

# Springfield, MO National Compensation Survey September 1998

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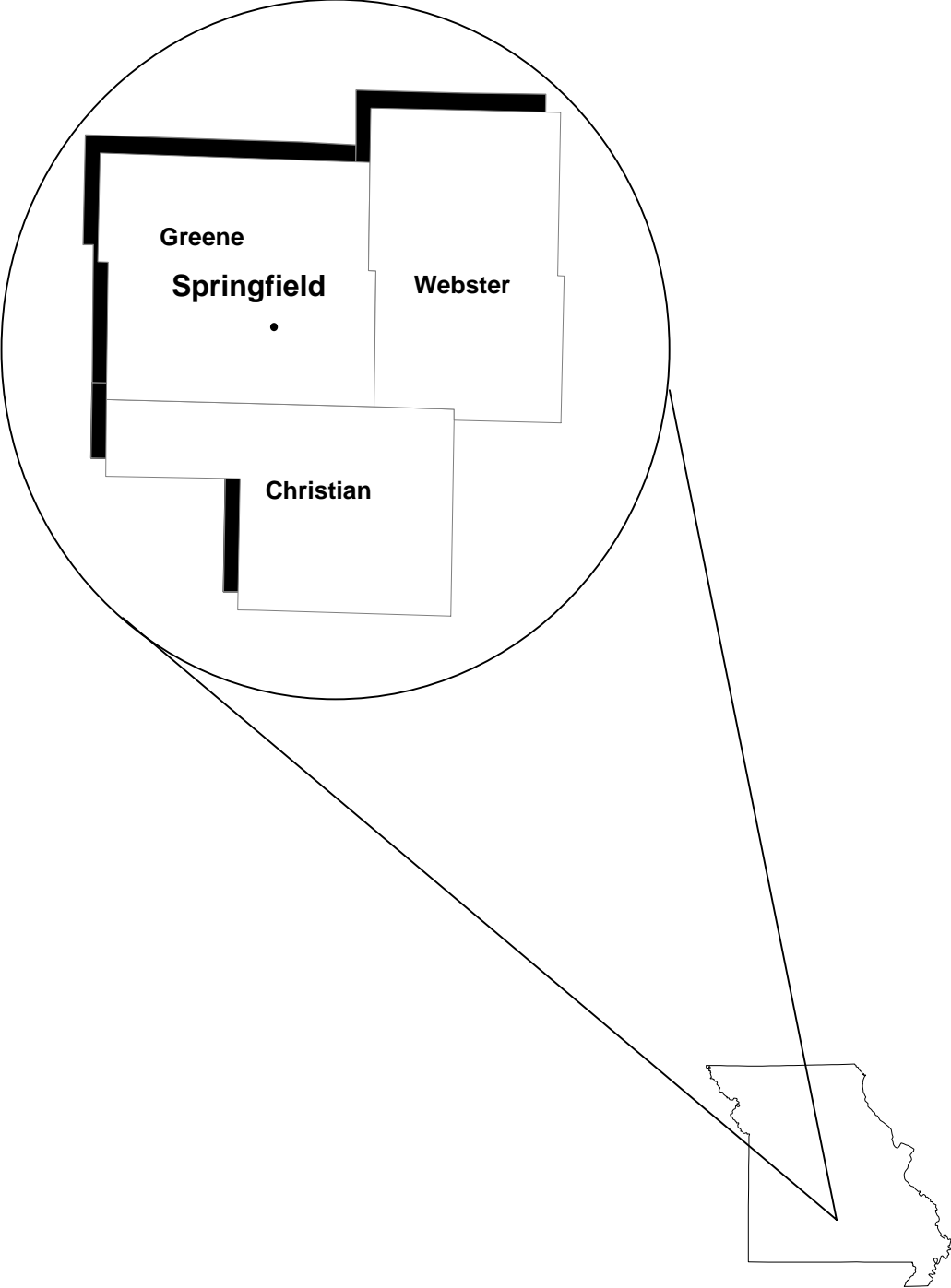
U.S. Department of Labor  
Alexis M. Herman, Secretary

Bureau of Labor Statistics  
Katharine G. Abraham, Commissioner

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**Springfield, MO**  
**Metropolitan Statistical Area**



# Preface

This bulletin provides results of a September 1998 survey of occupational pay in the Springfield, MO, Metropolitan Statistical Area (MSA). Data shown in this bulletin were collected as part of the Bureau of Labor Statistics' (BLS) new program known as the 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.

Survey data were collected and reviewed by Bureau of Labor Statistics field economists under the direction of Stan Suchman, Assistant Regional Commissioner for Operations of the Kansas City Regional Office. 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 analyzed the survey results.

For additional information regarding this survey, please contact the BLS Kansas City Regional Office at (816) 426-2481. 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) 606-6220, or send e-mail to [ocltinfo@bls.gov](mailto:ocltinfo@bls.gov).

The data contained in this bulletin are also available at the BLS Internet site (<http://stats.bls.gov/comhome.htm>). 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.

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# Introduction

This survey of occupational pay was conducted in the Springfield, MO, Metropolitan Statistical Area (MSA). The MSA includes Christian, Greene, and Webster Counties.

This bulletin consists primarily of tables whose data are analyzed in the initial textual section. 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 is 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 design and products**

The Bureau of Labor Statistics' (BLS) new National Compensation Survey (NCS) is designed to provide data on the levels and rates of change of occupational wages and employee benefits for localities, broad geographic regions, and the nation as a whole. One output of the NCS will be the Employment Cost Index, a quarterly measure of the change in employer costs for wages and benefits. This bulletin is limited to data on wages and salaries. These data are similar to those released under the Occupational Compensation Survey (OCS), which has been discontinued.

## **NCS more extensive than OCS**

The wage data in this bulletin differ from those in previous Occupational Compensation Surveys by providing broader

coverage of occupations and establishments within the survey area.

Occupations surveyed for this bulletin were selected using probability techniques from a list of all those present in each establishment. Previous OCS bulletins were limited to a preselected list of occupations, which represented a small subset of all occupations in the economy. Information in the new bulletin is published for a variety of occupation-based data. This new approach includes data on broad occupational classifications such as white-collar workers, major occupational groups such as sales workers, and individual occupations such as cashiers.

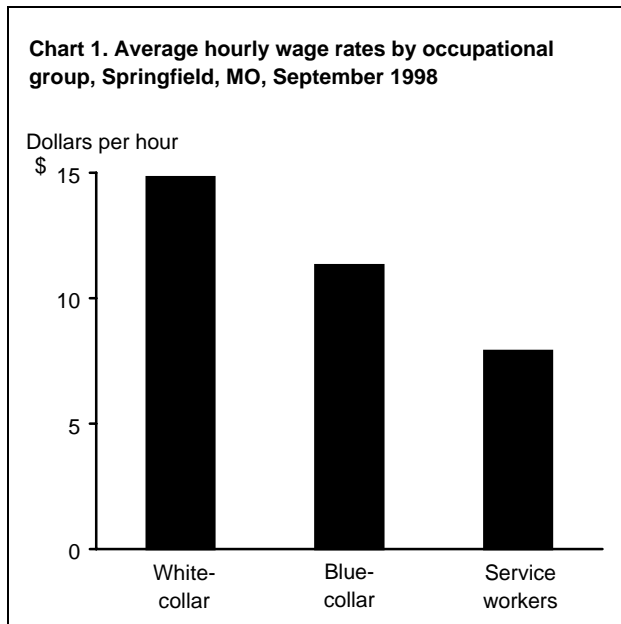
In tables containing work levels within occupational series, the work levels are derived from generic standards that *apply to all* occupational groups. The job levels in the OCS bulletins were based on narrowly-defined descriptions that were not comparable across specific occupations.

Occupational data in this bulletin are also tabulated for other classifications such as industry group, full-time versus part-time workers, union versus nonunion status, time versus incentive status, and establishment employment size. Not all of these series were generated by the OCS program.

The establishments surveyed for this bulletin were limited to those with 50 or more employees. Eventually, NCS will be expanded to cover those now-excluded establishments. Then, virtually all workers in the civilian economy will be surveyed, excluding only agriculture, private households, and employees of the Federal government.

# Wages in the Springfield, MO Metropolitan Statistical Area

Straight-time wages in the Springfield, MO, Metropolitan Statistical Area averaged \$12.53 per hour during September 1998. White-collar workers had an average wage of \$14.82 per hour. Blue-collar workers averaged \$11.32 per hour, while service workers had average earnings of \$7.89 per hour. (All hourly rates in this summary cover both full- and part-time workers, unless otherwise noted.)



Within each of these occupational groups, average hourly wages for individual occupations were estimated. For example, white-collar occupations included registered nurses at \$17.29 per hour, secretaries at \$10.10, and general office clerks at \$8.25. Among occupations in the blue-collar category, truck drivers averaged \$12.63 per hour while stock handlers and baggers averaged \$7.35. Finally, service occupations included janitors and cleaners at \$7.73 per hour and nursing aides, orderlies and attendants at \$7.84. Table A-1 presents earnings data for 62 detailed occupations; data for other detailed occupations surveyed could not be reported separately due to concerns about the confidentiality of survey respondents and the reliability of the data.

Survey results show that private industry workers in

Springfield, MO earned \$11.59 per hour, while surveyed State and local government workers averaged \$17.66. Table A-2 reports the average hourly rate for white-collar occupations as \$13.53 in private industry and \$19.49 in State and local government. Blue-collar occupations showed an average hourly rate of \$11.11 in private industry and \$14.71 in State and local government. Service occupations within private industry averaged \$7.05 per hour while those found in State and local government averaged \$12.25.

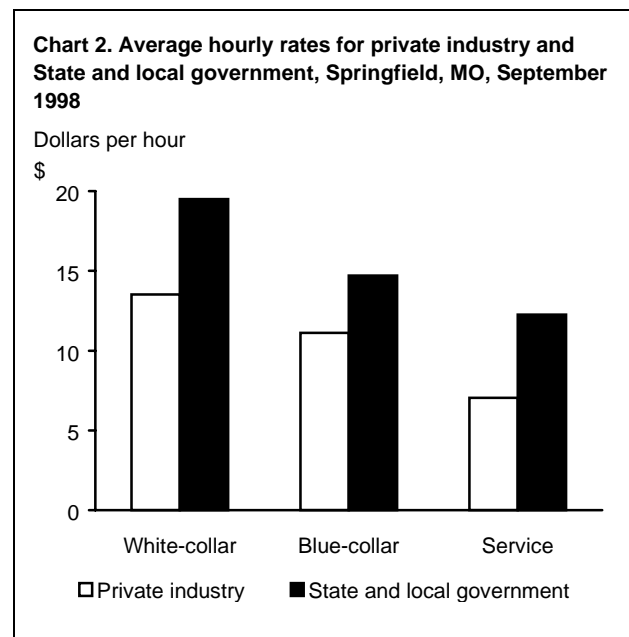
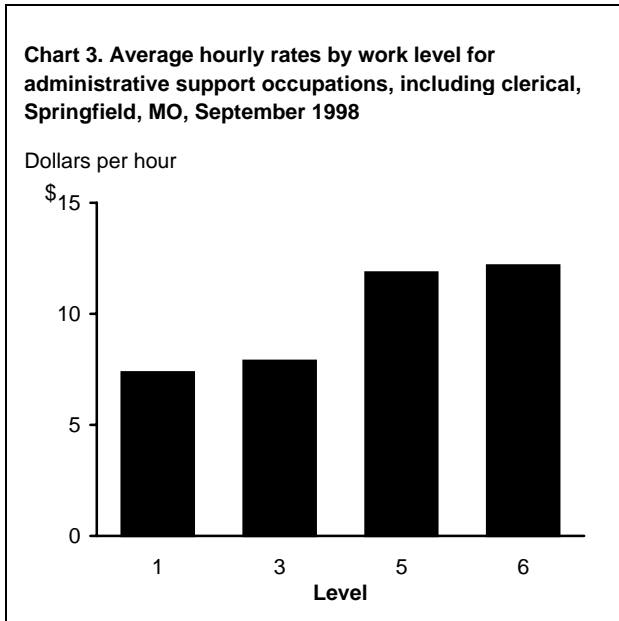


Table A-3 presents data for workers considered by the survey respondents to be either full-time or part-time. Average wages for full-time workers, all occupations, were \$13.17 per hour, compared with an average of \$7.34 per hour for part-time workers.

Data for specific work levels within major occupational groups are reported in table B-1. Occasionally, wage estimates for lower levels of work within major occupational groups are greater than estimates for higher levels. This can occur due to the mix of specific occupations (and industries) represented by the broad group as well as by the variability of the estimate. Some levels within a group may not be published because no workers were identified at that

level or because there were not enough data to guarantee confidentiality and reliability.

Work levels for all major groups span several levels, with professional specialty occupations and executive, administrative, and managerial occupations typically starting and ending at higher work levels than the other groups. Published data for administrative support occupations, including clerical, ranged from level 1 to level 6. As illustrated in chart 3, the average hourly rate was \$7.36 for level 1, \$7.88 for level 3, \$11.86 for level 5 and \$12.18 for level 6.

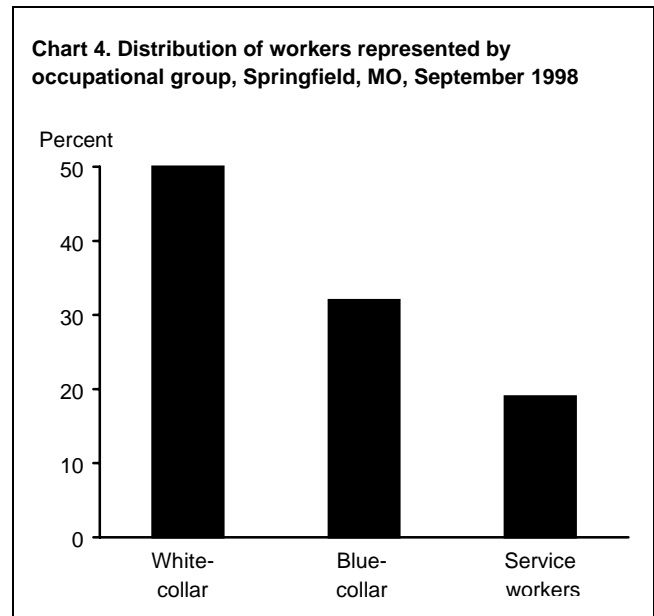


Surveyed union workers had an average hourly rate of \$13.63, as reported in table C-1. Wages for nonunion workers averaged \$12.40. Time workers, whose wages were based solely on an hourly rate or a salary, averaged \$12.57 per hour. Incentive workers, whose wages were at least partially based on productivity payments, averaged \$11.78 per hour.

Table C-2 shows wage data for specific industry divisions within private industry. In the private sector, hourly

wages averaged \$12.10 in all goods-producing industries and \$11.98 in manufacturing. Hourly wages averaged \$11.36 in all service-producing industries, \$13.18 in finance, insurance, and real estate, and \$11.89 in services. Data for other industry divisions did not meet publication criteria.

Table C-4 reports that a total of 78,730 workers were represented by the Springfield, MO survey. White-collar occupations included 39,178 workers, or 50 percent; blue-collar occupations included 24,865 workers, or 32 percent; and service occupations included 14,687 workers, or 19 percent.



Data are also presented in appendix table 1 on the number of establishments studied by industry group and employment size. The relative standard errors of published mean hourly earnings for all industries, private industry, and State and local government are available in appendix table 2. The average work levels for published occupational groups and selected occupations are presented in appendix table 3.

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Springfield, MO, September 1998**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>All occupations</b> .....	\$12.53	\$6.08	\$7.50	\$10.45	\$15.36	\$21.89
All occupations excluding sales .....	12.70	6.15	7.80	10.76	15.53	22.12
<b>White-collar occupations</b> .....	14.82	6.50	8.13	11.87	19.28	26.37
White-collar occupations excluding sales .....	15.72	7.11	8.80	13.13	20.39	26.92
Professional specialty and technical occupations .....	19.25	10.00	12.58	17.92	22.79	28.58
Professional specialty occupations .....	21.54	11.89	16.07	19.74	24.32	29.29
Engineers, architects, and surveyors .....	22.34	17.63	20.80	22.28	24.32	24.73
Mathematical and computer scientists .....	—	—	—	—	—	—
Natural scientists .....	—	—	—	—	—	—
Health related occupations .....	21.95	14.14	15.72	17.92	20.14	31.91
Registered nurses .....	17.29	14.22	15.59	17.62	19.19	20.14
Teachers, college and university .....	24.64	10.00	19.18	24.44	27.82	44.51
Teachers, except college and university .....	22.11	15.69	18.48	21.54	26.19	29.87
Elementary school teachers .....	23.18	17.31	19.08	22.48	27.15	30.05
Secondary school teachers .....	24.80	18.56	20.78	23.90	29.01	31.41
Teachers, special education .....	22.55	18.52	20.10	22.35	25.57	27.81
Substitute teachers .....	7.48	7.14	7.14	7.33	7.69	7.93
Librarians, archivists, and curators .....	—	—	—	—	—	—
Social scientists and urban planners .....	—	—	—	—	—	—
Social, recreation, and religious workers .....	11.27	7.00	10.80	11.54	12.84	13.34
Social workers .....	12.36	10.59	11.23	12.11	12.98	14.45
Lawyers and judges .....	—	—	—	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	18.24	8.65	11.89	19.77	22.79	28.73
Technical occupations .....	12.23	8.45	9.77	11.34	13.47	18.27
Clinical laboratory technologists and technicians .....	13.42	7.10	7.91	12.45	18.51	21.88
Licensed practical nurses .....	10.77	8.45	9.25	10.17	11.84	14.31
Technical and related occupations, N.E.C. ....	13.00	10.00	10.00	11.24	16.13	18.93
Executive, administrative, and managerial occupations ...	22.33	12.98	16.40	22.40	26.92	33.31
Executives, administrators, and managers .....	25.36	15.59	20.19	23.99	28.53	38.97
Financial managers .....	23.93	15.59	17.95	23.99	26.92	28.53
Administrators, education and related fields .....	30.70	24.92	28.73	31.74	36.21	36.21
Managers and administrators, N.E.C. ....	24.38	16.44	20.19	23.32	26.92	31.78
Management related occupations .....	18.88	10.88	14.45	16.83	23.66	27.20
Management related occupations, N.E.C. ....	18.28	10.88	12.74	16.56	24.03	24.73
Sales occupations .....	10.76	5.81	6.44	8.09	12.25	18.44
Supervisors, sales occupations .....	12.29	8.80	10.00	11.35	15.36	17.55
Sales workers, hardware and building supplies ...	10.74	5.98	6.76	8.34	11.25	15.00
Sales workers, other commodities .....	8.45	5.51	5.97	7.31	9.60	12.97
Cashiers .....	6.21	5.50	5.59	6.09	6.50	7.08
Administrative support occupations, including clerical .....	8.96	6.20	7.21	8.44	10.25	12.41
Secretaries .....	10.10	6.42	7.56	9.82	11.55	13.84
Typists .....	9.19	7.80	8.02	8.75	9.26	12.20
Receptionists .....	7.55	6.25	6.88	7.21	8.00	9.53
Bookkeepers, accounting and auditing clerks .....	9.06	7.11	7.80	8.96	10.00	11.10
Dispatchers .....	12.89	9.13	10.14	12.50	16.10	16.10
Traffic, shipping and receiving clerks .....	8.35	6.08	6.08	7.23	11.61	13.20
Stock and inventory clerks .....	9.17	6.42	6.78	8.27	10.78	14.42
Investigators and adjusters except insurance .....	8.76	7.00	7.81	9.15	9.62	9.87
General office clerks .....	8.25	6.64	6.98	7.75	9.35	10.42
Data entry keyers .....	8.90	6.25	6.93	8.32	11.05	13.59
Teachers' aides .....	8.13	6.11	6.95	7.88	9.43	10.39
Administrative support occupations, N.E.C. ....	9.14	6.00	7.81	8.50	11.36	12.42
<b>Blue-collar occupations</b> .....	11.32	6.45	8.38	11.00	13.64	16.35
Precision production, craft, and repair occupations .....	13.88	8.38	10.00	13.79	16.50	18.90
Bus, truck, and stationary engine mechanics .....	12.15	8.28	9.63	12.46	14.31	15.92
Industrial machinery repairers .....	15.16	12.01	14.80	15.61	16.39	16.50
Mechanics and repairers, N.E.C. ....	12.26	9.47	9.52	12.47	12.89	16.78
Supervisors, production occupations .....	17.02	11.99	15.61	16.91	18.27	22.99
Machine operators, assemblers, and inspectors .....	10.18	5.98	7.48	10.11	12.57	13.97
Punching and stamping press operators .....	10.27	6.86	7.25	10.00	13.40	13.40
Miscellaneous machine operators, N.E.C. ....	10.51	6.39	8.38	10.51	13.64	13.94
Welders and cutters .....	12.25	10.00	10.10	11.60	15.22	15.80

See footnotes at end of table.



**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>Blue-collar occupations (-Continued)</b>						
Machine operators, assemblers, and inspectors (-Continued)						
Assemblers .....	\$10.15	\$7.23	\$8.93	\$10.00	\$12.45	\$12.60
Miscellaneous hand working occupations, N.E.C. ....	8.75	5.40	5.40	8.00	11.59	11.84
Production inspectors, checkers and examiners ..	8.43	5.75	5.75	7.29	11.67	14.42
Transportation and material moving occupations .....	12.43	8.23	9.48	11.85	15.40	16.91
Truck drivers .....	12.63	8.26	9.92	11.85	15.00	16.87
Bus drivers .....	14.87	10.43	10.43	14.90	16.55	16.55
Industrial truck and tractor equipment operators ..	11.58	7.25	8.89	10.60	15.40	15.40
Miscellaneous material moving equipment operators, N.E.C. ....	13.03	8.78	8.78	13.54	17.12	17.12
Handlers, equipment cleaners, helpers, and laborers .....	9.46	5.50	6.62	9.00	11.95	13.25
Groundskeepers and gardeners except farm .....	10.24	5.15	6.18	11.50	13.69	13.69
Construction laborers .....	12.25	9.73	10.72	12.90	14.03	14.58
Production helpers .....	7.92	5.25	6.25	8.38	9.00	11.05
Stock handlers and baggers .....	7.35	5.50	5.50	6.25	8.26	11.65
Freight, stock, and material handlers, N.E.C. ....	10.39	8.24	8.24	10.45	13.12	13.14
Hand packers and packagers .....	9.47	6.00	8.30	9.99	11.95	11.95
Laborers except construction, N.E.C. ....	8.19	6.11	6.36	7.20	9.97	12.66
<b>Service occupations</b> .....	7.89	5.25	5.96	7.00	9.12	11.79
Protective service occupations .....	12.86	5.79	10.30	11.87	14.94	17.74
Police and detectives, public service .....	14.40	11.06	13.23	14.21	16.00	17.74
Food service occupations .....	6.71	2.30	5.40	6.29	8.00	10.75
Supervisors, food preparation and service occupations .....	9.70	7.08	7.75	9.00	11.53	13.00
Waiters and waitresses .....	3.63	2.13	2.13	2.27	6.36	6.70
Cooks .....	8.53	6.29	6.90	8.16	9.40	12.23
Kitchen workers, food preparation .....	8.10	5.65	6.39	7.75	9.74	11.50
Waiters'/Waitresses' assistants .....	5.11	3.50	4.61	4.80	6.05	6.25
Food preparation occupations, N.E.C. ....	5.88	5.15	5.28	5.70	6.25	6.95
Health service occupations .....	7.90	6.26	6.89	7.55	8.86	9.53
Nursing aides, orderlies and attendants .....	7.84	6.24	6.74	7.25	8.45	9.97
Cleaning and building service occupations .....	7.82	5.50	6.05	6.88	9.97	11.07
Supervisors, cleaning and building service workers .....	10.64	8.02	8.40	10.61	12.47	13.75
Maids and housemen .....	6.79	5.50	6.05	6.49	6.85	8.65
Janitors and cleaners .....	7.73	5.50	5.99	7.00	9.97	10.11
Personal service occupations .....	—	—	—	—	—	—
Service occupations, N.E.C. ....	6.24	5.15	5.25	5.50	7.24	7.24

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Springfield, MO, September 1998**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>All occupations</b> .....	\$11.59	\$6.00	\$7.21	\$9.90	\$13.64	\$19.19	\$17.66	\$8.74	\$11.07	\$16.24	\$23.15	\$28.64
All occupations excluding sales .....	11.69	6.00	7.30	10.00	13.75	19.19	17.66	8.74	11.07	16.24	23.15	28.64
<b>White-collar occupations</b> .....	13.53	6.41	7.75	10.76	16.88	24.03	19.49	8.74	11.92	18.71	24.47	30.11
White-collar occupations excluding sales .....	14.36	6.89	8.27	11.54	18.22	24.15	19.49	8.74	11.92	18.71	24.47	30.11
Professional specialty and technical occupations .....	17.71	8.87	11.54	15.73	19.96	24.70	21.82	12.11	16.93	22.21	26.78	29.69
Professional specialty occupations .....	21.06	11.89	15.08	18.31	21.33	28.73	22.06	11.87	17.31	22.54	26.78	29.83
Engineers, architects, and surveyors .....	22.34	17.63	20.80	22.28	24.32	24.73	-	-	-	-	-	-
Mathematical and computer scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Natural scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Health related occupations .....	22.16	14.14	15.81	18.07	20.14	31.91	-	-	-	-	-	-
Registered nurses .....	17.32	14.28	15.69	17.69	19.19	20.14	-	-	-	-	-	-
Teachers, college and university .....	-	-	-	-	-	-	-	-	-	-	-	-
Teachers, except college and university .....	-	-	-	-	-	-	22.17	15.69	18.37	21.77	26.43	29.99
Elementary school teachers .....	-	-	-	-	-	-	23.18	17.31	19.08	22.48	27.15	30.05
Secondary school teachers .....	-	-	-	-	-	-	24.80	18.56	20.78	23.90	29.01	31.41
Teachers, special education .....	-	-	-	-	-	-	22.55	18.52	20.10	22.35	25.57	27.81
Substitute teachers .....	-	-	-	-	-	-	7.48	7.14	7.14	7.33	7.69	7.93
Librarians, archivists, and curators .....	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners .....	-	-	-	-	-	-	-	-	-	-	-	-
Social, recreation, and religious workers .....	-	-	-	-	-	-	-	-	-	-	-	-
Lawyers and judges .....	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	-	-	-	-	-	-	-	-	-	-	-	-
Technical occupations .....	12.08	8.45	9.63	11.24	13.19	18.29	14.96	12.35	12.57	13.84	16.67	18.05
Clinical laboratory technologists and technicians .....	13.42	7.10	7.91	12.45	18.51	21.88	-	-	-	-	-	-
Licensed practical nurses .....	10.60	8.45	9.20	10.14	11.49	14.31	-	-	-	-	-	-
Technical and related occupations, N.E.C. ....	12.99	10.00	10.00	11.24	16.38	18.93	-	-	-	-	-	-
Executive, administrative, and managerial occupations .....	21.35	12.02	16.15	21.40	26.60	29.45	25.69	14.45	16.67	23.85	33.71	39.62
Executives, administrators, and managers .....	23.68	14.42	19.71	23.32	26.92	35.89	31.34	22.78	23.99	29.50	39.62	43.90
Financial managers .....	23.92	15.59	17.95	26.92	26.92	35.89	-	-	-	-	-	-
Administrators, education and related fields .....	-	-	-	-	-	-	30.53	25.24	28.73	29.56	32.56	37.52
Managers and administrators, N.E.C. ....	24.58	16.44	20.19	24.43	27.91	31.78	-	-	-	-	-	-
Management related occupations .....	18.66	10.82	12.98	17.16	23.66	25.63	19.61	14.45	14.45	16.67	23.85	33.71
Management related occupations, N.E.C. ....	18.31	10.88	12.74	16.56	24.03	24.73	-	-	-	-	-	-
Sales occupations .....	10.76	5.81	6.44	8.09	12.25	18.44	-	-	-	-	-	-
Supervisors, sales occupations .....	12.29	8.80	10.00	11.35	15.36	17.55	-	-	-	-	-	-
Sales workers, hardware and building supplies .....	10.74	5.98	6.76	8.34	11.25	15.00	-	-	-	-	-	-
Sales workers, other commodities .....	8.45	5.51	5.97	7.31	9.60	12.97	-	-	-	-	-	-
Cashiers .....	6.21	5.50	5.59	6.09	6.50	7.08	-	-	-	-	-	-
Administrative support occupations, including clerical .....	8.79	6.15	7.07	8.19	10.00	12.26	9.87	6.91	8.02	9.10	11.47	13.84
Secretaries .....	9.35	6.18	6.42	8.98	11.54	14.42	10.96	8.74	8.74	11.30	13.84	13.84
Receptionists .....	7.55	6.25	6.88	7.21	8.00	9.53	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks .....	9.04	7.11	7.80	8.96	10.00	11.10	-	-	-	-	-	-
Traffic, shipping and receiving clerks .....	8.35	6.08	6.08	7.23	11.61	13.20	-	-	-	-	-	-
Stock and inventory clerks .....	8.49	6.42	6.78	8.20	9.39	10.78	-	-	-	-	-	-
Investigators and adjusters except insurance .....	8.76	7.00	7.81	9.15	9.62	9.87	-	-	-	-	-	-
Data entry keyers .....	8.90	6.25	6.93	8.32	11.05	13.59	-	-	-	-	-	-
Teachers' aides .....	-	-	-	-	-	-	8.13	6.11	6.95	7.88	9.43	10.39
Administrative support occupations, N.E.C. ....	9.13	6.00	7.81	8.50	11.36	12.42	-	-	-	-	-	-
<b>Blue-collar occupations</b> .....	11.11	6.33	8.30	10.75	13.40	15.80	14.71	9.90	10.81	14.82	17.72	20.87

See footnotes at end of table.

**Table A-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Blue-collar occupations (-Continued)</b>												
Precision production, craft, and repair occupations .....	\$13.43	\$8.38	\$9.83	\$12.89	\$15.93	\$18.27	\$17.28	\$13.06	\$15.92	\$16.78	\$18.58	\$21.14
Industrial machinery repairers .....	15.16	12.01	14.80	15.61	16.39	16.50	-	-	-	-	-	-
Mechanics and repairers, N.E.C. ....	11.17	9.20	9.47	12.27	12.89	12.89	-	-	-	-	-	-
Supervisors, production occupations ..	17.02	11.99	15.61	16.91	18.27	22.99	-	-	-	-	-	-
Machine operators, assemblers, and inspectors .....	10.18	5.98	7.48	10.11	12.57	13.97	-	-	-	-	-	-
Punching and stamping press operators .....	10.27	6.86	7.25	10.00	13.40	13.40	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	10.51	6.39	8.38	10.51	13.64	13.94	-	-	-	-	-	-
Welders and cutters .....	12.25	10.00	10.10	11.60	15.22	15.80	-	-	-	-	-	-
Assemblers .....	10.15	7.23	8.93	10.00	12.45	12.60	-	-	-	-	-	-
Miscellaneous hand working occupations, N.E.C. ....	8.75	5.40	5.40	8.00	11.59	11.84	-	-	-	-	-	-
Production inspectors, checkers and examiners .....	8.43	5.75	5.75	7.29	11.67	14.42	-	-	-	-	-	-
Transportation and material moving occupations .....	12.49	8.26	9.39	11.85	15.40	17.12	11.48	8.00	10.43	10.43	11.21	12.43
Truck drivers .....	12.78	8.34	10.02	11.96	15.02	16.90	-	-	-	-	-	-
Bus drivers .....	-	-	-	-	-	-	13.61	10.43	10.43	10.43	12.30	26.90
Industrial truck and tractor equipment operators .....	11.58	7.25	8.89	10.60	15.40	15.40	-	-	-	-	-	-
Miscellaneous material moving equipment operators, N.E.C. ....	13.03	8.78	8.78	13.54	17.12	17.12	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers .....	9.16	5.50	6.50	8.75	11.74	13.14	12.62	9.75	10.38	12.44	13.69	17.72
Construction laborers .....	-	-	-	-	-	-	10.41	9.70	9.78	10.59	11.21	11.47
Production helpers .....	7.92	5.25	6.25	8.38	9.00	11.05	-	-	-	-	-	-
Stock handlers and baggers .....	7.35	5.50	5.50	6.25	8.26	11.65	-	-	-	-	-	-
Freight, stock, and material handlers, N.E.C. ....	10.39	8.24	8.24	10.45	13.12	13.14	-	-	-	-	-	-
Hand packers and packagers .....	9.47	6.00	8.30	9.99	11.95	11.95	-	-	-	-	-	-
Laborers except construction, N.E.C. ....	7.90	6.11	6.11	6.94	8.50	12.66	-	-	-	-	-	-
<b>Service occupations</b> .....	7.05	5.15	5.75	6.73	8.18	9.90	12.25	8.14	9.97	11.07	14.21	17.43
Protective service occupations .....	-	-	-	-	-	-	14.50	10.35	11.43	13.49	15.53	17.98
Police and detectives, public service ..	-	-	-	-	-	-	14.40	11.06	13.23	14.21	16.00	17.74
Food service occupations .....	6.58	2.30	5.37	6.25	7.75	10.75	9.16	6.59	7.50	9.48	10.75	11.05
Supervisors, food preparation and service occupations .....	9.70	7.08	7.75	9.00	11.53	13.00	-	-	-	-	-	-
Waiters and waitresses .....	3.63	2.13	2.13	2.27	6.36	6.70	-	-	-	-	-	-
Cooks .....	8.54	6.29	6.90	8.16	9.40	12.51	8.37	6.23	6.59	8.25	8.86	12.02
Kitchen workers, food preparation .....	7.68	5.65	6.18	6.99	8.46	11.50	-	-	-	-	-	-
Waiters'/Waitresses' assistants .....	5.11	3.50	4.61	4.80	6.05	6.25	-	-	-	-	-	-
Food preparation occupations, N.E.C. ....	5.88	5.15	5.28	5.70	6.25	6.95	-	-	-	-	-	-

See footnotes at end of table.

**Table A-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Service occupations (-Continued)</b>												
Health service occupations .....	\$7.90	\$6.26	\$6.85	\$7.53	\$8.86	\$9.62	—	—	—	—	—	—
Nursing aides, orderlies and attendants .....	7.84	6.24	6.74	7.25	8.45	9.97	—	—	—	—	—	—
Cleaning and building service occupations .....	7.17	5.50	5.96	6.56	7.76	9.90	\$10.26	\$9.97	\$9.97	\$10.11	\$11.07	\$11.07
Maids and housemen .....	6.79	5.50	6.05	6.49	6.85	8.65	—	—	—	—	—	—
Janitors and cleaners .....	6.59	5.50	5.67	6.30	7.11	8.50	—	—	—	—	—	—
Personal service occupations .....	—	—	—	—	—	—	—	—	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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 earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Springfield, MO, September 1998**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
<b>All occupations</b> .....	\$13.17	\$6.52	\$8.23	\$11.30	\$15.80	\$22.88	\$7.34	\$5.24	\$5.51	\$6.20	\$8.02	\$10.39
All occupations excluding sales .....	13.28	6.63	8.38	11.47	15.90	22.79	7.48	5.15	5.50	6.22	8.03	10.75
<b>White-collar occupations</b> .....	15.46	7.00	8.74	12.50	20.19	26.85	8.50	5.70	5.98	6.87	8.41	14.29
White-collar occupations excluding sales .....	16.11	7.30	9.20	13.46	20.80	26.92	9.90	5.70	6.18	7.69	10.39	17.46
Professional specialty and technical occupations .....	19.40	10.00	12.70	18.05	23.03	28.58	16.00	7.26	10.00	14.93	18.75	31.91
Professional specialty occupations .....	21.68	11.89	16.13	19.77	24.32	29.23	18.35	8.57	13.68	17.19	20.16	31.91
Engineers, architects, and surveyors .....	22.34	17.63	20.80	22.28	24.32	24.73	-	-	-	-	-	-
Mathematical and computer scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Natural scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Health related occupations .....	22.00	14.10	15.69	17.86	19.90	29.23	-	-	-	-	-	-
Registered nurses .....	17.28	14.15	15.59	17.65	19.19	20.14	-	-	-	-	-	-
Teachers, college and university .....	25.18	10.00	19.18	25.54	27.82	44.51	-	-	-	-	-	-
Teachers, except college and university .....	22.33	15.69	18.53	21.65	26.26	29.99	9.36	7.14	7.14	7.33	7.93	8.57
Elementary school teachers .....	23.18	17.31	19.08	22.48	27.15	30.05	-	-	-	-	-	-
Secondary school teachers .....	24.80	18.56	20.78	23.90	29.01	31.41	-	-	-	-	-	-
Teachers, special education .....	22.55	18.52	20.10	22.35	25.57	27.81	-	-	-	-	-	-
Substitute teachers .....	-	-	-	-	-	-	7.48	7.14	7.14	7.33	7.69	7.93
Librarians, archivists, and curators .....	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners .....	-	-	-	-	-	-	-	-	-	-	-	-
Social, recreation, and religious workers .....	11.15	7.00	10.59	11.54	12.34	13.60	-	-	-	-	-	-
Social workers .....	12.28	10.59	11.00	11.87	13.07	14.74	-	-	-	-	-	-
Lawyers and judges .....	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	18.24	8.65	11.89	19.77	22.79	28.73	-	-	-	-	-	-
Technical occupations .....	12.36	8.45	9.79	11.43	13.73	18.29	-	-	-	-	-	-
Clinical laboratory technologists and technicians .....	13.42	7.10	7.91	12.45	18.51	21.88	-	-	-	-	-	-
Licensed practical nurses .....	10.77	8.45	9.25	10.17	11.84	14.31	-	-	-	-	-	-
Executive, administrative, and managerial occupations .....	22.33	12.98	16.40	22.40	26.92	33.31	-	-	-	-	-	-
Executives, administrators, and managers .....	25.36	15.59	20.19	23.99	28.53	38.97	-	-	-	-	-	-
Financial managers .....	23.93	15.59	17.95	23.99	26.92	28.53	-	-	-	-	-	-
Administrators, education and related fields .....	30.70	24.92	28.73	31.74	36.21	36.21	-	-	-	-	-	-
Managers and administrators, N.E.C. ....	24.38	16.44	20.19	23.32	26.92	31.78	-	-	-	-	-	-
Management related occupations .....	18.88	10.88	14.45	16.83	23.66	27.20	-	-	-	-	-	-
Management related occupations, N.E.C. ....	18.28	10.88	12.74	16.56	24.03	24.73	-	-	-	-	-	-
Sales occupations .....	11.91	6.15	7.00	9.15	14.17	25.03	6.70	5.50	5.75	6.10	7.63	8.21
Supervisors, sales occupations .....	12.29	8.80	10.00	11.35	15.36	17.55	-	-	-	-	-	-
Sales workers, hardware and building supplies .....	11.29	5.98	7.16	9.26	11.25	15.00	-	-	-	-	-	-
Sales workers, other commodities .....	-	-	-	-	-	-	6.79	5.51	5.75	6.02	6.85	9.02
Cashiers .....	6.44	5.50	6.00	6.39	6.60	7.25	5.99	5.25	5.50	5.84	6.30	6.76
Administrative support occupations, including clerical .....	9.17	6.50	7.30	8.74	10.56	12.50	7.29	5.70	6.00	6.75	8.35	9.30
Secretaries .....	10.30	6.42	8.74	10.12	13.50	13.84	-	-	-	-	-	-
Typists .....	9.19	7.80	8.02	8.75	9.26	12.20	-	-	-	-	-	-
Receptionists .....	7.86	7.21	7.21	8.00	8.00	9.53	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks .....	9.14	7.11	7.80	9.08	10.20	11.30	-	-	-	-	-	-
Traffic, shipping and receiving clerks .....	8.35	6.08	6.08	7.23	11.61	13.20	-	-	-	-	-	-
Stock and inventory clerks .....	9.71	6.78	7.22	8.92	10.78	14.42	-	-	-	-	-	-
Investigators and adjusters except insurance .....	8.85	7.02	8.05	9.15	9.62	9.87	-	-	-	-	-	-
General office clerks .....	8.30	6.64	7.13	7.93	9.35	10.47	-	-	-	-	-	-
Data entry keyers .....	8.90	6.25	6.93	8.32	11.05	13.59	-	-	-	-	-	-
Teachers' aides .....	7.11	5.67	6.39	6.98	7.84	8.68	-	-	-	-	-	-
Administrative support occupations, N.E.C. ....	9.67	7.81	7.82	9.44	11.36	12.42	-	-	-	-	-	-

See footnotes at end of table.

**Table A-3. Hourly earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Blue-collar occupations</b> .....	\$11.52	\$6.63	\$8.58	\$11.21	\$13.94	\$16.43	\$7.79	\$5.25	\$5.50	\$6.50	\$9.80	\$12.03
Precision production, craft, and repair occupations .....	13.88	8.38	10.00	13.75	16.50	18.90	-	-	-	-	-	-
Bus, truck, and stationary engine mechanics .....	12.15	8.28	9.63	12.46	14.31	15.92	-	-	-	-	-	-
Industrial machinery repairers .....	15.16	12.01	14.80	15.61	16.39	16.50	-	-	-	-	-	-
Mechanics and repairers, N.E.C. ....	12.26	9.47	9.52	12.47	12.89	16.78	-	-	-	-	-	-
Supervisors, production occupations ..	17.02	11.99	15.61	16.91	18.27	22.99	-	-	-	-	-	-
Machine operators, assemblers, and inspectors .....	10.19	6.03	7.48	10.11	12.60	13.97	-	-	-	-	-	-
Punching and stamping press operators .....	10.27	6.86	7.25	10.00	13.40	13.40	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	10.39	6.33	8.25	10.25	13.64	13.94	-	-	-	-	-	-
Welders and cutters .....	12.25	10.00	10.10	11.60	15.22	15.80	-	-	-	-	-	-
Assemblers .....	10.15	7.23	8.93	10.00	12.45	12.60	-	-	-	-	-	-
Miscellaneous hand working occupations, N.E.C. ....	8.75	5.40	5.40	8.00	11.59	11.84	-	-	-	-	-	-
Transportation and material moving occupations .....	12.40	8.23	9.38	11.85	15.40	16.91	-	-	-	-	-	-
Truck drivers .....	12.63	8.26	9.91	11.85	15.00	16.87	-	-	-	-	-	-
Industrial truck and tractor equipment operators .....	11.58	7.25	8.89	10.60	15.40	15.40	-	-	-	-	-	-
Miscellaneous material moving equipment operators, N.E.C. ....	13.03	8.78	8.78	13.54	17.12	17.12	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers .....	10.02	6.15	8.00	9.99	12.11	13.50	6.89	5.25	5.50	6.00	8.20	10.01
Construction laborers .....	12.29	9.75	10.72	12.90	14.03	14.58	-	-	-	-	-	-
Production helpers .....	8.22	5.40	6.30	8.53	9.00	11.05	-	-	-	-	-	-
Stock handlers and baggers .....	9.04	5.97	7.36	8.44	11.65	11.65	-	-	-	-	-	-
Freight, stock, and material handlers, N.E.C. ....	10.39	8.24	8.24	10.45	13.12	13.14	-	-	-	-	-	-
Hand packers and packagers .....	9.75	7.43	8.30	9.99	11.95	11.95	-	-	-	-	-	-
Laborers except construction, N.E.C. ....	8.26	6.11	6.36	7.18	10.10	12.66	-	-	-	-	-	-
<b>Service occupations</b> .....	8.66	5.73	6.50	7.79	10.11	13.00	6.02	4.00	5.35	5.75	6.90	8.02
Protective service occupations .....	13.98	9.55	10.93	13.23	15.10	17.98	6.23	5.25	5.50	5.75	6.15	7.00
Police and detectives, public service ..	14.40	11.06	13.23	14.21	16.00	17.74	-	-	-	-	-	-
Food service occupations .....	7.52	4.80	6.05	6.95	8.88	11.53	5.49	2.13	5.15	5.51	6.15	7.50
Supervisors, food preparation and service occupations .....	10.03	7.08	7.75	10.75	11.53	13.00	-	-	-	-	-	-
Waiters and waitresses .....	-	-	-	-	-	-	4.01	2.13	2.13	2.30	6.36	6.36
Cooks .....	8.55	6.29	6.90	8.25	9.40	12.30	-	-	-	-	-	-
Kitchen workers, food preparation .....	-	-	-	-	-	-	7.96	5.37	5.65	7.25	9.86	10.75
Waiters'/Waitresses' assistants .....	-	-	-	-	-	-	4.74	3.13	4.61	4.61	5.51	5.80
Food preparation occupations, N.E.C. ....	6.15	5.25	5.65	6.20	6.50	7.25	5.59	5.15	5.25	5.38	5.75	6.25

See footnotes at end of table.

**Table A-3. Hourly earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Service occupations (-Continued)</b>												
Health service occupations .....	\$8.11	\$6.30	\$7.00	\$7.79	\$8.86	\$9.90	\$7.16	\$5.94	\$6.56	\$6.97	\$7.77	\$8.49
Nursing aides, orderlies and attendants .....	8.12	6.30	6.83	7.44	9.08	10.72	7.10	5.91	6.49	6.90	7.77	8.53
Cleaning and building service occupations .....	7.94	5.67	6.11	7.00	9.97	11.07	6.92	5.50	5.50	6.00	7.50	12.47
Janitors and cleaners .....	7.91	5.57	6.09	7.41	9.97	10.11	—	—	—	—	—	—
Personal service occupations .....	—	—	—	—	—	—	—	—	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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-4. Weekly and annual earnings<sup>1</sup> and hours for selected occupations, full-time workers only<sup>2</sup>, all industries, Springfield, MO, September 1998**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>All occupations</b> .....	39.9	\$525	\$452	2,013	\$26,506	\$23,480
All occupations excluding sales .....	39.9	530	459	2,009	26,671	23,774
<b>White-collar occupations</b> .....	39.8	615	497	1,977	30,554	25,610
White-collar occupations excluding sales .....	39.8	641	538	1,962	31,606	27,312
Professional specialty and technical occupations .....	39.4	764	705	1,835	35,615	32,635
Professional specialty occupations .....	39.2	851	769	1,772	38,417	34,951
Engineers, architects, and surveyors .....	43.0	961	966	2,236	49,955	50,232
Mathematical and computer scientists .....	-	-	-	-	-	-
Natural scientists .....	-	-	-	-	-	-
Health related occupations .....	40.4	888	714	2,092	46,030	37,153
Registered nurses .....	39.9	690	706	2,074	35,842	36,691
Teachers, college and university .....	39.7	1,000	1,022	1,595	40,172	39,894
Teachers, except college and university .....	37.0	827	813	1,425	31,824	30,758
Elementary school teachers .....	36.8	852	834	1,366	31,670	30,830
Secondary school teachers .....	36.5	906	883	1,351	33,499	32,458
Teachers, special education .....	36.5	824	818	1,355	30,566	30,461
Librarians, archivists, and curators .....	-	-	-	-	-	-
Social scientists and urban planners .....	-	-	-	-	-	-
Social, recreation, and religious workers .....	40.0	446	462	2,080	23,185	24,003
Social workers .....	40.0	491	475	2,080	25,545	24,690
Lawyers and judges .....	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	40.0	729	791	2,080	37,933	41,122
Technical occupations .....	39.8	492	457	2,065	25,522	23,590
Clinical laboratory technologists and technicians .....	40.0	537	498	2,080	27,910	25,896
Licensed practical nurses .....	39.8	428	407	2,059	22,173	21,155
Executive, administrative, and managerial occupations ...	41.1	917	918	2,117	47,265	47,129
Executives, administrators, and managers .....	41.9	1,062	1,047	2,140	54,267	52,604
Financial managers .....	42.6	1,019	960	2,215	53,001	49,899
Administrators, education and related fields .....	39.0	1,199	1,190	1,809	55,541	52,570
Managers and administrators, N.E.C. ....	43.3	1,057	1,047	2,246	54,755	54,425
Management related occupations .....	40.2	759	679	2,091	39,482	35,293
Management related occupations, N.E.C. ....	39.3	719	658	2,045	37,395	34,200
Sales occupations .....	39.8	474	352	2,061	24,541	18,304
Supervisors, sales occupations .....	41.6	511	454	2,163	26,573	23,608
Sales workers, hardware and building supplies ...	40.0	452	370	2,080	23,483	19,261
Cashiers .....	39.8	256	256	1,987	12,800	13,012
Administrative support occupations, including clerical .....	39.7	364	350	2,051	18,813	18,054
Secretaries .....	39.9	411	405	2,056	21,177	20,426
Typists .....	40.0	368	350	2,080	19,112	18,200
Receptionists .....	40.0	315	320	2,080	16,356	16,640
Bookkeepers, accounting and auditing clerks .....	39.8	364	363	2,068	18,905	18,886
Traffic, shipping and receiving clerks .....	40.3	337	284	2,097	17,504	14,791
Stock and inventory clerks .....	40.0	389	357	2,080	20,202	18,555
Investigators and adjusters except insurance .....	40.0	354	366	2,080	18,405	19,032
General office clerks .....	39.8	330	317	2,067	17,150	16,494
Data entry keyers .....	40.0	356	333	2,080	18,511	17,306
Teachers' aides .....	35.9	255	247	1,316	9,360	8,914
Administrative support occupations, N.E.C. ....	40.0	387	378	2,080	20,114	19,632
<b>Blue-collar occupations</b> .....	40.1	461	453	2,060	23,735	23,088
Precision production, craft, and repair occupations .....	38.8	538	540	1,979	27,460	26,936
Bus, truck, and stationary engine mechanics .....	40.0	486	499	2,080	25,276	25,922
Industrial machinery repairers .....	39.7	601	624	2,062	31,269	32,469
Mechanics and repairers, N.E.C. ....	39.7	487	499	2,066	25,328	25,938
Supervisors, production occupations .....	40.2	684	634	2,086	35,507	32,992
Machine operators, assemblers, and inspectors .....	39.8	406	404	2,068	21,078	21,008
Punching and stamping press operators .....	40.0	411	400	2,080	21,358	20,800
Miscellaneous machine operators, N.E.C. ....	39.8	414	420	2,070	21,505	21,840
Welders and cutters .....	40.0	490	464	2,076	25,423	24,128
Assemblers .....	40.0	406	400	2,073	21,044	20,800
Miscellaneous hand working occupations, N.E.C. ....	40.0	350	320	2,041	17,854	18,866
Transportation and material moving occupations .....	43.0	534	521	2,211	27,406	26,416
Truck drivers .....	46.5	587	594	2,393	30,216	30,888
Industrial truck and tractor equipment operators ...	39.5	457	421	2,052	23,768	21,902

See footnotes at end of table.



**Table A-4. Weekly and annual earnings<sup>1</sup> and hours for selected occupations, full-time workers only<sup>2</sup>, all industries, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>Blue-collar occupations</b> (-Continued)						
Transportation and material moving occupations (-Continued)						
Miscellaneous material moving equipment operators, N.E.C. ....	40.0	\$521	\$542	2,080	\$27,096	\$28,163
Handlers, equipment cleaners, helpers, and laborers .....	39.6	397	391	2,031	20,361	19,500
Construction laborers .....	40.0	492	516	1,882	23,136	21,060
Production helpers .....	37.9	312	321	1,973	16,210	16,702
Stock handlers and baggers .....	39.4	356	330	2,049	18,515	17,141
Freight, stock, and material handlers, N.E.C. ....	40.0	416	418	2,062	21,430	21,736
Hand packers and packagers .....	39.5	385	375	2,056	20,045	19,481
Laborers except construction, N.E.C. ....	40.0	330	287	2,080	17,184	14,940
<b>Service occupations</b> .....	39.6	343	310	2,030	17,574	15,678
Protective service occupations .....	41.7	583	529	2,168	30,300	27,518
Police and detectives, public service .....	40.1	577	568	2,085	30,023	29,557
Food service occupations .....	39.4	297	276	1,979	14,884	14,040
Supervisors, food preparation and service occupations .....	41.6	417	348	2,018	20,251	16,640
Cooks .....	39.2	336	320	1,967	16,815	16,432
Food preparation occupations, N.E.C. ....	38.8	239	234	1,880	11,564	11,960
Health service occupations .....	39.7	322	310	2,065	16,750	16,097
Nursing aides, orderlies and attendants .....	39.6	321	295	2,057	16,705	15,354
Cleaning and building service occupations .....	39.8	316	280	2,069	16,430	14,560
Janitors and cleaners .....	39.6	314	286	2,062	16,316	14,893
Personal service occupations .....	—	—	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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 earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Springfield, MO, September 1998**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>All occupations</b> .....	\$12.53	\$11.59	\$17.66	\$13.17	\$7.34
All occupations excluding sales .....	12.70	11.69	17.66	13.28	7.48
<b>White-collar occupations</b> .....	14.82	13.53	19.49	15.46	8.50
Level 1 .....	6.76	6.41	—	6.71	6.82
Level 2 .....	7.49	7.46	—	7.80	6.75
Level 3 .....	7.56	7.56	7.43	7.78	6.71
Level 4 .....	9.59	9.60	9.58	9.66	7.30
Level 5 .....	12.80	12.86	12.43	13.09	9.21
Level 6 .....	13.81	12.58	16.21	13.78	15.47
Level 7 .....	16.48	17.04	13.92	16.62	15.36
Level 8 .....	20.24	17.44	21.70	20.26	—
Level 9 .....	20.79	20.50	22.81	20.72	—
Level 10 .....	25.92	27.05	22.92	25.92	—
Level 11 .....	27.74	26.72	28.90	27.74	—
Level 12 .....	37.68	—	—	37.68	—
Not able to be leveled .....	22.51	—	—	—	—
White-collar occupations excluding sales .....	15.72	14.36	19.49	16.11	9.90
Level 1 .....	7.36	6.81	—	6.90	—
Level 2 .....	7.72	7.72	—	7.96	7.03
Level 3 .....	7.88	7.90	7.43	8.10	6.58
Level 4 .....	9.35	9.29	9.58	9.36	—
Level 5 .....	11.90	11.76	12.43	12.18	9.18
Level 6 .....	13.67	12.30	16.21	13.63	15.47
Level 7 .....	15.24	15.58	13.92	15.22	15.36
Level 8 .....	20.34	17.48	21.70	20.36	—
Level 9 .....	20.79	20.50	22.81	20.72	—
Level 10 .....	24.98	26.00	22.92	24.98	—
Level 11 .....	27.73	26.61	28.90	27.73	—
Level 12 .....	37.68	—	—	37.68	—
Professional specialty and technical occupations .....	19.25	17.71	21.82	19.40	16.00
Professional specialty occupations .....	21.54	21.06	22.06	21.68	18.35
Level 5 .....	14.16	—	16.14	14.90	—
Level 6 .....	16.68	—	18.07	16.60	—
Level 7 .....	15.89	16.44	14.30	—	17.10
Level 8 .....	20.98	16.57	22.29	21.01	—
Level 9 .....	19.76	—	—	19.56	—
Level 10 .....	20.89	22.84	—	20.85	—
Level 11 .....	25.61	—	—	25.61	—
Engineers, architects, and surveyors .....	22.34	22.34	—	22.34	—
Mathematical and computer scientists .....	—	—	—	—	—
Natural scientists .....	—	—	—	—	—
Health related occupations .....	21.95	22.16	—	22.00	—
Teachers, college and university .....	24.64	—	—	25.18	—
Level 9 .....	23.95	—	—	23.96	—
Teachers, except college and university .....	22.11	—	22.17	22.33	9.36
Level 6 .....	22.31	—	22.31	22.40	—
Level 7 .....	13.63	—	13.63	13.90	—
Level 8 .....	23.28	—	23.28	23.28	—
Librarians, archivists, and curators .....	—	—	—	—	—
Social scientists and urban planners .....	—	—	—	—	—
Social, religious, and recreation workers .....	11.27	—	—	11.15	—
Lawyers and judges .....	—	—	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	18.24	—	—	18.24	—
Technical occupations .....	12.23	12.08	14.96	12.36	—
Level 4 .....	9.77	9.69	—	9.82	—
Level 5 .....	10.91	10.91	—	11.10	—
Level 6 .....	12.90	—	—	—	—
Level 8 .....	16.00	—	—	16.00	—
Executive, administrative, and managerial occupations .....	22.33	21.35	25.69	22.33	—
Level 7 .....	16.24	16.24	—	16.24	—
Level 8 .....	18.61	20.15	—	18.61	—
Level 9 .....	21.91	21.72	—	21.91	—

See footnotes at end of table.

**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Springfield, MO, September 1998 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations</b> (-Continued)					
Executive, administrative, and managerial occupations (-Continued)					
Level 10 .....	\$26.19	—	—	\$26.19	—
Level 11 .....	31.38	\$30.21	—	31.38	—
Level 12 .....	33.46	—	—	33.46	—
Executives, administrators, and managers .....	25.36	23.68	\$31.34	25.36	—
Level 8 .....	19.95	19.95	—	19.95	—
Level 9 .....	21.99	21.83	—	21.99	—
Level 10 .....	26.19	—	—	26.19	—
Level 11 .....	32.09	—	—	32.09	—
Level 12 .....	33.46	—	—	33.46	—
Management related occupations .....	18.88	18.66	19.61	18.88	—
Level 8 .....	17.45	—	—	17.45	—
Level 9 .....	21.85	21.60	—	21.85	—
Sales occupations .....	10.76	10.76	—	11.91	\$6.70
Level 1 .....	6.10	6.10	—	—	—
Level 2 .....	6.55	6.55	—	—	—
Level 3 .....	6.88	6.88	—	6.92	6.81
Level 4 .....	10.33	10.33	—	10.61	—
Level 5 .....	14.52	14.52	—	14.76	—
Administrative support occupations, including clerical .....	8.96	8.79	9.87	9.17	7.29
Level 1 .....	7.36	6.81	—	6.90	—
Level 2 .....	7.72	7.72	—	7.96	7.03
Level 3 .....	7.88	7.90	7.43	8.10	6.58
Level 4 .....	9.32	9.26	9.49	9.32	—
Level 5 .....	11.86	12.23	11.11	12.15	—
Level 6 .....	12.18	12.63	—	12.18	—
<b>Blue-collar occupations</b> .....	11.32	11.11	14.71	11.52	7.79
Level 1 .....	7.53	7.53	—	7.67	6.73
Level 2 .....	9.56	9.45	—	9.47	10.56
Level 3 .....	11.08	11.08	11.03	11.17	—
Level 4 .....	12.21	12.31	10.39	12.33	—
Level 5 .....	12.00	12.01	—	12.00	—
Level 6 .....	14.74	15.09	—	14.74	—
Level 7 .....	15.61	15.32	—	15.61	—
Level 8 .....	18.23	—	—	18.23	—
Level 9 .....	19.90	—	—	19.90	—
Precision production, craft, and repair occupations .....	13.88	13.43	17.28	13.88	—
Level 4 .....	12.23	12.23	—	12.23	—
Level 5 .....	11.10	11.10	—	11.10	—
Level 6 .....	13.83	13.97	—	13.83	—
Level 7 .....	15.65	15.30	—	15.65	—
Level 8 .....	18.23	—	—	18.23	—
Machine operators, assemblers, and inspectors .....	10.18	10.18	—	10.19	—
Level 1 .....	7.60	7.60	—	7.52	—
Level 2 .....	9.61	9.61	—	9.61	—
Level 3 .....	10.99	10.99	—	10.99	—
Level 4 .....	11.99	11.99	—	11.99	—
Level 5 .....	11.98	11.98	—	11.98	—
Transportation and material moving occupations .....	12.43	12.49	11.48	12.40	—
Level 2 .....	9.57	9.07	—	9.08	—
Level 3 .....	12.12	12.43	—	12.12	—
Level 4 .....	13.60	13.64	—	13.66	—
Level 5 .....	12.67	12.71	—	12.67	—
Handlers, equipment cleaners, helpers, and laborers .....	9.46	9.16	12.62	10.02	6.89
Level 1 .....	7.13	7.13	—	7.69	—
Level 2 .....	9.64	9.64	—	9.70	—
Level 3 .....	9.46	8.82	—	9.73	—
Level 4 .....	11.36	11.57	10.34	11.74	—
<b>Service occupations</b> .....	7.89	7.05	12.25	8.66	6.02
Level 1 .....	6.11	5.65	9.84	6.32	5.82

See footnotes at end of table.

**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Springfield, MO, September 1998 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Service occupations (-Continued)</b>					
Level 2 .....	\$6.72	\$6.52	\$8.29	\$7.80	\$5.78
Level 3 .....	7.25	7.24	—	7.54	5.38
Level 4 .....	8.68	8.38	—	9.35	7.57
Level 5 .....	9.51	9.36	10.50	9.47	—
Level 6 .....	9.83	—	10.63	9.78	—
Level 7 .....	11.25	—	11.17	11.25	—
Protective service occupations .....	12.86	—	14.50	13.98	6.23
Level 7 .....	11.17	—	11.17	11.17	—
Food service occupations .....	6.71	6.58	9.16	7.52	5.49
Level 1 .....	5.72	5.29	—	5.60	5.80
Level 2 .....	6.39	6.36	—	7.69	4.92
Level 3 .....	5.54	5.52	—	5.94	—
Level 4 .....	9.22	9.25	—	9.24	—
Level 5 .....	9.08	9.08	—	—	—
Health service occupations .....	7.90	7.90	—	8.11	7.16
Level 2 .....	7.01	7.01	—	—	—
Cleaning and building service occupations .....	7.82	7.17	10.26	7.94	6.92
Level 1 .....	6.67	6.12	—	6.83	5.70
Personal service occupations .....	—	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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 earnings<sup>1</sup> for selected occupations and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Springfield, MO, September 1998**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations:</b>					
Professional specialty and technical occupations:					
Professional specialty occupations:					
Registered nurses .....	\$17.29	\$17.32	—	\$17.28	—
Elementary school teachers .....	23.18	—	\$23.18	23.18	—
Level 6 .....	21.97	—	21.97	21.97	—
Level 8 .....	23.49	—	23.49	23.49	—
Secondary school teachers .....	24.80	—	24.80	24.80	—
Level 6 .....	23.05	—	23.05	23.05	—
Level 8 .....	25.54	—	25.54	25.54	—
Teachers, special education .....	22.55	—	22.55	22.55	—
Substitute teachers .....	7.48	—	7.48	—	\$7.48
Social workers .....	12.36	—	—	12.28	—
Technical occupations:					
Clinical laboratory technologists and technicians .....	13.42	13.42	—	13.42	—
Licensed practical nurses .....	10.77	10.60	—	10.77	—
Technical and related occupations, N.E.C. ....	13.00	12.99	—	—	—
Executive, administrative, and managerial occupations:					
Financial managers .....	23.93	23.92	—	23.93	—
Administrators, education and related fields .....	30.70	—	30.53	30.70	—
Managers and administrators, N.E.C. ....	24.38	24.58	—	24.38	—
Level 9 .....	22.76	22.76	—	22.76	—
Management related occupations, N.E.C. ....	18.28	18.31	—	18.28	—
Sales occupations:					
Supervisors, sales occupations .....	12.29	12.29	—	12.29	—
Sales workers, hardware and building supplies ...	10.74	10.74	—	11.29	—
Sales workers, other commodities .....	8.45	8.45	—	—	6.79
Cashiers .....	6.21	6.21	—	6.44	5.99
Level 2 .....	6.60	6.60	—	—	—
Level 3 .....	6.16	6.16	—	—	6.12
Administrative support occupations, including clerical:					
Secretaries .....	10.10	9.35	10.96	10.30	—
Level 4 .....	8.81	—	—	8.81	—
Typists .....	9.19	—	—	9.19	—
Receptionists .....	7.55	7.55	—	7.86	—
Bookkeepers, accounting and auditing clerks .....	9.06	9.04	—	9.14	—
Level 3 .....	7.98	7.98	—	—	—
Level 4 .....	9.09	9.10	—	9.09	—
Dispatchers .....	12.89	—	—	—	—
Traffic, shipping and receiving clerks .....	8.35	8.35	—	8.35	—
Stock and inventory clerks .....	9.17	8.49	—	9.71	—
Investigators and adjusters except insurance .....	8.76	8.76	—	8.85	—
General office clerks .....	8.25	—	—	8.30	—
Data entry keyers .....	8.90	8.90	—	8.90	—
Teachers' aides .....	8.13	—	8.13	7.11	—
Administrative support occupations, N.E.C. ....	9.14	9.13	—	9.67	—
<b>Blue-collar occupations:</b>					
Precision production, craft, and repair occupations:					
Bus, truck, and stationary engine mechanics .....	12.15	—	—	12.15	—
Industrial machinery repairers .....	15.16	15.16	—	15.16	—
Level 7 .....	15.14	15.14	—	15.14	—
Mechanics and repairers, N.E.C. ....	12.26	11.17	—	12.26	—
Supervisors, production occupations .....	17.02	17.02	—	17.02	—
Level 7 .....	15.90	15.90	—	15.90	—
Machine operators, assemblers, and inspectors:					
Punching and stamping press operators .....	10.27	10.27	—	10.27	—
Miscellaneous machine operators, N.E.C. ....	10.51	10.51	—	10.39	—
Welders and cutters .....	12.25	12.25	—	12.25	—
Assemblers .....	10.15	10.15	—	10.15	—
Miscellaneous hand working occupations, N.E.C. ....	8.75	8.75	—	8.75	—
Production inspectors, checkers and examiners ...	8.43	8.43	—	—	—
Transportation and material moving occupations:					
Truck drivers .....	12.63	12.78	—	12.63	—
Level 3 .....	9.96	—	—	9.96	—

See footnotes at end of table.

**Table B-2. Mean hourly earnings<sup>1</sup> for selected occupations and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Springfield, MO, September 1998 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Blue-collar occupations:</b> (-Continued)					
Transportation and material moving occupations:					
(-Continued)					
Truck drivers (-Continued)					
Level 4 .....	\$14.01	\$14.04	—	\$14.11	—
Bus drivers .....	14.87	—	\$13.61	—	—
Industrial truck and tractor equipment operators ..	11.58	11.58	—	11.58	—
Miscellaneous material moving equipment operators, N.E.C. ....	13.03	13.03	—	13.03	—
Handlers, equipment cleaners, helpers, and laborers:					
Groundskeepers and gardeners except farm .....	10.24	—	—	—	—
Construction laborers .....	12.25	—	10.41	12.29	—
Production helpers .....	7.92	7.92	—	8.22	—
Level 1 .....	6.86	6.86	—	7.14	—
Stock handlers and baggers .....	7.35	7.35	—	9.04	—
Level 3 .....	8.27	8.27	—	—	—
Freight, stock, and material handlers, N.E.C. ....	10.39	10.39	—	10.39	—
Hand packers and packagers .....	9.47	9.47	—	9.75	—
Level 1 .....	8.24	8.24	—	8.36	—
Laborers except construction, N.E.C. ....	8.19	7.90	—	8.26	—
<b>Service occupations:</b>					
Protective service occupations:					
Police and detectives, public service .....	14.40	—	14.40	14.40	—
Food service occupations:					
Supervisors, food preparation and service occupations .....					
Waiters and waitresses .....	3.63	3.63	—	—	\$4.01
Level 2 .....	4.50	4.50	—	—	4.38
Cooks .....	8.53	8.54	8.37	8.55	—
Level 4 .....	8.61	—	—	—	—
Kitchen workers, food preparation .....	8.10	7.68	—	—	7.96
Waiters/Waitresses' assistants .....	5.11	5.11	—	—	4.74
Level 1 .....	5.11	5.11	—	—	4.74
Food preparation occupations, N.E.C. ....	5.88	5.88	—	6.15	5.59
Level 1 .....	5.80	5.80	—	—	5.66
Health service occupations:					
Nursing aides, orderlies and attendants .....	7.84	7.84	—	8.12	7.10
Level 2 .....	7.01	7.01	—	—	—
Cleaning and building service occupations:					
Supervisors, cleaning and building service workers .....					
Maids and housemen .....	10.64	—	—	—	—
Level 1 .....	6.79	6.79	—	—	—
Level 1 .....	6.04	6.04	—	—	—
Janitors and cleaners .....	7.73	6.59	—	7.91	—
Level 1 .....	6.94	6.17	—	7.12	—
Personal service occupations:					
Service occupations, N.E.C. ....	6.24	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> 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 earnings<sup>1</sup> by occupational group and selected characteristics, all industries, Springfield, MO, September 1998**

Occupational group <sup>2</sup>	Full-time workers <sup>3</sup>	Part-time workers <sup>3</sup>	Union <sup>4</sup>	Nonunion <sup>4</sup>	Time <sup>5</sup>	Incentive <sup>5</sup>
<b>All occupations</b> .....	\$13.17	\$7.34	\$13.63	\$12.40	\$12.57	\$11.78
All occupations excluding sales .....	13.28	7.48	13.86	12.56	12.81	10.51
<b>White-collar occupations</b> .....	15.46	8.50	12.05	14.87	15.03	11.62
White-collar excluding sales .....	16.11	9.90	15.72	15.72	16.04	-
Professional specialty and technical occupations .....	19.40	16.00	19.00	19.26	19.25	-
Professional specialty occupations .....	21.68	18.35	19.00	21.58	21.54	-
Technical occupations .....	12.36	-	-	12.23	12.23	-
Executive, administrative, and managerial occupations ...	22.33	-	-	22.33	22.33	-
Sales occupations .....	11.91	6.70	-	10.92	9.84	15.86
Administrative support including clerical occupations .....	9.17	7.29	-	8.88	9.17	-
<b>Blue-collar occupations</b> .....	11.52	7.79	13.99	10.38	11.26	11.95
Precision production, craft, and repair occupations .....	13.88	-	16.21	13.20	13.62	-
Machine operators, assemblers, and inspectors .....	10.19	-	13.12	9.50	10.46	-
Transportation and material moving occupations .....	12.40	-	14.92	10.32	11.89	-
Handlers, equipment cleaners, helpers, and laborers .....	10.02	6.89	11.58	8.76	9.44	-
<b>Service occupations</b> .....	8.66	6.02	-	7.86	7.89	-

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Union workers are those whose wages are determined through collective bargaining.

<sup>5</sup> 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."

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-2. Mean hourly earnings<sup>1</sup> by occupational group and industry division, private industry, all workers<sup>2</sup>, Springfield, MO, September 1998**

Occupational group <sup>3</sup>	All private industries	Goods-producing industries <sup>4</sup>				Service-producing industries <sup>5</sup>				
		Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
<b>All occupations</b> .....	\$11.59	\$12.10	—	—	\$11.98	\$11.36	—	—	\$13.18	\$11.89
All occupations excluding sales .....	11.69	12.02	—	—	11.89	11.51	—	—	13.26	12.00
<b>White-collar occupations</b> .....	13.53	16.57	—	—	16.57	13.17	—	—	13.54	14.74
White-collar excluding sales .....	14.36	16.20	—	—	16.20	14.08	—	—	13.62	15.19
Professional specialty and technical occupations .....	17.71	20.37	—	—	20.37	17.43	—	—	—	17.47
Professional specialty occupations .....	21.06	22.47	—	—	22.47	20.86	—	—	—	20.89
Technical occupations .....	12.08	—	—	—	—	12.12	—	—	—	11.90
Executive, administrative, and managerial occupations .....	21.35	22.08	—	—	22.08	21.16	—	—	21.57	20.52
Sales occupations .....	10.76	—	—	—	—	10.50	—	—	—	—
Administrative support, including clerical occupations .....	8.79	9.86	—	—	9.86	8.62	—	—	8.90	8.18
<b>Blue-collar occupations</b> .....	11.11	11.28	—	—	11.09	10.74	—	—	—	7.64
Precision production, craft, and repair occupations .....	13.43	13.20	—	—	12.75	14.08	—	—	—	—
Machine operators, assemblers, and inspectors .....	10.18	10.54	—	—	10.53	6.62	—	—	—	6.62
Transportation and material moving occupations .....	12.49	11.02	—	—	11.02	13.05	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers .....	9.16	10.70	—	—	10.52	7.11	—	—	—	6.89
<b>Service occupations</b> .....	7.05	—	—	—	—	7.00	—	—	—	7.61

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> Goods-producing industries include mining, construction, and manufacturing.

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

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-3. Mean hourly earnings<sup>1</sup> by occupational group and establishment employment size, private industry, all workers<sup>2</sup>, Springfield, MO, September 1998**

Occupational group <sup>3</sup>	All private industry workers	50 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
<b>All occupations</b> .....	\$11.59	\$10.96	\$11.75	\$10.82	\$13.20
All occupations excluding sales .....	11.69	10.64	11.96	10.80	13.66
<b>White-collar occupations</b> .....	13.53	13.78	13.49	12.27	15.41
White-collar excluding sales .....	14.36	13.89	14.43	12.71	16.85
Professional specialty and technical occupations .....	17.71	27.40	17.42	15.02	19.57
Professional specialty occupations .....	21.06	37.06	20.62	17.68	22.62
Technical occupations .....	12.08	—	12.02	11.89	12.21
Executive, administrative, and managerial occupations ...	21.35	20.59	21.53	19.99	24.10
Sales occupations .....	10.76	13.56	10.02	10.98	7.56
Administrative support, including clerical occupations .....	8.79	9.48	8.63	8.37	9.16
<b>Blue-collar occupations</b> .....	11.11	11.67	10.94	10.13	12.30
Precision production, craft, and repair occupations .....	13.43	14.46	12.95	13.02	12.87
Machine operators, assemblers, and inspectors .....	10.18	9.92	10.22	9.17	12.02
Transportation and material moving occupations .....	12.49	11.32	13.12	12.48	—
Handlers, equipment cleaners, helpers, and laborers .....	9.16	9.24	9.14	8.38	10.79
<b>Service occupations</b> .....	7.05	6.17	7.50	6.90	8.20

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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 C-4. Number of workers<sup>1</sup> represented by occupational group, Springfield, MO, September 1998**

Occupational group <sup>2</sup>	All workers		
	All industries	Private industry	State and local government
<b>All occupations</b> .....	78,730	65,132	13,599
All occupations excluding sales .....	71,377	57,779	13,599
<b>White-collar occupations</b> .....	39,178	29,426	9,752
White-collar excluding sales .....	31,825	22,073	9,752
Professional specialty and technical occupations .....	14,795	8,281	6,514
Professional specialty occupations .....	11,666	5,310	6,356
Technical occupations .....	3,130	2,972	158
Executive, administrative, and managerial occupations ...	4,885	3,742	1,143
Sales occupations .....	7,353	7,353	—
Administrative support including clerical occupations .....	12,145	10,049	2,096
<b>Blue-collar occupations</b> .....	24,865	23,235	1,630
Precision production, craft, and repair occupations .....	6,179	5,503	676
Machine operators, assemblers, and inspectors .....	7,892	7,892	—
Transportation and material moving occupations .....	4,134	3,670	464
Handlers, equipment cleaners, helpers, and laborers .....	6,660	6,169	491
<b>Service occupations</b> .....	14,687	12,471	2,216

<sup>1</sup> 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.

<sup>2</sup> 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 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. While 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 is based on the type of data to be produced. Establishments that participate in the NCS are studied for several collection cycles. This allows changes in wages within these establishments to be observed over time. Individual wage data are collected for selected jobs during each establishment's initial cycle and updated during subsequent cycles. When data are not available during a collection cycle, efforts are made to collect the data during subsequent cycles and include it in later tabulations. Beginning in the year 2001, the current NCS sample will be replenished on a rotating basis.

## Survey scope

This survey of the Springfield, MO Metropolitan Statistical Area 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 Springfield, MO MSA includes Christian, Greene, and Webster Counties.

## Sampling frame

The list of establishments from which the survey sample was selected (sampling frame) was developed from the State unemployment insurance reports for the Springfield, MO Metropolitan Statistical Area. The reference month for the public sector is June 1994. 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 reference month for the private sector is September 1996. 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 where the strata are determined by industry and whether the establishment is private, State government or local government. 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 the sample units within each stratum represent all the units within the stratum, both sampled and nonsampled. 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

Detailed procedures are followed when collecting data from survey respondents. For the initial data collection, field economists, working out of the Regional Office, visited each establishment surveyed. The field economists - through mail, phone, or personal visit - completed update collection, which involved obtaining current pay data.

The following procedures are used for schedules initiated for the first time or reinitiated during an update.

## 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 MOG's:

- 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

A complete list of all individual occupations, classified by the MOG to which they belong, is contained in appendix B.

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 was collected from July 1998 through December 1998. The average payroll reference month was September 1998. For each establishment in the survey, the data reflect the establishment's practices on the day of collection.

### 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 bonuses, 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/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 establishment/occupations into the various data series. Of the

establishments surveyed, 27.3 percent (representing 19,250 employees) 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 which were additionally defined by major occupation group and job level.

Establishments which were determined to be out of business or outside the scope of the survey (3.6 percent of the total sample) 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.

### **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. The respondent has the option of giving mean data instead of individual wages in the years following the initiation.

In 1998, the publication criteria were changed to allow more data to publish. 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.

As a result of the use of sampling weights, the number of workers estimates represent the total in all establishments within the scope of the study not the actual number of workers surveyed.

### **Data reliability**

The data in this bulletin are estimates from a scientifi-

cally 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 also were not specifically measured, efforts were made to minimize nonsampling errors by the extensive training of field economists who gathered survey data, computer editing 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, Springfield, MO, September 1998**

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 .....	456	150	55	95	73	22
Private industry .....	425	121	48	73	57	16
Goods-producing industries .....	89	36	10	26	19	7
Construction .....	9	2	2	-	-	-
Manufacturing .....	80	34	8	26	19	7
Service-producing industries .....	337	85	38	47	38	9
Transportation and public utilities .....	54	8	6	2	2	-
Wholesale and retail trade .....	149	33	18	15	12	3
Finance, insurance and real estate .....	16	4	1	3	2	1
Services .....	118	40	13	27	22	5
State and local government .....	31	29	7	22	16	6

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 earnings<sup>1</sup> for selected occupations, all industries, private industry, and State and local government, all workers<sup>2</sup>, Springfield, MO, September 1998**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>All occupations</b> .....	2.4	2.9	3.8
All occupations excluding sales .....	2.3	2.8	3.8
<b>White-collar occupations</b> .....	3.5	4.6	4.5
White-collar occupations excluding sales .....	3.6	4.8	4.5
Professional specialty and technical occupations .....	4.7	7.5	4.0
Professional specialty occupations .....	5.0	9.1	4.0
Engineers, architects, and surveyors .....	5.2	5.2	—
Mathematical and computer scientists .....	—	—	—
Natural scientists .....	—	—	—
Health related occupations .....	12.9	13.2	—
Registered nurses .....	1.5	1.5	—
Teachers, college and university .....	12.0	—	—
Teachers, except college and university .....	3.3	—	3.4
Elementary school teachers .....	2.1	—	2.1
Secondary school teachers .....	2.5	—	2.5
Teachers, special education .....	5.2	—	5.2
Substitute teachers .....	1.6	—	1.6
Librarians, archivists, and curators .....	—	—	—
Social scientists and urban planners .....	—	—	—
Social, recreation, and religious workers .....	6.8	—	—
Social workers .....	3.1	—	—
Lawyers and judges .....	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	10.9	—	—
Technical occupations .....	4.3	4.6	6.7
Clinical laboratory technologists and technicians .....	15.7	15.7	—
Licensed practical nurses .....	4.2	4.5	—
Technical and related occupations, N.E.C. ....	11.7	12.4	—
Executive, administrative, and managerial occupations ...	4.0	3.9	9.9
Executives, administrators, and managers .....	4.4	4.1	8.3
Financial managers .....	8.0	9.7	—
Administrators, education and related fields .....	6.1	—	4.6
Managers and administrators, N.E.C. ....	4.9	5.3	—
Management related occupations .....	5.8	6.5	13.0
Management related occupations, N.E.C. ....	9.5	9.7	—
Sales occupations .....	8.6	8.6	—
Supervisors, sales occupations .....	7.3	7.3	—
Sales workers, hardware and building supplies ...	16.4	16.4	—
Sales workers, other commodities .....	7.3	7.3	—
Cashiers .....	1.2	1.2	—
Administrative support occupations, including clerical ....	2.4	2.6	4.9
Secretaries .....	7.5	10.5	9.1
Typists .....	7.5	—	—
Receptionists .....	3.7	3.7	—
Bookkeepers, accounting and auditing clerks .....	4.1	4.1	—
Dispatchers .....	12.4	—	—
Traffic, shipping and receiving clerks .....	11.1	11.1	—
Stock and inventory clerks .....	9.9	6.8	—
Investigators and adjusters except insurance .....	6.0	6.0	—
General office clerks .....	5.1	—	—
Data entry keyers .....	6.9	6.9	—
Teachers' aides .....	4.9	—	4.9
Administrative support occupations, N.E.C. ....	8.7	8.8	—
<b>Blue-collar occupations</b> .....	2.2	2.3	5.0
Precision production, craft, and repair occupations .....	3.8	4.2	4.9
Bus, truck, and stationary engine mechanics .....	9.5	—	—
Industrial machinery repairers .....	3.0	3.0	—
Mechanics and repairers, N.E.C. ....	9.4	6.8	—
Supervisors, production occupations .....	7.3	7.3	—
Machine operators, assemblers, and inspectors .....	3.0	3.0	—
Punching and stamping press operators .....	10.8	10.8	—
Miscellaneous machine operators, N.E.C. ....	6.9	6.9	—

See footnotes at end of table.



**Appendix table 2. Relative standard errors of mean hourly earnings<sup>1</sup> for selected occupations, all industries, private industry, and State and local government, all workers<sup>2</sup>, Springfield, MO, September 1998 — Continued**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>Blue-collar occupations (-Continued)</b>			
Machine operators, assemblers, and inspectors (-Continued)			
Welders and cutters .....	4.9	4.9	—
Assemblers .....	4.0	4.0	—
Miscellaneous hand working occupations, N.E.C. ....	21.5	21.5	—
Production inspectors, checkers and examiners ..	14.6	14.6	—
Transportation and material moving occupations .....	4.7	4.9	8.3
Truck drivers .....	7.1	7.3	—
Bus drivers .....	11.4	—	18.3
Industrial truck and tractor equipment operators ..	6.9	6.9	—
Miscellaneous material moving equipment operators, N.E.C. ....	11.6	11.6	—
Handlers, equipment cleaners, helpers, and laborers .....	3.4	3.3	9.2
Groundskeepers and gardeners except farm .....	18.9	—	—
Construction laborers .....	5.3	—	2.1
Production helpers .....	8.0	8.0	—
Stock handlers and baggers .....	7.4	7.4	—
Freight, stock, and material handlers, N.E.C. ....	7.2	7.2	—
Hand packers and packagers .....	5.8	5.8	—
Laborers except construction, N.E.C. ....	8.4	9.0	—
<b>Service occupations</b> .....	3.5	2.9	7.1
Protective service occupations .....	9.7	—	8.5
Police and detectives, public service .....	4.5	—	4.5
Food service occupations .....	5.4	5.7	5.5
Supervisors, food preparation and service occupations .....	7.8	7.8	—
Waiters and waitresses .....	21.9	21.9	—
Cooks .....	8.8	9.6	8.6
Kitchen workers, food preparation .....	5.6	7.5	—
Waiters/Waitresses' assistants .....	8.4	8.4	—
Food preparation occupations, N.E.C. ....	2.0	2.0	—
Health service occupations .....	3.6	3.6	—
Nursing aides, orderlies and attendants .....	4.8	4.8	—
Cleaning and building service occupations .....	4.9	5.0	2.4
Supervisors, cleaning and building service workers .....	6.1	—	—
Maids and housemen .....	7.3	7.3	—
Janitors and cleaners .....	6.3	3.4	—
Personal service occupations .....	—	—	—
Service occupations, N.E.C. ....	6.9	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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, Springfield, MO, September 1998**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>All occupations</b> .....	5	5	3
All occupations excluding sales .....	5	5	3
<b>White-collar occupations</b> .....	6	6	4
White-collar occupations excluding sales .....	6	6	5
Professional specialty and technical occupations .....	8	8	7
Professional specialty occupations .....	8	8	7
Engineers, architects, and surveyors .....	9	9	—
Mathematical and computer scientists .....	—	—	—
Natural scientists .....	—	—	—
Health related occupations .....	9	9	—
Registered nurses .....	8	8	—
Teachers, college and university .....	9	10	—
Teachers, except college and university .....	7	8	6
Elementary school teachers .....	8	8	—
Secondary school teachers .....	7	7	—
Teachers, special education .....	8	8	—
Substitute teachers .....	6	—	6
Librarians, archivists, and curators .....	—	—	—
Social scientists and urban planners .....	—	—	—
Social, recreation, and religious workers .....	6	6	—
Social workers .....	7	7	—
Lawyers and judges .....	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	8	8	—
Technical occupations .....	6	6	—
Clinical laboratory technologists and technicians .....	6	6	—
Licensed practical nurses .....	5	5	—
Technical and related occupations, N.E.C. ....	6	—	—
Executive, administrative, and managerial occupations .....	9	9	—
Executives, administrators, and managers .....	10	10	—
Financial managers .....	10	10	—
Administrators, education and related fields .....	11	11	—
Managers and administrators, N.E.C. ....	10	10	—
Management related occupations .....	8	8	—
Management related occupations, N.E.C. ....	7	7	—
Sales occupations .....	4	5	3
Supervisors, sales occupations .....	5	5	—
Sales workers, hardware and building supplies .....	4	5	—
Sales workers, other commodities .....	4	—	4
Cashiers .....	2	2	2
Administrative support occupations, including clerical .....	4	4	3
Secretaries .....	5	5	—
Typists .....	4	4	—
Receptionists .....	2	2	—
Bookkeepers, accounting and auditing clerks .....	4	4	—
Dispatchers .....	5	—	—
Traffic, shipping and receiving clerks .....	4	4	—
Stock and inventory clerks .....	4	4	—
Investigators and adjusters except insurance .....	3	3	—
General office clerks .....	3	3	—
Data entry keyers .....	3	3	—
Teachers' aides .....	3	4	—
Administrative support occupations, N.E.C. ....	3	3	—
<b>Blue-collar occupations</b> .....	4	4	2
Precision production, craft, and repair occupations .....	6	6	—
Bus, truck, and stationary engine mechanics .....	6	6	—
Industrial machinery repairers .....	6	6	—
Mechanics and repairers, N.E.C. ....	6	6	—
Supervisors, production occupations .....	7	7	—
Machine operators, assemblers, and inspectors .....	3	3	—
Punching and stamping press operators .....	4	4	—
Miscellaneous machine operators, N.E.C. ....	3	3	—
Welders and cutters .....	5	5	—
Assemblers .....	2	2	—
Miscellaneous hand working occupations, N.E.C. ....	2	2	—
Production inspectors, checkers and examiners .....	2	—	—
Transportation and material moving occupations .....	4	4	—

See footnotes at end of table.

**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Springfield, MO, September 1998 — Continued**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>Blue-collar occupations (-Continued)</b>			
Transportation and material moving occupations (-Continued)			
Truck drivers .....	4	4	—
Bus drivers .....	3	—	—
Industrial truck and tractor equipment operators .....	3	3	—
Miscellaneous material moving equipment operators, N.E.C. ....	3	3	—
Handlers, equipment cleaners, helpers, and laborers .....	2	3	2
Groundskeepers and gardeners except farm .....	2	—	—
Construction laborers .....	4	4	—
Production helpers .....	2	2	—
Stock handlers and baggers .....	2	3	—
Freight, stock, and material handlers, N.E.C. ....	3	3	—
Hand packers and packagers .....	2	2	—
Laborers except construction, N.E.C. ....	3	3	—
<b>Service occupations</b> .....	3	4	2
Protective service occupations .....	6	8	2
Police and detectives, public service .....	8	8	—
Food service occupations .....	2	3	2
Supervisors, food preparation and service occupations	5	6	—
Waiters and waitresses .....	2	—	2
Cooks .....	4	4	—
Kitchen workers, food preparation .....	2	—	1
Waiters/Waitresses' assistants .....	1	—	1
Food preparation occupations, N.E.C. ....	2	2	2
Health service occupations .....	3	3	3
Nursing aides, orderlies and attendants .....	3	3	3
Cleaning and building service occupations .....	2	2	2
Supervisors, cleaning and building service workers .....	5	—	—
Maids and housemen .....	2	—	—
Janitors and cleaners .....	2	2	—
Personal service occupations .....	—	—	—
Service occupations, N.E.C. ....	2	—	—

<sup>1</sup> 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.