Cost of employee compensation in public and private sectors

Much of the variation in the cost of compensation in the two sectors is due to differences in the occupational mix and types of compensation packages provided

Bradley R. Braden
and
Stephanie L. Hyland

At first glance, compensation costs between State and local governments and private industry appear vastly different. In March 1992, employer costs for employee compensation (wages paid plus employer-provided benefits) averaged $23.49 per hour worked in State and local governments and $16.14 in private industry—a difference of almost 50 percent. (See table 1.) Such a comparison can be quite misleading, however, as was noted when these data were first released in June 1992.[1] In fact, the differences in the cost of compensation in the public and private sectors stem from a number of factors, particularly the large variation in the work activities and occupational structures of the two sectors.

For example, certain activities that are required in government, such as public education and safety, call for a large proportion of white-collar professionals and highly skilled service occupations. In contrast, certain industries such as manufacturing, wholesale trade, and retail trade, are unique to the private sector, and require occupations with comparatively lower compensation costs, such as sales. When certain industries common to both sectors are examined, such as health services, total compensation costs are similar.

About two-thirds of the overall gap in total compensation between public and private sectors was in the wage component; one-third was in benefits. Straight-time wages and salaries were $16.39 per hour worked in government, and $11.58 in private industry; benefit costs averaged $7.09 per hour worked in government and $4.55 in private industry.

The difference in the costs of employer-paid benefits between government and private industry primarily reflects differences in the nature of compensation packages provided to employees in each sector. The availability and characteristics of benefits such as paid leave, retirement, and certain insurances vary considerably in the two sectors. For example, virtually all government employees were covered by a retirement plan, while fewer than two-thirds of the employees in the private sector had such coverage.

This article highlights differences in the industry and occupational mix that influence average compensation costs in private industry and State and local governments, and provides data on the hourly cost of compensation for specific groups of workers in each sector.[2] In addition, differences in the cost of benefits are examined, using data on the incidence and provisions of major benefits in the two sectors.

Compensation costs are based on data from the Bureau of Labor Statistics Employment Cost Index (ECI), which measures quarterly changes in employer costs for employee compensation.[3] Data from the ECI are also used

Bradley R. Braden and Stephanie L. Hyland are economists in the Office of Compensation and Working Conditions, Bureau of Labor Statistics.

to produce measures of employer cost per hour worked for each component of compensation.[4] Compensation costs, representing data for March of each year, were first published for State and local governments in 1991, while private industry data have been available since 1987.[5]

Data on the incidence and provisions of employee benefits are based on the BLS Employee Benefits Survey.[6] The Employee Benefits Survey includes detailed information on the characteristics of employee benefits including paid leave, medical care plans, life and disability insurance, and retirement plans. With few exceptions, the Employee Benefits Survey is limited to benefits financed at least in part by employers.

Table 1. **Employer costs per hour worked for employee compensation, State and local government and private industry, March 1992**

Series	Private industry		State and local governments	
	Cost	Percent	Cost	Percent
Total compensation	$16.14	100.0	$23.49	100.0
Wages and salaries	11.58	71.8	16.3	69.8
Total benefits	4.55	28.2	7.09	30.2
Paid leave	1.09	6.8	1.80	7.7
Vacations	.54	3.3	.60	2.6
Holidays	.37	2.3	.58	2.5
Sick leave	.14	.9	.47	2.0
Other leave	.05	.3	.15	.7
Supplemental pay	.39	2.4	.21	.9
Premium pay	.18	1.1	.10	.4
Shift pay	.05	.3	.04	.2
Nonproduction bonuses	.15	1.0	.07	.3
Insurance	1.12	6.9	1.84	7.8
Life	.05	.3	.05	.2
Health	1.02	6.3	1.75	7.4
Sickness and accident	.05	.3	.04	.2
Retirement and savings	.46	2.9	1.82	7.8
Pensions	.36	2.3	1.81	7.7
Savings and thrift	.10	.6	(1)	(1)
Legally required[2]	1.47	9.1	1.40	6.0
Social Security	.96	6.0	1.07	4.6
Federal unemployment	.03	.2	(1)	(1)
State unemployment	.10	.6	.04	.1
Workers compensation	.36	2.2	.28	1.2
Other benefits[3]	.02	.1	.02	.1

[1]Cost per hour worked is $0.01 or less.

[2] Includes railroad retirement and supplemental railroad retirement, railroad unemployment insurance, and other legally required benefits in addition to those shown separately.

[3]Includes serverance pay and supplemental unemployment benefits.

Costs by industry activity

Much of the difference in average compensation costs between State and local governments and private industry can be explained by differences in the mix of industry activities in the two sectors. The activities that occur solely in one sector generally result in a higher average cost of compensation for government and a lower average cost for private industry.

For example, more than one-fourth of the government work force was engaged in public administration, which averaged $20.76 in hourly compensation.[7] (See table 2.) Among other activities, public administration includes protective services (police and fire protection), State and local legislative bodies, executive offices, administrative offices, and courts. The work force required to perform these activities includes a large proportion of white-collar and skilled service occupations that had comparatively high compensation costs.

In addition, government is the primary provider of educational services. More than half of all State and local government employees were engaged in educational activities, compared with 2 percent of private sector workers. The average cost of compensation was $26.55 per hour worked for the mostly white-collar workers in government educational services.[8]

In contrast, compensation costs for many activities that take place only in the private sector, such as in manufacturing, wholesale trade, retail trade, and finance, insurance, and real estate, had compensation costs less than $20 per hour. (See table 3.) Combined, these activities accounted for more than half of private industry employment. Retail trade activities, for example, employed more than one-fifth of the private sector work force, and averaged $9.07 per hour in total compensation. Retail trade activities employed a large proportion of salesworkers and service workers, whose compensation is less than that of the largely white-collar workers in State and local governments.

Compensation costs were similar for industry activities common to government and the private sector. For example, construction, transportation and public utilities, and health services are found in both sectors. As shown in the following tabulation, government and private sector compensation costs were similar for these activities. Compensation costs for private sector transportation and public utilities workers were essentially identical to their government counterparts:

Table 2. **Employer costs per hour worked for employee compensation by occupational and industry group, State and local government and private industry, March 1992**

Series	Total compensation	Wages and salaries	Benefit costs						
			Total	Paid leave	Supplemental pay	Insurance	Retirement and savings	Legally required benefits	Other benefits[1]
State and local government	$23.49	$16.39	$7.09	$1.80	$0.21	$1.84	$1.82	$1.40	$0.02
Occupational group:									
White-collar occupations	25.55	18.99	7.56	1.90	.14	1.96	2.03	1.50	.03
Professional specialty and technical	31.50	23.10	8.40	1.87	.16	2.14	2.48	1.71	.04
Teachers	34.42	25.74	8.68	1.65	.08	2.31	2.82	1.78	.04
Executive, administrative, and managerial	29.86	20.84	9.02	2.98	.14	1.81	2.31	1.76	.02
Administrative support including clerical	15.03	9.90	5.13	1.41	.09	1.68	.99	.95	(2)
Blue-collar occupations	18.06	11.69	6.38	1.67	.34	1.70	1.26	1.39	.02
Service occupations	16.52	10.54	5.99	1.53	.36	1.53	1.46	1.09	.02
Industry group:									
Services	24.92	17.85	7.06	1.68	.15	1.92	1.90	1.40	.03
Health services	18.42	12.45	5.98	1.90	.49	1.32	.98	1.27	.02
Hospitals	18.80	12.77	6.02	1.94	.48	1.31	.98	1.29	.02
Educational services	26.55	19.25	7.30	1.63	.09	2.04	2.09	1.43	.03
Elementary and secondary education	26.73	19.38	7.35	1.53	.08	2.14	2.16	1.41	.04
Higher education	26.95	19.59	7.36	1.91	.12	1.82	1.96	1.54	(2)
Public administration	20.76	13.69	7.07	2.03	.28	1.64	1.77	1.32	.02
Private industry	16.14	11.58	4.55	1.09	.39	1.12	.46	1.47	.02
Occupational group:									
White-collar occupations	18.95	13.90	5.05	1.43	.37	1.23	.53	1.47	.02
Professional specialty and technical	25.20	18.45	6.75	2.03	.52	1.51	.73	1.93	.02
Executive, administrative, managerial	29.42	21.62	7.81	2.56	.60	1.59	.94	2.08	.03
Sales workers	13.26	10.24	3.03	.66	.23	.72	.27	1.14	(2)
Administrative support including clerical	13.69	9.74	3.95	1.01	.26	1.20	.38	1.09	(2)
Blue-collar occupations	15.88	10.74	5.13	.94	.56	1.29	.53	1.77	.04
Precision production, craft, and repair	20.30	13.86	6.44	1.26	.67	1.53	.73	2.21	.04
Machine operators, assemblers, and inspectors	14.98	9.79	5.19	.99	.68	1.46	.47	1.53	.07
Transportation and material moving	16.15	10.87	5.28	.92	.51	1.22	.57	2.04	.02
Handlers, equipment cleaners, helpers, and laborers	11.41	7.95	3.46	.54	.34	.87	.33	1.36	(2)
Service occupations	8.43	6.38	2.05	.39	.12	.45	.14	.94	(2)
Industry group:									
Goods-producing industries[3]	19.38	13.17	6.21	1.33	.64	1.60	.70	1.89	.05
Construction	18.91	13.34	5.56	.62	.50	1.10	.81	2.54	(2)
Manufacturing industries	19.20	12.93	6.26	1.47	.67	1.70	.65	1.71	.06
Durables	20.77	13.77	7.00	1.64	.79	1.95	.73	1.80	.09
Nondurables	17.10	11.82	5.28	1.24	.51	1.37	.56	1.58	.02
Service producing industries[4]	14.99	11.02	3.97	1.01	.30	.95	.38	1.33	(2)
Transportation and public utilities	22.91	5.72	7.19	1.87	.50	1.81	.83	2.15	.03
Wholesale trade	17.67	12.70	4.97	1.15	.48	1.29	.44	1.59	.02
Retail trade	9.07	7.00	2.07	.38	.17	.44	.12	.95	(2)
Finance, insurance, and real estate	19.95	14.58	5.38	1.57	.31	1.48	.65	1.35	.02
Services	15.59	11.56	4.03	1.09	.30	.90	.38	1.35	(2)

[1]Includes severance pay and supplemental unemployment benefits.

[2]Cost per hour worked is $0.01 or less.

[3]Includes mining, construction, and manufacturing.

[4]Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.

	Total compensation	
	Private	Government
Construction	$18.91	$16.89
Transportation and public utilities	22.91	22.95
Health services	16.77	18.42

	Percent of total employment	
	Private	Government
Construction	5	3
Transportation and public utilities	7	5
Health services	10	8

The overwhelming concentration of public employment in educational services and public administration demonstrates the role of State and local governments as unique providers of particular services. These activities raised the average cost of compensation for State and local governments. Compensation costs were generally equivalent when certain activities common to government and private industry were examined.

Costs by occupation

The differences in the industry mix between the public and the private sectors also lead to differences in the occupational composition of their work forces. The following shows the mix of occupations and their costs of compensation in the two sectors.

	Total compensation	
	Private	Government
White collar	$18.95	$26.55
Blue collar	15.88	18.06
Service	8.43	16.52

	Percent of workers	
	Private	Government
White collar	51	68
Blue collar	32	12
Service	17	20

Government compensation costs were higher for each of the major occupational groups than costs in the private sector. Compensation for white-collar workers was 40 percent higher in government than in private industry, while the difference for blue-collar workers was 14 percent. The largest cost difference was for service workers, who as a group had compensation costs that were 96 percent higher in government than in private industry.

The disparities in compensation costs between workers in the same broad occupations in the public and private sectors reflect the differences in the composition of jobs making up those broad occupational groups. Professional and technical employees represented more than half of the government white-collar work force, compared with less than one-fourth of the private sector work force. In contrast, more than one-fifth of the private sector white-collar employees were sales workers, a job seldom found in government. The following tabulation shows the percent of private and government workers in selected occupational groups:

	Private	Government
All white-collar occupations	100	100
Professional and technical	24	56
Executive, administrative and managerial	17	15
Sales	22	*
Administrative support including clerical	37	28

*Less than 1 percent.

The difference in the cost of compensation for service occupations is due largely to the mix of service jobs. For example, police and firefighters accounted for 1 of 4 service workers in State and local governments, but were essentially nonexistent in the private sector. Because of the hazardous nature of such jobs and the skills required to perform them, these public safety occupations cost government employers more than $20 per hour worked.[9]

Conversely, the private sector work force includes a large proportion of comparatively low compensated service occupations not readily found in government. For example, wages for waiters and waitresses and food preparation workers in eating and drinking establishments were often at, or below, the Federal minimum wage. In addition to wages, tips are frequently paid to employees in these industries; however, the Employment Cost Index excludes tips from the calculation of average hourly compensation because they are not part of the employer-paid compensation package.[10]

Differences in compensation costs between government and private industry were small for white-collar occupations that are more

Table 3. **Average weekly earnings of selected occupations in selected metropolitan areas, State and local governments and private industry, 1991**

Occupation	Dallas December 1991		Denver November 1991		Detroit December 1991		Los Angeles December 1991		Nassau/Suffolk November 1991	
	Private industry	State and local government	Private industry	State and local government	Private industry	State and local government	Private industry	State and local government	Private industry	State and local government
Accounting clerk III[1]	$410	$368	$404	$431	$431	$474	$451	$502	$436	$525
Secretary III[2]	483	433	469	485	545	536	554	658	487	533
Accountant III[3]	716	670	732	679	759	686	745	795	723	849
Engineer IV[4]	992	968	1,057	942	1,025	884	1,040	1,092	1,013	1,172
Attorney III[5]	1,298	1,087	1,111	1,145	1,181	1,151	1,450	1,460	1,127	1,237

[1]Accounting clerks, Level III, use a knowledge of double-entry bookkeeping to perform a variety of routine accounting tasks. Completed work and methods are reviewed for technical accuracy.

[2]Secretaries, Level III, handle differing responsibilities, situations and problems with minimal supervisory guidance, working in a complex organizational structure.

[3]Accountants, Level III, are responsible for day-to-day operations of a stable and well-established system, or an assigned segment of such a system.

[4]Engineers, Level IV, are fully competent in all conventional aspects of their subject matter, and perform most assignments independently.

[5]Attorneys, Level III, perform difficult legal work of substantial importance to the organization independently, with only decisions having an important bearing on the organization reviewed.

SOURCE: U.S. Bureau of Labor Statistics, Occupational Compensation Survey Program.

Table 4. **Percent of full-time employees receiving benefits, and average number of days of vacation and sick leave, by length of service, State and local governments and private industry, 1990–91**

Benefit item	Private industry			State and local governments		
	All employees	White-collar employees	Blue-collar employees	All employees	All employees except teachers	Teachers
Holidays	88	93	82	74	89	33
Vacation	92	95	89	67	88	10
Sick leave	56	74	38	94	94	97
Medical care	76	80	71	93	93	91
Life insurance	79	85	72	88	88	87
Long term disability	29	42	16	27	26	32
Sickness and accident insurance	35	29	41	21	23	16
Retirement	60	64	55	96	95	99
Defined benefit	39	40	38	90	89	94
Defined contribution	39	46	31	9	9	11
Number of holidays (days)	9	10	9	14	14	13
Days of vacation after:						
1 year	8.5	9.6	7.2	12.2	12.2	12.7
3 years	10.5	11.2	9.7	13.4	13.4	13.3
5 years	12.5	13.4	11.4	15.3	15.3	14.1
10 years	15.1	16.0	14.0	18.4	18.5	15.6
15 years	16.6	17.6	15.6	20.4	20.5	16.8
20 years	17.8	18.6	16.8	22.1	22.3	17.9
Days of sick leave after:						
1 year	10.6	11.6	8.7	12.6	12.8	12.2
3 years	13.1	14.8	9.9	12.8	13.0	12.4
5 years	15.5	17.6	11.3	13.1	13.2	12.9
10 years	18.5	21.3	12.9	13.5	3.6	13.1

NOTE: Computation of average excluded workers with no holidays or vacation days.

closely related in both sectors. For example, executive, administrative, and managerial occupations accounted for about 1 of 6 white-collar employees in each sector, and their average hourly compensation costs were virtually identical.

However, broad comparisons between government and private employee compensation may conceal distinct differences. For example, employer costs between the public and private sectors show some variability when particular white-collar occupations in specific locations are compared. Data from the BLS Occupational Compensation Surveys Program provide average weekly wage data in selected metropolitan areas for specific occupations with similar duties and responsibilities. The results indicate that higher wages differ by occupation and location.

For example, secretaries, level III (secretaries to mid-level managers), earned approximately 10 percent less than their private sector counterparts in Dallas, but nearly 20 percent more in Los Angeles. In Detroit, level III government accounting clerks (who perform double-entry bookkeeping) averaged 10 percent more than similar private sector workers, while level III government accountants (who supervise stable and established accounting systems) averaged 10 percent less than in the private sector.[11] (See table 3.)

Employee benefits

More than one-third of the gap in total compensation between State and local governments and private industry was due to differences in the costs for employee benefits. Government costs for providing employee benefits were, on average, 56 percent higher than those of private employers. While governments spent an average of $7.09 per hour worked on benefits, private industry employers spent $4.55. (See table 1.)

Three primary factors influence benefit costs and contributed to the gap between government and private industry. First, some benefits are linked to earnings (for example, pension plans and paid leave); as a result, costs for these benefits are affected by the higher average wage levels for government occupations. Second, employee benefits generally are more common in State and local government establishments than in the private sector. Finally, differences in the provisions of benefit plans contributed to differences in benefits costs.

A few cautionary notes are in order. It is important to emphasize that estimates of employer costs for particular benefits are not sound measures of employee welfare. For example, although a defined benefit retirement plan may be costlier to employers than a defined contribution plan, the benefit paid out to employees at retirement for a defined contribution plan may be the same or higher. Second, the incidence of benefits varies widely by establishment size in the private sector. Small private establishments with fewer than 100 employees are far less likely to provide certain types of benefits, such as retirement and health insurance, than are larger private establishments and State and local governments. Finally, due to limits in the data, we cannot calculate the precise cost to employers of specific benefit plan provisions.

The largest cost difference between State and local governments and private industry was for retirement benefits. At $1.82 per hour worked, government retirement costs were nearly four times higher than the 46-cent cost in the private sector. Spending on retirement accounted for 26 percent of all benefit costs in government, compared with 10 percent in private industry.

The cost difference for retirement benefits reflects the incidence of benefits, the effects of wage levels, and differences in benefit provisions. Virtually all government employees (96 percent) were covered by a retirement plan, compared with only three-fifths in the private sector.[12] (See table 4.) Furthermore, calculations of employee retirement benefits are usually based on employee wages; therefore, higher aggregate average wage levels among government workers tend to increase the costs for government retirement benefits relative to the private sector. Finally, government retirement plans, as described below, tend to have different provisions than plans in the private sector.

The majority of government workers, unlike private industry workers, participated in defined benefit pension plans, typically the most expensive retirement plans in terms of employer costs.[13] And virtually all government pension plan participants had their benefits calculated using a terminal earnings formula, compared with just under three-fifths of the private sector pension plan participants. A terminal earnings formula is usually a costlier formula

for employers because the benefit is based on a percentage of an employee's final average earnings during the several years preceding retirement, rather than a career average or a flat dollar amount.

Pension plan provisions for government employees tended to increase employer costs, but government workers also were more likely to contribute to their pension plans. Fewer than 10 percent of private sector pension participants were required to contribute, compared with 75 percent of government pension participants.

Differences in the incidence and provisions of benefits also affected government and private sector insurance costs. Insurance benefits include health, life, and disability insurance. The average cost for these benefits in government was $1.84 per hour worked, while private sector employers paid $1.12. The bulk of this cost, $1.75 for government and $1.02 for private industry, was for health insurance benefits.[14]

Similar to retirement benefits, health insurance benefits were offered to a greater proportion of employees in State and local governments than in private industry. Overall, about 93 percent of government employees participated in a health care plan; 76 percent of private industry employees participated.

In addition to greater coverage, health care plan provisions for government and private establishments were different in other ways. For example, the employer paid health care coverage in full for 58 percent of the government work force, while 40 percent of private sector employees had such coverage. Family health care coverage fully paid by the employer also was more prevalent among public sector employees—32 percent—than among employees in the private sector—24 percent. In addition, a larger proportion of government employees than private sector employees participated in plans, including HMO's (health maintenance organizations), that fully covered many expenses.

The average cost for paid leave benefits in government, at $1.80, was 65 percent higher than in the private sector, which was $1.09. Because the costs of paid leave are related directly to employee wages, higher average rates of pay for government employees were part of the cost difference between State and local governments and private industry. In addition, differences in the incidence and provisions of certain leave plans, which varied widely among occupational groups, also affected employer costs in each sector.

The smallest difference between average costs of paid leave was among white-collar workers. The cost of paid leave for white-collar government employees was one-third more than the average for white-collar private employees, reflecting the higher average government wage rates. One exception was paid leave for government white-collar professional, specialty, and technical workers; the paid leave cost for these employees was 9 percent below that for similarly classified occupations in the private sector.

This inconsistency was due in large part to the relatively low incidence of paid holidays and vacations for teachers in State and local governments (33 percent of State teachers and 10 percent of local teachers had such benefits). Teachers account for more than two-thirds of the government professional, specialty and technical work force, and are typically paid based on a fixed number of annual school days.

In contrast to paid leave for white-collar workers, differences in the average cost of paid leave were greater between government and private industry for blue-collar and service occupations. For example, employer costs for paid leave for government blue-collar workers averaged $1.67 per hour worked in 1992, compared with 94 cents for private sector blue-collar workers. The comparatively large disparity in the cost of paid leave for these occupations reflected higher average wage rates in government, in addition to differences in the incidence of paid sick leave. More than 90 percent of all government blue-collar and service workers were covered by sick leave. In contrast, 38 percent of such private sector workers were covered. Private sector blue-collar workers frequently received sickness and accident insurance that replaced a portion of lost wages during short-term disabilities.

Differences in plan provisions also affected the cost of paid leave. For example, government employees with paid holidays generally received more time off annually—13.6 paid holidays—than private industry employees who averaged 9.4 holidays. (See table 4.) For employees receiving paid vacations, average

benefits for workers in the public sector exceeded those for private sector workers at all lengths of service.

Employer compensation costs also include benefits required by law, such as Social Security, Federal and State unemployment insurance, and workers' compensation. Such benefits cost governments $1.40 per hour worked, and accounted for about one-fifth of total benefit costs. The cost for private sector employers was higher—$1.47 per hour worked—and represented nearly one-third of all private benefit costs.

Social Security, which is linked directly to wage rates, represented the majority of the cost for legally required benefits in both sectors. However, government employers are not required to provide Social Security coverage to all employees; approximately one of four employees did not have such coverage. This lower incidence of coverage among government employees offsets their higher average wage rates. The result is similar average costs for Social Security for both sectors. □

Footnotes

[1] *Employment Cost Index, June 1992,* USDL 92-471 (Bureau of Labor Statistics, July 1992).

[2] The occupation describes what work an employee does; the industry describes the economic activity of the employer. For example, service employees work in a variety of industries and perform a variety of duties, such as food preparation, cleaning, and guard services. Service industries, in contrast, include establishments that hire employees from all occupational groups to provide a wide variety of services (for example, health and education) to individuals, businesses, and other entities.

[3] The ECI is a fixed-weight Laspeyres index that uses occupational and industry employment counts from the 1980 Census of Population. Data collected for the ECI is used to derive hourly compensation costs by using current weights. Industry employment from the March 1992 Current Employment Statistics survey, with the occupational distribution from the ECI sample, provide the current weights.

[4] For more details about how the ECI measures compensation, see Felicia Nathan, "Analyzing employer's costs for wages, salaries, and benefits", *Monthly Labor Review,* October 1987, pp. 3-11, and the Handbook of *Methods,* Bulletin 2414 (Bureau of Labor Statistics, September 1992), pp. 56-66.

[5] The State and local government sample was updated and expanded from 1987-1991, allowing publication of compensation cost data. These data are published annually in June with March as the reference month. See *Employment Cost Index and Levels, 1975-1992,* Bulletin 2389 (Bureau of Labor Statistics, October 1992).

[6] Private sector data are from the 1991 Employee Benefits Survey of medium and large establishments and the 1990 survey of small establishments. Detailed data are available from the following Bureau of Labor Statistics publications: *Employee Benefits in Small Private Establishments, 1990* (Bulletin 2388, September 1991), *Employee Benefits in State and Local Governments, 1990* (Bulletin 1398, February 1992), and *Employee Benefits in Medium and Large Establishments, 1991* (Bulletin 2422, May 1993).

[7] Throughout this article, references are made to the mix of industry and occupational employment in State and local government and private industry, and the effect of these mixes on the average costs of hourly compensation. These references relate to the employment weights, which are estimated from the Current Employment Statistics and the Employment Cost Index survey sample. See also footnote 3.

[8] Teachers usually contract to work a set number of days a year—generally between 180 and 210—in a 9- or 10-month contract. The ECI uses the number of hours worked per year by employees as the basis for determining average hourly compensation costs. Therefore, hourly costs for teachers do not reflect the usual 12-month work year. Additionally, the incidence of leave, particularly holidays and sick leave, is much lower for teachers than for other occupational groups due to their work contracts.

[9] The average cost of compensation for police and firefighters was $22.28 in March 1991—the last date the police and firefighters series was published.

[10] For an example of the extent of tips, see *Industry Wage Survey: Hotels and Motels, June-July, 1988,* Bulletin 2335 (Bureau of Labor Statistics, 1989).

[11] The Bureau's Occupational Compensation Survey Program gathers data on wage levels in a variety of local labor markets for narrowly-defined occupations. For example, see *Occupational Compensation Survey: Pay and Benefits,* Bulletin 3060-60 (Bureau of Labor Statistics, July 1992). The Occupational Compensation Surveys do not provide data on employer costs for total employee compensation, which includes employer costs for employee benefits.

[12] The data presented from the Employee Benefits Survey cover full-time employees only.

[13] In the private sector, 39 percent of the employees participated in defined benefit plans, while 39 percent participated in defined contribution plans. Defined benefit pension plans use predetermined formulas to calculate a retirement benefit, and obligate the employer to provide those benefits, regardless of investment results. Conversely, defined contribution plans specify the contribution employers and employees must make to the plan, but do not guarantee what future benefits will be; therefore, if investment returns are low, the employer is not obligated to provide a minimum level of benefits. Defined contribution plans can also be less costly to employers than defined benefit pension plans due to other factors, including lower administrative costs and voluntary employee participation in many plans. For more information about the costs of retirement plans, see Bradley Braden, "Increases in employer costs for employee benefits dampen dramatically," *Monthly Labor Review,* July 1988, pp. 3-7.

[14] See Albert Schwenk, "Employee compensation reports to include detail by type of insurance," *Monthly Labor Review,* May 1992, pp. 43-44.