Reading, PA National Compensation Survey September 1998



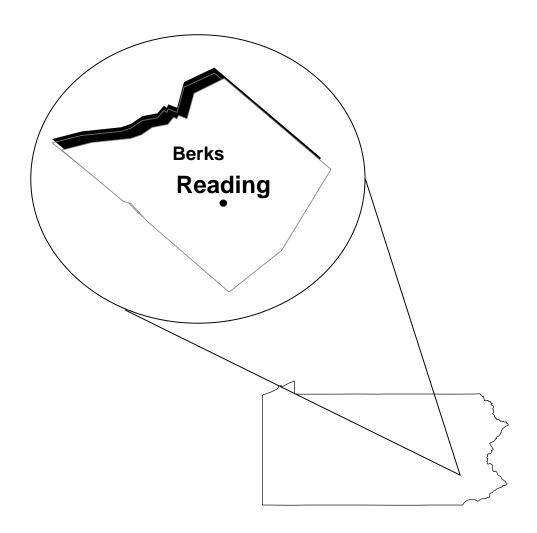
U.S. Department of Labor Alexis M. Herman, Secretary

Bureau of Labor Statistics Katharine G. Abraham, Commissioner

August 1999

Bulletin 3095-30

Reading, PA Metropolitan Statistical Area



Preface

This bulletin provides results of a September 1998 survey of occupational pay in the Reading, PA, 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 John Filemyr, Assistant Regional Commissioner for Operations of the Philadelphia 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 Philadelphia Regional Office at (215) 596-1154. 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.

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 Reading, PA, Metropolitan Statistical Area (MSA). The MSA includes Berks County.

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.

Due to the limited amount of time available to initiate this first phase of the new program, a number of companies were unable to provide complete data before the publication deadline. As a result, some surveys have a high nonresponse rate for the all industries or the private industry iterations. Such instances are noted in the bulletin table footnotes.

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.

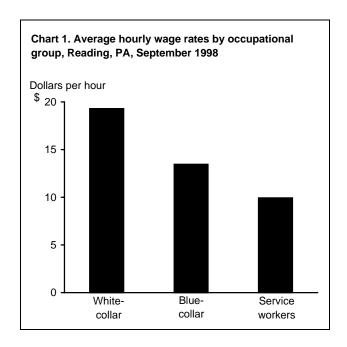
In tables containing work levels within occupational series, the work levels are derived from generic standards that *apply to all* occupational groups. The job levels in the OCS bulletins were based on narrowly-defined descriptions that were not comparable across specific occupations.

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 Reading, PA Metropolitan Statistical Area

Straight-time wages in the Reading, PA, Metropolitan Statistical Area averaged \$15.36 per hour during September 1998. White-collar workers had an average wage of \$19.29 per hour. Blue-collar workers averaged \$13.45 per hour, while service workers had average earnings of \$9.93 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 \$19.16 per hour, secretaries at \$13.07, and general office clerks at \$12.13. Among occupations in the blue-collar category, truck drivers averaged \$12.84 per hour while stock handlers and baggers averaged \$8.41. Finally, service occupations included janitors and cleaners at \$11.65 per hour and nursing aides, orderlies and attendants at \$9.86. Table A-1 presents earnings data for 41 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 Reading, PA earned \$14.42 per hour, while surveyed State and local government workers averaged \$20.83. Table A-2 reports the average hourly rate for white-collar occupations as \$17.49 in private industry and \$25.93 in State and local government. Blue-collar occupations showed an average hourly rate of \$13.43 in private industry and \$14.08 in State and local government. Service occupations within private industry averaged \$8.86 per hour while those found in State and local government averaged \$12.62.

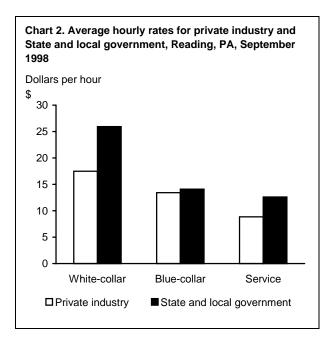
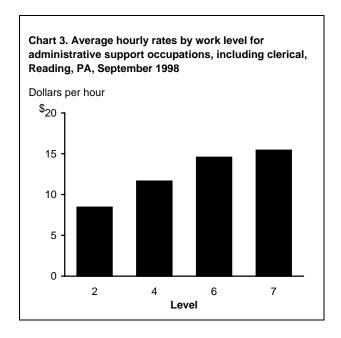


Table A-3 presents data for workers considered by the survey respondents to be either full-time or part-time. Average wages for full-time workers, all occupations, were \$15.90 per hour, compared with an average of \$9.28 per hour for part-time workers.

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 2 to level 7. As illustrated in chart 3, the average hourly rate was \$8.46 for level 2, \$11.64 for level 4, \$14.57 for level 6, and \$15.44 for level 7.

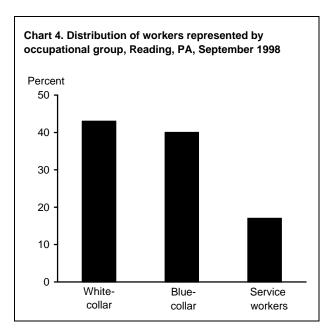


Surveyed union workers had an average hourly rate of \$16.97, as reported in table C-1. Wages for nonunion workers averaged \$14.55. Time workers, whose wages were based solely on an hourly rate or a salary, averaged \$15.51 per hour. Incentive workers, whose wages were at least partially based on productivity payments, averaged \$12.41 per hour.

Table C-2 shows wage data for specific industry divi-

sions within private industry. In the private sector, hourly wages averaged \$16.08 in all goods-producing industries, \$16.81 in construction, and \$16.06 in manufacturing. Hourly wages averaged \$14.54 in services. Data for other industry divisions did not meet publication criteria.

Table C-4 reports that a total of 88,625 workers were represented by the Reading, PA survey. White-collar occupations included 38,285 workers, or 43 percent; blue-collar occupations included 35,646 workers, or 40 percent; and service occupations included 14,694 workers, or 17 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 earnings¹ for selected occupations, all workers², all industries, Reading, PA, September 1998

			All in	dustries		
Occupation ³				Percentil	es	
	Mean	10	25	Median 50	75	90
l occupations	\$15.36	\$7.16	\$9.49	\$13.27	\$19.32	\$25.3
All occupations excluding sales		7.50	9.82	13.54	19.33	26.2
White-collar occupations	19.29	8.25	11.37	16.27	24.70	35.4
White-collar occupations excluding sales	20.80	9.95	12.74	17.52	26.30	36.5
Professional specialty and technical occupations	25.27	13.86	17.52	23.39	32.36	41.2
Professional specialty occupations		15.45	19.22	26.30	35.43	42.8
Engineers, architects, and surveyors		- 12.02	22.60	26.30	26.30	_ 28.8
Computer systems analysts and scientists		11.55	18.67	24.70	27.79	28.8
Natural scientists	_	-	_		-	_
Health related occupations		15.95	17.52	19.32	20.03	21.5
Registered nurses		16.86	18.00	19.32	20.03	20.8
Teachers, college and university Teachers, except college and university		31.01 23.99	35.24 27.56	42.72 35.43	43.37 41.11	51.9 46.6
Elementary school teachers		24.66	27.13	33.82	44.25	49.6
Secondary school teachers		25.00	28.65	36.06	42.30	46.
Teachers, N.E.C.		24.69	29.48	35.43	35.66	41.4
Librarians, archivists, and curators		_	-	-	-	_
Social scientists and urban planners		-	-	-	_	-
Social, recreation, and religious workers Writers, authors, entertainers, athletes, and	_	-	_	_	_	_
professionals, N.E.C.	_	_	_	_	_	_
Technical occupations		13.28	14.00	16.26	19.42	23.6
Licensed practical nurses		12.60	13.55	13.87	16.28	18.9
Executive, administrative, and managerial occupations		16.30	20.11	25.03	30.48	40.
Executives, administrators, and managers		16.30	20.58	27.40	36.54	45.6
Financial managers Administrators, education and related fields		17.55 33.58	24.04 33.58	32.55 38.21	36.54 38.77	45.0 52.5
Managers, medicine and health	38.56	21.53	24.48	34.61	60.58	60.
Managers and administrators, N.E.C.		20.58	22.02	27.56	31.63	50.4
Management related occupations		15.87	19.50	22.93	27.64	28.
Sales occupations	10.49	5.60	6.25	8.31	12.00	20.2
Sales workers, apparel		5.63 5.85	6.00 6.75	6.50	8.65 10.54	9.: 10.:
Sales workers, furniture and home furnishings Sales workers, other commodities		5.62	6.30	8.56	10.34	12.0
Cashiers		(4)	(⁴)	(4)	(4)	(4)
Administrative support occupations, including clerical		8.25	9.95	12.02	15.09	16.
Secretaries		10.21	11.71	12.70	15.26	16.0
Order clerks		10.46	10.56	11.43	13.25	15.2
Bookkeepers, accounting and auditing clerks General office clerks		9.05 8.56	10.10 11.10	12.01 12.50	13.79 13.67	16. 15.
Teachers' aides	-	6.25	7.62	8.54	9.96	13.
Administrative support occupations, N.E.C	10.37	7.32	10.27	11.10	11.10	12.4
Blue-collar occupations	13.45	7.50	9.49	12.74	16.71	20.9
Precision production, craft, and repair occupations		12.22	14.00	17.55	20.65	22.0
Industrial machinery repairers Supervisors, production occupations		10.00	13.00	14.83	15.06	17.
Machinists		15.40 13.48	17.07 13.75	18.67 16.00	22.66 16.93	22.8 18.9
Machine operators, assemblers, and inspectors		8.00	10.10	12.66	16.71	20.9
Fabricating machine operators, N.E.C	14.56	7.80	11.15	14.34	20.01	20.0
Extruding and forming machine operators		8.57	9.50	13.69	14.53	15.6
Miscellaneous machine operators, N.E.C	14.29 10.10	10.95	12.17 7.80	15.55	16.71 12.02	16.
Production inspectors, checkers and examiners		7.25 10.94	11.70	9.33	19.33	13.0 19.0
Transportation and material moving occupations		9.10	10.39	12.25	16.23	18.2
Truck drivers	12.84	9.00	9.50	12.50	16.23	16.
Bus drivers		10.50	10.50	12.55	12.55	16.
Industrial truck and tractor equipment operators		8.00	10.29	11.60	12.75	14.
Handlers, equipment cleaners, helpers, and laborers Production helpers		6.75 6.52	7.21 9.60	9.00	12.85 13.09	15.3 15.3
Stock handlers and baggers		6.33	6.75	7.73	9.29	12.0
Machine feeders and offbearers		6.25	8.10	9.00	9.20	14.
Hand packers and packagers	10.39	6.88	6.88	10.70	12.85	15.0

Table A-1. Hourly earnings¹ for selected occupations, all workers², all industries, Reading, PA, September 1998 — Continued

			All in	dustries					
Occupation ³		Percentiles							
	Mean	10	25	Median 50	75	90			
Blue-collar occupations (-Continued) Handlers, equipment cleaners, helpers, and laborers (-Continued) Laborers except construction, N.E.C. Service occupations Protective service occupations Police and detectives, public service Food service occupations Waiters and waitresses Food preparation occupations, N.E.C. Health service occupations Nursing aides, orderlies and attendants Cleaning and building service occupations Janitors and cleaners Personal service occupations	9.93 16.10 20.05 6.53 4.79 7.28 9.84 9.86 11.88 11.65	\$6.80 5.54 12.36 18.35 2.83 2.83 5.07 8.24 6.95 7.15 5.43	\$7.21 6.72 14.53 18.35 5.15 2.83 5.82 8.66 8.66 8.70 8.70 5.79	\$8.67 9.49 15.61 19.67 6.20 5.67 6.70 9.49 11.97 11.14 6.00	\$13.11 12.20 18.35 21.10 8.00 5.82 7.78 10.88 10.66 14.05 13.64 8.25	\$15.33 15.61 20.49 23.24 10.83 6.55 11.58 11.68 11.90 18.13 9.93			

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown. At the 25th percentile, one-fourth of the workers earn the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

² All workers include full-time and part-time workers.

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 migrigum full-time schedule.

40-hour week is the minimum full-time schedule.

3 A classification system including about 480 individual

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

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

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

Table A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Reading, PA, September 1998

			Private	e industry	'		<u> </u>	State	and loca	al govern	ment	
Occupation ³				Percentil	es	1			F	Percentile	s	
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90
All occupations	\$14.42	\$6.92	\$9.00	\$12.74	\$18.13	\$22.66	\$20.83	\$9.85	\$12.20	\$15.75	\$28.70	\$39.06
All occupations excluding sales	14.72	7.25	9.49	12.96	18.27	22.66	20.86	9.89	12.20	15.76	28.79	39.1
White-collar occupations White-collar occupations excluding sales	17.49 19.07	7.82 9.60	10.54 12.36	16.00 16.30	21.73 22.93	29.09 31.20	25.93 26.00	11.91 11.91	14.21 14.38	25.07 25.07	35.43 35.43	43.37 43.37
Professional specialty and technical	24.60	10 55	46.04	10.40	05.40	24.20	24.54	16.47	22.50	24.06	40.44	46.00
occupations Professional specialty occupations	21.60 23.39	13.55 14.43	16.24 18.27	19.40 20.19	25.48 28.13	34.38 36.25	31.54 32.59	16.47 18.00	23.59 25.35	31.06 32.69	40.44 41.11	46.2 46.3
Engineers, architects, and surveyors Mathematical and computer scientists	- 24.08	- 11.55	24.70	26.30	- 26.30	28.85	_	_	_	_	_	_
Computer systems analysts and scientists	22.80	11.51	14.12	24.70	27.79	28.85	_	_	_	_	_	_
Natural scientists	-	-	_	_	-	_	_	-	-	_	-	-
Health related occupations Registered nurses	18.83 18.99	15.69 16.81	17.52 18.00	19.22 19.32	20.03 19.95	21.34 20.65	_	_	_	_	_	_
Teachers, college and university	-	-	-	-	-	-	_	_	_	_	_	_
Teachers, except college and university	-	-	-	_	-	-	34.45	24.29	27.68	35.43	41.11	46.6
Elementary school teachers	_	_	_	_	_	_	35.76	25.15	27.40	34.11	44.40	49.6
Secondary school teachers Teachers, N.E.C	_	_	_	_	_	_	35.30 33.83	25.00 24.69	28.65 29.48	36.06 35.43	42.30 35.66	46.5
Librarians, archivists, and curators	-	_	_	_	_	_	-	-	-	-	-	_
Social scientists and urban planners	-	-	_	_	_	_	-	_	_	_	_	-
Social, recreation, and religious workers Writers, authors, entertainers, athletes,	_	-	_	_	_	_	_	_	_	_	_	_
and professionals, N.E.C Technical occupations	17.32	- 13.26	– 13.87	- 16.24	21.80	23.95	_	_	_	_	_	_
Licensed practical nurses	13.84	12.35	13.55	13.86	14.20	14.90	_	_	-	_	_	-
Executive, administrative, and managerial occupations	27.13	16.30	19.90	24.04	29.97	45.67	28.53	21.49	23.59	26.17	33.58	37.9
Executives, administrators, and managers	29.66	16.30	20.00	25.49	36.54	45.67	30.18	22.44	25.03	30.21	33.58	38.2
Financial managers	31.76	17.55	24.04	32.55	36.54	45.67	-	_	_	_	_	-
Managers and administrators, N.E.C.	30.87	20.58	22.02	28.32	31.63	50.48	- 24.50	45.75	-	-	_ 25.07	-
Management related occupations Sales occupations	22.31 10.50	15.87 5.60	19.50 6.25	22.12 8.31	27.64 12.00	28.70 20.22	24.52	15.75 –	21.49	23.59	25.07	35.3
Sales workers, apparel	7.03	5.63	6.00	6.50	8.65	9.29	_	_	_	_	_	_
Sales workers, furniture and home												
furnishings	8.61	5.85	6.75	6.75	10.54	10.54	-	_	_	_	_	-
Sales workers, other commodities	8.80	5.62	6.30	8.56	10.48	12.00	_	_	_	_	_	-
Cashiers Administrative support occupations, including	6.51	(4)	(4)	(4)	(4)	(4)	_	_	_	_	_	_
clerical	12.25	8.25	9.64	11.71	15.26	16.25	12.50	8.23	11.27	12.94	14.10	16.1
Secretaries	12.95	9.96	11.71	12.70	15.26	16.00	13.46	11.51	11.99	13.28	14.38	15.7
Order clerks	12.35	10.46	10.56	11.43	13.25	15.21	-	-	-	-	_	_
Bookkeepers, accounting and auditing	12.06	9.05	9.80	11.70	12.88	16.27	12.74	7.00	12.01	13.53	14.06	15.3
clerks General office clerks	12.06	9.05 8.56	10.91	11.70	13.91	15.29	12.74	7.00	12.01	13.53	14.06	15.3
Teachers' aides	-	-	-	-	-	-	9.16	6.25	7.62	8.54	9.96	13.1
Blue-collar occupations Precision production, craft, and repair	13.43	7.50	9.34	12.66	16.71	20.90	14.08	10.17	12.45	13.88	16.23	17.9
occupations	17.54	12.22	14.14	17.83	21.06	22.66	14.66	11.47	12.52	13.88	17.23	17.9
Industrial machinery repairers	14.19	10.00	13.00	14.83	15.06	17.53	-	-	-	-	_	_
Supervisors, production occupations Machinists	19.12 15.67	15.40 13.48	17.07 13.75	18.67 16.00	22.66 16.93	22.88 18.50	_	_ _	_	_	_	_
Machine operators, assemblers, and inspectors	13.61	8.00	10.09	12.66	16.71	20.90	-	_	_	_	_	-
Fabricating machine operators, N.E.C	14.56	7.80	11.15	14.34	20.01	20.01	_	_	_	_	_	_
Extruding and forming machine operators	12.46	8.57	9.50	13.69	14.53	15.63	_	_	_	_	_	_
Miscellaneous machine operators, N.E.C	14.29	10.95	12.17	15.55	16.71	16.71	_	_	_	_	_	_
Assemblers	10.10	7.25	7.80	9.33	12.02	13.38	_	_	_	_	_	_

Table A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Reading, PA, September 1998 — Continued

			Private	e industry	,			State	and loca	al govern	ment	
Occupation ³				Percentil	es				F	Percentile	s	
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90
Blue-collar occupations (-Continued) Machine operators, assemblers, and inspectors (-Continued) Production inspectors, checkers and examiners Transportation and material moving occupations Truck drivers Bus drivers Industrial truck and tractor equipment operators Handlers, equipment cleaners, helpers, and laborers Production helpers Stock handlers and baggers Machine feeders and offbearers Hand packers and packagers	\$14.82 12.83 12.79 - 11.38 9.95 11.39 8.41 9.55 10.37 9.92	\$10.94 9.00 9.00 - 8.00 6.75 6.50 6.33 6.25 6.88 6.80	\$11.70 10.35 9.50 - 10.29 7.16 9.60 6.75 8.10 6.88 7.16	\$12.76 12.00 12.30 - 11.60 8.80 11.81 7.73 9.00 10.70 8.67	\$19.33 16.00 16.23 - 12.75 12.09 13.09 9.29 9.20 11.65 14.25	\$19.33 18.38 16.23 - 14.28 15.33 15.16 12.65 14.18 15.09 15.33	- \$14.71 - 13.63 - 13.04 - -	- \$11.35 - 9.95 - 5.17 - -	- \$13.15 - 11.36 - 12.26 - - -	- \$16.23 - 13.56 - 13.11 - -	- \$17.23 - 16.23 - 15.59 - - -	- \$17.23 - 16.23 - 18.75 - - -
Laborers except construction, N.E.C. Service occupations Protective service occupations Police and detectives, public service occupations Waiters and waitresses Food preparation occupations, N.E.C. Health service occupations Nursing aides, orderlies and attendants Cleaning and building service occupations Janitors and cleaners Personal service occupations	8.86 - 5.78 4.79 6.43 9.21 9.01 12.00 11.78	5.25 - 2.83 2.83 4.65 7.85 7.83 6.75 6.83 5.50	6.00 - 5.15 2.83 5.82 8.35 8.30 8.55 8.30 6.00	8.35 - 5.82 5.67 6.28 9.15 9.15 11.94 10.72 6.00	10.40 - 6.72 5.82 6.72 9.74 9.49 15.34 18.13 8.25	14.10 - - 8.84 6.55 7.78 11.23 9.90 18.13 18.13 9.93	12.62 16.10 20.05 10.75 - 10.32 11.28 11.44 11.55 11.39 6.15	9.15 12.36 18.35 8.72 - 7.28 9.15 9.02 8.49 8.39 5.25	10.31 14.53 18.35 9.65 - 8.17 9.94 10.18 9.65 9.61 5.25	12.08 15.61 19.67 11.10 - 11.30 10.88 11.05 12.09 11.93 5.59	14.72 18.35 21.10 11.75 - 11.75 11.91 12.43 13.50 13.17 5.59	16.52 20.49 23.24 12.43 - 11.75 15.09 15.09 14.07 7.74

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

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. IN THIS SURVEY, THE NONRESPONSE RATE FOR PRIVATE INDUSTRY EXCEEDED REGULAR SURVEY STANDARDS FOR PUBLICATION. ACCORDINGLY, USERS SHOULD INTERPRET THESE RESULTS WITH THIS LIMITATION IN MIND.

than the fate shown. The 10th and 90th percentile, often be same logic.

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

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

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

Table A-3. Hourly earnings¹ for selected occupations, full-time and part-time workers², all industries, Reading, PA, September 1998

						All indu	stries						
			Fu	II-time					Part	-time			
Occupation ³				Percentil	es				Percentiles				
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90	
All occupations All occupations excluding sales	\$15.90 16.11	\$7.76 8.00	\$10.15 10.34	\$13.74 14.00	\$19.42 19.50	\$26.30 26.75	\$9.28 9.92	(⁴) \$5.15	(⁴) \$5.82	(⁴) \$8.24	(⁴) \$11.25	(⁴) \$18.33	
White-collar occupations White-collar occupations excluding sales	20.01 21.12	9.00 10.27	12.02 12.85	16.83 17.55	25.39 26.80	36.09 36.54	11.89 15.73	5.50 6.87	6.06 9.54	8.90 13.86	14.79 19.22	20.03 25.00	
Professional specialty and technical occupations	25.79	14.08	18.00	23.95	33.34	41.35	20.22	13.64	13.93	18.33	20.03	35.76	
Professional specialty occupations Engineers, architects, and surveyors	27.88	15.79	19.40	26.45	35.63	42.72	22.43	15.22	18.33	19.22	21.50	44.44	
Mathematical and computer scientists	23.80	12.02	22.60	26.30	26.30	28.85	_	_	-	_	_	_	
Computer systems analysts and scientists	22.48	11.55	18.67	24.70	27.79	28.85	_	_	-	_	_	_	
Natural scientists Health related occupations Registered nurses	19.51 19.25	- 15.50 16.86	17.52 17.54	19.32 19.40	20.19 20.06	21.68 20.96	19.10 18.91	17.50 17.50	18.33 18.33	19.22 19.22	20.03 20.03	21.50 20.03	
Teachers, college and university Teachers, except college and university	41.20 34.79	31.01 24.70	37.46 27.74	42.72 35.43	43.37 41.23	51.98 46.65	21.69	- 8.67	9.33	21.00	33.19	35.97	
Elementary school teachers	35.19	24.66	27.13	33.82	44.25 42.48	49.65 46.61	-	_	_	_		- 33.97	
Secondary school teachers	35.46 -	25.00 -	28.65	36.38	-	_	_	_	-	_	-	_	
Social scientists and urban planners Social, recreation, and religious workers Writers, authors, entertainers, athletes,	-	-	-	-	_	_	-	- -	-	-	-	_	
and professionals, N.E.C	- 17.76	- 13.35	- 14.30	- 16.76	_ 21.80	23.95	-	_ _	-	_ _	_ _	_ _	
Licensed practical nurses Executive, administrative, and managerial	15.54	12.78	13.55	14.70	17.94	19.34	_	_	-	-	-	_	
occupations Executives, administrators, and	27.34	16.30	20.11	25.03	30.48	40.73	_	_	-	_	_	_	
managers Financial managers	29.74 31.76	16.30 17.55	20.58 24.04	27.40 32.55	36.54 36.54	45.67 45.67	_	_	-	_ _	_ _	_	
Managers, medicine and health	38.56	21.53	24.48	34.61	60.58	60.58	-	_	-	-	_	-	
Managers and administrators, N.E.C. Management related occupations	30.38 22.61	20.58 15.87	22.02 19.50	27.56 22.93	31.63 27.64	50.48 28.70	_	_	-	_	_	_	
Sales occupations	11.84	6.15	6.75	9.80	14.50	21.63	6.57	(4)	(4)	(4)	(4)	(4)	
Sales workers, apparel	7.30	5.75	6.15	6.50	8.65	9.29	_	_	_	-	_	-	
Sales workers, other commodities Cashiers	9.46 7.23	6.00 5.85	7.00 6.20	8.78 6.80	11.37 7.90	13.26 9.40	6.07	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	
Administrative support occupations, including clerical	12.54	8.60	10.26	12.53	15.26	16.25	8.51	6.25	6.83	8.50	9.75	10.14	
Secretaries Order clerks	13.07 12.35	10.50 10.46	11.71 10.56	12.70 11.43	15.26 13.25	16.00 15.21	_	_	-	_	_	_	
Bookkeepers, accounting and auditing clerks	12.20	9.05	10.10	12.01	13.79	16.17	_	_	-	_	-	_	
General office clerks Teachers' aides	12.30 10.44	8.56 8.23	11.10 8.36	12.89 9.55	13.67 12.83	15.29 13.82	- 7.54	- 6.25	- 6.60	- 7.62	- 8.42	8.72	
Blue-collar occupations Precision production, craft, and repair	13.56	7.50	9.50	12.74	16.71	20.90	9.18	5.61	6.31	8.80	11.85	12.55	
occupations	17.35	12.22	14.00	17.55	20.87	22.66	_	-	-	_	_	_	
Industrial machinery repairers	14.19	10.00	13.00	14.83	15.06	17.53	_	_	_	_	_	-	
Supervisors, production occupations Machinists	19.12 15.67	15.40 13.48	17.07 13.75	18.67 16.00	22.66 16.93	22.88 18.50	_	_	-	_	_	_	
Machine operators, assemblers, and inspectorsFabricating machine operators,	13.64	8.00	10.18	12.66	16.71	20.90	_	_	-	_	_	_	
N.E.C Extruding and forming machine	14.56	7.80	11.15	14.34	20.01	20.01	-	_	-	_	_	_	
operators Miscellaneous machine operators,	12.46	8.57	9.50	13.69	14.53	15.63	_	_	-	_	_	_	
N.E.C	14.29	10.95	12.17	15.55	16.71	16.71	-	_	_	_	_	_	
Assemblers	10.12	7.25	7.80	9.36	12.02	13.39	_	_	_	-	_	-	

Table A-3. Hourly earnings1 for selected occupations, full-time and part-time workers2, all industries, Reading, PA, September 1998 — Continued

						All indu	stries					
			Fu	II-time					Part	-time		
Occupation ³				Percentil	es				F	Percentile	:s	
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90
Blue-collar occupations (-Continued)												
Machine operators, assemblers, and												
inspectors (-Continued)												
Production inspectors, checkers and												
examiners	\$14.82	\$10.94	\$11.70	\$12.76	\$19.33	\$19.33	-	_	-	-	-	-
Transportation and material moving												
occupations	13.22	9.10	10.35	12.41	16.23	19.00	\$11.19	\$8.50	\$10.50	\$11.35	\$12.55	\$12.55
Truck drivers	13.03	9.10	9.50	12.50	16.23	16.23	_	_	-	-	-	-
Bus drivers	_	_	-	-	_	-	11.59	10.50	10.50	12.12	12.55	12.82
Industrial truck and tractor equipment												
operators	11.38	8.00	10.29	11.60	12.75	14.28	_	_	-	-	_	_
Handlers, equipment cleaners, helpers, and												
laborers	10.25	6.80	7.36	9.00	13.09	15.33	6.20	5.17	5.50	5.86	6.75	7.66
Production helpers	11.54	6.52	9.60	11.81	13.09	15.16	_	_	-	-	_	-
Stock handlers and baggers	8.66	6.75	6.90	8.25	9.45	13.09	_	_	-	-	_	-
Machine feeders and offbearers	9.55	6.25	8.10	9.00	9.20	14.18	_	_	-	-	_	-
Hand packers and packagers	10.39	6.88	6.88	10.70	12.85	15.09	_	_	-	-	_	-
Laborers except construction, N.E.C.	10.04	6.80	7.21	8.76	14.25	15.33	_	_	_	_	_	_
Service occupations	10.96	6.45	8.35	10.43	13.33	16.34	6.51	2.83	5.25	5.82	8.30	9.40
Protective service occupations	16.18	12.36	14.53	15.61	18.35	20.49	_	_	_	_	_	_
Police and detectives, public service	20.05	18.35	18.35	19.67	21.10	23.24	_	_	_	_	_	_
Food service occupations	7.70	2.69	6.28	6.79	10.00	11.34	5.21	2.83	2.83	5.82	5.82	7.14
Food preparation occupations, N.E.C.	7.93	6.14	6.28	6.72	9.48	11.75	6.04	4.35	5.07	5.82	6.87	8.00
Health service occupations	10.16	8.40	9.15	9.70	11.08	11.91	8.65	7.50	8.24	8.35	9.15	9.90
Nursing aides, orderlies and												
attendants	10.25	8.55	9.15	9.49	11.08	13.05	8.59	7.50	8.24	8.35	8.66	9.90
Cleaning and building service												
occupations	12.01	7.01	8.76	12.01	14.10	18.13	8.25	6.49	7.46	8.35	8.94	10.30
Janitors and cleaners	11.75	7.17	8.70	11.32	13.64	18.13	8.02	6.49	6.56	7.69	8.94	10.30
Personal service occupations	7.45	6.00	6.00	7.00	8.75	10.91	6.38	3.00	5.53	5.79	7.50	9.93
	0	2.20			20			2.20	2.20	0		

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the

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

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

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

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

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

major occupational groups.

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

 $\label{eq:continuous} \textbf{Table A-4. Weekly and annual earnings}^1 \ \text{and hours for selected occupations, full-time workers only}^2, \ \text{all industries, Reading, PA, September 1998}$

			All ind	ustries		
Occupation ³	Mean	Weekly	earnings	Mean	Annual e	arnings
	weekly hours ⁴	Mean	Median	annual hours	Mean	Median
All occupations	39.6	\$630	\$544	2,014	\$32.021	\$28,57
All occupations	39.6	639	554	2,014	32,441	29,12
White-collar occupations	39.2	785	660	1,944	38,904	34,11
White-collar occupations excluding sales	39.3	830	701	1,934	40,853	35,98
Professional specialty and technical occupations	38.5	994	943	1,772	45,703	42,14
Professional specialty occupations	38.3	1,069	1,046	1,712	47,732	44,99
Engineers, architects, and surveyors Mathematical and computer scientists	- 40.0	952	1,052	2,080	49,509	- 54,70
Computer systems analysts and scientists	40.0	899	988	2,080	46,750	51,37
Health related occupations	39.8	776	773	2,069	40,730	40,18
Registered nurses	39.8	766	776	2,069	39,818	40,10
Teachers, college and university	38.0	1,567	1,602	1,451	59,775	64,07
Teachers, except college and university	36.0	1,253	1,299	1,348	46,909	48,61
Elementary school teachers	35.2	1,240	1,218	1,313	46,198	45,75
Secondary school teachers	36.2	1,283	1,309	1,349	47,829	48,85
Librarians, archivists, and curators	_		_	_		
Social scientists and urban planners	_	_	_	-	_	_
Social, recreation, and religious workers	-	_	_	-	_	-
Writers, authors, entertainers, athletes, and						
professionals, N.E.C.	-	_	_	-	_	-
Technical occupations	39.4	700	656	2,049	36,399	34,11
Licensed practical nurses	38.7	602	588	2,013	31,284	30,57
Executive, administrative, and managerial occupations	40.6	1,110	1,000	2,111	57,719	52,00
Executives, administrators, and managers	41.1	1,221	1,102	2,136	63,516	57,32
Financial managers	40.0	1,270	1,302	2,080	66,051	67,70
Managers, medicine and health	39.7	1,532	1,308	2,066	79,666	67,99
Managers and administrators, N.E.C.	41.5	1,261	1,133	2,158	65,554	58,90
Management related occupations Sales occupations	39.7 38.9	897 460	885 353	2,064 2,020	46,651 23,916	46,00 18,36
Sales workers, apparel	36.1	263	245	1,875	13,693	12,74
Sales workers, other commodities	39.5	374	351	2,055	19,443	18,26
Cashiers	39.1	283	260	2,034	14,702	13,52
Administrative support occupations, including clerical	39.3	493	481	2,018	25,312	24,96
Secretaries	39.4	515	508	2,049	26,791	26,41
Order clerks	40.0	494	457	2,080	25,679	23,77
Bookkeepers, accounting and auditing clerks	39.3	479	477	2,043	24,918	24,79
General office clerks	38.7	476	460	2,014	24,767	23,92
Teachers' aides	30.4	318	299	1,123	11,718	10,94
Blue-collar occupations	40.0	542	510	2,079	28,185	26,49
Precision production, craft, and repair occupations	40.0	693	706	2,078	36,060	36,71
Industrial machinery repairers	39.6	562	591	2,058	29,209	30,74
Supervisors, production occupations	40.9	781	792	2,125	40,622	41,20
Machines apprehens and increases.	40.0	627	640	2,080	32,585	33,28
Machine operators, assemblers, and inspectors	40.0 40.0	545 582	506 574	2,079 2,080	28,363	26,33
Fabricating machine operators, N.E.C Extruding and forming machine operators	40.0	498	548	2,080	30,284 25,915	29,82 28,47
Miscellaneous machine operators, N.E.C.	40.0	572	622	2,080	29,728	32,34
Assemblers	40.0	405	374	2,080	21,053	19,46
Production inspectors, checkers and examiners	40.0	593	510	2,080	30,829	26,54
Transportation and material moving occupations	39.9	527	496	2,076	27,429	25,81
Truck drivers	40.0	521	500	2,080	27,095	26,00
Industrial truck and tractor equipment operators	40.0	455	464	2,080	23,677	24,12
Handlers, equipment cleaners, helpers, and laborers	40.0	410	360	2,079	21,318	18,72
Production helpers	40.0	462	472	2,080	24,001	24,56
Stock handlers and baggers	40.0	346	330	2,080	18,007	17,16
Machine feeders and offbearers	40.0	382	360	2,080	19,867	18,72
Hand packers and packagersLaborers except construction, N.E.C.	40.0 40.0	416 402	428 350	2,080 2,080	21,608 20,878	22,25 18,22
Service occupations	39.3	431	400	2,019	22.123	20,59
Protective service occupations	39.6	641	602	2,019	33,344	31,29
Police and detectives, public service	40.5	811	820	2,001	42,192	42,61
Food service occupations	38.9	299	272	1,933	14,880	13,65

Table A-4. Weekly and annual earnings¹ and hours for selected occupations, full-time workers only², all industries, Reading, PA, September 1998 — Continued

			All ind	ustries		
Occupation ³	Mean	Weekly	earnings	Mean	Annual e	earnings
	weekly hours ⁴	Mean	Median	annual hours	Mean	Median
Service occupations (-Continued)						
Health service occupations	38.8	\$394	\$380	1,983	\$20,145	\$19,739
Nursing aides, orderlies and attendants	38.6	396	380	1,967	20,174	19,739
Cleaning and building service occupations	39.7	477	480	2,063	24,783	24,981
Janitors and cleaners	39.6	465	440	2,057	24,171	22,880
Personal service occupations	40.1	298	280	2,049	15,259	13,832

¹ Earnings are the straight-time wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The median designates position--one-half of the workers receive the same as or more, and one-half receive the same as or less than the rate shown.

² Employees are classified as working either a full-time or a part-time

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."

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

a 40-hour week is the minimum full-time schedule.

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

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

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Reading, PA, September 1998

		All workers 4	1	All industries		
Occupational group ³ and level	All indus- tries	Private industry	State and local government	Full-time workers	Part-tim worker	
Il occupations	\$15.36	\$14.42	\$20.83	\$15.90	\$9.28	
All occupations excluding sales	15.68	14.72	20.86	16.11	9.92	
Militar and the comment of the comme	40.00	47.40	05.00	00.04	44.00	
White-collar occupations	19.29	17.49 6.12	25.93	20.01	11.89	
Level 2	6.34 7.51	7.50	7.60	7.51	5.95 7.49	
Level 3	8.36	8.26	9.48	8.68	7.45	
Level 4	11.19	10.89	12.89	11.45	7.43	
Level 5	13.53	13.22	14.28	13.65		
Level 6	15.02	14.65	16.31	15.06	14.63	
Level 7	19.90	16.14	31.35	19.97	16.82	
Level 8	24.78	19.61	34.04	25.27	19.93	
Level 9	23.95	21.63	32.61	24.08	_	
Level 11	29.99	29.77	_	29.15	_	
Level 12	32.22	31.47	35.53	32.22	_	
Level 13	41.68	_	_	41.79	_	
White-collar occupations excluding sales	20.80	19.07	26.00	21.12	15.73	
Level 2	8.46	8.60	7.60	8.85	7.49	
Level 3	9.24	9.20	9.50	9.26	9.13	
Level 4	11.77	11.50	12.89	11.82	-	
Level 5	13.80	13.56	14.28	13.83	_	
Level 6	14.63	14.01	16.31	14.63	14.63	
Level 7	19.98	15.86	31.35	20.05	16.82	
Level 8	24.97	19.69	34.04	25.50	19.93	
Level 9	23.90	21.31	32.61	24.03	_	
Level 11	29.99	29.77	-	29.15	_	
Level 12 Level 13	32.22 41.68	31.47	35.53	32.22 41.79	_	
Professional specialty and technical occupations	25.27	21.60	31.54	25.79	20.22	
Professional specialty occupations	27.40	23.39	32.59	27.88	22.43	
Level 5	12.16	_	_	_	-	
Level 6	14.70					
Level 7	28.21	17.47	32.37	28.55	19.12	
Level 8	25.79	19.06	34.04	26.55	19.93	
Level 9	28.54	20.48	35.73	29.67	_	
Level 11	31.72	31.72	_	27.87	_	
Engineers, architects, and surveyors	-	24.00	_		_	
Mathematical and computer scientists	23.80	24.08	_	23.80	_	
Natural scientists Health related occupations	- 19.43	18.83	_	19.51	19.10	
Level 8	19.43	19.17	_	19.31	18.86	
Teachers, college and university	41.05	- 19.17	_	41.20	10.00	
Teachers, except college and university	34.26		34.45	34.79	21.69	
Level 7	34.08	_	34.08	34.28	21.0	
Level 8	34.78	_	35.17	34.76	_	
Level 9	35.73	_	35.73	35.73	_	
Librarians, archivists, and curators	-	_	_	_	_	
Social scientists and urban planners	_	_	_	_	_	
Social, religious, and recreation workers	_	_	_	_	_	
Writers, authors, entertainers, athletes, and						
professionals, N.E.C.	_	_	_	-	-	
Technical occupations	17.30	17.32	_	17.76	-	
Level 5	15.92	_	_	16.39	-	
Level 6	14.65	14.65	-	14.92	-	
Executive, administrative, and managerial occupations	27.35	27.13	28.53	27.34	-	
Level 7	17.00	16.53	_	17.00	-	
Level 9	21.95	21.74	_	21.92	-	
Level 11	29.45	28.95	-	29.45	-	
Level 12	29.49	28.70		29.49	-	
Executives, administrators, and managers	29.75	29.66	30.18	29.74	-	
Level 9	22.50	22.53	_	22.45	-	
Level 12	29.82	29.64	_	29.82	-	
Level 12 Management related occupations	29.99	29.12	24.50	29.99	-	
management related occupations	22.61	22.31	24.52	22.61		

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Reading, PA, September 1998 — Continued

		All workers 4	1	All ind	ustries
Occupational group ³ and level	All indus- tries	Private industry	State and local government	Full-time workers	Part-time workers
White-collar occupations (-Continued)					
Management related occupations (-Continued)	404.40	*			
Level 9	\$21.48	\$21.00	_	\$21.48	_
Sales occupationsLevel 1	10.49	10.50	_	11.84	\$6.57
Level 2		5.65 6.57	_	6.57	_
Level 3		7.26	_	7.74	6.60
Level 4	_	9.05	_	9.67	
Level 5		11.52	_	12.08	_
Administrative support occupations, including clerical	12.29	12.25	\$12.50	12.54	8.51
Level 2	8.46	8.60	7.60	8.85	7.49
Level 3	9.24	9.20	9.50	9.26	9.13
Level 4	11.64	11.45	12.56	11.69	-
Level 5		12.35	13.62	12.85	_
Level 6			_	14.62	_
Level 7	15.44	15.44	_	15.44	-
Non-college consentions	40.45	40.40	44.00	40.50	
Blue-collar occupations		13.43	14.08	13.56	9.18
Level 1		8.35	_	8.40	7.00
Level 2 Level 3	8.59	8.53 12.17	11.72	8.65 12.23	7.02 11.18
Level 4	-	12.17	12.72	12.23	11.18
Level 5		14.85	14.90	14.86	
Level 6		15.91	- 14.30	15.91	_
Level 7		18.89	17.16	18.81	_
Level 9		23.51	-	23.51	_
Precision production, craft, and repair occupations		17.54	14.66	17.35	_
Level 5		15.31	_	15.03	_
Level 6		13.69	_	13.69	_
Level 7	18.77	18.85	17.15	18.79	-
Level 9		20.57	_	20.57	-
Machine operators, assemblers, and inspectors		13.61	_	13.64	_
Level 1	8.78	8.78	_		-
Level 2		8.76	_	8.78	_
Level 3		12.04	_	12.04	_
Level 5	11.56 14.93	11.56 14.94	_	11.56 14.93	_
Transportation and material moving occupations		12.83	14.71	13.22	11.19
Level 3	12.35	12.35	- 14.71	12.57	'
Level 4		12.96	_	12.91	_
Level 5	-	15.39	_	15.65	_
Handlers, equipment cleaners, helpers, and laborers	10.11	9.95	13.04	10.25	6.20
Level 1	8.25	8.23	_	8.31	_
Level 2	8.36	8.18	_	8.47	_
Level 3	12.28	12.30	_	12.37	_
Level 4	12.61	12.50	_	12.61	-
Level 5	12.56	12.56	_	12.56	-
Sorving accumations	0.03	0.06	12.62	10.06	6.51
Service occupations		8.86 6.96	12.62 9.61	10.96 8.08	6.51 5.91
Level 2		11.32	10.67	11.91	6.50
Level 3		8.54	11.97	10.22	8.45
Level 4		7.49	-	10.01	
Level 5		_	12.97	12.12	-
Protective service occupations		_	16.10	16.18	-
Food service occupations		5.78	10.75	7.70	5.21
Level 1		5.87	_	6.03	_
Level 3		_	-	-	-
Health service occupations		9.21	11.28	10.16	8.65
Level 3		8.58		-	-
Cleaning and building service occupations		12.00	11.55	12.01	8.25
Level 1		9.26	10.32	9.71	_
Level 2	14.34	_	_	14.34	ı –
Level 3	10.85	_	12.34	10.85	

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Reading, PA, September 1998 — Continued

		All workers 4	ļ	All industries		
	All indus- tries	Private industry	State and local government	Full-time workers	Part-time workers	
· •	\$6.93 5.52	\$6.98 —	\$6.15 -	\$7.45 -	\$6.38 5.11	

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

² Each occupation for which wage data are collected in an

² Each occupation for which wage data are collected in an establishment is evaluated based on 10 factors, including knowledge, complexity, work environment, etc. Points are assigned based on the occupation's ranking within each factor. The points are summed to determine the overall level of the occupation. See technical note for more information.

more information.

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

occupational groups.

⁴ All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a

full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may include data for categories not shown separately. N.E.C. means not elsewhere classified. IN THIS SURVEY, THE NONRESPONSE RATE FOR PRIVATE INDUSTRY EXCEEDED REGULAR SURVEY STANDARDS FOR PUBLICATION. ACCORDINGLY, USERS SHOULD INTERPRET THESE RESULTS WITH THIS LIMITATION IN MIND.

Table B-2. Mean hourly earnings¹ for selected occupations and levels², all industries, private industry, State and local government, full-time and part-time workers, Reading, PA, September 1998

		All workers ⁴		All industries		
Occupation ³ and level	All indus- tries	Private industry	State and local government	Full-time workers	Part-tim workers	
White-collar occupations:						
Professional specialty and technical occupations:						
Professional specialty occupations:						
Computer systems analysts and scientists	\$22.48	\$22.80	_	\$22.48	_	
Registered nurses	19.16	18.99	_	19.25	\$18.9	
Level 8	19.27	19.05	_	19.49	18.6	
Elementary school teachers	35.19	_	\$35.76	35.19	-	
Level 8	35.25	_	36.04	35.25	-	
Secondary school teachers	35.30	_	35.30	35.46	-	
Level 7	34.35	_	34.35	-	-	
Level 8	35.06	_	35.06	35.06	_	
Level 9	36.80	_	36.80	36.80	_	
Teachers, N.E.C.	33.83	_	33.83	_	_	
Technical occupations: Licensed practical nurses	14.91	13.84	_	15.54		
Executive, administrative, and managerial occupations:	14.31	13.04	_	15.54	_	
Financial managers	31.76	31.76	_	31.76	_	
Administrators, education and related fields	37.77	31.70		31.70		
Managers, medicine and health	38.56	_		38.56		
Managers and administrators, N.E.C.	30.38	30.87	_	30.38	_	
Level 12	27.12	27.12	_	27.12	_	
Sales occupations:						
Sales workers, apparel	7.03	7.03	_	7.30	_	
Sales workers, furniture and home furnishings	8.61	8.61	_	_	_	
Sales workers, other commodities	8.80	8.80	_	9.46	_	
Level 4	8.08	8.08	_	_	_	
Cashiers	6.59	6.51	_	7.23	6.0	
Level 3	6.81	6.67	_	_	-	
Administrative support occupations, including clerical:						
Secretaries	13.07	12.95	13.46	13.07	-	
Level 4	11.70	11.29	_	11.70	-	
Level 5	13.72	-	_	13.72	-	
Order clerks	12.35	12.35		12.35	-	
Bookkeepers, accounting and auditing clerks	12.20	12.06	12.74	12.20	-	
Level 4	11.74	11.52	_	11.74	-	
General office clerks	12.13	11.94	-	12.30		
Teachers' aides	9.16	_	9.16	10.44	7.5	
Administrative support occupations, N.E.C	10.37	-	_	_	_	
Blue-collar occupations: Precision production, craft, and repair occupations:						
Industrial machinery repairers	14.19	14.19	_	14.19	l _	
Supervisors, production occupations	19.12	19.12	_	19.12	_	
Level 7	18.05	18.05	_	18.05	_	
Machinists	15.67	15.67	-	15.67	-	
Machine operators, assemblers, and inspectors:	-					
Fabricating machine operators, N.E.C.	14.56	14.56	_	14.56	-	
Extruding and forming machine operators	12.46	12.46	_	12.46	_	
Miscellaneous machine operators, N.E.C	14.29	14.29	_	14.29	_	
Assemblers	10.10	10.10	_	10.12	-	
Level 3	12.62	12.62	_	12.62	-	
Production inspectors, checkers and examiners	14.82	14.82	-	14.82	-	
Transportation and material moving occupations: Truck drivers	12.84	12.79	_	13.03	_	
Bus drivers	12.25		13.63		11.5	
Level 3	11.76	_	_	_	11.7	
Industrial truck and tractor equipment operators	11.38	11.38	_	11.38	_	
Level 3	10.94	10.94	-	10.94	-	
Handlers, equipment cleaners, helpers, and laborers:						
Production helpers	11.54	11.39	_	11.54	-	
	8.41	8.41	_	8.66	-	
Stock handlers and baggers		0.05	I _	l _	I –	
Level 2	8.05	8.05		_		
Level 2 Machine feeders and offbearers	9.55	9.55	_	9.55	_	
Level 2			_ _	9.55 10.39 10.04	_ _	

Table B-2. Mean hourly earnings¹ for selected occupations and levels², all industries, private industry, State and local government, full-time and part-time workers, Reading, PA, September 1998 — Continued

		All workers ⁴		All ind	ustries
Occupation ³ and level	All indus- tries	Private industry	State and local government	Full-time workers	Part-time workers
Blue-collar occupations: (-Continued) Handlers, equipment cleaners, helpers, and laborers: (-Continued) Laborers except construction, N.E.C. (-Continued) Level 1	\$8.24	\$8.24	-	\$8.33	-
Service occupations: Protective service occupations: Police and detectives, public service	20.05	_	\$20.05	20.05	_
Food service occupations: Waiters and waitresses	4.79	4.79			<u>-</u>
Food preparation occupations, N.E.C	7.28 6.82	6.43	10.32 -	7.93 -	\$6.04 -
Health service occupations: Nursing aides, orderlies and attendants Level 3	9.86 10.13	9.01 8.55	11.44 –	10.25 -	8.59 -
Cleaning and building service occupations: Janitors and cleaners Level 1 Level 3	11.65 9.80 10.55	11.78 9.54 –	11.39 10.32 –	11.75 9.90 10.55	8.02 - -

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

2 Each occupation for which wage data are collected in an establishment is evaluated based on 10 factors, including knowledge, complexity, work environment, etc. Points are assigned based on the

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.

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occupation's ranking within each factor. The points are summed to determine the overall level of the occupation. See technical note for more information.

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

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

Table C-1. Mean hourly earnings1 by occupational group and selected characteristics, all industries, Reading, PA, September 1998

Occupational group ²	Full-time workers ³	Part-time workers ³	Union ⁴	Nonunion ⁴	Time ⁵	Incentive ⁵
All occupations	\$15.90	\$9.28	\$16.97	\$14.55	\$15.51	\$12.41
All occupations excluding sales		9.92	16.98	14.95	15.81	12.60
White-collar occupations	20.01	11.89	26.01	17.78	19.51	11.45
White-collar excluding sales	21.12	15.73	26.09	19.35	20.83	-
Professional specialty and technical occupations	25.79	20.22	30.55	22.11	25.27	_
Professional specialty occupations	27.88	22.43	32.35	23.78	27.40	_
Technical occupations	17.76	_	_	17.62	17.30	_
Executive, administrative, and managerial occupations	27.34	_	_	27.49	27.35	_
Sales occupations	11.84	6.57	_	10.50	10.23	11.73
Administrative support including clerical occupations	12.54	8.51	13.08	12.17	12.32	_
Blue-collar occupations	13.56	9.18	14.57	12.47	13.52	12.46
Precision production, craft, and repair occupations	17.35	_	18.19	16.63	17.52	_
Machine operators, assemblers, and inspectors	13.64	_	13.98	13.22	13.88	10.46
Transportation and material moving occupations	13.22	11.19	13.76	12.10	12.69	_
Handlers, equipment cleaners, helpers, and laborers	10.25	6.20	12.82	8.49	10.03	_
Service occupations	10.96	6.51	13.28	7.99	9.65	_

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

incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production

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of all workers and dividing by the number of workers, weighted by hours.

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

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

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

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

Time workers' wages are based solely on an hourly rate or salary;

Table C-2. Mean hourly earnings1 by occupational group and industry division, private industry, all workers2, Reading, PA, September 1998

	Goods-producing industries ⁴ Service-producing in				Goods-producing industries ⁴				industries	s ⁵
Occupational group ³	All private industries	Total	Mining	Con- struc- tion	Manu- factur- ing	Total	Transportation and public utilities	Whole- sale and retail trade	Fin- ance, insur- ance, and real estate	Serv- ices
All occupations	\$14.42 14.72	\$16.08 16.07	_ _	\$16.81 16.81	\$16.06 16.05	- -	_ _	_ _	_ _	\$14.54 14.52
White-collar occupations	17.49 19.07	22.22 22.39	_ _	_ _	22.23 22.41	- -	_ _	_ _	_ _	19.22 19.39
Professional specialty and technical occupations Professional specialty occupations	21.60 23.39	26.48 -	- -	- -	26.48 -	- -	- -	- -	- -	18.12 19.39
Technical occupations	17.32	20.37	-	_	20.37	_	_	_	_	14.41
Executive, administrative, and managerial occupations Sales occupations	27.13 10.50	28.37	_	_	28.30	_	_	_	_	_
Administrative support, including clerical occupations	12.25	13.05	_	_	13.14	_	_	_	_	10.97
Blue-collar occupations	13.43	14.36	_	15.93	14.31	_	_	_	_	8.97
Precision production, craft, and repair occupations	17.54	17.90	-	15.93	18.20	_	-	-	_	-
Machine operators, assemblers, and inspectors	13.61	13.89	-	_	13.89	_	_	-	_	7.84
Transportation and material moving occupations	12.83	12.93	-	_	12.93	_	-	-	_	
Handlers, equipment cleaners, helpers, and laborers	9.95	11.33	-	_	11.33	_	_	_	_	7.52
Service occupations	8.86	14.27	_	_	14.27	_	_	_	_	8.98

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

and retail trade; finance, insurance, and real estate; and services.

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weighted by hours.

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.

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

4 Control production industries include mining construction and manufacturing

Goods-producing industries include mining, construction, and manufacturing.
 Service-producing industries include transportation and public utilities; wholesale

Table C-3. Mean hourly earnings¹ by occupational group and establishment employment size, private industry, all workers², Reading, PA, September 1998

			100 workers or more			
Occupational group ³	All private industry workers	50 - 99 workers	Total	100 - 499 workers	500 workers or more	
All occupations All occupations excluding sales	\$14.42 14.72	\$14.88 15.15	\$14.33 14.64	\$12.67 12.96	\$17.53 17.64	
White-collar occupations		19.52 21.60	17.01 18.52	15.18 16.95	20.33 20.76	
Professional specialty and technical occupations	23.39 17.32 27.13	- - - - 12.51 11.00	21.70 23.44 17.37 25.84 9.88 12.49	18.74 20.30 15.59 23.04 9.75 12.96	23.79 25.45 18.99 35.61 – 11.52	
Blue-collar occupations	17.54 13.61 12.83	13.30 15.43 13.18 9.86 -	13.45 18.34 13.66 13.34 10.05	11.88 16.19 11.17 13.18 10.76	16.27 20.01 18.06 - 8.39	

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

2 All workers include full-time and part-time workers. Employees

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

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

Table C-4. Number of workers¹ represented by occupational group, Reading, PA, September 1998

		All workers	
Occupational group ²	All industries	Private industry	State and local govern- ment
All occupations All occupations excluding sales	88,625	73,009	15,616
	82,594	67,073	15,521
White-collar occupations	38,285	28,300	9,984
	32,254	22,364	9,889
Professional specialty and technical occupations Professional specialty occupations	14,261 11,652 2,609 6,133 6,031	7,956 5,653 2,302 5,170 5,936	6,305 5,999 - 963
Administrative support including clerical occupations	11,860	9,239	2,621
Precision production, craft, and repair occupations Machine operators, assemblers, and inspectors Transportation and material moving occupations	35,646	34,241	1,405
	7,124	6,616	508
	15,448	15,418	-
	4,441	4,022	419
Handlers, equipment cleaners, helpers, and laborers Service occupations	8,633	8,185	448
	14,694	10,467	4,227

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.

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. IN THIS SURVEY, THE NONRE-SPONSE RATE FOR PRIVATE INDUSTRY EXCEEDED REGULAR SURVEY STANDARDS FOR PUBLICATION. ACCORDINGLY, USERS SHOULD INTERPRET THESE RESULTS WITH THIS LIMITATION IN MIND.

minimum full-time schedule.

² A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

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 Reading, PA Metropolitan Statistical Area covered establishments employing 50 workers or more in goods-producing industries (mining, construction manufacturing); service-producing (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 Reading, PA MSA includes Berks County.

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 Reading, PA, 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 March 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 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. 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 See appendix table 1 for a count of nonsampled. 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:

 Probability-proportional-to-size selection of establishment jobs.

- 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:

Number of employees	Number of selected jobs
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 February 1999. 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, 27.5 percent (representing 27,536 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 (7.6 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 individual combining the wages for establishment/occupations. Before being combined, individual wage rates are weighted by: number of workers; adjusted for nonresponding sample weight 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, Reading, PA, September 1998

	Niconhauaf		Number o	of establishmen	ts studied	
Industry	Number of establish-		50.00	10	0 workers or m	ore
	ments rep- resented	Total studied	50 - 99 workers	Total	100 - 499 workers	500 workers or more
All industries	499	135	35	100	78	22
Private industry		101	26	75	64	11
Goods-producing industries		52	12	40	34	6
Mining		1 1	1	_	_	_
Construction		3	3	_	_	_
Manufacturing	147	48	8	40	34	6
Service-producing industries	293	49	14	35	30	5
Tranportation and public utilities	19	4	1	3	3	_
Wholesale and retail trade	132	21	8	13	10	3
Finance, insurance and real estate	23	4	2	2	2	_
Services	119	20	3	17	15	2
State and local government	37	34	9	25	14	11

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

Appendix table 2. Relative standard errors of mean hourly earnings¹ for selected occupations, all industries, private industry, and State and local government, all workers², Reading, PA, September 1998

(in percent)

Occupation ³	All indus- tries	Private industry	State and local govern-ment
All occupations	2.5	3.0	3.1
All occupations excluding sales	2.6	3.1	3.1
White-collar occupations	3.6	4.9	3.5
White-collar occupations excluding sales	3.4	4.9	3.5
Professional specialty and technical occupations	3.7	8.1	3.4
Professional specialty occupations	3.7	9.2	3.2
Engineers, architects, and surveyors	-	_	_
Mathematical and computer scientists Computer systems analysts and scientists	5.5 6.4	5.4 6.5	_
Natural scientists	-	0.5	_
Health related occupations	3.4	2.7	_
Registered nurses	1.6	1.4	_
Teachers, college and university	5.1	_	_
Teachers, except college and university	1.2	_	1.2
Elementary school teachers	1.3	_	1.0
Secondary school teachers	1.4	_	1.4
Teachers, N.E.C.	1.8	_	1.8
Librarians, archivists, and curators	_	_	_
Social scientists and urban planners	-	_	_
Social, recreation, and religious workers	_	_	-
Writers, authors, entertainers, athletes, and			
professionals, N.E.C.	-	-	_
Technical occupations	5.4	6.0 1.1	_
Licensed practical nurses	5.4 5.5	6.5	5.3
Executive, administrative, and managerial occupations Executives, administrators, and managers	7.0	8.3	5.9
Financial managers	11.4	11.4	J.9 _
Administrators, education and related fields	5.8		_
Managers, medicine and health	21.3	_	_
Managers and administrators, N.E.C.	9.1	9.4	_
Management related occupations	4.7	5.3	8.1
Sales occupations	8.3	8.3	_
Sales workers, apparel	5.7	5.7	-
Sales workers, furniture and home furnishings	14.0	14.0	-
Sales workers, other commodities	6.5	6.5	_
Cashiers	5.3	5.1	
Administrative support occupations, including clerical	2.6	3.1	3.0
Secretaries	3.3	4.4	2.0
Order clerks Bookkeepers, accounting and auditing clerks	5.7 4.8	5.7 5.7	6.4
General office clerks	4.6 7.6	10.5	0.4
Teachers' aides	6.0	10.5	6.0
Administrative support occupations, N.E.C	4.2	_	-
Blue-collar occupations	2.2	2.3	4.4
Precision production, craft, and repair occupations	3.3	3.4	6.0
Industrial machinery repairers	5.1	5.1	_
Supervisors, production occupations	4.9	4.9	_
Machines apareters assemblers and important	3.2	3.2	_
Machine operators, assemblers, and inspectors	3.8	3.8	_
Fabricating machine operators, N.E.C.	14.3 10.9	14.3 10.9	_
Extruding and forming machine operators Miscellaneous machine operators, N.E.C	6.0	6.0	_
Assemblers	5.8	5.8	_
Production inspectors, checkers and examiners	12.0	12.0	_
Transportation and material moving occupations	4.6	5.1	4.0
Truck drivers	8.4	8.6	
Bus drivers	5.3	_	5.1
Industrial truck and tractor equipment operators	5.4	5.4	_
Handlers, equipment cleaners, helpers, and laborers	4.2	4.4	11.0
Production helpers	7.7	8.1	-
Stock handlers and baggers Machine feeders and offbearers	5.5	5.5	-
	10.7	10.7	1

Appendix table 2. Relative standard errors of mean hourly earnings¹ for selected occupations, all industries, private industry, and State and local government, all workers², Reading, PA, September 1998 — Continued

(in percent)

Occupation ³	All indus- tries	Private industry	State and local government
Blue-collar occupations (-Continued) Handlers, equipment cleaners, helpers, and laborers (-Continued) Hand packers and packagers Laborers except construction, N.E.C.	8.0 5.5 5.9	8.1 5.6 7.6	- - 3.3
Protective service occupations		7.0	4.8
Police and detectives, public service		_	4.3
Food service occupations	7.1	4.4	2.8
Waiters and waitresses	20.6	20.6	_
Food preparation occupations, N.E.C	8.3	3.1	7.3
Health service occupations	2.2	2.4	2.6
Nursing aides, orderlies and attendants		1.8	2.6
Cleaning and building service occupations		7.6	4.2
Janitors and cleaners	-	10.8	4.4
Personal service occupations	10.2	10.8	8.9

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

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. IN THIS SURVEY, THE NONRESPONSE RATE FOR PRIVATE INDUSTRY EXCEEDED REGULAR SURVEY STANDARDS FOR PUBLICATION. ACCORDINGLY, USERS SHOULD INTERPRET THESE RESULTS WITH THIS LIMITATION IN MIND.

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

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

Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Reading, PA, September 1998

Occupation ¹	All workers	Full-time workers	Part-time workers
l occupations		5	3
All occupations excluding sales	5	6	4
White-collar occupations	7	7	5
White-collar occupations excluding sales	7	7	6
Professional specialty and technical occupations	8	8	8
Professional specialty occupations		9	8
Engineers, architects, and surveyors Mathematical and computer scientists		10	_
Computer systems analysts and scientists		9	_
Natural scientists	_	_	_
Health related occupations		8	8
Registered nurses Teachers, college and university		8 12	8 –
Teachers, except college and university		8	7
Elementary school teachers		8	_
Secondary school teachers		8	_
Teachers, N.E.CLibrarians, archivists, and curators		_	_
Social scientists and urban planners		_	_
Social, recreation, and religious workers	-	-	_
Writers, authors, entertainers, athletes, and professionals,			
N.E.C Technical occupations		6	_
Licensed practical nurses	1	5	_
Executive, administrative, and managerial occupations		10	_
Executives, administrators, and managers	1	11	_
Financial managers Administrators, education and related fields		12	_
Managers, medicine and health		12	_
Managers and administrators, N.E.C.	11	11	_
Management related occupations		9	_
Sales occupations		5 3	3
Sales workers, furniture and home furnishings		_	_
Sales workers, other commodities	4	4	_
Cashiers		3	2
Administrative support occupations, including clerical		5 5	3
Order clerks	1	5	_
Bookkeepers, accounting and auditing clerks		4	_
General office clerks	1	4	_
Teachers' aides Administrative support occupations, N.E.C		4 –	2
			_
Blue-collar occupations Precision production, craft, and repair occupations		4 6	3
Industrial machinery repairers		6	_
Supervisors, production occupations		8	_
Machinists	1	6	_
Machine operators, assemblers, and inspectors		4 5	_
Fabricating machine operators, N.E.C Extruding and forming machine operators		4	_
Miscellaneous machine operators, N.E.C.		5	_
Assemblers		3	_
Production inspectors, checkers and examiners		5 4	_
Transportation and material moving occupations Truck drivers		3	3
Bus drivers		_	3
Industrial truck and tractor equipment operators	4	4	_
Handlers, equipment cleaners, helpers, and laborers		2	2
Production helpersStock handlers and baggers		4 3	_
Machine feeders and offbearers		2	_
Hand packers and packagers	2	2	_
Laborers except construction, N.E.C.	2	2	_
Service occupations	3	3	2
		1	

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

Occupation ¹	All workers		Part-time workers
Service occupations (-Continued) Protective service occupations (-Continued) Police and detectives, public service Food service occupations Waiters and waitresses Food preparation occupations, N.E.C. Health service occupations Nursing aides, orderlies and attendants Cleaning and building service occupations Janitors and cleaners Personal service occupations	2 2 3 3 3 2	8 2 - 2 3 3 3 2 3	- 2 - 2 3 3 1 2 2

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