

Knoxville, TN National Compensation Survey February 1999



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Preface

Data shown in this bulletin were collected as part of the Bureau of Labor Statistics' (BLS) National Compensation Survey (NCS). The survey could not have been conducted without the cooperation of the many private firms and government jurisdictions that provided pay data included in this bulletin. The Bureau thanks these respondents for their cooperation.

Field economists of the Bureau of Labor Statistics collected and reviewed the survey data. The Office of Compensation and Working Conditions, in cooperation with the Office of Field Operations and the Office of Technology and Survey Processing in the BLS National Office, designed the survey, processed the data, and prepared the survey for publication.

For additional information regarding this survey, please contact any BLS regional office at the address and telephone number listed on the inside back cover of this bulletin. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning,

2 Massachusetts Avenue, NE, Room 4175, Washington, DC 20212-0001, or call (202) 606-6199, or send e-mail to ocltinfo@bls.gov.

The data contained in this bulletin are also available at <http://stats.bls.gov/comhome.htm>, the BLS Internet site. Data are in three formats: An ASCII file containing the published table formats; an ASCII file containing positional columns of data for manipulation as a data base or spreadsheet; and a Portable Document Format (PDF) file containing the entire bulletin.

Results of earlier surveys of this area are also available from BLS regional offices, the Division of Compensation Data Analysis, or at the BLS Internet site.

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Introduction

The tables in this bulletin summarize the NCS survey results for the Knoxville, TN, metropolitan area. Tabulations provide information on earnings of workers in a variety of occupations and at a wide range of work levels. Also contained in this bulletin are information on the program, a technical note describing survey procedures, and several appendixes with detailed information on occupational classifications and the generic leveling methodology.

NCS products

The National Compensation Survey of the Bureau of Labor Statistics provides data on the occupational wages and employee benefits for localities, broad geographic regions, and the Nation as a whole. The Employment Cost Index, a quarterly measure of the change in employer costs for wages and benefits, will be derived from the NCS. Another product, Employer Costs for Employee Compensation, measures employers' average hourly costs for total compensation, that is, wages and benefits. Still another NCS product measures the incidence of benefit plans and their provisions. This bulletin is limited to data on occupational wages and salaries.

About the tables

The tables that follow present data on straight-time occupational earnings. Straight-time earnings include wages and salaries, incentive pay, cost-of-living adjustments, and hazard pay. These earnings exclude premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. A total of 480 detailed occupations are used to describe all occupations in the civilian nonfarm economy (excluding the Federal Government and private households).

Table A-1 presents straight-time earnings for detailed occupations. Data are not shown for any occupations if they would raise concerns about the confidentiality of the survey respondent or if the data are insufficient to support reliable estimates. The earnings shown include the mean for each occupation, as well as earnings for selected percentiles in each occupation.

Table A-2 compares the type of data and details shown in table A-1 for the private industry and State and local government sector.

Table A-3 compares the type of data and details shown in table A-1 for full-time and part-time workers. The definitions of full-time and part-time workers are those used in the surveyed establishments.

Table A-4 presents the weekly and annual straight-time earnings for full-time employees in specific occupations across all industries. For the weekly and annual earnings, the mean and median earnings and the mean hours are shown. The mean hours reflect hours employees are scheduled to work, excluding overtime hours.

Table B-1 presents mean straight-time hourly earnings for groups of occupations and for levels of job requirements related to occupations in the group. Separate data are also shown for private industry and government workers, and for full-time and part-time workers in all industries. (See appendix C, Generic Leveling Criteria, for more information on job ranking in this survey. Average work levels for published occupation groups and their component occupations are presented in appendix table 3.)

Table B-2 also presents mean straight-time hourly earnings, but for detailed occupations at several levels of job requirements for each detailed occupation.

Table C-1 presents mean straight-time hourly earnings for occupation groups and selected occupation characteristics. The occupation characteristics include full-time and part-time status, union and nonunion status, and time or incentive pay status. Union workers' wages are determined through collective bargaining. Time workers' wages are based solely on hourly rate or salary. Incentive workers' wages are at least partially based on productivity payments such as piece rates, commissions and production bonuses.

Table C-2 presents mean straight-time hourly earnings for occupation groups and industry division of employers; these are limited to the private sector.

Table C-3 presents mean straight-time hourly earnings for occupation groups and the employment size of employers; these are also limited to the private sector.

Table C-4 presents the employment scope of this survey. The occupation employment estimates shown relate to all employers in the area surveyed, not just the surveyed employers.

Table A-1. Hourly earnings¹ for selected occupations, all workers², all industries, Knoxville, TN, February 1999

Occupation ³	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
All occupations	\$13.39	\$6.35	\$8.00	\$11.25	\$16.55	\$23.83
All occupations excluding sales	13.52	6.56	8.24	11.50	16.61	24.09
White-collar occupations	16.51	7.34	9.42	14.42	21.55	28.49
White-collar occupations excluding sales	17.42	8.07	10.50	15.62	22.56	29.16
Professional specialty and technical occupations	20.41	11.65	14.78	19.47	25.19	29.81
Professional specialty occupations	22.14	13.58	17.32	21.44	26.43	31.29
Engineers, architects, and surveyors	26.76	16.20	20.73	26.56	32.25	36.77
Civil engineers	27.70	17.56	22.50	26.94	35.00	36.54
Industrial engineers	20.48	13.46	15.91	20.59	24.02	26.74
Engineers, N.E.C.	28.62	16.63	24.04	28.59	33.81	37.51
Mathematical and computer scientists	23.44	15.88	17.33	21.95	25.75	34.21
Computer systems analysts and scientists	23.14	17.05	17.33	18.75	28.85	36.93
Natural scientists	24.58	17.50	20.19	22.55	30.03	34.42
Health related occupations	19.91	14.02	16.04	18.67	23.14	26.92
Registered nurses	16.97	13.23	14.50	17.00	18.82	20.91
Teachers, college and university	-	-	-	-	-	-
Teachers, except college and university	22.68	14.86	19.32	23.19	27.12	30.33
Elementary school teachers	24.73	18.31	20.52	24.09	27.79	34.26
Secondary school teachers	23.94	18.38	20.59	24.04	26.97	29.16
Librarians, archivists, and curators	-	-	-	-	-	-
Social scientists and urban planners	-	-	-	-	-	-
Social, recreation, and religious workers	12.95	10.05	10.91	12.58	14.76	16.78
Social workers	13.03	10.05	10.91	12.89	15.00	16.78
Lawyers and judges	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C.	18.69	13.61	15.00	18.39	20.87	26.37
Technical occupations	15.37	10.22	11.70	13.88	18.20	22.97
Licensed practical nurses	11.61	9.80	10.57	11.79	12.27	13.25
Health technologists and technicians, N.E.C.	13.68	10.06	11.06	13.70	15.97	18.20
Electrical and electronic technicians	15.53	8.67	10.89	14.03	19.14	22.40
Engineering technicians, N.E.C.	17.84	12.05	13.58	17.80	22.56	23.82
Drafters	16.35	11.65	12.76	15.25	17.25	25.91
Executive, administrative, and managerial occupations ...	24.35	12.78	15.86	21.61	30.49	37.41
Executives, administrators, and managers	28.14	15.86	20.12	27.43	34.52	38.51
Administrators and officials, public administration	27.39	21.61	27.38	27.64	28.62	28.62
Personnel and labor relations managers	22.29	14.38	15.30	20.93	26.49	38.51
Administrators, education and related fields	32.05	22.69	29.16	33.86	34.78	37.35
Managers and administrators, N.E.C.	33.79	16.55	21.35	31.20	37.77	59.17
Management related occupations	18.09	11.87	12.63	15.96	21.08	28.76
Other financial officers	16.91	12.56	13.22	14.42	19.29	26.92
Management related occupations, N.E.C.	25.78	12.30	14.38	25.73	40.62	40.62
Sales occupations	11.93	5.58	6.24	8.93	14.80	21.94
Supervisors, sales occupations	16.14	7.75	9.38	13.80	20.53	23.60
Sales occupations, other business services	20.02	9.80	14.44	16.50	20.68	37.64
Sales representatives, mining, manufacturing, and wholesale	19.52	10.50	12.29	17.06	21.94	31.25
Sales workers, motor vehicles and boats	14.57	5.15	10.00	12.01	20.37	23.36
Cashiers	6.33	5.50	5.75	6.00	6.60	7.75
Administrative support occupations, including clerical	10.23	7.00	8.00	9.35	11.75	15.25
Secretaries	10.51	7.66	8.65	9.91	12.26	13.79
Receptionists	8.08	6.63	7.00	8.25	8.65	9.35
Records clerks, N.E.C.	13.38	8.23	8.75	12.50	17.67	18.25
Bookkeepers, accounting and auditing clerks	11.08	8.00	8.20	10.50	13.18	15.85
Telephone operators	9.43	7.22	7.22	8.98	9.23	15.64
Dispatchers	10.35	(4)	(4)	(4)	(4)	(4)
Production coordinators	13.70	11.46	12.13	13.44	16.36	16.50
Traffic, shipping and receiving clerks	10.28	8.00	8.61	10.00	11.67	11.75
Stock and inventory clerks	9.44	6.59	8.50	9.75	10.50	11.75
Meter readers	14.74	7.00	15.65	16.12	16.49	16.97
Investigators and adjusters except insurance	10.65	8.68	9.63	10.71	11.25	11.70
Bill and account collectors	12.21	8.00	9.34	10.65	13.58	16.77
General office clerks	10.04	7.50	8.00	9.23	10.98	14.00
Bank tellers	8.08	6.88	7.25	7.83	8.58	10.40
Data entry keyers	8.43	6.49	7.09	8.34	10.00	10.36

See footnotes at end of table.

Table A-1. Hourly earnings¹ for selected occupations, all workers², all industries, Knoxville, TN, February 1999 — Continued

Occupation ³	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
White-collar occupations (-Continued)						
Administrative support occupations, including clerical (-Continued)						
Teachers' aides	\$7.87	\$7.52	\$7.52	\$7.53	\$7.70	\$9.46
Administrative support occupations, N.E.C.	9.85	7.00	8.75	9.05	11.03	13.44
Blue-collar occupations						
Precision production, craft, and repair occupations	14.89	9.25	11.37	14.14	17.52	21.16
Automobile mechanics	19.24	12.00	14.00	20.47	21.16	28.79
Industrial machinery repairers	15.88	11.53	14.08	16.43	17.63	19.50
Mechanics and repairers, N.E.C.	12.52	8.40	10.25	11.84	15.72	17.01
Electrical power installers and repairers	14.20	11.45	11.76	12.93	15.79	20.42
Supervisors, production occupations	18.36	11.08	15.88	17.26	20.24	27.61
Machinists	15.04	12.41	12.41	16.50	16.57	16.94
Inspectors, testers, and graders	12.16	8.00	10.00	11.78	13.48	16.25
Water and sewer treatment plant operators	12.19	8.96	9.53	12.45	13.42	17.71
Machine operators, assemblers, and inspectors	10.54	6.86	8.75	10.50	12.49	14.08
Fabricating machine operators, N.E.C.	11.01	9.70	9.76	10.85	11.81	13.38
Textile sewing machine operators	8.37	5.88	6.92	9.06	9.06	9.53
Packaging and filling machine operators	9.13	6.59	7.21	8.75	10.04	14.49
Furnace, kiln, and oven operators, except food ...	13.52	8.83	11.44	15.04	15.18	15.60
Miscellaneous machine operators, N.E.C.	10.91	7.00	8.67	10.84	12.69	14.13
Assemblers	10.09	8.47	9.23	10.08	10.66	12.71
Production inspectors, checkers and examiners ..	11.23	6.70	9.07	12.49	13.15	14.07
Transportation and material moving occupations	11.78	7.50	9.00	11.00	13.31	17.00
Truck drivers	12.04	7.25	8.32	11.13	15.41	21.17
Industrial truck and tractor equipment operators ..	11.09	8.52	9.54	11.00	12.50	14.07
Handlers, equipment cleaners, helpers, and laborers	9.54	6.15	7.02	8.82	11.09	14.07
Groundskeepers and gardeners except farm	9.67	6.85	8.80	9.92	10.46	12.02
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	13.52	7.65	11.09	13.17	16.40	20.23
Helpers, construction trades	10.45	8.00	8.00	11.00	11.70	14.63
Construction laborers	11.04	6.50	7.93	12.81	13.65	14.61
Stock handlers and baggers	8.16	5.45	6.58	7.90	9.89	10.56
Freight, stock, and material handlers, N.E.C.	11.19	7.30	8.50	10.14	14.50	15.00
Hand packers and packagers	8.09	5.89	6.27	7.70	10.35	10.49
Laborers except construction, N.E.C.	9.41	7.00	7.50	8.20	11.98	14.07
Service occupations						
Protective service occupations	7.51	2.13	5.75	7.00	8.69	11.94
Firefighting occupations	10.58	5.85	8.00	10.50	12.46	16.43
Police and detectives, public service	11.25	8.46	9.98	11.25	12.46	13.57
Guards and police except public service	13.46	11.48	12.04	12.46	13.41	18.48
Food service occupations	8.82	5.59	5.85	7.35	8.00	16.61
Supervisors, food preparation and service occupations	5.92	2.13	2.13	5.60	8.00	10.10
Waiters and waitresses	14.63	8.18	10.82	11.75	19.02	24.97
Cooks	2.67	2.13	2.13	2.13	3.25	3.75
Kitchen workers, food preparation	8.17	5.75	7.00	8.14	9.25	10.10
Food preparation occupations, N.E.C.	7.27	6.05	6.35	7.00	8.00	8.96
	4.43	2.13	2.13	5.35	6.23	6.87

See footnotes at end of table.

Table A-1. Hourly earnings¹ for selected occupations, all workers², all industries, Knoxville, TN, February 1999 — Continued

Occupation ³	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
Service occupations (-Continued)						
Health service occupations	\$7.68	\$6.44	\$7.00	\$7.37	\$8.11	\$9.22
Nursing aides, orderlies and attendants	7.54	6.47	7.00	7.37	8.08	8.97
Cleaning and building service occupations	7.90	5.89	6.70	7.19	8.65	11.61
Supervisors, cleaning and building service workers	9.45	7.50	8.65	8.65	11.48	12.01
Janitors and cleaners	7.97	5.75	6.31	7.55	8.50	12.71
Personal service occupations	6.77	5.25	5.50	6.39	7.17	10.10
Supervisors, personal service occupations	8.43	6.25	6.97	7.40	10.63	11.94
Service occupations, N.E.C.	6.08	3.25	6.00	6.50	6.75	7.00

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, 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. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the rate shown. At the 25th percentile, one-fourth of the workers earn the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

² All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual

occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ The positional statistics for this occupation were suppressed because some were below the minimum wage. In this update survey, an average decrease in mean wages for this occupation was applied to the positional statistics, causing the 10th percentile to go below the minimum wage.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Knoxville, TN, February 1999

Occupation ³	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
All occupations	\$12.83	\$6.01	\$7.65	\$10.85	\$15.86	\$22.50	\$15.86	\$7.85	\$9.46	\$12.92	\$20.91	\$27.41
All occupations excluding sales	12.93	6.25	7.89	11.00	15.90	22.56	15.88	7.85	9.46	12.92	20.99	27.41
White-collar occupations	15.92	6.86	9.00	13.74	20.32	28.22	18.27	8.57	11.01	17.75	23.52	28.99
White-collar occupations excluding sales	17.05	8.00	10.25	15.00	21.41	29.22	18.30	8.57	11.02	17.76	23.52	29.02
Professional specialty and technical occupations	20.32	12.05	14.49	18.53	25.31	30.64	20.59	10.17	16.12	20.82	24.72	28.49
Professional specialty occupations	22.55	14.25	17.24	20.96	27.00	33.23	21.58	11.80	17.75	22.30	25.05	29.38
Engineers, architects, and surveyors	26.97	15.96	20.73	26.75	32.53	37.03	-	-	-	-	-	-
Industrial engineers	20.48	13.46	15.91	20.59	24.02	26.74	-	-	-	-	-	-
Engineers, N.E.C.	28.62	16.63	24.04	28.59	33.81	37.51	-	-	-	-	-	-
Mathematical and computer scientists	24.41	17.33	18.75	25.75	27.69	34.30	-	-	-	-	-	-
Computer systems analysts and scientists	23.38	17.05	17.33	18.75	31.73	37.65	-	-	-	-	-	-
Natural scientists	26.75	13.50	18.03	29.22	33.20	35.33	-	-	-	-	-	-
Health related occupations	19.72	14.10	16.11	18.67	23.14	26.68	-	-	-	-	-	-
Registered nurses	16.87	13.23	14.44	16.99	18.65	20.85	-	-	-	-	-	-
Teachers, college and university	-	-	-	-	-	-	-	-	-	-	-	-
Teachers, except college and university	-	-	-	-	-	-	22.72	14.86	19.36	23.19	27.17	30.33
Elementary school teachers	-	-	-	-	-	-	24.77	18.35	20.52	24.09	27.79	34.26
Secondary school teachers	-	-	-	-	-	-	23.94	18.38	20.59	24.04	26.97	29.16
Librarians, archivists, and curators	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners	-	-	-	-	-	-	-	-	-	-	-	-
Social, recreation, and religious workers	-	-	-	-	-	-	13.63	10.73	11.10	13.57	15.38	16.83
Social workers	-	-	-	-	-	-	13.81	10.91	11.80	13.58	15.39	16.83
Lawyers and judges	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C.	18.69	13.61	15.00	18.39	20.87	26.37	-	-	-	-	-	-
Technical occupations	15.97	10.90	12.02	14.25	18.72	23.63	11.46	7.50	8.67	11.04	13.70	14.74
Licensed practical nurses	11.78	9.99	10.80	11.80	12.46	13.49	-	-	-	-	-	-
Health technologists and technicians, N.E.C.	14.50	10.90	11.96	14.13	16.43	18.20	10.55	7.50	7.50	10.63	13.70	13.70
Electrical and electronic technicians	17.37	10.89	12.02	15.92	20.39	32.48	-	-	-	-	-	-
Engineering technicians, N.E.C.	18.29	12.20	13.88	18.56	22.56	23.82	-	-	-	-	-	-
Drafters	16.35	11.65	12.76	15.25	17.25	25.91	-	-	-	-	-	-
Executive, administrative, and managerial occupations	24.80	13.27	15.86	21.35	30.13	37.77	23.32	11.87	13.99	22.09	32.18	34.78
Executives, administrators, and managers	27.80	15.30	18.13	24.83	32.22	40.99	29.02	17.91	23.42	29.16	34.63	37.35
Administrators and officials, public administration	-	-	-	-	-	-	27.39	21.61	27.38	27.64	28.62	28.62
Personnel and labor relations managers	23.05	14.38	14.38	20.93	27.18	38.51	-	-	-	-	-	-
Administrators, education and related fields	-	-	-	-	-	-	32.05	22.69	29.16	33.86	34.78	37.35
Managers and administrators, N.E.C.	33.64	16.55	20.93	31.20	37.41	59.17	-	-	-	-	-	-
Management related occupations	19.44	12.50	13.22	16.00	24.58	29.81	15.41	11.66	11.87	12.78	19.29	21.08
Other financial officers	15.80	11.93	12.93	13.63	14.42	26.92	-	-	-	-	-	-
Sales occupations	11.95	5.58	6.24	9.00	15.00	21.94	-	-	-	-	-	-
Supervisors, sales occupations	16.14	7.75	9.38	13.80	20.53	23.60	-	-	-	-	-	-
Sales occupations, other business services	20.02	9.80	14.44	16.50	20.68	37.64	-	-	-	-	-	-
Sales representatives, mining, manufacturing, and wholesale	19.52	10.50	12.29	17.06	21.94	31.25	-	-	-	-	-	-
Sales workers, motor vehicles and boats	14.57	5.15	10.00	12.01	20.37	23.36	-	-	-	-	-	-
Cashiers	6.31	5.50	5.75	6.00	6.55	7.75	-	-	-	-	-	-
Administrative support occupations, including clerical	10.16	6.99	8.00	9.25	11.67	15.25	10.47	7.52	8.24	9.56	12.26	15.30
Secretaries	10.22	7.50	8.50	9.79	12.01	13.64	10.89	8.29	9.43	10.22	13.13	14.26
Receptionists	8.18	6.75	7.50	8.25	8.65	9.39	-	-	-	-	-	-
Records clerks, N.E.C.	13.38	8.23	8.75	12.50	17.67	18.25	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks	11.33	8.00	8.10	10.50	13.81	16.12	-	-	-	-	-	-
Production coordinators	13.70	11.46	12.13	13.44	16.36	16.50	-	-	-	-	-	-

See footnotes at end of table.

Table A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Knoxville, TN, February 1999 — Continued

Occupation ³	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
White-collar occupations (-Continued)												
Administrative support occupations, including clerical (-Continued)												
Traffic, shipping and receiving clerks	\$10.28	\$8.00	\$8.61	\$10.00	\$11.67	\$11.75	—	—	—	—	—	—
Stock and inventory clerks	9.57	6.94	8.50	9.75	10.50	11.75	—	—	—	—	—	—
Meter readers	—	—	—	—	—	—	\$14.74	\$7.00	\$15.65	\$16.12	\$16.49	\$16.97
Investigators and adjusters except insurance	10.65	8.68	9.63	10.71	11.25	11.70	—	—	—	—	—	—
Bill and account collectors	12.20	8.00	9.34	10.65	13.58	16.77	—	—	—	—	—	—
General office clerks	10.08	7.50	8.00	8.99	11.98	14.00	9.96	7.35	8.54	9.29	10.46	14.83
Bank tellers	8.08	6.88	7.25	7.83	8.58	10.40	—	—	—	—	—	—
Data entry keyers	8.43	6.49	7.09	8.34	10.00	10.36	—	—	—	—	—	—
Teachers' aides	—	—	—	—	—	—	7.87	7.52	7.52	7.53	7.70	9.46
Administrative support occupations, N.E.C.	8.85	7.00	8.00	8.75	9.05	11.03	11.84	9.24	10.10	11.18	13.44	16.55
Blue-collar occupations												
Precision production, craft, and repair occupations	11.81	7.00	8.83	11.00	14.00	17.05	12.31	8.04	9.24	11.43	14.14	18.40
Industrial machinery repairers	15.13	9.25	11.50	14.37	17.63	21.63	13.79	8.89	10.37	12.45	16.73	19.76
Mechanics and repairers, N.E.C.	15.88	11.53	14.08	16.43	17.63	19.50	—	—	—	—	—	—
Electrical power installers and repairers	13.47	8.40	10.66	12.27	15.72	18.35	—	—	—	—	—	—
Supervisors, production occupations	—	—	—	—	—	—	14.48	11.67	12.12	13.69	15.79	20.42
Machinists	18.36	11.08	15.88	17.26	20.24	27.61	—	—	—	—	—	—
Inspectors, testers, and graders	15.04	12.41	12.41	16.50	16.57	16.94	—	—	—	—	—	—
Water and sewer treatment plant operators	12.16	8.00	10.00	11.78	13.48	16.25	—	—	—	—	—	—
Machine operators, assemblers, and inspectors	—	—	—	—	—	—	12.19	8.96	9.53	12.45	13.42	17.71
Fabricating machine operators, N.E.C.	10.54	6.86	8.75	10.47	12.49	14.08	—	—	—	—	—	—
Textile sewing machine operators	11.01	9.70	9.76	10.85	11.81	13.38	—	—	—	—	—	—
Packaging and filling machine operators	8.37	5.88	6.92	9.06	9.06	9.53	—	—	—	—	—	—
Furnace, kiln, and oven operators, except food	9.13	6.59	7.21	8.75	10.04	14.49	—	—	—	—	—	—
Miscellaneous machine operators, N.E.C.	13.52	8.83	11.44	15.04	15.18	15.60	—	—	—	—	—	—
Assemblers	10.89	7.00	8.67	10.84	12.69	14.13	—	—	—	—	—	—
Production inspectors, checkers and examiners	10.09	8.47	9.23	10.08	10.66	12.71	—	—	—	—	—	—
Transportation and material moving occupations	11.23	6.70	9.07	12.49	13.15	14.07	—	—	—	—	—	—
Truck drivers	11.86	7.50	9.18	11.13	13.37	17.00	10.39	8.21	8.75	9.69	11.17	14.18
Industrial truck and tractor equipment operators	12.10	7.25	8.32	11.13	15.41	21.17	—	—	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers	11.09	8.52	9.54	11.00	12.50	14.07	—	—	—	—	—	—
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	9.52	6.00	7.00	8.75	11.09	14.07	9.69	7.38	7.75	9.44	10.46	13.17
Helpers, construction trades	13.56	7.65	10.63	11.75	16.40	20.23	—	—	—	—	—	—
Stock handlers and baggers	10.45	8.00	8.00	11.00	11.70	14.63	—	—	—	—	—	—
Freight, stock, and material handlers, N.E.C.	8.01	5.45	6.50	7.88	9.89	10.56	—	—	—	—	—	—
Hand packers and packagers	11.19	7.30	8.50	10.14	14.50	15.00	—	—	—	—	—	—
Laborers except construction, N.E.C.	8.09	5.89	6.27	7.70	10.35	10.49	—	—	—	—	—	—
Food service occupations	9.69	6.75	7.50	8.00	14.07	14.07	—	—	—	—	—	—
Service occupations												
Protective service occupations	6.85	2.13	5.50	6.78	7.88	10.20	10.17	7.03	8.11	10.18	12.04	12.95
Firefighting occupations	8.75	5.77	5.85	7.35	8.00	16.61	11.68	9.20	10.22	11.32	12.53	14.70
Police and detectives, public service	—	—	—	—	—	—	11.25	8.46	9.98	11.25	12.46	13.57
Guards and police except public service	—	—	—	—	—	—	13.46	11.48	12.04	12.46	13.41	18.48
Food service occupations	8.67	5.59	5.85	7.35	8.00	16.61	—	—	—	—	—	—
Food service occupations	5.87	2.13	2.13	5.50	7.79	10.10	—	—	—	—	—	—

See footnotes at end of table.

Table A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Knoxville, TN, February 1999 — Continued

Occupation ³	Private industry						State and local government						
	Mean	Percentiles					Mean	Percentiles					
		10	25	Median 50	75	90		10	25	Median 50	75	90	
Service occupations (-Continued)													
Food service occupations (-Continued)													
Supervisors, food preparation and service occupations	\$14.63	\$8.18	\$10.82	\$11.75	\$19.02	\$24.97	—	—	—	—	—	—	—
Waiters and waitresses	2.67	2.13	2.13	2.13	3.25	3.75	—	—	—	—	—	—	—
Cooks	8.19	5.74	7.00	8.14	9.25	10.25	—	—	—	—	—	—	—
Kitchen workers, food preparation	7.31	6.05	6.75	7.05	8.00	8.96	—	—	—	—	—	—	—
Food preparation occupations, N.E.C.	4.35	2.13	2.13	5.35	6.04	6.87	—	—	—	—	—	—	—
Health service occupations	7.68	6.44	7.00	7.37	8.11	9.22	—	—	—	—	—	—	—
Nursing aides, orderlies and attendants	7.54	6.47	7.00	7.37	8.08	8.97	—	—	—	—	—	—	—
Cleaning and building service occupations	7.49	5.75	6.50	7.00	7.74	10.23	\$8.88	\$6.90	\$7.55	\$8.65	\$10.56	\$12.35	
Janitors and cleaners	7.91	5.65	6.00	7.00	8.68	12.96	8.11	6.45	7.55	7.55	7.69	12.35	
Personal service occupations	6.67	5.25	5.50	6.25	7.00	8.34	—	—	—	—	—	—	—
Service occupations, N.E.C.	6.08	3.25	6.00	6.50	6.75	7.00	—	—	—	—	—	—	—

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, 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. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the rate shown. At the 25th percentile, one-fourth of the workers earn the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

² All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in

another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table A-3. Hourly earnings¹ for selected occupations, full-time and part-time workers², all industries, Knoxville, TN, February 1999

Occupation ³	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
All occupations	\$13.87	\$6.81	\$8.50	\$11.66	\$17.00	\$24.29	\$7.08	\$2.13	\$5.39	\$6.22	\$7.96	\$11.17
All occupations excluding sales	13.98	7.00	8.65	11.80	17.03	24.59	6.90	2.13	5.15	6.25	8.00	11.78
White-collar occupations	16.96	7.70	10.00	15.01	22.25	28.77	9.47	5.50	6.22	7.50	9.74	16.09
White-collar occupations excluding sales	17.79	8.50	10.82	15.96	22.89	29.35	10.18	6.25	6.46	7.75	12.50	17.28
Professional specialty and technical occupations	20.59	11.84	15.00	19.82	25.27	29.97	14.87	8.53	10.40	14.00	17.65	21.06
Professional specialty occupations	22.32	14.00	17.50	21.63	26.58	31.42	16.55	10.25	13.73	16.00	18.77	23.20
Engineers, architects, and surveyors	26.70	16.20	20.73	26.50	32.06	36.67	-	-	-	-	-	-
Civil engineers	27.02	17.56	22.50	25.82	32.73	36.54	-	-	-	-	-	-
Industrial engineers	20.51	13.46	15.91	20.59	24.02	26.74	-	-	-	-	-	-
Engineers, N.E.C.	28.62	16.63	24.04	28.59	33.81	37.51	-	-	-	-	-	-
Mathematical and computer scientists	23.44	15.88	17.33	21.95	25.75	34.21	-	-	-	-	-	-
Computer systems analysts and scientists	23.14	17.05	17.33	18.75	28.85	36.93	-	-	-	-	-	-
Natural scientists	24.58	17.50	20.19	22.55	30.03	34.42	-	-	-	-	-	-
Health related occupations	20.11	14.16	16.25	18.84	23.19	26.92	17.08	13.00	14.25	17.00	19.32	21.60
Registered nurses	16.91	13.23	14.50	17.00	18.70	20.84	17.37	13.31	14.70	17.25	19.42	21.96
Teachers, college and university	-	-	-	-	-	-	-	-	-	-	-	-
Teachers, except college and university	22.89	15.04	19.41	23.19	27.25	30.33	-	-	-	-	-	-
Elementary school teachers	24.73	18.31	20.52	24.09	27.79	34.26	-	-	-	-	-	-
Secondary school teachers	23.94	18.38	20.59	24.04	26.97	29.16	-	-	-	-	-	-
Librarians, archivists, and curators	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners	-	-	-	-	-	-	-	-	-	-	-	-
Social, recreation, and religious workers	13.02	9.38	10.91	11.99	15.23	16.78	-	-	-	-	-	-
Social workers	13.12	9.38	10.91	12.58	15.23	16.78	-	-	-	-	-	-
Lawyers and judges	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C.	18.69	13.61	15.00	18.39	20.87	26.37	-	-	-	-	-	-
Technical occupations	15.53	10.50	11.80	13.89	18.20	23.04	10.61	7.22	9.16	10.00	12.00	14.25
Licensed practical nurses	11.84	10.14	10.82	11.80	12.50	13.64	-	-	-	-	-	-
Health technologists and technicians, N.E.C.	13.77	10.18	11.17	13.70	15.97	18.20	-	-	-	-	-	-
Electrical and electronic technicians	15.53	8.67	10.89	14.03	19.14	22.40	-	-	-	-	-	-
Engineering technicians, N.E.C.	17.84	12.05	13.58	17.80	22.56	23.82	-	-	-	-	-	-
Drafters	16.35	11.65	12.76	15.25	17.25	25.91	-	-	-	-	-	-
Executive, administrative, and managerial occupations	24.41	12.78	15.86	21.69	30.49	37.41	-	-	-	-	-	-
Executives, administrators, and managers	28.17	15.86	20.12	27.43	34.52	38.51	-	-	-	-	-	-
Administrators and officials, public administration	27.39	21.61	27.38	27.64	28.62	28.62	-	-	-	-	-	-
Personnel and labor relations managers	22.29	14.38	15.30	20.93	26.49	38.51	-	-	-	-	-	-
Administrators, education and related fields	32.05	22.69	29.16	33.86	34.78	37.35	-	-	-	-	-	-
Managers and administrators, N.E.C.	33.79	16.55	21.35	31.20	37.77	59.17	-	-	-	-	-	-
Management related occupations	18.08	11.87	12.63	15.00	21.08	28.88	-	-	-	-	-	-
Other financial officers	16.74	12.56	13.22	14.42	19.29	26.92	-	-	-	-	-	-
Management related occupations, N.E.C.	25.78	12.30	14.38	25.73	40.62	40.62	-	-	-	-	-	-
Sales occupations	12.48	5.75	6.54	10.00	15.58	22.08	8.13	5.45	5.50	6.00	7.63	10.15
Supervisors, sales occupations	16.14	7.75	9.38	13.80	20.53	23.60	-	-	-	-	-	-
Sales occupations, other business services	18.04	9.80	12.50	16.15	20.00	25.55	-	-	-	-	-	-
Sales representatives, mining, manufacturing, and wholesale	19.52	10.50	12.29	17.06	21.94	31.25	-	-	-	-	-	-
Sales workers, motor vehicles and boats	14.57	5.15	10.00	12.01	20.37	23.36	-	-	-	-	-	-
Cashiers	6.42	5.50	5.75	6.09	6.75	7.75	6.12	5.45	5.50	6.00	6.20	7.39
Administrative support occupations, including clerical	10.49	7.44	8.24	9.64	12.02	15.46	7.48	6.22	6.25	7.25	8.00	9.00
Secretaries	10.66	7.78	9.00	10.26	12.46	13.93	-	-	-	-	-	-

See footnotes at end of table.

Table A-3. Hourly earnings¹ for selected occupations, full-time and part-time workers², all industries, Knoxville, TN, February 1999 — Continued

Occupation ³	All industries											
	Full-time					Part-time						
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
White-collar occupations (-Continued)												
Administrative support occupations, including clerical (-Continued)												
Receptionists	\$8.25	\$6.75	\$7.05	\$8.36	\$8.65	\$9.77	-	-	-	-	-	-
Records clerks, N.E.C.	13.38	8.23	8.75	12.50	17.67	18.25	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks	11.08	8.00	8.20	10.50	13.18	15.85	-	-	-	-	-	-
Dispatchers	10.35	(4)	(4)	(4)	(4)	(4)	-	-	-	-	-	-
Production coordinators	13.70	11.46	12.13	13.44	16.36	16.50	-	-	-	-	-	-
Traffic, shipping and receiving clerks	10.28	8.00	8.61	10.00	11.67	11.75	-	-	-	-	-	-
Stock and inventory clerks	9.57	6.94	8.50	9.75	10.50	11.75	-	-	-	-	-	-
Meter readers	14.74	7.00	15.65	16.12	16.49	16.97	-	-	-	-	-	-
Investigators and adjusters except insurance	10.65	8.68	9.63	10.71	11.25	11.70	-	-	-	-	-	-
Bill and account collectors	12.21	8.00	9.34	10.65	13.58	16.77	-	-	-	-	-	-
General office clerks	10.19	7.50	8.35	9.27	11.23	14.07	-	-	-	-	-	-
Bank tellers	8.08	6.88	7.25	7.83	8.58	10.40	-	-	-	-	-	-
Data entry keyers	8.77	6.99	7.74	8.50	10.11	10.36	-	-	-	-	-	-
Administrative support occupations, N.E.C.	9.96	7.00	8.75	9.05	11.18	13.44	\$8.78	\$7.50	\$7.50	\$9.00	\$9.00	\$9.00
Blue-collar occupations												
Precision production, craft, and repair occupations	11.98	7.25	9.06	11.09	14.07	17.40	7.27	5.45	6.00	6.85	8.50	9.50
Automobile mechanics	14.89	9.25	11.37	14.14	17.52	21.16	-	-	-	-	-	-
Industrial machinery repairers	19.24	12.00	14.00	20.47	21.16	28.79	-	-	-	-	-	-
Mechanics and repairers, N.E.C.	15.88	11.53	14.08	16.43	17.63	19.50	-	-	-	-	-	-
Electrical power installers and repairers	12.52	8.40	10.25	11.84	15.72	17.01	-	-	-	-	-	-
Supervisors, production occupations ..	14.20	11.45	11.76	12.93	15.79	20.42	-	-	-	-	-	-
Machinists	18.36	11.08	15.88	17.26	20.24	27.61	-	-	-	-	-	-
Inspectors, testers, and graders	15.04	12.41	12.41	16.50	16.57	16.94	-	-	-	-	-	-
Water and sewer treatment plant operators	12.16	8.00	10.00	11.78	13.48	16.25	-	-	-	-	-	-
Machine operators, assemblers, and inspectors	12.19	8.96	9.53	12.45	13.42	17.71	-	-	-	-	-	-
Fabricating machine operators, N.E.C.	10.59	6.94	8.92	10.64	12.52	14.08	7.24	6.09	6.55	7.00	7.61	9.00
Textile sewing machine operators	11.01	9.70	9.76	10.85	11.81	13.38	-	-	-	-	-	-
Packaging and filling machine operators	8.37	5.88	6.92	9.06	9.06	9.53	-	-	-	-	-	-
Furnace, kiln, and oven operators, except food	9.13	6.59	7.21	8.75	10.04	14.49	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C.	13.52	8.83	11.44	15.04	15.18	15.60	-	-	-	-	-	-
Assemblers	11.06	7.05	9.00	10.84	12.91	14.25	-	-	-	-	-	-
Production inspectors, checkers and examiners	10.15	8.50	9.23	10.18	10.66	12.71	-	-	-	-	-	-
Transportation and material moving occupations	11.57	6.97	10.31	12.49	13.21	14.07	-	-	-	-	-	-
Truck drivers	11.80	7.50	9.01	11.01	13.37	17.00	-	-	-	-	-	-
Industrial truck and tractor equipment operators	12.06	7.25	8.32	11.13	15.41	21.17	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers	11.09	8.52	9.54	11.00	12.50	14.07	-	-	-	-	-	-
Groundskeepers and gardeners except farm	9.83	6.50	7.38	9.37	11.70	14.07	7.07	5.15	5.75	6.75	8.50	9.50
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	9.67	6.85	8.80	9.92	10.46	12.02	-	-	-	-	-	-
Helpers, construction trades	13.52	7.65	11.09	13.17	16.40	20.23	-	-	-	-	-	-
Construction laborers	10.45	8.00	8.00	11.00	11.70	14.63	-	-	-	-	-	-
Stock handlers and baggers	11.04	6.50	7.93	12.81	13.65	14.61	-	-	-	-	-	-
	8.98	7.20	7.80	8.80	10.40	10.56	-	-	-	-	-	-

See footnotes at end of table.

Table A-3. Hourly earnings¹ for selected occupations, full-time and part-time workers², all industries, Knoxville, TN, February 1999 — Continued

Occupation ³	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
Blue-collar occupations (-Continued)												
Handlers, equipment cleaners, helpers, and laborers (-Continued)												
Freight, stock, and material handlers, N.E.C.	\$11.81	\$7.25	\$8.87	\$12.97	\$15.00	\$15.00	—	—	—	—	—	—
Hand packers and packagers	8.15	5.89	6.26	7.70	10.35	10.49	—	—	—	—	—	—
Laborers except construction, N.E.C.	9.55	7.00	7.50	8.30	12.92	14.07	—	—	—	—	—	—
Service occupations	8.10	5.28	6.50	7.44	9.27	12.25	\$4.71	\$2.13	\$2.13	\$5.26	\$6.00	\$7.50
Protective service occupations	10.67	5.85	8.00	10.59	12.46	16.61	8.24	5.59	5.85	7.00	8.00	15.00
Firefighting occupations	11.25	8.46	9.98	11.25	12.46	13.57	—	—	—	—	—	—
Police and detectives, public service ..	13.46	11.48	12.04	12.46	13.41	18.48	—	—	—	—	—	—
Guards and police except public service	8.83	5.77	5.85	7.35	8.00	16.61	—	—	—	—	—	—
Food service occupations	7.03	2.13	3.30	6.75	8.62	11.50	3.70	2.13	2.13	2.13	5.30	6.35
Supervisors, food preparation and service occupations	15.02	8.18	10.00	12.21	19.02	24.97	—	—	—	—	—	—
Waiters and waitresses	2.75	2.13	2.13	2.13	3.30	3.75	2.49	2.13	2.13	2.13	2.13	3.50
Cooks	8.50	6.89	7.50	8.35	9.25	10.25	—	—	—	—	—	—
Food preparation occupations, N.E.C.	6.46	5.57	5.75	6.23	6.79	7.64	—	—	—	—	—	—
Health service occupations	7.69	6.47	7.00	7.37	8.12	9.25	—	—	—	—	—	—
Nursing aides, orderlies and attendants	7.53	6.44	6.95	7.37	8.08	8.97	—	—	—	—	—	—
Cleaning and building service occupations	8.02	6.00	7.00	7.35	8.65	12.01	—	—	—	—	—	—
Supervisors, cleaning and building service workers	9.45	7.50	8.65	8.65	11.48	12.01	—	—	—	—	—	—
Janitors and cleaners	8.19	6.00	6.50	7.55	8.68	12.96	—	—	—	—	—	—
Personal service occupations	7.06	5.15	6.00	6.75	7.40	10.63	6.09	5.35	5.40	5.50	6.25	7.17

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, 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. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the rate shown. At the 25th percentile, one-fourth of the workers earn the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

² Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover

all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ The positional statistics for this occupation were suppressed because some were below the minimum wage. In this update survey, an average decrease in mean wages for this occupation was applied to the positional statistics, causing the 10th percentile to go below the minimum wage.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table A-4. Weekly and annual earnings¹ and hours for selected occupations, full-time workers only², all industries, Knoxville, TN, February 1999

Occupation ³	All industries					
	Mean weekly hours ⁴	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
All occupations	40.3	\$559	\$468	2,062	\$28,600	\$24,565
All occupations excluding sales	40.2	562	475	2,054	28,716	24,914
White-collar occupations	40.1	681	605	2,024	34,332	30,808
White-collar occupations excluding sales	39.8	708	637	1,998	35,542	31,928
Professional specialty and technical occupations	39.6	814	779	1,943	40,005	37,219
Professional specialty occupations	39.4	880	855	1,901	42,427	38,792
Engineers, architects, and surveyors	40.4	1,079	1,062	2,101	56,083	55,245
Civil engineers	39.4	1,065	1,008	2,049	55,369	52,416
Industrial engineers	42.0	862	829	2,185	44,809	43,118
Engineers, N.E.C.	40.0	1,145	1,144	2,080	59,523	59,467
Mathematical and computer scientists	40.3	946	896	2,098	49,172	46,592
Computer systems analysts and scientists	40.6	940	750	2,113	48,883	39,000
Natural scientists	39.8	979	902	2,071	50,893	46,904
Health related occupations	39.8	801	753	2,070	41,632	39,166
Registered nurses	39.7	672	670	2,066	34,929	34,840
Teachers, college and university	-	-	-	-	-	-
Teachers, except college and university	38.2	875	889	1,575	36,047	35,829
Elementary school teachers	38.0	940	909	1,541	38,102	36,450
Secondary school teachers	38.1	912	917	1,523	36,465	36,697
Librarians, archivists, and curators	-	-	-	-	-	-
Social scientists and urban planners	-	-	-	-	-	-
Social, recreation, and religious workers	38.4	500	478	1,998	26,003	24,835
Social workers	38.3	503	478	1,994	26,163	24,835
Lawyers and judges	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C.	39.7	742	718	2,065	38,595	37,323
Technical occupations	40.0	621	555	2,078	32,278	28,870
Licensed practical nurses	39.9	472	472	2,072	24,534	24,544
Health technologists and technicians, N.E.C.	39.8	547	548	2,067	28,467	28,496
Electrical and electronic technicians	41.0	637	566	2,133	33,135	29,432
Engineering technicians, N.E.C.	39.8	710	712	2,071	36,942	37,024
Drafters	40.0	654	610	2,080	34,007	31,720
Executive, administrative, and managerial occupations ...	40.9	999	854	2,120	51,758	44,221
Executives, administrators, and managers	41.7	1,174	1,134	2,152	60,632	58,885
Administrators and officials, public administration	45.2	1,237	1,242	2,349	64,344	64,561
Personnel and labor relations managers	40.0	891	837	2,080	46,355	43,534
Administrators, education and related fields	40.9	1,312	1,354	2,055	65,840	70,013
Managers and administrators, N.E.C.	43.2	1,459	1,248	2,245	75,870	64,896
Management related occupations	39.8	719	600	2,069	37,400	31,200
Other financial officers	38.7	647	541	2,010	33,648	28,119
Management related occupations, N.E.C.	42.8	1,104	827	2,227	57,418	42,994
Sales occupations	41.8	522	400	2,175	27,145	20,800
Supervisors, sales occupations	43.4	700	623	2,257	36,424	32,406
Sales occupations, other business services	39.8	717	646	2,068	37,307	33,592
Sales representatives, mining, manufacturing, and wholesale	40.7	795	702	2,117	41,334	36,504
Sales workers, motor vehicles and boats	47.7	695	588	2,479	36,119	30,576
Cashiers	40.0	257	244	2,080	13,344	12,662
Administrative support occupations, including clerical	39.8	417	382	2,039	21,391	19,727
Secretaries	39.6	422	408	2,019	21,532	21,021
Receptionists	40.0	330	334	2,080	17,154	17,389
Records clerks, N.E.C.	39.1	522	404	2,031	27,169	21,008
Bookkeepers, accounting and auditing clerks	40.2	445	420	2,090	23,148	21,840
Dispatchers	40.0	414	447	2,080	21,538	23,234
Production coordinators	40.3	552	550	2,095	28,701	28,579
Traffic, shipping and receiving clerks	40.0	411	400	2,080	21,386	20,800
Stock and inventory clerks	40.0	383	390	2,080	19,898	20,280
Meter readers	40.0	589	645	2,080	30,652	33,526
Investigators and adjusters except insurance	40.0	426	428	2,080	22,146	22,277
Bill and account collectors	40.0	489	426	2,080	25,404	22,152
General office clerks	39.5	402	370	2,034	20,733	19,200
Bank tellers	39.2	317	301	2,039	16,483	15,662
Data entry keyers	40.0	351	340	2,080	18,244	17,680
Administrative support occupations, N.E.C.	39.9	397	362	2,073	20,660	18,824

See footnotes at end of table.

Table A-4. Weekly and annual earnings¹ and hours for selected occupations, full-time workers only², all industries, Knoxville, TN, February 1999 — Continued

Occupation ³	All industries					
	Mean weekly hours ⁴	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
Blue-collar occupations	40.8	\$489	\$455	2,122	\$25,422	\$23,650
Precision production, craft, and repair occupations	40.0	596	560	2,081	30,984	29,120
Automobile mechanics	40.0	770	819	2,080	40,021	42,578
Industrial machinery repairers	40.0	635	657	2,080	33,035	34,174
Mechanics and repairers, N.E.C.	39.5	494	444	2,052	25,693	23,088
Electrical power installers and repairers	40.0	568	517	2,080	29,541	26,898
Supervisors, production occupations	41.2	757	692	2,143	39,348	36,005
Machinists	40.0	602	660	2,080	31,281	34,320
Inspectors, testers, and graders	40.0	486	471	2,080	25,284	24,510
Water and sewer treatment plant operators	40.0	488	498	2,080	25,353	25,896
Machine operators, assemblers, and inspectors	40.0	423	425	2,079	22,020	22,121
Fabricating machine operators, N.E.C.	40.0	440	434	2,080	22,896	22,568
Textile sewing machine operators	40.0	335	362	2,080	17,415	18,838
Packaging and filling machine operators	40.0	365	350	2,080	18,990	18,200
Furnace, kiln, and oven operators, except food ...	40.0	541	602	2,080	28,125	31,283
Miscellaneous machine operators, N.E.C.	40.0	442	434	2,080	23,008	22,552
Assemblers	40.0	406	407	2,080	21,117	21,181
Production inspectors, checkers and examiners ..	40.0	463	500	2,080	24,067	25,979
Transportation and material moving occupations	44.5	525	464	2,312	27,296	24,128
Truck drivers	48.2	582	642	2,507	30,247	33,404
Industrial truck and tractor equipment operators ..	40.0	444	440	2,080	23,071	22,880
Handlers, equipment cleaners, helpers, and laborers	40.1	394	375	2,085	20,501	19,482
Groundskeepers and gardeners except farm	40.0	387	397	2,080	20,114	20,634
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	42.5	575	555	2,212	29,902	28,834
Helpers, construction trades	40.0	418	440	2,080	21,726	22,880
Construction laborers	38.8	428	480	2,017	22,269	24,980
Stock handlers and baggers	40.0	359	352	2,080	18,672	18,304
Freight, stock, and material handlers, N.E.C.	40.3	476	496	2,096	24,761	25,779
Hand packers and packagers	40.0	326	308	2,080	16,958	16,016
Laborers except construction, N.E.C.	40.0	382	332	2,080	19,854	17,264
Service occupations	39.8	322	291	2,061	16,703	15,080
Protective service occupations	41.4	442	424	2,154	22,982	22,023
Firefighting occupations	50.0	562	542	2,598	29,221	28,160
Police and detectives, public service	40.7	548	516	2,118	28,508	26,831
Guards and police except public service	40.0	353	294	2,080	18,376	15,288
Food service occupations	39.3	276	260	2,044	14,372	13,520
Supervisors, food preparation and service occupations	41.8	627	497	2,171	32,619	25,852
Waiters and waitresses	38.5	106	85	2,002	5,515	4,430
Cooks	39.4	335	334	2,049	17,428	17,367
Food preparation occupations, N.E.C.	39.1	253	244	2,033	13,143	12,705
Health service occupations	38.8	298	290	2,016	15,507	15,080
Nursing aides, orderlies and attendants	38.6	291	285	2,009	15,115	14,830
Cleaning and building service occupations	39.7	318	290	2,064	16,545	15,080
Supervisors, cleaning and building service workers	39.6	375	346	2,061	19,480	17,992
Janitors and cleaners	39.8	325	302	2,067	16,920	15,704
Personal service occupations	39.6	280	266	2,000	14,125	13,624

¹ Earnings are the straight-time wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, 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. The median designates position—one-half of the workers receive the same as or more, and one-half receive the same as or less than the rate shown.

² Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ Mean weekly hours are the hours an employee is scheduled to work in a week, exclusive of overtime.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999

Occupational group ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
All occupations	\$13.39	\$12.83	\$15.86	\$13.87	\$7.08
All occupations excluding sales	13.52	12.93	15.88	13.98	6.90
White-collar occupations	16.51	15.92	18.27	16.96	9.47
Level 1	6.34	6.22	—	6.14	6.48
Level 2	7.22	7.11	7.62	7.25	7.08
Level 3	8.32	8.22	9.69	8.48	7.26
Level 4	9.90	9.87	10.00	9.93	9.33
Level 5	13.43	13.80	11.73	13.49	—
Level 6	14.09	14.28	13.38	14.14	—
Level 7	16.32	16.50	15.70	16.36	—
Level 8	20.15	18.42	21.73	20.26	17.95
Level 9	23.64	23.01	25.77	23.64	—
Level 10	25.48	25.31	25.73	25.33	—
Level 11	27.66	31.03	22.10	27.47	—
Level 12	34.99	35.42	34.13	34.99	—
Level 13	38.45	38.44	—	38.45	—
Not able to be leveled	23.41	29.02	—	26.04	8.03
White-collar occupations excluding sales	17.42	17.05	18.30	17.79	10.18
Level 1	6.55	—	—	—	—
Level 2	7.60	7.58	7.62	7.64	7.40
Level 3	8.82	8.73	9.72	8.92	7.72
Level 4	10.07	10.11	10.00	10.05	10.80
Level 5	13.05	13.43	11.73	13.09	—
Level 6	13.74	13.86	13.38	13.79	—
Level 7	16.30	16.50	15.70	16.34	—
Level 8	19.94	17.51	21.73	20.06	17.95
Level 9	23.70	23.07	25.77	23.70	—
Level 10	25.34	25.00	25.73	25.17	—
Level 11	27.03	30.28	22.10	27.04	—
Level 12	34.99	35.42	34.13	34.99	—
Level 13	38.45	38.44	—	38.45	—
Not able to be leveled	23.99	30.81	—	26.26	8.25
Professional specialty and technical occupations	20.41	20.32	20.59	20.59	14.87
Professional specialty occupations	22.14	22.55	21.58	22.32	16.55
Level 5	12.49	—	11.35	12.54	—
Level 6	14.33	14.47	—	14.67	—
Level 7	16.57	16.74	16.22	16.66	—
Level 8	20.68	17.78	22.23	20.84	18.17
Level 9	23.68	23.01	25.35	23.69	—
Level 10	26.48	26.75	—	26.22	—
Level 11	26.49	30.72	—	26.49	—
Engineers, architects, and surveyors	26.76	26.97	—	26.70	—
Level 7	17.07	17.07	—	17.07	—
Level 9	22.96	22.96	—	22.98	—
Level 10	28.35	—	—	—	—
Level 11	31.40	31.40	—	31.40	—
Mathematical and computer scientists	23.44	24.41	—	23.44	—
Natural scientists	24.58	26.75	—	24.58	—
Health related occupations	19.91	19.72	—	20.11	17.08
Level 7	16.24	16.39	—	16.44	—
Level 8	17.71	17.64	—	17.61	18.11
Teachers, college and university	—	—	—	—	—
Teachers, except college and university	22.68	—	22.72	22.89	—
Level 7	24.09	—	—	24.09	—
Level 8	22.61	—	—	—	—
Level 9	25.16	—	25.16	25.16	—
Librarians, archivists, and curators	—	—	—	—	—
Social scientists and urban planners	—	—	—	—	—
Social, religious, and recreation workers	12.95	—	13.63	13.02	—
Lawyers and judges	—	—	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C.	18.69	18.69	—	18.69	—
Technical occupations	15.37	15.97	11.46	15.53	10.61

See footnotes at end of table.

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999 — Continued

Occupational group ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
White-collar occupations (-Continued)					
Technical occupations (-Continued)					
Level 4	\$10.29	\$11.14	—	\$10.30	—
Level 5	12.45	12.60	—	12.52	—
Level 6	14.01	14.51	—	13.97	—
Level 7	17.89	17.89	—	17.89	—
Level 8	17.76	17.46	—	17.76	—
Level 9	23.61	23.61	—	23.61	—
Executive, administrative, and managerial occupations ...	24.35	24.80	\$23.32	24.41	—
Level 5	14.80	14.87	—	14.80	—
Level 7	13.84	—	—	13.84	—
Level 8	17.46	16.64	18.44	17.52	—
Level 9	23.97	23.27	—	23.97	—
Level 10	24.02	—	—	24.02	—
Level 11	28.61	27.87	—	28.74	—
Level 12	36.63	38.18	—	36.63	—
Executives, administrators, and managers	28.14	27.80	29.02	28.17	—
Level 8	16.79	—	—	16.79	—
Level 9	23.67	22.77	—	23.67	—
Level 10	24.02	—	—	24.02	—
Level 11	29.06	28.43	—	29.06	—
Level 12	36.63	38.18	—	36.63	—
Management related occupations	18.09	19.44	15.41	18.08	—
Level 5	13.70	—	—	13.70	—
Level 7	13.84	—	—	13.84	—
Level 9	24.66	—	—	24.66	—
Sales occupations	11.93	11.95	—	12.48	\$8.13
Level 2	6.43	6.40	—	—	—
Level 3	6.83	6.81	—	6.82	6.85
Level 4	9.48	9.48	—	9.61	—
Level 5	14.88	14.88	—	15.00	—
Level 6	15.48	15.48	—	15.48	—
Level 8	22.14	22.14	—	22.14	—
Administrative support occupations, including clerical	10.23	10.16	10.47	10.49	7.48
Level 1	6.55	—	—	—	—
Level 2	7.60	7.58	7.62	7.64	7.40
Level 3	8.84	8.73	10.02	8.92	7.90
Level 4	10.01	9.97	10.09	10.01	—
Level 5	13.54	13.85	12.68	13.54	—
Level 6	13.70	13.36	14.80	13.71	—
Level 7	15.67	15.62	—	15.67	—
Blue-collar occupations	11.85	11.81	12.31	11.98	7.27
Level 1	8.27	8.27	—	8.63	—
Level 2	8.64	8.62	—	8.65	—
Level 3	10.36	10.34	10.80	10.39	9.36
Level 4	11.07	11.24	9.99	11.07	—
Level 5	12.73	12.81	12.17	12.73	—
Level 6	16.14	16.32	14.69	16.14	—
Level 7	16.33	16.17	17.38	16.33	—
Level 8	22.10	22.08	—	22.10	—
Level 9	21.37	21.05	—	21.37	—
Precision production, craft, and repair occupations	14.89	15.13	13.79	14.89	—
Level 2	8.83	—	—	8.83	—
Level 3	11.17	11.06	—	11.17	—
Level 4	10.64	10.79	10.38	10.64	—
Level 5	12.59	12.73	12.25	12.59	—
Level 6	14.91	14.87	—	14.91	—
Level 7	16.36	16.17	17.60	16.36	—
Level 8	22.10	22.08	—	22.10	—
Level 9	21.37	21.05	—	21.37	—
Machine operators, assemblers, and inspectors	10.54	10.54	—	10.59	7.24
Level 1	8.81	8.81	—	8.90	—
Level 2	8.76	8.76	—	8.80	—

See footnotes at end of table.

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999 — Continued

Occupational group ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
Blue-collar occupations (-Continued)					
Machine operators, assemblers, and inspectors (-Continued)					
Level 3	\$10.19	\$10.19	—	\$10.22	—
Level 4	11.59	11.59	—	11.59	—
Level 5	13.25	13.25	—	13.25	—
Transportation and material moving occupations	11.78	11.86	\$10.39	11.80	—
Level 2	9.19	9.19	—	9.19	—
Level 3	9.94	—	—	9.95	—
Level 4	10.85	11.00	—	10.85	—
Level 5	11.74	11.72	—	11.74	—
Level 6	18.57	18.57	—	18.57	—
Handlers, equipment cleaners, helpers, and laborers	9.54	9.52	9.69	9.83	\$7.07
Level 1	7.70	7.68	—	8.42	—
Level 2	8.19	8.15	—	8.15	—
Level 3	10.52	10.53	—	10.57	—
Level 4	10.37	11.01	—	10.37	—
Level 5	13.26	—	—	13.26	—
Service occupations					
Level 1	7.51	6.85	10.17	8.10	4.71
Level 2	6.18	5.93	7.45	6.42	5.03
Level 3	5.71	5.45	8.23	6.52	3.86
Level 4	6.94	6.92	—	7.32	4.57
Level 5	8.98	8.53	10.01	9.13	—
Level 6	12.79	—	11.99	12.83	—
Level 7	11.49	—	11.51	11.67	—
Level 7	13.34	—	12.05	13.34	—
Protective service occupations	10.58	8.75	11.68	10.67	8.24
Level 4	10.17	—	10.14	10.17	—
Level 5	13.96	—	—	—	—
Level 6	11.51	—	11.51	11.66	—
Level 7	12.05	—	12.05	12.05	—
Food service occupations	5.92	5.87	—	7.03	3.70
Level 1	5.08	5.08	—	5.30	—
Level 2	3.70	3.59	—	4.97	3.15
Level 3	4.13	4.13	—	4.53	—
Level 4	8.68	8.77	—	8.85	—
Health service occupations	7.68	7.68	—	7.69	—
Level 3	7.86	7.86	—	7.87	—
Cleaning and building service occupations	7.90	7.49	8.88	8.02	—
Level 1	7.13	6.94	—	7.32	—
Level 2	7.10	6.77	—	7.14	—
Level 3	10.67	—	—	10.67	—
Personal service occupations	6.77	6.67	—	7.06	6.09
Level 1	6.19	5.95	—	—	—

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, 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 Each occupation for which wage data are collected in an establishment is evaluated based on 10 factors, including knowledge, complexity, work environment, etc. Points are assigned based on the occupation's ranking within each factor. The points are summed to determine the overall level of the occupation. See technical note for more information.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule

based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table B-2. Mean hourly earnings¹ for selected occupations and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999

Occupation ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
White-collar occupations:					
Professional specialty and technical occupations:					
Professional specialty occupations:					
Civil engineers	\$27.70	—	—	\$27.02	—
Industrial engineers	20.48	\$20.48	—	20.51	—
Engineers, N.E.C.	28.62	28.62	—	28.62	—
Computer systems analysts and scientists	23.14	23.38	—	23.14	—
Registered nurses	16.97	16.87	—	16.91	\$17.37
Level 7	16.43	16.41	—	16.62	—
Level 8	17.83	17.77	—	17.75	18.11
Elementary school teachers	24.73	—	\$24.77	24.73	—
Level 9	24.94	—	24.94	24.94	—
Secondary school teachers	23.94	—	23.94	23.94	—
Social workers	13.03	—	13.81	13.12	—
Technical occupations:					
Licensed practical nurses	11.61	11.78	—	11.84	—
Level 5	11.55	11.80	—	11.65	—
Health technologists and technicians, N.E.C.	13.68	14.50	10.55	13.77	—
Electrical and electronic technicians	15.53	17.37	—	15.53	—
Engineering technicians, N.E.C.	17.84	18.29	—	17.84	—
Drafters	16.35	16.35	—	16.35	—
Executive, administrative, and managerial occupations:					
Administrators and officials, public administration	27.39	—	27.39	27.39	—
Personnel and labor relations managers	22.29	23.05	—	22.29	—
Administrators, education and related fields	32.05	—	32.05	32.05	—
Managers and administrators, N.E.C.	33.79	33.64	—	33.79	—
Level 9	20.05	20.05	—	20.05	—
Level 12	39.91	—	—	39.91	—
Other financial officers	16.91	15.80	—	16.74	—
Management related occupations, N.E.C.	25.78	—	—	25.78	—
Sales occupations:					
Supervisors, sales occupations	16.14	16.14	—	16.14	—
Sales occupations, other business services	20.02	20.02	—	18.04	—
Sales representatives, mining, manufacturing, and wholesale	19.52	19.52	—	19.52	—
Sales workers, motor vehicles and boats	14.57	14.57	—	14.57	—
Cashiers	6.33	6.31	—	6.42	6.12
Administrative support occupations, including clerical:					
Secretaries	10.51	10.22	10.89	10.66	—
Level 3	8.81	8.82	—	8.97	—
Level 4	10.23	10.33	10.18	10.23	—
Level 6	13.50	—	—	13.50	—
Receptionists	8.08	8.18	—	8.25	—
Records clerks, N.E.C.	13.38	13.38	—	13.38	—
Bookkeepers, accounting and auditing clerks	11.08	11.33	—	11.08	—
Level 4	10.39	—	—	10.39	—
Telephone operators	9.43	—	—	—	—
Dispatchers	10.35	—	—	10.35	—
Production coordinators	13.70	13.70	—	13.70	—
Traffic, shipping and receiving clerks	10.28	10.28	—	10.28	—
Stock and inventory clerks	9.44	9.57	—	9.57	—
Level 4	9.25	9.25	—	9.25	—
Meter readers	14.74	—	14.74	14.74	—
Investigators and adjusters except insurance	10.65	10.65	—	10.65	—
Bill and account collectors	12.21	12.20	—	12.21	—
General office clerks	10.04	10.08	9.96	10.19	—
Level 3	8.98	9.05	—	9.32	—
Level 4	9.94	10.31	9.53	9.94	—
Bank tellers	8.08	8.08	—	8.08	—
Data entry keyers	8.43	8.43	—	8.77	—
Level 3	8.63	8.63	—	—	—
Teachers' aides	7.87	—	7.87	—	—
Administrative support occupations, N.E.C.	9.85	8.85	11.84	9.96	8.78

See footnotes at end of table.

Table B-2. Mean hourly earnings¹ for selected occupations and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999 — Continued

Occupation ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
Blue-collar occupations:					
Precision production, craft, and repair occupations:					
Automobile mechanics	\$19.24	—	—	\$19.24	—
Industrial machinery repairers	15.88	\$15.88	—	15.88	—
Mechanics and repairers, N.E.C.	12.52	13.47	—	12.52	—
Electrical power installers and repairers	14.20	—	\$14.48	14.20	—
Supervisors, production occupations	18.36	18.36	—	18.36	—
Level 7	18.00	18.00	—	18.00	—
Machinists	15.04	15.04	—	15.04	—
Inspectors, testers, and graders	12.16	12.16	—	12.16	—
Water and sewer treatment plant operators	12.19	—	12.19	12.19	—
Machine operators, assemblers, and inspectors:					
Fabricating machine operators, N.E.C.	11.01	11.01	—	11.01	—
Level 4	11.41	11.41	—	11.41	—
Textile sewing machine operators	8.37	8.37	—	8.37	—
Packaging and filling machine operators	9.13	9.13	—	9.13	—
Furnace, kiln, and oven operators, except food ...	13.52	13.52	—	13.52	—
Miscellaneous machine operators, N.E.C.	10.91	10.89	—	11.06	—
Level 2	7.50	7.50	—	—	—
Assemblers	10.09	10.09	—	10.15	—
Level 2	9.69	9.69	—	9.72	—
Production inspectors, checkers and examiners ..	11.23	11.23	—	11.57	—
Transportation and material moving occupations:					
Truck drivers	12.04	12.10	—	12.06	—
Level 4	10.19	10.18	—	10.19	—
Industrial truck and tractor equipment operators ..	11.09	11.09	—	11.09	—
Handlers, equipment cleaners, helpers, and laborers:					
Groundskeepers and gardeners except farm	9.67	—	—	9.67	—
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	13.52	13.56	—	13.52	—
Helpers, construction trades	10.45	10.45	—	10.45	—
Construction laborers	11.04	—	—	11.04	—
Stock handlers and baggers	8.16	8.01	—	8.98	—
Freight, stock, and material handlers, N.E.C.	11.19	11.19	—	11.81	—
Hand packers and packagers	8.09	8.09	—	8.15	—
Laborers except construction, N.E.C.	9.41	9.69	—	9.55	—
Level 2	7.89	—	—	7.89	—
Service occupations:					
Protective service occupations:					
Firefighting occupations	11.25	—	11.25	11.25	—
Police and detectives, public service	13.46	—	13.46	13.46	—
Guards and police except public service	8.82	8.67	—	8.83	—
Food service occupations:					
Supervisors, food preparation and service occupations	14.63	14.63	—	15.02	—
Waiters and waitresses	2.67	2.67	—	2.75	\$2.49
Level 1	2.43	2.43	—	—	—
Level 3	2.98	2.98	—	—	—
Cooks	8.17	8.19	—	8.50	—
Level 4	8.90	9.04	—	8.92	—
Kitchen workers, food preparation	7.27	7.31	—	—	—
Food preparation occupations, N.E.C.	4.43	4.35	—	6.46	—
Level 1	6.18	6.18	—	6.34	—
Health service occupations:					
Nursing aides, orderlies and attendants	7.54	7.54	—	7.53	—
Level 3	7.70	7.70	—	7.68	—
Cleaning and building service occupations:					
Supervisors, cleaning and building service workers	9.45	—	—	9.45	—
Janitors and cleaners	7.97	7.91	8.11	8.19	—
Level 1	7.12	6.85	—	7.35	—
Level 2	6.50	6.50	—	6.59	—
Level 3	10.87	—	—	10.87	—

See footnotes at end of table.

Table B-2. Mean hourly earnings¹ for selected occupations and levels², all industries, private industry, State and local government, full-time and part-time workers, Knoxville, TN, February 1999 — Continued

Occupation ³ and level	All workers ⁴			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
Service occupations: (-Continued)					
Personal service occupations:					
Supervisors, personal service occupations	\$8.43	—	—	—	—
Service occupations, N.E.C.	6.08	\$6.08	—	—	—

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, 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 Each occupation for which wage data are collected in an establishment is evaluated based on 10 factors, including knowledge, complexity, work environment, etc. Points are assigned based on the occupation's ranking within each factor. The points are summed to determine the overall level of the occupation. See technical note for more information.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule

based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table C-1. Mean hourly earnings¹ by occupational group and selected characteristics, all industries, Knoxville, TN, February 1999

Occupational group ²	Full-time workers ³	Part-time workers ³	Union ⁴	Nonunion ⁴	Time ⁵	Incentive ⁵
All occupations	\$13.87	\$7.08	\$13.29	\$13.40	\$13.36	\$13.94
All occupations excluding sales	13.98	6.90	13.28	13.55	13.56	12.68
White-collar occupations	16.96	9.47	13.70	16.61	16.60	15.12
White-collar excluding sales	17.79	10.18	13.62	17.59	17.47	13.16
Professional specialty and technical occupations	20.59	14.87	15.06	20.66	20.47	—
Professional specialty occupations	22.32	16.55	—	22.21	22.19	—
Technical occupations	15.53	10.61	13.53	15.63	15.43	—
Executive, administrative, and managerial occupations ...	24.41	—	—	24.35	24.35	—
Sales occupations	12.48	8.13	—	11.91	10.21	15.46
Administrative support including clerical occupations	10.49	7.48	11.71	10.15	10.15	—
Blue-collar occupations	11.98	7.27	13.31	11.43	11.76	13.03
Precision production, craft, and repair occupations	14.89	—	16.17	14.62	14.76	15.75
Machine operators, assemblers, and inspectors	10.59	7.24	11.99	9.92	10.69	8.80
Transportation and material moving occupations	11.80	—	15.48	10.91	11.74	—
Handlers, equipment cleaners, helpers, and laborers	9.83	7.07	10.93	9.18	9.38	—
Service occupations	8.10	4.71	—	7.48	7.48	—

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, 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 A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

⁴ Union workers are those whose wages are determined through collective bargaining.

⁵ Time workers' wages are based solely on an 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.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

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Table C-2. Mean hourly earnings¹ by occupational group and industry division, private industry, all workers², Knoxville, TN, February 1999

Occupational group ³	All private industries	Goods-producing industries ⁴				Service-producing industries ⁵				
		Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
All occupations	\$12.83	\$14.87	—	\$13.07	\$15.12	\$11.71	\$14.86	—	\$10.26	\$12.61
All occupations excluding sales	12.93	14.80	—	13.07	15.05	11.74	14.46	—	10.45	12.59
White-collar occupations	15.92	21.41	—	16.81	21.63	14.36	17.98	—	10.20	16.47
White-collar excluding sales	17.05	21.51	—	16.81	21.75	15.39	17.22	—	10.38	16.50
Professional specialty and technical occupations	20.32	25.16	—	—	25.28	18.40	17.24	—	—	18.49
Professional specialty occupations	22.55	27.59	—	—	27.65	20.40	—	—	—	20.37
Technical occupations	15.97	19.58	—	—	19.74	14.74	15.45	—	—	14.59
Executive, administrative, and managerial occupations	24.80	26.79	—	—	26.43	23.67	25.78	—	16.05	28.02
Sales occupations	11.95	19.50	—	—	19.50	11.56	23.47	—	—	—
Administrative support, including clerical occupations	10.16	12.61	—	—	12.78	9.45	12.79	—	8.36	9.57
Blue-collar occupations	11.81	12.22	—	12.61	12.14	11.02	13.08	—	—	8.64
Precision production, craft, and repair occupations	15.13	15.30	—	13.78	16.04	14.61	14.97	—	—	13.40
Machine operators, assemblers, and inspectors	10.54	10.93	—	—	10.93	7.51	—	—	—	—
Transportation and material moving occupations	11.86	11.28	—	—	11.29	12.09	13.30	—	—	—
Handlers, equipment cleaners, helpers, and laborers	9.52	10.51	—	10.18	10.59	8.63	11.77	—	—	7.19
Service occupations	6.85	12.95	—	—	12.95	6.56	—	—	—	7.03

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, 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 All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ Goods-producing industries include mining, construction, and manufacturing.

⁵ Service-producing industries include transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

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NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Table C-3. Mean hourly earnings¹ by occupational group and establishment employment size, private industry, all workers², Knoxville, TN, February 1999

Occupational group ³	All private industry workers	50 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All occupations	\$12.83	\$11.25	\$13.36	\$12.22	\$15.71
All occupations excluding sales	12.93	11.18	13.44	12.28	15.63
White-collar occupations	15.92	13.86	16.55	15.10	19.42
White-collar excluding sales	17.05	15.70	17.32	16.04	19.35
Professional specialty and technical occupations	20.32	21.49	20.21	19.49	21.12
Professional specialty occupations	22.55	22.11	22.59	21.84	23.59
Technical occupations	15.97	19.78	15.71	14.62	16.91
Executive, administrative, and managerial occupations ...	24.80	29.99	23.53	22.38	25.50
Sales occupations	11.95	11.56	12.29	11.70	-
Administrative support, including clerical occupations	10.16	9.66	10.33	9.48	12.29
Blue-collar occupations	11.81	11.06	12.05	11.14	13.78
Precision production, craft, and repair occupations	15.13	13.95	15.58	14.06	17.60
Machine operators, assemblers, and inspectors	10.54	10.72	10.50	10.04	11.17
Transportation and material moving occupations	11.86	10.23	12.56	11.33	17.60
Handlers, equipment cleaners, helpers, and laborers	9.52	8.63	9.92	9.64	10.82
Service occupations	6.85	6.50	7.01	6.99	7.07

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, 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 All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy.

Individual occupations are classified into one of nine major occupational groups.

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Table C-4. Number of workers¹ represented by occupational group, Knoxville, TN, February 1999

Occupational group ²	All workers		
	All industries	Private industry	State and local government
All occupations	152,052	121,925	30,127
All occupations excluding sales	139,603	109,556	30,047
White-collar occupations	75,810	55,062	20,748
White-collar excluding sales	63,361	42,693	20,668
Professional specialty and technical occupations	33,480	20,523	12,957
Professional specialty occupations	25,519	13,641	11,878
Technical occupations	7,961	6,882	1,079
Executive, administrative, and managerial occupations ...	7,962	5,508	2,454
Sales occupations	12,449	12,369	—
Administrative support including clerical occupations	21,918	16,661	5,257
Blue-collar occupations	46,569	42,408	4,161
Precision production, craft, and repair occupations	13,486	11,027	2,459
Machine operators, assemblers, and inspectors	15,607	15,574	—
Transportation and material moving occupations	8,157	7,492	665
Handlers, equipment cleaners, helpers, and laborers	9,318	8,315	1,003
Service occupations	29,673	24,455	5,218

¹ Both full-time and part-time workers were included in the survey. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another establishment, where a 40-hour week is the minimum full-time schedule.

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NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Appendix A: Technical Note

This section provides basic information on the procedures and concepts used to produce the data contained in this bulletin. It is divided into three parts: Planning for the survey; data collection; and processing and analyzing the data. Although this section answers some questions commonly asked by data users, it is not a comprehensive description of all the steps required to produce the data.

Planning for the survey

The overall design of the survey includes questions of scope, frame, and sample selection.

Survey scope

This survey covered establishments employing 50 workers or more in goods-producing industries (mining, construction and manufacturing); service-producing industries (transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; and services industries); and State and local governments. Agriculture, private households, and the Federal Government were excluded from the scope of the survey. For purposes of this survey an establishment was an economic unit which produces goods or services, a central administrative office, or an auxiliary unit providing support services to a company. For private industries in this survey, the establishment was usually at a single physical location. For State and local governments, an establishment was defined as all locations of a government entity.

The Knoxville, TN, Metropolitan Statistical Area includes Anderson, Blount, Knox, Loudon, Sevier and Union Counties.

Sampling frame

The list of establishments from which the survey sample was selected (sampling frame) was developed from State unemployment insurance reports. Due to the volatility of industries within the private sector, sampling frames were developed using the most recent month of reference available at the time the sample was selected. The sampling frame was reviewed prior to the survey and, when necessary, missing establishments were added, out-of-business and out-of-scope establishments were removed, and addresses, employment levels, industry classification, and other information were updated.

Sample design

The sample for this survey area was selected using a two

stage stratified design with probability proportional to employment sampling at each stage. The first stage of sample selection was a probability sample of establishments. The sample of establishments was drawn by first stratifying the sampling frame by industry and ownership. The number of sample establishments allocated to each stratum is approximately proportional to the stratum employment. Each sampled establishment is selected within a stratum with a probability proportional to its employment. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. Weights were applied to each establishment when the data were tabulated so that it represents similar units (by industry and employment size) in the economy which were not selected for collection. See appendix table 1 for a count of establishments in the survey by employment size. The second stage of sample selection, detailed below, was a probability sample of occupations within a sampled establishment.

Data collection

The collection of data from survey respondents required detailed procedures. Collection was the responsibility of the field economists, working out of the Regional Office, who visited each establishment surveyed. Other contact methods, such as mail and telephone, were used to follow-up and update data.

Occupational selection and classification

Identification of the occupations for which wage data were to be collected was a multi-step process:

1. Probability-proportional-to-size selection of establishment jobs.
2. Classification of jobs into occupations based on the Census of Population system.
3. Characterization of jobs as full-time v. part-time, union v. nonunion, and time v. incentive.
4. Determination of the level of work of each job.

For each occupation, wage data were collected for those workers who met all the criteria identified in the last three steps. Special procedures were developed for jobs for which a correct classification or level could not be determined.

In step one, the jobs to be sampled were selected at each establishment by the BLS field economist during a personal visit. A complete list of employees was used for sampling,

with each selected worker representing a job within the establishment.

As with the selection of establishments, the selection of a job was based on probability proportional to its size in the establishment. The greater the number of people working in a job in the establishment, the greater its chance of selection.

The number of jobs collected in each establishment was based on an establishment's employment size as shown in the following schedule:

<i>Number of employees</i>	<i>Number of selected jobs</i>
50-99	8
100-249	10
250-999	12
1000-2,499	16
2,500+	20

The second step of the process entailed classifying the selected jobs into occupations based on their duties. The National Compensation Survey occupational classification system is based on the 1990 Census of Population. A selected job may fall into any one of about 480 occupational classifications, from accountant to wood lathe operator. In cases where a job's duties overlapped two or more census classification codes, the duties used to set the wage level were used to classify the job. Classification by primary duties was the fallback.

Each occupational classification is an element of a broader classification known as a major occupational group (MOG). Occupations can fall into any of the following MOGs:

- Professional specialty and technical
- Executive, administrative, and managerial
- Sales
- Administrative support including clerical
- Precision production, craft, and repair
- Machine operators, assemblers, and inspectors
- Transportation and material moving
- Handlers, equipment cleaners, helpers, and laborers
- Service occupations

Appendix B contains a complete list of all individual occupations, classified by the MOG to which they belong. In step three, certain other job characteristics of the chosen worker were identified. First, the worker was identified as holding either a full-time or part-time job, based on the establishment's definition of those terms. Then the worker was classified as having a time versus incentive job, depending on whether any part of pay was directly based on the actual production of the worker, rather than solely on hours worked. Finally, the worker was identified as being in a union job or a nonunion job. See the "Definition of Terms" section on the following page for more detail.

Generic leveling through point factor analysis

In the last step before wage data were collected, the work level of each selected job was determined using a "generic leveling" process. Generic leveling ranks and compares all occupations randomly selected in an establishment using the same criteria. This is a major departure from the method used in the past in the Bureau's Occupational Compensation Surveys which studied specifically defined occupations with leveling definitions unique to each occupation.

For this survey, the level of each occupation in an establishment was determined by an analysis of each of 10 leveling factors. Nine of these factors are drawn from the U.S. Government Office of Personnel Management's Factor Evaluation System, which is the underlying structure for evaluation of General Schedule Federal employees. The tenth factor, supervisory duties, attempts to account for the effect of supervisory duties. It is considered experimental. The 10 factors are:

- Knowledge
- Supervision received
- Guidelines
- Complexity
- Scope and effect
- Personal contacts
- Purpose of contacts
- Physical demands
- Work environment
- Supervisory duties

Each factor contains a number of levels and each level has an associated written description and point value. The number and range of points differ among the factors. For each factor, an occupation was assigned a level based on which written description best matched the job. Within each occupation, the points for 9 factors (supervisory duties was excluded) were recorded and totaled. The total determines the overall level of the occupation. Appendix table 3 presents average work levels for published occupational groups and selected occupations. A description of the levels for each factor is shown in appendix C.

Tabulations of levels of work for occupations in the survey follow the Federal Government's white-collar General Schedule. Point ranges for each of the 15 levels are shown in appendix D. It also includes an example of a leveled job and a guide to help data users evaluate jobs in their firm.

Wage data collected in prior surveys using the new generic leveling method were evaluated by BLS researchers using regression techniques. For each of the major occupational groups, wages were compared to the 10 generic level factors (and levels within those factors). The analysis showed that several of the generic level factors, most notably knowledge and supervision received, had strong explanatory power for wages. That is, as the levels within a given factor increased, the wages also increased. Detailed

research continues in the area. The results of this research will be published by BLS in the future.

Collection period

The survey data were collected over several months. For each establishment in the survey, the data reflect the establishment's most recent information at the time of collection. The payroll reference month shown in the tables reflects the average date of this information for all sample units.

Earnings

Earnings were defined as regular payments from the employer to the employee as compensation for straight-time hourly work, or for any salaried work performed. The following components were included as part of earnings:

- Incentive pay, including commissions, production bonuses, and piece rates
- Cost-of-living allowances
- Hazard pay
- Payments of income deferred due to participation in a salary reduction plan
- Deadhead pay, defined as pay given to transportation workers returning in a vehicle without freight or passengers

The following forms of payments were *not* considered part of straight-time earnings:

- Shift differentials, defined as extra payment for working a schedule that varies from the norm, such as night or weekend work
- Premium pay for overtime, holidays, and weekends
- Bonuses not directly tied to production (e.g., Christmas bonuses, profit-sharing bonuses)
- Uniform and tool allowances
- Free room and board
- Payments made by third parties (e.g., tips, bonuses given by manufacturers to department store salespeople, referral incentives in real estate)
- On-call pay

In order to calculate earnings for various time periods (hourly, weekly, and annual), data on work schedules were also collected. For hourly workers, scheduled hours worked per day and per week, exclusive of overtime, were recorded. Annual weeks worked were determined. Because salaried workers, exempt from overtime provisions, often work beyond the assigned work schedule, their typical number of hours actually worked was collected.

Definition of terms

Full-time worker. Any employee that the employer considers to be full time.

Incentive worker. Any employee whose earnings are tied, at least in part, to commissions, piece rates, production bo-

nuses, or other incentives based on production or sales.

Level. A ranking of an occupation based on the requirements of the position. (See the description in the technical note and the example for more details on the leveling process.)

Nonunion worker. An employee in an occupation not meeting the conditions for union coverage (see below).

Part-time worker. Any employee that the employer considers to be part-time.

Straight-time. Time worked at the standard rate of pay for the job.

Time-based worker. Any employee whose earnings are tied to an hourly rate or salary, and not to a specific level of production.

Union worker. Any employee is in a union occupation when all of the following conditions are met:

- A labor organization is recognized as the bargaining agent for all workers in the occupation
- Wage and salary rates are determined through collective bargaining or negotiations
- Settlement terms, which must include earnings provisions and may include benefit provisions, are embodied in a signed mutually binding collective bargaining agreement

Processing and analyzing the data

Data were processed and analyzed at the Bureau's National Office following collection.

Weighting and nonresponse

Sample weights were calculated for each establishment and occupation in the survey. These weights reflected the relative size of the occupation within the establishment and of the establishment within the sample universe. Weights were used to aggregate the individual establishments or occupations into the various data series. Some of the establishments surveyed could not supply or refused to supply information. If data were not provided by a sample member, the weights of responding sample members in the same or similar "cells" were adjusted to account for the missing data. This technique assumes that the mean value of the nonrespondents equals the mean value of the respondents at some detailed "cell" level. Responding and nonresponding establishments were classified into these cells according to industry and employment size. Responding and nonresponding occupations within responding establishments were classified into cells that were additionally defined by major occupation group and job level.

Establishments that were determined to be out of busi-

ness or outside the scope of the survey had their weights changed to zero. If only partial data were given by a sample establishment or occupation, or data were missing, the response was treated as a refusal.

Survey response

	Establish- ments
Total in sample	267
Responding	189
Out of business or not in survey scope	16
Unable or refused to pro- vide data	62

Some surveys may have a high nonresponse rate for the all industries or private industry iterations. Such instances are noted in the bulletin table footnotes.

Estimation

The wage series in the tables are computed by combining the wages for individual establishment/occupations. Before being combined, individual wage rates are weighted by: number of workers; the sample weight adjusted for nonresponding establishments and other factors; and the occupation work schedule, varying depending on whether hourly, weekly, or annual rates are being calculated.

Not all series that were calculated met the criteria for publication. Before any series was published, it was reviewed to make sure that the number of observations underlying it was sufficient. This review prevented publishing a series that could have revealed information about a specific establishment.

The number of workers estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because occupational structures among establishments differ, estimates of the number of workers obtained from the sample of establishments serve only to indicate the relative importance of the occupational groups studied.

Data reliability

The data in this bulletin are estimates from a scientifically

selected probability sample. There are two types of errors possible in an estimate based on a sample survey, sampling and nonsampling.

Sampling errors occur because observations come only from a sample and not from an entire population. The sample used for this survey is one of a number of possible samples of the same size that could have been selected using the sample design. Estimates derived from the different samples would differ from each other.

A measure of the variation among these differing estimates is called the standard error or sampling error. It indicates the precision with which an estimate from a particular sample approximates the average result of all possible samples. The relative standard error (RSE) is the standard error divided by the estimate. Appendix table 2 contains RSE data for selected series in this bulletin. RSE data for all series in this bulletin are available on the Internet web site and by request to the BLS National Office.

The standard error can be used to calculate a “confidence interval” around a sample estimate. As an example, suppose table A-1 shows that mean hourly earnings for all workers was \$12.79 per hour, and appendix table 2 shows a relative standard error of 3.6 percent for this estimate. At the 90-percent level, the confidence interval for this estimate is \$13.55 to \$12.03 (\$12.79 plus and minus 1.645 times 3.6 percent times \$12.79). If all possible samples were selected to estimate the population value, the interval from each sample would include the true population value approximately 90 percent of the time.

Nonsampling errors also affect survey results. They can stem from many sources, such as inability to obtain information for some establishments, difficulties with survey definitions, inability of the respondents to provide correct information, or mistakes in recording or coding the data obtained. A Technical Reinterview Program done in all survey areas will be used in the development of a formal quality assessment process to help compute nonsampling error. Although they were not specifically measured, the nonsampling errors were expected to be minimal due to the extensive training of the field economists who gathered the survey data by personal visit, computer edits of the data, and detailed data review.

Appendix table 1. Number of establishments studied by industry division and establishment employment size, and number of establishments represented, Knoxville, TN, February 1999

Industry	Number of establishments represented	Number of establishments studied				
		Total studied	50 - 99 workers	100 workers or more		
				Total	100 - 499 workers	500 workers or more
All industries	870	188	62	126	90	36
Private industry	828	157	58	99	76	23
Goods-producing industries	203	58	15	43	29	14
Mining	1	1	1	-	-	-
Construction	47	8	4	4	3	1
Manufacturing	155	49	10	39	26	13
Service-producing industries	625	99	43	56	47	9
Transportation and public utilities	54	13	2	11	9	2
Wholesale and retail trade	314	35	25	10	9	1
Finance, insurance and real estate	25	6	2	4	3	1
Services	232	45	14	31	26	5
State and local government	42	31	4	27	14	13

NOTE: Dashes indicate that no data were reported. Overall industry and industry groups may include data for categories not shown separately.

Appendix table 2. Relative standard errors of mean hourly earnings¹ for selected occupations, all industries, private industry, and State and local government, all workers², Knoxville, TN, February 1999

(in percent)

Occupation ³	All industries	Private industry	State and local government
All occupations	2.3	2.8	4.0
All occupations excluding sales	2.5	3.0	4.0
White-collar occupations	2.8	3.6	4.4
White-collar occupations excluding sales	2.8	3.6	4.4
Professional specialty and technical occupations	2.4	2.8	4.4
Professional specialty occupations	2.6	3.0	4.6
Engineers, architects, and surveyors	4.8	4.9	—
Civil engineers	12.1	—	—
Industrial engineers	7.9	7.9	—
Engineers, N.E.C.	7.1	7.1	—
Mathematical and computer scientists	8.0	8.0	—
Computer systems analysts and scientists	11.6	12.2	—
Natural scientists	10.0	14.4	—
Health related occupations	5.4	5.8	—
Registered nurses	2.1	2.2	—
Teachers, college and university	—	—	—
Teachers, except college and university	6.2	—	6.2
Elementary school teachers	4.7	—	4.7
Secondary school teachers	2.3	—	2.3
Librarians, archivists, and curators	—	—	—
Social scientists and urban planners	—	—	—
Social, recreation, and religious workers	6.4	—	6.8
Social workers	6.6	—	6.9
Lawyers and judges	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C.	6.6	6.6	—
Technical occupations	4.0	4.1	7.1
Licensed practical nurses	1.5	1.6	—
Health technologists and technicians, N.E.C.	6.1	6.1	12.3
Electrical and electronic technicians	14.4	13.7	—
Engineering technicians, N.E.C.	10.6	10.9	—
Drafters	10.6	10.6	—
Executive, administrative, and managerial occupations ...	5.7	6.5	11.4
Executives, administrators, and managers	5.8	7.5	7.2
Administrators and officials, public administration	2.8	—	2.8
Personnel and labor relations managers	12.1	12.8	—
Administrators, education and related fields	6.6	—	6.6
Managers and administrators, N.E.C.	10.7	11.0	—
Management related occupations	9.2	10.8	10.8
Other financial officers	6.4	7.7	—
Management related occupations, N.E.C.	22.5	—	—
Sales occupations	8.3	8.4	—
Supervisors, sales occupations	15.8	15.8	—
Sales occupations, other business services	15.7	15.7	—
Sales representatives, mining, manufacturing, and wholesale	8.9	8.9	—
Sales workers, motor vehicles and boats	9.4	9.4	—
Cashiers	2.7	2.7	—
Administrative support occupations, including clerical	2.3	2.7	3.7
Secretaries	4.3	6.3	6.2
Receptionists	3.4	3.6	—
Records clerks, N.E.C.	17.0	17.0	—
Bookkeepers, accounting and auditing clerks	8.2	10.2	—
Telephone operators	11.6	—	—
Dispatchers	17.0	—	—
Production coordinators	5.5	5.5	—
Traffic, shipping and receiving clerks	6.7	6.7	—
Stock and inventory clerks	5.8	5.7	—
Meter readers	6.4	—	6.4
Investigators and adjusters except insurance	4.7	4.7	—
Bill and account collectors	9.9	10.2	—
General office clerks	5.3	6.8	8.2
Bank tellers	3.1	3.1	—

See footnotes at end of table.

Appendix table 2. Relative standard errors of mean hourly earnings¹ for selected occupations, all industries, private industry, and State and local government, all workers², Knoxville, TN, February 1999 — Continued

(in percent)

Occupation ³	All industries	Private industry	State and local government
White-collar occupations (-Continued)			
Administrative support occupations, including clerical (-Continued)			
Data entry keyers	4.8	4.8	—
Teachers' aides	2.4	—	2.4
Administrative support occupations, N.E.C.	7.0	4.6	6.2
Blue-collar occupations			
Precision production, craft, and repair occupations	2.2	2.4	4.9
Automobile mechanics	3.3	3.8	6.0
Industrial machinery repairers	11.2	—	—
Mechanics and repairers, N.E.C.	4.1	4.1	—
Electrical power installers and repairers	7.3	10.5	—
Supervisors, production occupations	6.2	—	6.5
Machinists	8.2	8.2	—
Inspectors, testers, and graders	5.4	5.4	—
Water and sewer treatment plant operators	3.7	3.7	—
Machine operators, assemblers, and inspectors	14.2	—	14.2
Fabricating machine operators, N.E.C.	3.5	3.5	—
Textile sewing machine operators	2.7	2.7	—
Packaging and filling machine operators	4.7	4.7	—
Furnace, kiln, and oven operators, except food ...	10.0	10.0	—
Miscellaneous machine operators, N.E.C.	7.0	7.0	—
Assemblers	6.4	6.5	—
Production inspectors, checkers and examiners ..	3.6	3.6	—
Transportation and material moving occupations	7.7	7.7	—
Truck drivers	4.0	4.2	6.8
Industrial truck and tractor equipment operators ..	6.7	7.0	—
Handlers, equipment cleaners, helpers, and laborers ..	6.5	6.5	—
Groundskeepers and gardeners except farm	3.7	4.1	5.5
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	2.7	—	—
Helpers, construction trades	11.7	13.0	—
Construction laborers	8.4	8.4	—
Stock handlers and baggers	15.7	—	—
Freight, stock, and material handlers, N.E.C.	3.7	4.0	—
Hand packers and packagers	7.5	7.5	—
Laborers except construction, N.E.C.	8.0	8.0	—
Service occupations	11.6	15.6	—
Protective service occupations	3.1	3.5	4.3
Firefighting occupations	8.3	20.1	3.6
Police and detectives, public service	5.6	—	5.6
Guards and police except public service	5.8	—	5.8
Food service occupations	20.2	21.1	—
Supervisors, food preparation and service occupations	7.5	7.7	—
Waiters and waitresses	11.9	11.9	—
Cooks	8.8	8.8	—
Kitchen workers, food preparation	4.7	5.1	—
Food preparation occupations, N.E.C.	4.4	4.4	—
	14.8	15.4	—

See footnotes at end of table.

Appendix table 2. Relative standard errors of mean hourly earnings¹ for selected occupations, all industries, private industry, and State and local government, all workers², Knoxville, TN, February 1999 — Continued

(in percent)

Occupation ³	All industries	Private industry	State and local government
Service occupations (-Continued)			
Health service occupations	2.1	2.1	—
Nursing aides, orderlies and attendants	2.1	2.1	—
Cleaning and building service occupations	5.0	5.8	6.7
Supervisors, cleaning and building service workers	8.2	—	—
Janitors and cleaners	7.1	9.4	8.5
Personal service occupations	4.8	5.0	—
Supervisors, personal service occupations	9.4	—	—
Service occupations, N.E.C.	5.2	5.2	—

¹ The relative standard error is the standard error expressed as a percent of the estimate. Hourly earnings for these occupations are presented in Tables A-1 and A-2. Reliable relative standard errors could not be determined for all occupations.

² All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are

classified into one of nine major occupational groups.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Knoxville, TN, February 1999

Occupation ¹	All workers	Full-time workers	Part-time workers
All occupations	5	5	3
All occupations excluding sales	5	5	3
White-collar occupations	6	7	4
White-collar occupations excluding sales	7	7	4
Professional specialty and technical occupations	8	8	7
Professional specialty occupations	9	9	7
Engineers, architects, and surveyors	10	10	—
Civil engineers	9	9	—
Industrial engineers	8	8	—
Engineers, N.E.C.	11	11	—
Mathematical and computer scientists	9	9	—
Computer systems analysts and scientists	9	9	—
Natural scientists	10	10	—
Health related occupations	8	8	8
Registered nurses	8	8	8
Teachers, college and university	—	—	—
Teachers, except college and university	8	8	—
Elementary school teachers	8	8	—
Secondary school teachers	8	8	—
Librarians, archivists, and curators	—	—	—
Social scientists and urban planners	—	—	—
Social, recreation, and religious workers	7	7	—
Social workers	7	7	—
Lawyers and judges	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C.	7	7	—
Technical occupations	6	6	5
Licensed practical nurses	5	5	—
Health technologists and technicians, N.E.C.	6	6	—
Electrical and electronic technicians	6	6	—
Engineering technicians, N.E.C.	8	8	—
Drafters	6	6	—
Executive, administrative, and managerial occupations	9	9	—
Executives, administrators, and managers	10	10	—
Administrators and officials, public administration	11	11	—
Personnel and labor relations managers	9	9	—
Administrators, education and related fields	11	11	—
Managers and administrators, N.E.C.	11	11	—
Management related occupations	8	8	—
Other financial officers	7	7	—
Management related occupations, N.E.C.	9	9	—
Sales occupations	5	5	3
Supervisors, sales occupations	7	7	—
Sales occupations, other business services	7	7	—
Sales representatives, mining, manufacturing, and wholesale	6	6	—
Sales workers, motor vehicles and boats	5	5	—
Cashiers	2	2	2
Administrative support occupations, including clerical	4	4	2
Secretaries	4	4	—
Receptionists	3	3	—
Records clerks, N.E.C.	4	4	—
Bookkeepers, accounting and auditing clerks	4	4	—
Telephone operators	3	—	—
Dispatchers	4	4	—
Production coordinators	6	6	—
Traffic, shipping and receiving clerks	4	4	—
Stock and inventory clerks	3	3	—
Meter readers	5	5	—
Investigators and adjusters except insurance	5	5	—
Bill and account collectors	4	4	—
General office clerks	4	4	—
Bank tellers	3	3	—
Data entry keyers	3	3	—
Teachers' aides	2	—	—
Administrative support occupations, N.E.C.	4	4	2
Blue-collar occupations	4	4	2

See footnotes at end of table.

Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Knoxville, TN, February 1999 — Continued

Occupation ¹	All workers	Full-time workers	Part-time workers
Blue-collar occupations (-Continued)			
Precision production, craft, and repair occupations	6	6	—
Automobile mechanics	7	7	—
Industrial machinery repairers	6	6	—
Mechanics and repairers, N.E.C.	5	5	—
Electrical power installers and repairers	5	5	—
Supervisors, production occupations	7	7	—
Machinists	6	6	—
Inspectors, testers, and graders	5	5	—
Water and sewer treatment plant operators	5	5	—
Machine operators, assemblers, and inspectors	3	3	2
Fabricating machine operators, N.E.C.	4	4	—
Textile sewing machine operators	3	3	—
Packaging and filling machine operators	2	2	—
Furnace, kiln, and oven operators, except food	5	5	—
Miscellaneous machine operators, N.E.C.	3	3	—
Assemblers	3	3	—
Production inspectors, checkers and examiners	4	4	—
Transportation and material moving occupations	4	4	—
Truck drivers	4	4	—
Industrial truck and tractor equipment operators	4	4	—
Handlers, equipment cleaners, helpers, and laborers	3	3	2
Groundskeepers and gardeners except farm	3	3	—
Supervisors, handlers, equipment cleaners, and laborers, N.E.C.	6	6	—
Helpers, construction trades	3	3	—
Construction laborers	2	2	—
Stock handlers and baggers	2	2	—
Freight, stock, and material handlers, N.E.C.	3	4	—
Hand packers and packagers	2	2	—
Laborers except construction, N.E.C.	2	2	—
Service occupations	3	3	2
Protective service occupations	5	5	4
Firefighting occupations	7	7	—
Police and detectives, public service	7	7	—
Guards and police except public service	3	3	—
Food service occupations	3	3	2
Supervisors, food preparation and service occupations	6	6	—
Waiters and waitresses	2	2	2
Cooks	4	4	—
Kitchen workers, food preparation	2	—	—
Food preparation occupations, N.E.C.	2	2	—
Health service occupations	3	3	—
Nursing aides, orderlies and attendants	3	3	—
Cleaning and building service occupations	2	2	—
Supervisors, cleaning and building service workers	3	3	—
Janitors and cleaners	2	2	—
Personal service occupations	2	3	2
Supervisors, personal service occupations	5	—	—
Service occupations, N.E.C.	2	—	—

¹ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups. The occupations titled authors, musicians, actors, painters, photographers, dancers, artists, athletes, and legislators cannot be assigned a work level.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may

include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.