Postretirement increases under private pension plans

Forty percent of pension participants had plans providing benefit increases for retirees during 1978–81; increases were usually less than half the rise in the Consumer Price Index

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Rapid inflation over a short time span can substantially reduce the purchasing power of fixed retirement incomes. For example, over the 1978–81 period, when consumer prices rose 51 percent,[1] retirees with fixed private pensions experienced a one-third decline in the buying power of these annuities.

A lower rate of inflation—but continuing over a longer period—may have still greater effects on today's retirees, who often will receive pension benefits for 15 years or more.[2] An inflation rate of 5 percent a year would, after 15 years, cut in half the purchasing power of the original pension benefit, and a 7.5-percent annual rate of price increase would result in a two-thirds reduction. Thus, even without "double-digit" inflation, the value of a fixed pension can be seriously eroded during retirement. To offset part of this loss, many employers grant pension increases to retirees or their beneficiaries.[3]

Information on the extent of these postretirement pension increases is available from the Bureau's annual survey of the incidence and provisions of employee benefit plans.[4] This survey is conducted in the United States—excluding Alaska and Hawaii—in private sector establishments 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, real estate; and selected services. The 1982 survey sample comprised 1,516 establishments, designed to represent 21 million employees in 44,288 establishments. Excluded from the survey were executive management employees (those whose decisions have direct and substantial effects on an organization's policymaking) and part-time, temporary, seasonal, and traveling operating employees, such as airline flight crews and long-distance truckdrivers.

Data for the survey were obtained on the number of full-time active employees covered by pension plans, but not the number of retirees or beneficiaries actually receiving annuities. Consequently, it cannot yield direct information on either the proportion of annuitants receiving postretirement pension increases or the average amount of their benefit improvements. However, the magnitude of both can be roughly indicated by weighting the information collected on postretirement increases by the number of active workers participating in plans that granted such increases. This approach was followed to develop the data for this article.

Survey parameters

In 1982, 17.6 million full-time workers participated in private pension plans of medium and large firms; 40 percent were covered by plans which gave annuitants at least one postretirement increase during 1978 through 1981. Three percent of the participants were in plans providing these increases automatically. The remainder were under plans with formulas that determined initial pension levels—for

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example, years of service times a flat dollar amount or a percent of average earnings—but were silent as to postretirement adjustments. In these situations, increases, when made, were on an ad hoc, or discretionary, basis.

This information comes from the Bureau's 1982 survey, the first since the program began in 1979 to include questions on ad hoc postretirement adjustments. Firms were asked to provide information on all such adjustments made during the 1978–81 period. This article examines the extent, value, and methods of determining the adjustments.

Survey respondents supplied information on the effective dates of postretirement pension adjustments, formulas used to determine the amounts of increase, and provisions relating to minimum or maximum increases. Many of the formulas varied the size of the increase according to the pension amount or the date of retirement. Thus, for this analysis, adjustments were determined for four monthly pension values ($250, $500, $750, and $1,000) and three retirement dates (December 31, 1967, 1972, and 1977). The four pension values represent the benefit payable as of December 31, 1977, the day before the period studied for postretirement increases. The three retirement dates are for persons who had retired 10 years, 5 years, and immediately prior to the period studied. The pension adjustments for individual plans were then averaged using the number of active worker participants as weights to provide surveywide estimates for each example.

The analysis showed that automatic adjustments between 1978 and 1981 averaged 13.4 to 15.2 percent among the four pension values studied. Ad hoc adjustments averaged 8.8 to 24.3 percent, depending on the pension value in 1977 and the employee's retirement date. The largest percentage increases under both methods went to retirees with the smallest pensions. This resulted from a variety of factors, such as the use of flat dollar increases, specified minimum and maximum increases, and restriction of percentage increases to a portion of the original pension. Ad hoc adjustments also commonly provided greater increases to those retired the longest.

Despite these increases, the purchasing power of the annuities rarely was maintained. For all but one of the groupings studied, average postretirement increases were less than half the rise in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) during the 4 years under examination.

Ad hoc adjustments

Postretirement annuity adjustments typically are made on a nonautomatic (discretionary or ad hoc) basis (table 1). Such increases may be granted at irregular intervals and their size is at the discretion of the employer (and union),[5] based on such factors as pension fund investment performance, the firm's financial position, and general economic conditions.

Ad hoc adjustments were granted by some employers during the 1950's and 1960's, but became more prevalent during the 1970's.[6] The 1978–81 period studied by the Bureau probably experienced a higher-than-normal incidence of such adjustments, as accelerating inflation focused attention on the adequacy of fixed retirement income. Nearly two-fifths of the pension plan participants covered by the Bureau's 1982 survey were in plans that gave at least one ad hoc increase to retirees during the 1978–81 period. Of the participants in pension plans granting discretionary increases, nearly half were in plans paying more than one increase during the 4 years (table 2). Although there was no sharp difference in the incidence of ad hoc increases among the three occupational groups presented, production workers were the most likely to be in plans with multiple increases.

Table 1. Percent of full-time participants in pension plans granting postretirement annuity increases, medium and large firms, 1978–81

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Total	100	100	100	100
Participants in plans with one or more postretirement increases[1]	40	43	38	40
Automatic only[2]	2	3	2	2
Ad hoc only[3]	37	39	34	38
Automatic and ad hoc	1	1	1	([4])
Participants in plans without postretirement increases	60	57	62	60

[1]Participants are active workers covered by pension plans granting annuity increases to retirees during the period studied.

[2]Automatic adjustments usually are geared to changes in a designated statistical series, most commonly the Consumer Price Index. Provisions for adjustments are included in the pension plan.

[3]Ad hoc adjustments are given at the discretion of the employer (and union if collectively bargained)—both as to timing and amount—and are not required by the pension plan.

[4]Less than 0.5 percent.

NOTE: Data exclude supplemental and defined contribution pension plans. Because of rounding, sums of individual items may not equal totals.

Ad hoc increases were more widespread during 1980 and 1981 than in the previous two years. This is illustrated in the following tabulation, which provides a percentage distribution of participants in plans granting discretionary increases by year of adjustment. Half or more were in plans paying increases in 1980 and 1981, compared with about one-third in 1978 and 1979:[7]

	1978	*1979*	*1980*	*1981*
All participants	32.8	34.3	49.2	60.7
Professional and administrative participants	30.9	30.2	42.1	52.6
Technical and clerical participants	26.5	22.8	44.1	49.0
Production participants	36.8	41.9	55.4	70.5

As described later in this article, nearly all pension plans with automatic adjustment provisions gave annual increases; however, relatively few plans provided discretionary increases in each of the 4 years studied.[8]

Funds needed to finance these ad hoc annuity improvements come either from assets of a pension (or related welfare) fund or wholly or partly from general assets of a business firm.[9] A 1981 study of pension increases indicates that some large corporations elect the latter approach.[10]

Methods of calculating increases. Table 2, which summarizes information on benefit formulas for the most recent ad hoc increase, shows the variety of techniques used to determine the adjustments. Forty-one percent of the participants in pension plans granting discretionary increases were under plans which provided specified increases per year of retirement. Such plans, more common among white- than blue-collar workers, provided percentage increases per year of service that ranged from less than 2 percent to more than 5 percent; frequently, however, there was a ceiling placed on the total amount provided.

A second approach, in plans covering 36 percent of the participants, called for flat increases, either in dollars or, more commonly, percentage. The incidence of this type of formula was fairly consistent across the three occupational groups shown in table 2. White-collar employees, however, were more likely to receive percentage increases, while flat-dollar increases were more likely for blue-collar workers. These plans often recognized length of retirement by varying the flat amount or percentage depending on the employee's date of retirement. For example, ad hoc increases might be based on the following formula:

Year of retirement	*Percent increase in benefits*
Prior to 1970	30
1970 or 1971	25
1972 or 1973	20
1974 or 1975	15
1976 or 1977	10
1978 or 1979	5

The third basic approach, covering 20 percent of the participants, tied the pension increase to the retiree's length of service. For example, monthly pension checks might be increased by 75 cents per year of service. Such adjustments were common among production workers, who, more often than white-collar employees, have their initial pension determined as a specified dollar amount multiplied by years of service;[11] many of these adjustments were collectively bargained, and increases for retirees were related to improvements in pension accruals of active employees.

Ad hoc adjustment formulas occasionally specify minimum or maximum annuity improvements. Eighteen percent of the participants were under plans whose adjustment formulas provided minimum benefit increases (table 3). Minimums typically were small, usually between $5 and $15 a month among the plans analyzed. Maximums on benefit improvements were twice as common as minimums. These caps typically were specified in percentage terms, and most often were less than 10 percent of current annuities.

Table 2. Percent of full-time participants in pension plans granting ad hoc postretirement annuity increases by adjustment formulas, medium and large firms, 1978–81

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Number of increases granted, 1978–1981[1]				
Total	100	100	100	100
One	52	57	67	43
Two	23	27	20	22
Three	10	9	8	11
Four	15	6	5	24
Benefit formula for most recent increase				
Total	100	100	100	100
Increase per year of retirement	41	49	49	33
Monthly dollar amount	(2)	—	—	1
Percent of present benefit	41	49	49	32
Less than 2.0	2	3	2	1
2.0	6	7	8	5
2.1–2.5	3	3	2	3
3.0	7	11	9	3
4.0–4.9	3	4	4	3
More than 5.0	20	22	23	17
Flat increase	36	33	39	35
Monthly dollar amount	6	2	1	11
Less than $10	(2)	(2)	(2)	1
$10	3	(2)	(2)	7
More than $10	1	—	(2)	3
Varies by date of retirement	1	1	1	1
Percent of present benefit	29	31	38	24
Less than 5	2	3	5	1
5	1	1	1	2
5.1–9.9	3	5	4	2
10	3	3	5	2
More than 10	2	2	1	1
Varies by date of retirement	18	16	21	17
Increase per year of service	20	12	9	30
Monthly dollar amount	19	11	8	29
$.50 or less	3	2	2	5
$.51—$.99	12	7	5	18
$1 or more	3	2	2	3
Varies by date of retirement	1	(2)	(2)	2
Percent of present benefit	1	1	(2)	2
Other types of formulas[3]	1	(2)	(2)	1
Combination of two or more benefit formulas	2	4	2	1
Data not available	1	1	1	(2)

[1]A few plans granted two increases in a single year. Such increases were consolidated and treated as a single increase in preparing this table.

[2]Less than 0.5 percent.

[3]Includes plans which specified a minimum level of benefits, raising all annuities below that level.

NOTE: Data exclude supplemental and defined contribution pension plans. Because of rounding, sums of individual items may not equal totals. Dash indicates no participants in this category.

Average increases. The amount of ad hoc adjustments generally depends on one or both of the following factors: the size of the annuity prior to the adjustment and the date of retirement. Table 4 presents data on the average 1978–81 increases developed from the survey, given varying assumptions regarding these two factors. (When formulas took length of service into account, 25 years' service was assumed.)

For the particular combinations of annuity size and length of retirement studied, average increases over the 4-year period ranged from $35 to $161 a month, or from 8.8 to 24.3 percent. On average, the greatest dollar increases went to retirees with the highest pensions. In percentage terms, however, the reverse was true, reflecting the influence of flat dollar adjustment formulas and limits on the size of increases.

Three-fifths of the participants in pension plans with ad hoc increases were under plans varying adjustments by length of retirement. The effect of these plans is evident in table 4. During the 1978–81 period, employees who retired in 1967 received increases averaging nearly twice as much as those who retired in 1977. By granting larger increases to those who retired earlier, employers recognized that their initial pensions had lost the most purchasing power to inflation. In addition, the earlier the retirement date, the greater the likelihood of a relatively small, initial pension.

Frequency of individual adjustments also influenced the size of increases. Thus, plans providing two or more increases yielded smaller gains, on average, in each of the individual adjustments, but a higher total improvement over the 1978–81 period (table 5).[12]

Automatic adjustments

As noted, 3 percent of the pension plan participants in 1982 could expect automatic benefit adjustments after retirement. Of those, 2 percent were under plans that granted only automatic adjustments to retirees in the 1978–81 period, while plans covering the other 1 percent gave ad hoc increases in addition to the automatic adjustments (table 1).[13]

Automatic adjustment formulas usually tie into changes in designated statistical series, most often the CPI. Of the 880 defined benefit pension plans[14] examined in the 1982 survey, 23 included provisions for automatic adjustments, and all but one of these plans tied into the CPI. The exception gave automatic 2-percent pension increases each year, independent of price changes. Automatic pension adjustment provisions linked to wage rather than price indexes do exist, but none appeared in the survey sample.[15]

Eleven of the 23 plans called for an annual increase equal to the percentage rise in the CPI, up to a maximum of 3 percent. Other plans in the sample gave pension increases that were less than the full CPI increase, but often had caps higher than 3 percent. In some instances, adjustment provisions were not triggered until the CPI had risen a specified percent, such as 3 percent. Some of the plans restricted the percentage adjustments to the first $500 or other initial level of the pension.

Three-fifths of the plans with automatic adjustment provisions allowed for decreases in the CPI. Most of these, however, prevented annuities from being reduced below the initial pensions.

Among the four pension values analyzed, automatic adjustments averaged between 13.4 and 15.2 percent over the 1978–81 period (table 6). The most common increase was 12.6 percent—the result of compounding annual increases of 3 percent over the 4 years. The average increases, however, were raised largely by one plan, which granted uncapped increases equal to 100 percent of the rise in the price index.[16]

The infrequency of automatic adjustment provisions can be attributed mainly to cost considerations. When a firm ties pension benefits to a price index without limitations, it assumes a potentially large and indeterminate future obli-

Table 3. Percent of full-time participants in pension plans granting ad hoc postretirement annuity increases by provisions for minimum and maximum increases, medium and large firms, 1978–81

Characteristic	All participants	Professional and administrative participants	Technical and clerical participants	Production participants
Provision for minimum increase in most recent adjustment				
Total	100	100	100	100
No minimum	82	78	79	85
With minimum	18	22	21	14
Monthly dollar amount	16	19	18	13
Less than $5	(1)	(1)	1	—
$5	2	3	2	2
$6–$9	(1)	(1)	1	(1)
$10	6	8	8	4
$11–$14	2	1	1	2
$15	4	5	4	3
$20	(1)	(1)	(1)	(1)
$25	1	1	1	1
More than $25	(1)	(1)	(1)	1
Varies by date of retirement	1	2	1	(1)
Percent of present benefit	2	3	3	1
Data not available	1	(1)	1	(1)
Provision for maximum increase in most recent adjustment				
Total	100	100	100	100
No maximum	62	54	55	70
With maximum	37	45	45	30
Monthly dollar amount	6	9	7	4
$100 or less	2	3	3	(1)
$101–$150	1	1	(1)	2
$151–$200	(1)	1	(1)	(1)
More than $200	3	5	3	1
Percent of present benefit	31	35	37	26
Less than 10	18	16	22	16
10–14	10	13	8	9
15–19	1	1	2	(1)
25–29	(1)	(1)	(1)	(1)
30 or more	2	4	3	(1)
Varies by date of retirement	(1)	(1)	(1)	(1)
Greater of a monthly dollar amount or a percent of present benefit	(1)	1	1	—
Data not available	1	1	1	(1)

[1] Less than 0.5 percent.

NOTE: Data exclude supplemental and defined contribution pension plans. Because of rounding, sums of individual items may not equal totals. Dash indicates no participants in this category.

Table 4. Average ad hoc postretirement annuity increases at selected pension levels by employee group and retirement dates, medium and large firms, 1978–81

Employee group and date of retirement	Monthly pension on December 31, 1977[1]							
	$250		$500		$750		$1,000	
	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81
All full-time participants[3]								
December 31, 1967	$311	24.3	$596	19.1	$879	17.2	$1,162	16.2
December 31, 1972	300	19.9	581	16.2	860	14.6	1,136	13.6
December 31, 1977	285	14.0	553	10.6	820	9.4	1,088	8.8
Professional and administrative participants								
December 31, 1967	319	27.5	614	22.8	908	21.0	1,200	20.0
December 31, 1972	303	21.3	594	18.9	880	17.3	1,165	16.5
December 31, 1977	284	13.4	557	11.4	830	10.7	1,103	10.3
Technical and clerical participants								
December 31, 1967	306	22.6	596	19.3	886	18.1	1,174	17.4
December 31, 1972	295	17.9	582	16.3	864	15.2	1,147	14.7
December 31, 1977	278	11.4	550	9.9	820	9.4	1,092	9.2
Production participants								
December 31, 1967	311	24.3	586	17.2	861	14.8	1,136	13.6
December 31, 1972	300	19.9	574	14.9	846	12.8	1,117	11.7
December 31, 1977	285	14.0	552	10.4	815	8.7	1,078	7.8

[1] The monthly pension immediately prior to the period in which ad hoc increases were studied.

[2] Increased pension benefit payable on December 31, 1981, as a result of ad hoc increases during 1978–81. Pension increases for individual plans were averaged using the number of active worker participants as weights to provide surveywide estimates for each example.

[3] Participants are active workers covered by pension plans granting ad hoc annuity increases to retirees during the period studied.

NOTE: Data exclude supplemental and defined contribution pension plans. For plans varying increases by a retiree's length of service, 25 years of service was assumed.

gation. Thus, most plans with automatic adjustments curb costs by restricting the size of the annual increases. In their book, *Employee Benefit Planning*, Jerry S. Rosenbloom and G. Victor Hallman provide a rule of thumb that says, ". . . pension costs can increase by about 10 percent for each 1 percent increase in benefits provided to pensioners."[17] Employers generally avoid signing a "blank check" for pension increases by providing ad hoc improvements, rather than adopting a formula for automatic benefit adjustments.

Benefit adjustments and inflation

The CPI-W rose 51 percent between December 1977 and 1981. Although this index may not be an accurate gauge of changes in retirees' purchasing power (retirees may not have the same spending patterns as active workers) it provides statistical evidence that the real value of retirees' private annuities generally declined over the 4 years. Even for the retiree group associated with the largest percentage increase in annuities during this period, professional and administrative workers retiring in 1967 and having a $250 monthly pension in 1977, the rate of increase was not much more than half the rise in the price index (table 4).[18] Total purchasing power of retirees, however, did not necessarily fall to the degree that the comparison would suggest; most of those with private pension benefits also received social security payments, which are adjusted to take account of changes in the CPI-W.[19]

Which method of adjustment—automatic or ad hoc—provided retirees with the greater degree of protection against inflation? Comparison of table 4 and 6 shows that employees who retired in December 1977, just prior to the 4-year period studied, fared better with automatic increases. The average annuity increase under plans providing automatic adjustments varied between 13.4 and 15.2 percent, while the average ad hoc increase ranged from 8.8 to 14.0 percent. Although individual ad hoc increases were generally larger than individual automatic increases, the latter were granted annually, whereas most plans providing discretionary adjustments gave only one such increase during the entire 4-year period.

A contrary picture emerges when we focus on 1967 and 1972 retirees. For these individuals, comparisons of tables 4 and 6 favor retirees receiving discretionary increases. Do

Table 5. Average of total ad hoc postretirement adjustments, 1978–81, by number of increases and retirement date, medium and large firms

Monthly pension on December 31, 1977 and retirement date	Number of increases			
	1	2	3	4
$250:				
December 31, 1967	$47	$72	$93	$72
December 31, 1972	37	57	69	72
December 31, 1977	21	32	41	66
$500:				
December 31, 1967	78	125	145	96
December 31, 1972	58	101	117	96
December 31, 1977	29	55	63	86
$750:				
December 31, 1967	124	183	188	119
December 31, 1972	95	146	160	119
December 31, 1977	52	70	86	106
$1,000:				
December 31, 1967	160	243	220	143
December 31, 1972	123	191	190	143
December 31, 1977	66	90	111	125

Table 6. Average automatic postretirement annuity increases at selected pension levels, by employee group, medium and large firms, 1978–81

Employee group	Monthly pension on December 31, 1977[1]							
	$250		$500		$750		$1,000	
	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81	Average monthly pension on Dec. 31, 1981[2]	Percent increase, 1978–81
All full-time participants[3]	$288	15.2	$571	14.1	$853	13.7	$1,134	13.4
Professional and administrative participants	286	14.4	568	13.6	850	13.3	1,131	13.1
Technical and clerical participants	288	15.2	572	14.4	855	14.0	1,139	13.9
Production participants	290	15.9	572	14.4	853	13.7	1,134	13.4

[1] The monthly pension immediately prior to the period in which automatic increases were studied.

[2] Increased pension benefit payable on December 31, 1981 as a result of automatic increases during 1978–81. Pension increases for individual plans were averaged using the number of active worker participants as weights to provide surveywide estimates for each example.

[3] Participants are active workers covered by pension plans granting automatic annuity increases to retirees during the period studied.

NOTE: Data exclude supplemental and defined contribution pension plans.

those contrasting results come about because ad hoc increases tend to favor those who retired earlier or because possibly fewer discretionary increases were granted before 1978, encouraging larger catch-up payments? An answer to this question is not possible from the data collected in this study.

IN ANY EVENT, a minority of pension plan participants were under plans providing for either automatic or ad hoc adjustment. Three-fifths of all participants within scope of the Bureau's employee benefit study were under plans that did not make postretirement pension adjustments in the 1978–81 period.[20] □

FOOTNOTES

[1] The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) rose from 186.1 in December 1977 to 281.1 four years later (1967 = 100).

[2] The average 65-year-old man can now expect to live until age 80, and the average 65-year-old woman's life expectancy extends beyond age 83. *Vital Statistics of the United States: 1980* (National Center for Health Statistics, U. S. Department of Health and Human Services, 1984).

[3] Such postretirement increases also reduce the growing spread between fixed pensions and rising earnings of current workers.

[4] Major findings of the 1982 survey are reported in *Employee Benefits in Medium and Large Firms, 1982,* Bulletin 2176 (Bureau of Labor Statistics, 1983). For information on the background and conduct of the survey, see Robert Frumkin and William Wiatrowski, "Bureau of Labor Statistics takes a new look at employee benefits," *Monthly Labor Review*, August 1982, pp. 41–45.

[5] Employer and union, if collectively bargained.

[6] Ad hoc increases offered by a selected group of large firms since the early 1970's are listed in *Top 50–A Survey of Retirement, Thrift, and Profit Sharing Plans Covering Salaried Employees of 50 Large U.S. Industrial Companies as of January 1, 1982* (New York, The Wyatt Company, 1982), pp. 48–54.

[7] In this tabulation, the total of the percentages for 1978 through 1981 exceeds 100 because many participants were in plans that granted multiple increases.

[8] Fifteen percent of the participants in plans that gave discretionary increases were under plans providing this benefit in each of the 4 years.

[9] In 1980, the Employee Retirement Income Security Act (ERISA) was amended to allow employers to treat supplemental benefits paid to retirees as if they were paid under a welfare plan. This made it easier for employers to supplement the annuities of retirees because welfare plans are subject to less stringent requirements under ERISA than pension plans. For example, welfare plans are not subject to vesting or funding standards.

[10] *Pension Increases for Retired Employees* (New York, Towers, Perrin, Forster, and Crosby, 1981), p. 3.

[11] *Employee Benefits in Medium and Large Firms*, p. 40 (table 35).

[12] Of the 239 plans analyzed for this tabulation, 155 provided 1 increase, 56 provided 2 increases, 19 provided 3, and 9 provided 4. The averages are the unweighted dollar amounts that these plans would yield given the pension and retirement date assumptions indicated.

[13] Automatic adjustment procedures are more common in the public sector, which is excluded from this study. Both the Federal Civil Service Retirement System and the Military Retirement System provide automatic cost of living adjustments, as does the Social Security System.

[14] Defined benefit plans contain a formula for calculating retirement benefits and obligate the employer to provide the benefits so determined. Employer contributions are not fixed, but are whatever is needed, together with earnings of pension fund investments, to finance the required benefits.

The Bureau's 1982 study of employee benefit plans reviewed 921 pension plans. Forty-one were money purchase or supplemental plans, which were excluded from this analysis.

[15] Similarly, no variable annuity plan appeared in the sample of defined benefit plans. Variable annuity arrangements, by tying pensions to earnings of investments in common stock, are designed to achieve results similar to those under plans indexing benefits to CPI movements.

[16] As of October 1980, this plan applied the annual automatic cost-of-living adjustment only to that portion of pension benefits accrued prior to October 1980.

[17] Jerry S. Rosenbloom and G. Victor Hallman, *Employee Benefit Planning* (Englewood Cliffs, N.J., Prentice-Hall, 1981), p. 290.

[18] Accepting the CPI-W as an appropriate index for retirees, it is possible to determine the combined effect of price and annuity increases on retirees' purchasing power. For the professional-administrative employees retired in 1967 and with $250 annuities in 1977, on the average, pensions by the end of 1981 had lost 16 percent of their purchasing power 4 years earlier. For other retiree groups shown in table 4, the loss was greater.

[19] For a comparison of changes in combined private pension and social security income and the inflation rate, see *Pension Increases for Retired Employees*, p. 7.

[20] Preliminary data from the 1983 BLS survey of employee benefits indicate that about half of the pension plan participants had plans which provided at least one postretirement increase for retirees during the 5-year period 1978–82. Survey results will appear in the BLS bulletin, *Employee Benefits in Medium and Large Firms, 1983*.