# Tracking Changes in Benefit Costs

In the last four decades of the 20th century, the proportion of employer compensation costs has shifted away from wages and toward insurance, retirement plans, and legally required benefits.

WILLIAM J. WIATROWSKI

In the final four decades of the 20th century, employee compensation, as measured by employer costs, has undergone dramatic shifts. In 1959, cash payments (including straight-time pay, premium pay, bonuses, and paid leave) comprised 91 percent of all compensation costs for production workers in manufacturing industries; this fell to 78 percent by 1998. The remaining employer compensation costs were for benefits – those non-wage items that generally provide time off, insurance protection, and retirement security. In 1959, the largest proportion of benefit expenditures was for paid time off; by 1998, the largest benefit expenditure was for legally required items, such as Social Security and medicare.

These facts set the stage for the story of changes in compensation that have been widely reported and widely attributed to a variety of causes: New legally-required benefits such as medicare, which didn't exist in 1959; new and revised laws encouraging and regulating certain benefits, particularly retirement plans; changes in workforce demographics—notably more working women and younger retirees—leading to changes in compensation; and rising health care costs spurred by technological advances and increased demand.[1] In contrast, the data also suggest that the primary compensation medium is still cash. This article traces data from the Bureau of Labor Statistics on compensation costs over the past 40 years, exploring both the changes that have occurred and the similarities that still exist after two generations.

William J. Wiatrowski is an economist in the Division of Compensation Data Analysis and Planning, Bureau of Labor Statistics.
Telephone: (202) 606-6255
E-mail: Wiatrowski_W@bls.gov

Data on employer costs for compensation come from two BLS surveys. The first, Employer Expenditures for Employee Compensation (EEEC), was conducted from 1959 through 1977. The survey captured total dollars paid for various components of compensation during the year, at first just for production and related workers in manufacturing industries and later for all workers in private industry. (The difference in survey coverage is reflected in the accompanying tables.) These data along with employee work hours were used to construct an average cost per hour worked estimate for each component of compensation. The sum of these costs provided a total compensation cost and also allowed ratios of each component as a percent of total compensation to be computed.[2]

The desire for greater information on trends in compensation costs led BLS to develop a new program, the Employment Cost Index (ECI), in the mid-1970s. The ECI reports rates of change in employer costs for compensation. (See table 1 for an example of current ECI estimates.) At present, nearly 300 ECI series are published quarterly; data users include the Federal Reserve Board (to set monetary policy), the Health Care Financing Administration (to set medicare reimbursement rates), and the U.S. Office of Personnel Management (to set pay for certain Federal workers).

The ECI is designed as a fixed-weighted Laspeyres index. The employment weights used to construct the index are fixed.[3] To reflect changes in the price of compensation rather than the number of workers receiving the compensation, data are captured for a fixed set of occupations and compensation components over a given time period. For example, in one establishment, data may be collected for full-time entry level accountants. Wage and benefit costs

TABLE 1. **Percent changes in employee compensation, Employment Cost Index, seasonally adjusted, 1996-98**

| | 3 months ending — | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Dec. 1996 | Mar. 1997 | June 1997 | Sept. 1997 | Dec. 1997 | Mar. 1998 | June 1998 | Sept. 1998 |
| Civilian workers | | | | | | | | |
| Compensation costs | 0.7 | 0.7 | 0.8 | 0.8 | 1.0 | 0.7 | 0.9 | 1.0 |
| Wages and salaries | .7 | .8 | .9 | .9 | 1.1 | .8 | .9 | 1.2 |
| Benefit costs | .6 | .3 | .5 | .5 | 0.8 | .4 | .8 | 0.8 |
| Private industry | | | | | | | | |
| Compensation costs | .7 | .6 | .9 | .8 | 1.0 | .7 | .9 | 1.1 |
| Wages and salaries | .7 | .9 | .9 | 1.0 | 1.1 | .8 | 1.0 | 1.3 |
| Benefit costs | .6 | .1 | .6 | .5 | .9 | .3 | .8 | .7 |
| State and local government | | | | | | | | |
| Compensation costs | .7 | .6 | .5 | .6 | .6 | .8 | .7 | .8 |
| Wages and salaries | .8 | .6 | .6 | .7 | .8 | .7 | .7 | .7 |
| Benefit costs | .7 | .4 | .3 | .3 | .3 | .8 | .7 | 1.0 |

for these same workers are tracked as long as the establishment is part of the survey. Similarly, data may be collected for the cost of a vacation plan for a group of workers with a given length of service distribution (those with less than 1 year of service, those with 1 to 5 years, etc.). Vacation costs over time are calculated based on this fixed length of service distribution. Beginning in 1986, ECI data were also used to produce a new series called Employer Costs for Employee Compensation (ECEC), which presents the average dollar cost per hour worked for various compensation components as well as the percent of total compensation cost attributable to each component. Unlike the ECI, the ECEC uses current, not fixed, employment weights, thereby representing current costs of compensation.[4] The ECEC data from 1986 until the present are used for the analysis in this article.

There are two important differences between the EEEC and the ECEC. The first involves the data being collected. EEEC is a measure of expenditures, collected retrospectively for the entire year just completed. An expenditure is the total dollar cost paid for the benefit in a year, and reflects all changes to the benefit cost and to the group of workers receiving that benefit during the year. For example, an annual health expenditure may include data from two different health care plans, if the employer switched plans during the year. Such an expenditure may also include data for workers who left the establishment during the year, joined the establishment during the year, or even joined and left the establishment during the year. In contrast, the ECEC is a measure of the price of the benefit plans in March of each year multiplied by the usage (that is, the number of workers receiving the benefit) of the specific benefit plans that were established during the initial collection of data. (These initial data are used to reduce the amount of data a survey respondent must provide.) For example, if the establishment initially reported that two-thirds of employees were covered by a family health care plan and one-third were covered by an individual health care plan, the calculation of hourly cost would take the current price and apply the initial family/individual usage pattern. If the mix of benefit plans changes, however, new usage patterns are obtained.[5]

The second difference involves the components of compensation that are surveyed and tabulated. The EEEC included a limited number of compensation components and grouped them such that some individual items could not be tabulated separately. The focus of the benefits was based at least in part on benefits typically found in collective bargaining agreements.[6] Because medicare was not inaugurated until 1966, such costs do not exist in the early data and, when added, were incorporated into Social Security expenditures and not tabulated separately.[7] The ECI uses different benefit groupings. For example, a category called legally required benefits includes all items that employers are mandated to provide, even though they are used for different purposes. This includes Social Security, medicare, unemployment insurance, and workers' compensation. Perhaps more importantly, data are reported separately for many of the components that were grouped together in the EEEC. The difference in compensation components between the two surveys forms the basis for analysis, with new groups formed to make certain comparisons.[8]

The EEEC and the ECEC are different surveys that use different methods. They were not designed to provide strictly comparable estimates. Therefore, readers are cautioned not to attach too much significance to small changes between series. Nonetheless, some trends that began in the EEEC continue with ECEC data, and clearly represent shifts in compensation patterns over time.

## Results

Table 2 shows the overall share of costs for various compensation components among production workers in manufacturing industries from 1959 to 1998. Most striking is the decrease in straight-time (non-overtime) pay (from 81.5 to 66.2 percent of compensation) and the increase in le-

gally-required costs as a percent of compensation (from 4.1 to 9.6 percent). Another striking shift occurs in the insurance component (health, life, and disability insurance), with rapid increases at certain times followed by decreases in recent years. Similar though less dramatic trends occurred among all workers in private industry between 1966 and 1998, as shown in table 3.

The data can be viewed from a number of benefit perspectives. Individual benefits may be examined as part of one or more benefit grouping. For example, instead of comparing straight-time pay only, all compensation paid in cash, including overtime pay, shift differentials, bonuses, severance pay, and pay for time off, are examined in table 4. As a percent of compensation, total cash payments have declined by about 10 percent from 1966 to 1998. The major shift among cash payments appears to be in straight-time pay. Except for the cost of overtime, the share of costs for other cash components remains relatively stable.[9]

Retirement costs can be looked at as the sum of employer retirement and Social Security costs. Among employer retirement plans, the last 40 years has been a period of much increase in regulation, especially since the enactment of the Employee Retirement Income Security Act (ERISA) in 1974. In the years since ERISA, the trend in retirement plans has been toward greater employee participation in defined contribution retirement plans, while traditional defined benefit pension plans have shown some decline in coverage.[10] The data in table 5 reflect this shift, as defined contribution retirement plan costs begin to appear in the 1960s and account for about one-third of the costs of employer retirement plans by 1998.

Despite all the new regulations regarding retirement plans, costs for these plans have remained remarkably stable over 40 years. This may not be too surprising, however, because both defined benefit and defined contribution plans tend to have costs related to earnings. Although new retirement plan regulations could have resulted in increased costs (by requiring such things as survivor protection, vested benefits, and insurance premium payments), as a percent of total compensation there has been little shift.[11]

In contrast, employer Social Security costs as a percent of all compensation costs have risen over the last 40 years (from 2 percent for blue-collar workers in manufacturing in 1959 to nearly 5 percent in 1998).[12] This trend can be directly linked to rises in Social Security tax rates and the level of earnings upon which the tax is imposed. In 1959, the employer Social Security tax rate was 2.5 percent of earnings up to $4,800. The maximum tax was $120 per year. In 1998, employers paid Social Security taxes of 6.2 percent of earnings up to $68,400, for a maximum tax of $4,240.80 per year.

Another group of compensation costs encompasses health care and disability related benefits. Included in this group are insurance costs (health, life, and disability), sick leave, medicare, and workers' compensation. Life insurance, which in 1998 made up about 2 percent of total insurance cost, is not available separately prior to 1991. (In many cases, including union health and welfare funds, all insurances are treated as a single employer payment.)

Overall, the health and disability category shows larger increases in percent of compensation than other categories. (See table 6.) This is due to increases in all of the components. Increases in insurance costs in the early 1970s and early 1990s parallel overall health care price rises during those periods, as are reflected in the Consumer Price Index and in the Department of Health and Human Services' data on health care expenditures. Influences on rising health costs include advanced technology, new drugs and treatments, and expanded coverage.[13] Medicare has a similar effect on the total costs in this group. When implemented in 1966, the medicare tax on employers was .35 percent of earnings up to $6,600, for a maximum tax of $23 per year. Today, the tax is 1.45 percent of earnings with no maximum.

One final group to consider is legally required or mandatory benefits, including Social Security, medicare, workers' compensation, and unemployment insurance. (See table 7.) Throughout the time period, Social Security has been the legally required benefit with the greatest employee cost, and this cost as a percent of total compensation has contin-

TABLE 2. **Percent of employer compensation cost by components of compensation, production and related workers, private manufacturing establishments, 1959-98**

| | 1959 | 1962 | 1966 | 1968 | 1970 | 1972 | 1974 | 1977 | 1986 | 1988 | 1990 | 1992 | 1994 | 1996 | 1998 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total compensation | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Wages and salaries | 81.5 | 80.1 | 77.7 | 77.4 | 76.2 | 74.8 | 73.0 | 70.9 | 69.7 | 67.0 | 66.4 | 65.0 | 63.7 | 65.2 | 66.2 |
| Benefits | 18.3 | 20.0 | 22.5 | 22.5 | 23.9 | 25.2 | 26.9 | 29.1 | 30.3 | 33.0 | 33.6 | 35.0 | 36.3 | 34.8 | 33.8 |
| Paid leave | 5.4 | 5.5 | 5.8 | 6.2 | 6.9 | 6.5 | 7.2 | 7.3 | 6.2 | 7.0 | 6.8 | 6.9 | 6.8 | 6.8 | 6.7 |
| Supplemental pay | 4.4 | 4.4 | 5.3 | 4.9 | 4.4 | 4.6 | 4.3 | 4.1 | 3.6 | 4.7 | 4.8 | 4.6 | 4.4 | 5.0 | 5.2 |
| Insurance | 2.0 | 2.4 | 2.8 | 3.1 | 3.9 | 4.2 | 4.7 | 5.5 | 6.5 | 8.1 | 8.5 | 9.7 | 10.3 | 9.3 | 8.6 |
| Retirement | 2.2 | 2.3 | 2.6 | 2.7 | 3.0 | 3.4 | 3.6 | 4.3 | 3.8 | 3.1 | 3.1 | 3.5 | 4.2 | 3.4 | 3.4 |
| Legally required | 4.1 | 5.1 | 5.8 | 5.4 | 5.5 | 6.2 | 6.9 | 7.4 | 10.0 | 9.7 | 10.1 | 10.0 | 10.1 | 9.9 | 9.6 |
| Other | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | ([1]) | 0.2 | 0.4 | 0.3 | 0.4 | 0.5 | 0.4 | 0.4 |

([1]) Data not available.

Note: Data for 1986 are for blue-collar workers in all private establishments. Data for 1988-98 are for blue-collar workers in private manufacturing establishments.

TABLE 3. **Percent of employer compensation cost by components of compensation, all workers, all private establishments, 1966-98**

| | 1966 | 1968 | 1970 | 1972 | 1974 | 1977 | 1986 | 1988 | 1990 | 1992 | 1994 | 1996 | 1998 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total compensation | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Wages and salaries | 80.6 | 80.4 | 79.8 | 78.5 | 76.3 | 74.8 | 73.0 | 72.7 | 72.4 | 71.8 | 71.1 | 71.9 | 72.4 |
| Benefits | 19.2 | 19.5 | 20.2 | 21.5 | 23.7 | 25.1 | 27.0 | 27.3 | 27.6 | 28.2 | 28.9 | 28.1 | 27.7 |
| Paid leave | 5.7 | 5.9 | 6.3 | 6.3 | 6.7 | 6.9 | 7.0 | 7.0 | 6.9 | 6.8 | 6.5 | 6.4 | 6.6 |
| Supplemental pay | 3.6 | 3.4 | 3.0 | 3.0 | 3.4 | 3.0 | 2.3 | 2.4 | 2.5 | 2.4 | 2.6 | 2.8 | 2.6 |
| Insurance | 2.1 | 2.2 | 2.6 | 3.0 | 3.3 | 4.0 | 5.5 | 5.6 | 6.1 | 6.9 | 7.2 | 6.5 | 6.3 |
| Retirement | 2.6 | 2.9 | 3.2 | 3.5 | 3.9 | 4.3 | 3.8 | 3.3 | 3.0 | 2.9 | 3.0 | 3.1 | 3.8 |
| Legally required | 5.1 | 5.0 | 5.0 | 5.5 | 6.3 | 6.8 | 8.4 | 8.8 | 9.0 | 9.1 | 9.4 | 9.1 | 8.2 |
| Other | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | (1) | 0.1 | 0.2 | 0.2 | 0.2 |

(1) Less than 0.5 percent.

TABLE 4. **Percent of employer compensation cost for cash compensation, all workers, all private establishments, 1966-98**

| | Percent of all compensation | | | | Percent of cash compensation | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966 | 1977 | 1988 | 1998 | 1966 | 1977 | 1988 | 1998 |
| Total cash | 90.0 | 84.8 | 82.2 | 81.8 | 100 | 100 | 100 | 100 |
| Total cash for time worked | 84.2 | 77.8 | 75.0 | 75.0 | 93.6 | 91.7 | 91.2 | 91.7 |
| Straight-time pay | 80.6 | 74.8 | 72.7 | 72.4 | 89.6 | 88.2 | 88.4 | 88.5 |
| Premium pay | 2.4 | 1.9 | 1.5 | 1.3 | 2.7 | 2.2 | 1.8 | 1.6 |
| Overtime | 2.1 | 1.6 | 1.2 | 1.0 | 2.3 | 1.9 | 1.5 | 1.2 |
| Shift differential | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 |
| Nonproduction bonuses | 1.2 | 1.1 | .8 | 1.3 | 1.3 | 1.3 | 1.0 | 1.6 |
| Total other cash | 5.8 | 7.0 | 7.2 | 6.8 | 6.4 | 8.3 | 8.8 | 8.3 |
| Severance pay | .1 | .1 | .2 | .2 | .1 | .1 | .2 | .2 |
| Paid leave | 5.7 | 6.9 | 7.0 | 6.6 | 6.3 | 8.1 | 8.5 | 8.1 |

TABLE 5. **Percent of employer compensation cost for retirement benefits, all workers, all private establishments, 1966-98**

| | Percent of all compensation | | | | Percent of retirement compensation | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966 | 1977 | 1988 | 1998 | 1966 | 1977 | 1988 | 1998 |
| Total retirement | 5.4 | 8.0 | 8.1 | 8.5 | 100 | 100 | 100 | 100 |
| Employer retirement plans | 2.6 | 4.3 | 3.3 | 3.8 | 48.1 | 53.8 | 40.7 | 44.7 |
| Defined benefit | 2.5 | 4.1 | 2.8 | 2.4 | 46.3 | 51.3 | 34.6 | 28.2 |
| Defined contribution | 0.1 | 0.2 | 0.5 | 1.4 | 1.9 | 2.5 | 6.2 | 16.5 |
| Social security | 2.8 | 3.7 | 4.8 | 4.7 | 51.9 | 46.3 | 59.3 | 55.3 |

TABLE 6. **Percent of employer compensation costs for health and disability-related benefits, all workers, all private establishments, 1966-98**

| | Percent of all compensation | | | | Percent of health and disability-related compensation | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966 | 1977 | 1988 | 1998 | 1966 | 1977 | 1988 | 1998 |
| Total health | 3.8 | 6.7 | 9.3 | 9.8 | 100 | 100 | 100 | 100 |
| Insurance (1) | 2.1 | 4.0 | 5.6 | 5.8 | 55.3 | 59.7 | 60.2 | 59.2 |
| Sick leave | 0.5 | 0.8 | 0.9 | 1.0 | 13.2 | 11.9 | 9.7 | 10.2 |
| Medicare | .3 | .7 | 1.1 | 1.2 | 7.9 | 10.4 | 11.8 | 12.2 |
| Workers compensation | .9 | 1.2 | 1.7 | 1.8 | 23.7 | 17.9 | 18.3 | 18.4 |

(1) Insurance includes health, disability, and life insurance.

TABLE 7. **Percent of employer compensation cost for legally required benefits, all workers, all private establishments, 1966-98**

| | Percent of all compensation | | | | Percent of legally required compensation | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966 | 1977 | 1988 | 1998 | 1966 | 1977 | 1988 | 1998 |
| Total legally required | 5.1 | 6.8 | 8.8 | 8.2 | 100 | 100 | 100 | 100 |
| Social Security/Medicare | 3.1 | 4.4 | 5.9 | 5.8 | 60.8 | 64.7 | 67.0 | 70.5 |
| Social Security | 2.8 | 3.7 | 4.8 | 4.7 | 54.9 | 54.4 | 54.5 | 56.4 |
| Medicare | 0.3 | 0.7 | 1.1 | 1.2 | 5.9 | 10.3 | 12.5 | 14.1 |
| Unemployment insurance | 1.1 | 1.2 | 1.0 | 0.7 | 21.6 | 17.6 | 11.4 | 7.9 |
| Workers compensation | .9 | 1.2 | 1.7 | 1.8 | 17.6 | 17.6 | 19.3 | 21.5 |

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

TABLE 8. **Social Security and medicare tax rates (percent of covered earnings) and covered earnings, 1959-98**

| | Social Security employer tax rate (percent of covered earnings) | Covered earnings | Medicare employer tax rate (percent of covered earnings) | Covered earnings |
|---|---|---|---|---|
| 1959 | 2.5 | $4,800 | * | * |
| 1960 | 3.0 | 4,800 | * | * |
| 1961 | 3.0 | 4,800 | * | * |
| 1962 | 3.125 | 4,800 | * | * |
| 1963 | 3.625 | 4,800 | * | * |
| 1964 | 3.625 | 4,800 | * | * |
| 1965 | 3.625 | 4,800 | * | * |
| 1966 | 3.85 | 6,600 | 0.35 | $6,600 |
| 1967 | 3.9 | 6,600 | .5 | 6,600 |
| 1968 | 3.8 | 7,800 | .6 | 7,800 |
| 1969 | 4.2 | 7,800 | .6 | 7,800 |
| 1970 | 4.2 | 7,800 | .6 | 7,800 |
| 1971 | 4.6 | 7,800 | .6 | 7,800 |
| 1972 | 4.6 | 9,000 | .6 | 9,000 |
| 1973 | 4.85 | 10,800 | 1.0 | 10,800 |
| 1974 | 4.95 | 13,200 | .9 | 13,200 |
| 1975 | 4.95 | 14,100 | .9 | 14,100 |
| 1976 | 4.95 | 15,300 | .9 | 15,300 |
| 1977 | 4.95 | 16,500 | .9 | 16,500 |
| 1978 | 5.05 | 17,700 | 1.0 | 17,700 |
| 1979 | 5.08 | 22,900 | 1.05 | 22,900 |
| 1980 | 5.08 | 25,900 | 1.05 | 25,900 |
| 1981 | 5.35 | 29,700 | 1.3 | 29,700 |
| 1982 | 5.4 | 32,400 | 1.3 | 32,400 |
| 1983 | 5.4 | 35,700 | 1.3 | 35,700 |
| 1984 | 5.7 | 37,800 | 1.3 | 37,800 |
| 1985 | 5.7 | 39,600 | 1.35 | 39,600 |
| 1986 | 5.7 | 42,000 | 1.45 | 42,000 |
| 1987 | 5.7 | 43,800 | 1.45 | 43,800 |
| 1988 | 6.06 | 45,000 | 1.45 | 45,000 |
| 1989 | 6.06 | 48,000 | 1.45 | 48,000 |
| 1990 | 6.2 | 51,300 | 1.45 | 51,300 |
| 1991 | 6.2 | 53,400 | 1.45 | 125,000 |
| 1992 | 6.2 | 55,500 | 1.45 | 130,200 |
| 1993 | 6.2 | 57,600 | 1.45 | 135,000 |
| 1994 | 6.2 | 60,600 | 1.45 | no limit |
| 1995 | 6.2 | 61,200 | 1.45 | no limit |
| 1996 | 6.2 | 62,700 | 1.45 | no limit |
| 1997 | 6.2 | 65,400 | 1.45 | no limit |
| 1998 | 6.2 | 68,400 | 1.45 | no limit |

ued to increase. These increases mirror increases in Social Security tax rates and the income upon which the tax is levied, as seen in table 8. In more recent years, workers' compensation has taken up a greater proportion of employer legally required compensation costs while unemployment insurance has declined. This trend parallels the rising cost of workers' compensation coverage (due to rising medical costs) and the overall declines in unemployment.[14]

## Conclusion

Employee compensation no longer means just wages; the variety and cost of employee benefits has expanded considerably and shifted slightly away from cash in the last half the 20th century. Since 1959, the Bureau of Labor Statistics has tracked these trends through employer compensation cost data. Soon, BLS will expand upon these data to include costs associated with various types of benefit plans and plan provisions. The establishment sample used to produce the Employer Cost for Employee Compensation series is being expanded to include the collection of benefit availability, cost, and detailed provisions. With this expanded data series, data users will not only be able to track the cost of specific benefits but will also be able to determine how costs vary by type of plan or presence of certain plan features. The expanded data will be available in the next few years. ■

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[1] For a discussion of changes in compensation, see William J. Wiatrowski, "Family-related Benefits in the Workplace," *Monthly Labor Review*, March 1990, pp. 28-33. Information on changes in labor force demographics may be found in Howard V. Hayghe, "Developments in Women's Labor Force Participation," *Monthly Labor Review*, September 1997, pp. 41-46, and in Diane Herz, "Work After Early Retirement: An Increasing Trend Among Men," *Monthly Labor Review*, April 1995, pp. 13-20. Data on trends in health care costs are available in *Report on the American Workforce*, chapter 3 (U.S. Department of Labor, 1995).

[2] For information on survey methods used in the Employer Expenditures for Employee Compensation Survey, see *Employee Compensation in the Private Nonfarm Economy, 1974*, Bulletin 1963 (Bureau of Labor Statistics, 1977).

[3] For more information on index methodology, see the appendix to *Employment Cost Indexes 1975-97*, Bulletin 2504 (Bureau of Labor Statistics, July 1998).

[4] For details on survey methodology, see *Employer Costs for Employee Compensation, 1986-97*, Bulletin 2505 (Bureau of Labor Statistics, August 1998).

[5] It should be noted that total annual expenditures are acceptable data for the ECI, and consequently the ECEC, when initial usage and current price data are not available.

[6] One reason for the focus on collectively bargained benefits may have been the rise in union membership during the 1950s. According to BLS data, union membership as a percent of the labor force rose from 15.5 percent in 1945 to 24.7 percent in 1955.

[7] Medicare and Social Security are linked in data collection for these surveys because contributions to these programs are linked. The tax on both employers and employees for medicare and Social Security, known as the Federal Insurance Contribution Act (or FICA), is often expressed as a single percent of pay up to a specified maximum. In fact, there are two distinct percents of pay, one for each program. Prior to 1994, the maximum wages upon which these two tax percentages were applied were the same; currently, there is still a ceiling on wages subject to Social Security taxes but there is no ceiling on wages subject to medicare taxes.

In some of the tables that accompany this article, Social Security and medicare costs are provided separately. To determine these amounts for years prior to 1998, the total employer percentage for combined Social Security and medicare cost was divided into the two components, using the ratio of Social Security to medicare tax rate, as shown in table 8. In 1966, 91.67 percent of the total tax was attributable to Social Security; in 1977 the Social Security portion was 84.62 percent; and in 1988 the Social Security portion was 80.69 percent. These percents were applied to the total Social Security and medicare cost shares to determine the two individual values. In 1998, data for Social Security and medicare were captured and tabulated separately.

[8] Another major difference between the surveys is that the EEEC was mailed to survey participants, who filled out the forms. For the ECEC, a BLS economist does the initial collection of data through a personal visit.

[9] The surveys classify certain cash payments as either production bonuses or nonproduction bonuses. Production bonuses are directly related to an employee's output, such as a commission on a sale. Nonproduction bonuses lack that direct relationship to production. An example might be a holiday bonus. BLS continues to research and refine these definitions.

[10] In a defined contribution retirement plan, employer or employee funds, or both, are placed in an individual account for the employee. Benefits are based on the value of the account at retirement, which includes contributions and earnings. Accounts may be invested in different vehicles with varying degrees of risk. Ultimately, the risk of having sufficient funds for retirement is borne by the employee. A traditional defined benefit pension plan includes a formula to determine the amount of retirement benefit, generally based on earnings and years of service. The risk of maintaining sufficient funds in plan accounts to provide these benefits is borne by the employer. Data from the Bureau's Employee Benefits Survey indicate that the proportion of workers covered by a defined benefit pension plan has declined throughout the 1980s and 1990s, while the proportion covered by a defined contribution retirement plan has increased over the same time period. For a detailed discussion of these plans, see *Employee Benefits in Medium and Large Private Establishments, 1995*, Bulletin 2496 (Bureau of Labor Statistics, April 1998). For a discussion of the shift from defined benefit to defined contribution retirement plans, see Michael S. Gordon, Olivia S. Mitchell, and Marc M. Twinner, *Positioning Pensions for the Twenty-First Century* (Pension Research Council, 1997).

[11] Although required plan provisions may have tended to increase plan costs, during much of the 1980s and 1990s, greater than average investment returns have created situations where employers have not been required to provide additional funds to their defined benefit pension plans. Such plans are termed "fully funded."

[12] Published estimates are not available for blue-collar workers in manufacturing industries in 1998, although the data for all blue-collar workers and for all workers in manufacturing industries both indicate that approximately 5 percent of compensation costs were for Social Security.

[13] See details on health care costs in *Report on the American Workforce, 1995*.

[14] For more information on workers' compensation benefits, see Charles A. Berreth, "State Workers' Compensation Legislation Enacted in 1996," *Monthly Labor Review*, January 1997, pp. 43-50. For information on unemployment insurance benefits, see Daniel P. McMurrer and Amy B. Chasanov, "Trends in Unemployment Insurance Benefits," *Monthly Labor Review*, September 1995, pp. 30-39.