

National Compensation Survey Produces First Nationwide Results

The Bureau's National Compensation Survey program provides a broad array of occupational data that were unavailable in the past. Virtually every industry, except agriculture, private households, and the Federal Government, is included.

JOHN BUCKLEY

The Bureau of Labor Statistics' new National Compensation Survey (NCS) program completed its initial round of establishment-based surveys for 149 metropolitan and nonmetropolitan localities, enabling the publication of national¹ earnings estimates for many occupations. BLS systematically selected the survey areas to represent all of the Nation's metropolitan areas and nonmetropolitan counties. BLS collected NCS earnings data between October 1996 and July 1998, with an average reference period of August 1997.

The NCS program replaced the Occupational Compensation Survey program that provided limited occupational earnings data for a fixed (predetermined) list of survey jobs. The new program uses a sampling technique that produces a statistically representative sample of occupations for individual areas and the Nation.² From each sampled establishment a number of occupations, based on the establishment's employment size, are randomly selected. This "probability selection of occupations" technique gives the more highly populated occupations a greater chance of selection. After selection, each occupation is classified into 1 of approximately 480 occupational codes that are part of the Census

Occupational Classification System. This hierarchical system aggregates jobs into a number of broader occupational groups.

The 1997 NCS covered establishments with 50 or more employees; the 1998 and 1999 surveys began phasing in establishments with fewer than 50 employees. The surveys include virtually every industry, except agriculture, private households, and the Federal Government.

The types of data presented in the national bulletin are varied, ranging from the average (mean) hourly earnings of approximately 67 million workers covered by the survey (\$15.09) to the average earnings of part-time janitors in State and local governments (\$8.11).³ Average hourly earnings of the nearly 15 million State and local government workers were about 24 percent higher than the average earnings of the 52 million private workers covered by the survey (\$17.82 versus \$14.39).⁴ Table 1 shows hourly earnings data for private industry and State and local government by selected characteristics. Table 2 shows similar data for metropolitan and nonmetropolitan areas.⁵

Earnings by worker characteristics

As shown in table 1, workers are classified into three major occupational categories: White-collar, blue-collar, and service workers. These categories summarize several subcategories in the occupational hierarchy. For example, the average wages for a specific occupation, such as mechanical engineer, are published separately when publication criteria

John Buckley is an economist in the Division of Compensation Data Analysis and Planning, Bureau of Labor Statistics.
Telephone: (202) 691-6299
E-mail: Buckley_J@bls.gov

are met; data for mechanical engineers are also included in the succeeding higher level publication grouping, engineers, architects, and surveyors. This process continues through all levels—professional specialty, professional specialty and technical, and white collar. Finally, data for white-collar, blue-collar, and service workers are rolled into the total workers estimate.

Occupation. Average straight-time hourly earnings of workers in white-collar occupations were about 50 percent higher than average earnings of blue-collar workers, and about double the average earnings of service workers (\$18.59, \$12.36, and \$9.09, respectively). Within the white-collar category, average hourly earnings ranged from \$11.53 for administrative support workers (including clerical) to \$27.00 for executive, administrative, and managerial employees. The average hourly earnings spread among blue-collar workers was not as broad, ranging from \$9.34 for handlers, equipment cleaners, helpers, and laborers to \$15.86 for precision production, craft, and repair employees.

Full time versus part time. Full-time employees worked an average of 39.6 hours a week compared to 21.0 hours worked by part timers. The respective average hourly rates were \$15.77 and \$8.89. Full-time workers averaged \$15.12 an hour in private industry and \$18.20 in State and local governments; the range was wider for part-time workers in these two sectors, with hourly averages of \$8.37 reported for part-time workers in private industry and \$12.27 for those in State and local governments.

Union versus nonunion. The average hourly earnings of unionized workers, \$16.91, were considerably higher than those of nonunion workers, \$14.56. Unionized workers in State and local governments averaged \$19.74 an hour compared to \$14.90 for unionized workers in private industry. Nonunion workers in State and local governments had hourly average earnings of \$16.20, higher than the rate for unionized workers in private industry. The hourly rate for nonunion workers in private industry was \$14.29. Readers should be aware that union-nonunion differences may reflect variations in the distribution of union members and other workers by occupation, industry, firm size, geographic location, and other factors in addition to coverage under collective bargaining agreements.

Time versus incentive pay. The vast majority of workers covered by the NCS (about 97 percent) are paid on a time basis; no part of their pay is tied to an incentive or production payment. Average hourly earnings of incentive-paid workers were about a dollar higher than the average for workers paid strictly on a time basis (\$16.21 versus \$15.05).

Earnings by establishment characteristics

The NCS presents average hourly data for workers in the goods- and service-producing industries. It also presents

data for five establishment size categories as well as information for metropolitan and nonmetropolitan areas, and nine census regions.⁶

Industry. Average hourly earnings of private industry workers in the goods-producing sector (mining, construction, and manufacturing) were about 12 percent higher than earnings of workers in the service-producing industries (transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries). Hourly averages for the goods- and service-producing industries were \$15.45 and \$13.85, respectively. (NCS does not classify data for State and local governments by industry.)

Establishment size. There was a strong correlation between earnings and establishment size. Average hourly earnings of workers in establishments with 2,500 or more employees (\$19.32) were more than 50 percent higher than those of workers in establishments with 50 to 99 employees (\$12.52).

Metropolitan versus nonmetropolitan. The hourly rate for unionized workers in metropolitan areas was about \$3 an hour higher than for unionized workers in nonmetropolitan areas (\$17.32 versus \$14.20). The average hourly pay gap between nonunion workers in metropolitan areas and nonmetropolitan areas was almost \$4 (\$15.25 versus \$11.32).

Although incentive-paid workers generally had higher average earnings than time-paid workers, in nonmetropolitan areas time-paid workers averaged \$11.87 an hour compared to \$10.74 an hour for incentive-paid workers.

Average earnings in metropolitan areas ranged from \$13.02 an hour in the smallest establishment category (employment size 50-99) to \$19.34 an hour in the largest category (employment size 2,500 or more). The corresponding average hourly range in nonmetropolitan areas was \$10.23 to \$18.23.

Region. Among the nine census regions, average hourly earnings ranged from \$11.88 in the East South Central region to \$17.42 in the Middle Atlantic region. The following tabulation shows the relative average earnings for each region:

Region	Pay relative
United States (\$15.09)	100
New England	112
Middle Atlantic	115
West South Central	92
East South Central	79
South Atlantic	91
West North Central	96
East North Central	102
Mountain	93
Pacific	112

The national bulletin for the 1997 NCS provides considerably more earnings information than shown in this article. It includes, for example, data for the 10 largest metropolitan

areas and for the work levels determined for each job by using a “generic leveling” technique. For additional information on the NCS program, you may write to the Bureau of Labor Statistics, Division of Compensation Data Analysis

and Planning, 2 Massachusetts Avenue, NE, Room 4175, Washington, DC 20212-0001, or e-mail OCLTINFO@bls.gov. Additional information can also be obtained from the Bureau’s Internet site at <http://stats.bls.gov/comhome.htm>. ■

¹ In the initial round of surveys, the NCS geographic scope excluded Alaska and Hawaii. For a discussion on the selected NCS areas and the sampling process, see Kenneth J. Hoffmann, “New Sample Areas Selected for BLS National Compensation Survey Program,” *Compensation and Working Conditions*, Spring 1997, pp. 27-31.

² See Harriet G. Weinstein, “Overview of the NCS: Summer 1998,” *Compensation and Working Conditions*, Summer 1998, pp. 41-44.

³ *Occupational Wages in the United States, 1997*, Bulletin 2519 (Bureau of Labor Statistics, Washington, DC, 1999).

⁴ Part of the earnings difference is explained by the different occupational mix between private industry and State and local government. Highly paid professional specialty and technical workers, for example, accounted for about 40 percent of all State and local government workers but for about 15 percent of private industry workers. For additional information, see Albert E. Schwenk, “Compensation Cost Trends in Private Industry and State and Local Governments,” in this issue of *Compensation and Working Conditions*, pp. 13-18.

⁵ The national bulletin provides much finer occupational detail than shown on tables 1 and 2.

⁶ Some census regions include Metropolitan Statistical Areas or Consolidated Metropolitan Statistical Areas that cross State lines, the divisions are defined as: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. *Middle Atlantic*—New Jersey, New York, and Pennsylvania. *East North Central*—Illinois, Indiana, Michigan, Ohio, and Wisconsin. *West North Central*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. *South Atlantic*—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia. *East South Central*—Alabama, Kentucky, Mississippi, and Tennessee. *West South Central*—Arkansas, Louisiana, Oklahoma, and Texas. *Mountain*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. *Pacific*—Alaska, California, Hawaii, Oregon, and Washington. (Although Alaska and Hawaii are included in this region, the 1997 NCS excluded these States.)

TABLE 1. Summary, United States: Mean hourly earnings¹ and weekly hours by selected characteristics, private industry and State and local government, National Compensation Survey,² 1997

Worker and establishment characteristics and geographic areas	Total			Private industry			State and local government		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ³ (percent)		Mean	Relative error ³ (percent)		Mean	Relative error ³ (percent)	
Total	\$15.09	0.6	36.5	\$14.39	0.7	36.4	\$17.82	0.7	36.5
Worker characteristics:⁴									
White-collar occupations ⁵	18.59	.6	36.7	18.08	.8	36.8	20.08	.8	36.4
Professional specialty and technical	22.89	.6	36.3	22.30	.7	36.6	23.84	.8	35.9
Executive, administrative, and managerial	27.00	.9	40.1	27.86	.8	40.5	23.95	1.9	38.6
Sales	12.78	3.5	33.0	12.80	3.5	33.0	11.13	4.7	33.1
Administrative support	11.53	.6	36.9	11.54	.7	37.1	11.50	.9	36.3
Blue-collar occupations ⁵	12.36	.8	38.3	12.24	.8	38.4	13.78	1.2	37.3
Precision production, craft, and repair	15.86	1.2	39.8	15.88	1.3	39.8	15.71	1.6	39.6
Machine operators, assemblers, and inspectors	11.03	1.1	39.6	11.02	1.1	39.6	12.89	6.1	38.3
Transportation and material moving	13.24	1.2	37.5	13.30	1.4	38.3	12.93	1.7	33.6
Handlers, equipment cleaners, helpers, and laborers	9.34	1.0	35.5	9.18	1.0	35.2	11.37	2.1	38.3
Service occupations ⁵	9.09	.8	33.0	7.51	.6	31.9	13.26	1.3	36.6
Full time	15.77	.6	39.6	15.12	.7	39.8	18.20	.8	38.9
Part time	8.89	1.1	21.0	8.37	1.2	21.4	12.27	1.4	19.2
Union	16.91	.9	36.9	14.90	1.3	37.1	19.74	1.0	36.7
Nonunion	14.56	.7	36.3	14.29	.8	36.3	16.20	.9	36.4
Time	15.05	.6	36.4	14.31	.7	36.4	17.82	.7	36.5
Incentive	16.21	2.7	38.3	16.21	2.7	38.3	-	-	-
Establishment characteristics:									
Goods producing	(⁶)	(⁶)	(⁶)	15.45	1.0	39.8	(⁶)	(⁶)	(⁶)
Service producing	(⁶)	(⁶)	(⁶)	13.85	.9	34.9	(⁶)	(⁶)	(⁶)
50-99 workers ⁷	12.52	1.2	35.3	12.44	1.3	35.3	13.96	3.6	36.1
100-499 workers	13.68	.7	36.2	13.32	.8	36.3	16.89	1.4	35.6
500-999 workers	16.15	1.5	37.4	15.66	1.7	37.8	18.20	1.8	35.7
1,000-2,499 workers	15.54	6.8	36.7	14.91	8.5	36.9	17.51	1.9	35.9
2,500 workers or more	19.32	.9	37.2	20.21	1.6	37.0	18.57	1.0	37.4
Geographic areas:⁸									
Metropolitan	15.73	.7	36.3	15.06	.8	36.3	18.46	.8	36.5
Nonmetropolitan	11.84	1.2	37.1	10.84	1.4	37.2	15.07	1.8	36.5
New England	16.96	1.8	35.1	16.29	2.1	35.0	20.14	2.1	35.2
Middle Atlantic	17.42	1.5	35.7	16.47	1.7	35.8	21.25	1.5	35.5
East North Central	15.45	.9	36.2	14.85	1.0	36.3	18.51	1.3	35.8
West North Central	14.44	1.8	36.3	13.70	2.2	36.2	17.24	.8	36.8
South Atlantic	13.73	1.4	37.0	13.20	1.8	36.7	15.47	1.4	37.9
East South Central	11.88	2.3	37.8	11.34	2.5	38.0	15.22	1.7	36.9
West South Central	13.82	1.0	37.2	13.45	1.2	37.0	14.96	1.3	37.8
Mountain	14.04	1.9	36.5	12.97	2.6	36.4	17.42	1.9	36.5
Pacific	16.88	1.5	36.2	15.89	1.8	36.4	20.23	1.7	35.5

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

² This survey covers the 48 contiguous States. Collection was conducted from October 1996 through July 1998. The average reference month was August 1997.

³ The relative standard error is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate.

⁴ Employees are classified as working either a full- or part-time schedule based on the definition used by each establishment. Union workers are those whose wages are determined through collective bargaining. Wages of time workers are based solely on hourly rate or salary; incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production

bonuses.

⁵ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy.

⁶ Classification of establishments into goods-producing and service-producing industries applies to private industry only.

⁷ Establishments classified with 50-99 workers may contain establishments with fewer than 50 due to staff reductions between survey sampling and collection.

⁸ Data are presented for metropolitan and nonmetropolitan area divisions as well as 9 census area divisions. See footnote 6 in the text for a list of States in each census area division.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria.

TABLE 2. Summary, metropolitan and nonmetropolitan areas:¹ Mean hourly earnings² and weekly hours by selected characteristics, National Compensation Survey,³ 1997

Worker and establishment characteristics and geographic areas	Total			Metropolitan areas			Nonmetropolitan areas		
	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours	Hourly earnings		Mean weekly hours
	Mean	Relative error ⁴ (percent)		Mean	Relative error ⁴ (percent)		Mean	Relative error ⁴ (percent)	
Total	\$15.09	0.6	36.5	\$15.73	0.7	36.3	\$11.84	1.2	37.1
Private industry	14.39	.7	36.4	15.06	.8	36.3	10.84	1.4	37.2
State and local government	17.82	.7	36.5	18.46	.8	36.5	15.07	1.8	36.5
Worker characteristics:⁵									
White-collar occupations ⁶	18.59	.6	36.7	19.07	.8	36.6	15.15	1.2	37.0
Professional specialty and technical	22.89	.6	36.3	23.34	.6	36.3	19.63	1.2	36.5
Executive, administrative, and managerial	27.00	.9	40.1	27.40	1.0	40.1	23.15	2.6	39.7
Sales	12.78	3.5	33.0	13.55	2.2	32.6	8.72	4.5	35.3
Administrative support	11.53	.6	36.9	11.73	.7	36.9	10.10	1.5	37.4
Blue-collar occupations ⁶	12.36	.8	38.3	12.78	.7	38.2	10.74	2.1	38.8
Precision production, craft, and repair	15.86	1.2	39.8	16.44	.8	39.7	13.27	4.5	39.9
Machine operators, assemblers, and inspectors	11.03	1.1	39.6	11.39	1.0	39.6	10.04	2.7	39.7
Transportation and material moving	13.24	1.2	37.5	13.46	1.2	37.6	11.85	4.2	36.7
Handlers, equipment cleaners, helpers, and laborers	9.34	1.0	35.5	9.48	1.1	35.1	8.81	2.0	37.0
Service occupations ⁶	9.09	.8	33.0	9.40	1.0	32.6	8.00	1.5	34.5
Full time	15.77	.6	39.6	16.51	.7	39.6	12.15	1.3	39.7
Part time	8.89	1.1	21.0	9.01	1.2	21.1	8.09	1.5	20.6
Union	16.91	.9	36.9	17.32	.6	36.7	14.20	4.5	38.1
Nonunion	14.56	.7	36.3	15.25	.8	36.2	11.32	1.4	36.8
Time	15.05	.6	36.4	15.69	.7	36.3	11.87	1.2	37.0
Incentive	16.21	2.7	38.3	16.87	2.5	38.2	10.74	11.4	38.8
Establishment characteristics:									
Goods producing ⁷	15.45	1.0	39.8	16.40	.8	39.8	12.06	2.3	39.9
Service producing ⁷	13.85	.9	34.9	14.44	1.0	34.9	9.77	1.3	35.2
50-99 workers ⁸	12.52	1.2	35.3	13.02	1.3	35.3	10.23	2.6	35.3
100-499 workers	13.68	.7	36.2	14.10	.8	36.1	11.78	1.7	36.5
500-999 workers	16.15	1.5	37.4	16.65	1.4	37.2	14.29	3.2	38.2
1,000-2,499 workers	15.54	6.8	36.7	17.03	1.9	36.0	10.91	15.8	38.6
2,500 workers or more	19.32	.9	37.2	19.34	.9	37.2	18.23	8.8	39.3
Geographic areas:⁹									
New England	16.96	1.8	35.1	17.42	1.8	35.2	13.75	5.3	34.0
Middle Atlantic	17.42	1.5	35.7	17.75	1.3	35.7	12.22	7.4	36.1
East North Central	15.45	.9	36.2	15.90	1.0	36.2	12.98	1.3	36.4
West North Central	14.44	1.8	36.3	15.40	2.2	36.3	11.82	3.7	36.2
South Atlantic	13.73	1.4	37.0	14.17	1.7	36.9	11.56	4.0	37.4
East South Central	11.88	2.3	37.8	13.60	1.6	37.0	10.22	3.7	38.7
West South Central	13.82	1.0	37.2	14.13	1.2	37.2	11.88	4.0	37.3
Mountain	14.04	1.9	36.5	14.17	2.4	36.4	13.51	2.4	36.6
Pacific	16.88	1.5	36.2	17.06	1.5	36.2	13.37	2.9	36.1

¹ Metropolitan areas can be a Metropolitan Statistical Area or Consolidated Metropolitan Statistical Area as defined by the Office of Management and Budget, 1994. Nonmetropolitan areas are counties that do not fit the definitions above.

² Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

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⁵ Employees are classified as working either a full- or part-time schedule based on

the definition used by each establishment. Union workers are those whose wages are determined through collective bargaining. Wages of time workers are based solely on hourly rate or salary; incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production bonuses.

⁶ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy.

⁷ Classification of establishments into goods-producing and service-producing industries applies to private industry only.

⁸ Establishments classified with 50-99 workers may contain establishments with fewer than 50 workers due to reduction in staff from the time of sampling to data collection.

⁹ See footnote 6 in the text for a list of States in each census area division.