Without sickness and accident insurance .....	2.3	2.4	2.5	2.5
Cumulative plan .....	.7	1.0	.9	.7	Noncumulative plan .....	3.7	5.0	5.8	3.1
With sickness and accident insurance .....	.8	1.2	.9	.6	With sickness and accident insurance .....	2.4	4.2	3.4	2.0
Without sickness and accident insurance .....	1.0	1.0	1.1	1.3	Without sickness and accident insurance .....	5.5	5.8	8.2	5.7
Noncumulative plan .....	1.9	3.1	3.2	3.0	<b>At 25 years of service:</b>				
With sickness and accident insurance .....	1.3	2.9	1.5	.8	Cumulative plan .....	1.7	2.5	2.3	1.1
Without sickness and accident insurance .....	2.9	3.4	4.8	4.9	With sickness and accident insurance .....	2.2	3.9	2.6	1.8
<b>At 10 years of service:</b>					Without sickness and accident insurance .....	2.4	2.5	2.6	2.5
Cumulative plan .....	1.4	2.0	1.9	1.0	Noncumulative plan .....	3.8	5.1	5.8	3.3
With sickness and accident insurance .....	1.3	2.1	1.6	.9	With sickness and accident insurance .....	2.5	4.2	3.5	2.2
Without sickness and accident insurance .....	2.2	2.3	2.4	2.5	Without sickness and accident insurance .....	5.6	5.9	8.3	5.7

**Table A-5. Standard errors for table 19—Paid annual sick leave: Average number of days at full pay for full-time participants by sickness and accident insurance coordination, medium and large firms, 1986**

Item	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
<b>At 1 year of service:</b>				
With sickness and accident insurance .....	0.4	0.7	0.4	0.4
Without sickness and accident insurance .....	1.1	1.3	.5	4.2
<b>At 5 years of service:</b>				
With sickness and accident insurance .....	.9	1.6	1.0	.5
Without sickness and accident insurance .....	1.5	1.9	1.8	4.0
<b>At 10 years of service:</b>				
With sickness and accident insurance .....	1.5	2.5	2.0	.7
Without sickness and accident insurance .....	2.2	2.2	2.8	4.3
<b>At 20 years of service:</b>				
With sickness and accident insurance .....	2.1	3.3	2.5	1.2
Without sickness and accident insurance .....	3.6	3.9	4.7	4.4
<b>At 25 years of service:</b>				
With sickness and accident insurance .....	2.3	3.5	2.6	1.5
Without sickness and accident insurance .....	3.6	3.9	4.7	4.5



## Appendix B: Availability of the Survey's Data Base

The tables published in this bulletin present the major findings of the Employee Benefits Survey; results of additional research appear in the *Monthly Labor Review*. However, these tables cover only a portion of the employee benefits information collected. Persons interested in all provisions of a particular benefit studied during the annual survey can purchase a set of magnetic tapes containing the survey's data base through the Office of Wages and Industrial Relations, Bureau of Labor Statistics, Washington, DC 20212. The charge for furnishing the data is limited to the cost of producing the tapes and preparing supporting documentation.

For major benefit items, the BLS survey obtained plan provisions and employee participation data for each of three employee groups (professional-administrative, technical-clerical, and production workers). Information on employer costs was not collected. The magnetic tapes, which consist of a control file and plan data files for each benefit area, may be used to derive national estimates, similar to those published in this bulletin, for other items in the data base. For some data items not presented in this bulletin, however, the data file is insufficient to produce reliable national estimates, because either information on the provisions frequently was not available or the number of employees with the provision was very small. Moreover, the tapes cannot yield reliable estimates for individual industries, geographic regions, or establishment size classes. Full documentation accompanies the tapes, including examples of estimating formulas. Although Bureau staff will respond to questions concerning the content of the tapes, technical assistance in developing estimates is limited due to the heavy workload associated with the survey program.

Data users can purchase tapes with details of plans for one benefit area or all, i.e., health, life, sickness and accident, and long-term disability insurance; private retirement and capital accumulation plans; flexible benefits and reimbursement accounts; and paid time off provisions—lunch time, rest periods, holidays, personal leave, vacations, funeral leave, jury-duty leave, military leave, and sick leave. The plan data file contains provisions for each plan which was reported and for which usable information was available. However, plan identification numbers on the tape are scrambled (and other identifying information is removed) to protect the confidentiality of responding establishments.

Purchasers also receive the control file, which contains establishment information required to produce estimates from the plan data. Control file records include establishment sam-

ple weights and size codes; geographic, industrial, and employee group classification codes; and the number of workers in the employee group. The control file also lists all benefit plans offered in each establishment, with the number of plan participants in each employee group. A plan is listed on more than one control file record if it covers employees in more than one establishment. Although plan identification numbers on the control file are scrambled, the same scrambled numbers appear on the data file so they can be matched to make estimates. Because establishment schedule numbers on the control file are scrambled differently for each employee group, it will not be possible to link together plans offered to different employee groups within an establishment.

Benefit provisions obtained from plan documents are recorded in coding manuals for insurance, retirement, and capital accumulation plans, and are then entered on the plan data file. A set of coding manuals and instructions for completing them are supplied to tape purchasers for interpretation of data on the file. Paid time off and flexible benefits provisions are reported on collection forms which are also provided to tape purchasers.

The analysis of insurance, retirement, and capital accumulation plans is extremely detailed. The following list of health insurance plan provisions included in the data base gives an indication of the breadth and depth of the information available on the magnetic tapes. Other insurance and pension analysis is similarly detailed.

### Health insurance data base

- Plan participation requirements
  - When plan participation begins
  - Waiting period by type of benefit
  - Maximum age for participation

- Employee contribution for employee and family benefits—
  - monthly contribution
  - Pretax status of contributions

### Section A

- Funding media for major categories of health care
  - Hospital benefits
  - Surgical benefits
  - Medical benefits
  - Major medical benefits
  - Dental benefits

Administrative details  
Pre-existing condition  
Minimum age of dependent children  
Waiting period in case of infant illness  
Maximum age of dependent children  
Retiree eligibility  
Effect of retirement on coverage or contributions  
Disabled employees' benefit coverage  
Survivors' benefit coverage  
Effect of layoff on benefit coverage

#### Section B

Hospital and extended care coverage  
Hospital room and board coverage  
Hospital miscellaneous charges  
Extended care coverage  
Extended care—licensed extended care facility  
Basis of extended care coverage  
Extended care—home health care

Surgical and medical benefits  
Surgical care coverage  
Surgical schedule  
Conversion factor for relative value schedule  
Selected surgical procedure maximums  
In-hospital medical coverage  
Medical office coverage

Maternity care benefit  
Who is covered

Diagnostic X-ray and laboratory testing  
(DXL) benefit  
DXL coverage  
Limitations on DXL coverage  
DXL schedule  
Selected DXL procedure maximums

Outpatient care and special accident benefit  
Outpatient care coverage  
Separate limitations  
Accidental bodily injury—special benefit

Prescription drug and private duty nursing coverage  
Prescription drug  
Private duty nursing

Mental health care benefits  
Mental health care coverage  
Hospital confinements due to mental disorders  
Comparison with hospital confinements for other illnesses  
Selected coverages for mental health care  
Coverage in special hospital

Dental care benefits  
Dental care coverage  
Coverage of employees  
Coverage of spouses

Coverage of dependent children  
Prophylaxis and routine exams  
Fillings  
Surgery—dental  
Inlays  
Crowns  
Periodontal care  
X-rays  
Orthodontia  
Incentive schedule  
Deductible  
Maximum coverage  
Copayment

Vision care benefits  
Vision care coverage  
Eyeglasses  
Schedule for eyeglasses  
Eye exams  
Contact lenses  
Orthoptics

Other medical benefits  
Second surgical opinion  
Alcoholism treatment  
Drug abuse treatment  
Hearing care  
Hospice care  
Physical examinations

Cost containment features

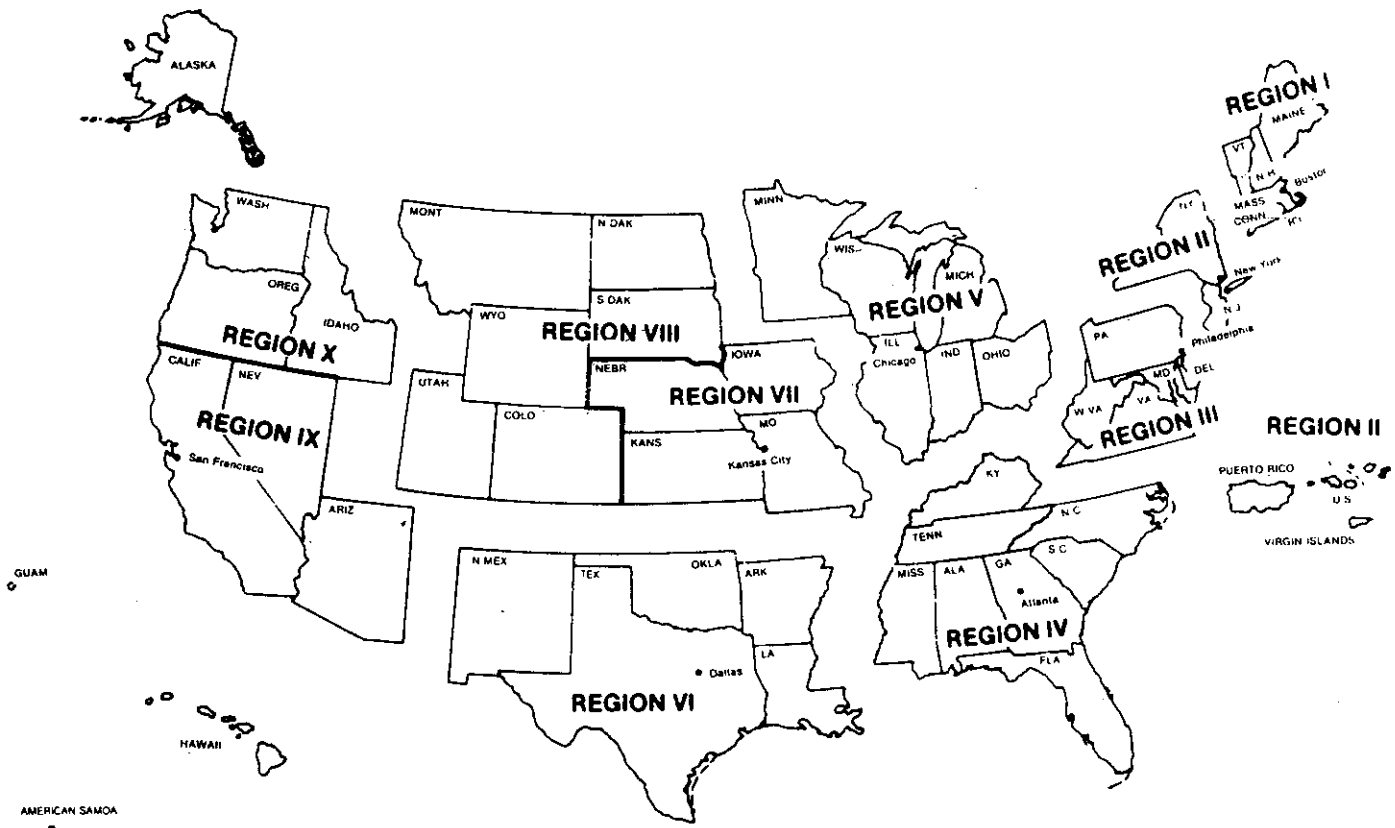
#### Section C

Deductible, coinsurance, and/or maximum benefit provisions  
Covered expenses  
Deductible expenses  
Coinsurance by the amount of incurred expenses  
Coinsurance by the number of days/visits  
Maximum dollars per day/visit by number of days/visits  
Maximum number of days/visits for specified expenses  
Maximum dollars payable for specified covered expenses

Section C questions are designed to identify and describe the benefit provisions of covered expenses in section B that are subject to deductible, coinsurance, and/or maximum benefit provisions. This section consists of 15 sets of 7 questions. One set of questions is completed for each covered expense, or group of covered expenses, with identical deductible, coinsurance, and maximum benefit provisions. In the first question of each set, the group of expenses with common provisions is identified. The remaining six questions give the benefit provisions for the group. Additional sets of questions are completed until the benefit provisions of all covered expenses have been described.

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