Bloomington, IN National Compensation Survey July 1998



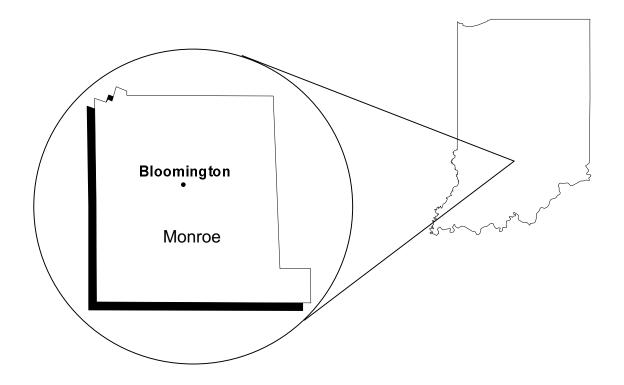
U.S. Department of Labor Alexis M. Herman, Secretary

Bureau of Labor Statistics Katharine G. Abraham, Commissioner

December 1998

Bulletin 3095-13

Bloomington, IN Metropolitan Statistical Area



Preface

This bulletin provides results of a July 1998 survey of occupational pay in the Bloomington, IN, 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 Greg Philipaitis, Assistant Regional Commissioner for Operations of the Chicago 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 Chicago Regional Office at (312) 353-1880. 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 Bloomington, IN, Metropolitan Statistical Area (MSA). The MSA includes Monroe County, IN.

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

NCS more extensive than OCS

The wage data in this bulletin differ from those in previous Occupational Compensation Surveys by providing broader coverage of occupations and establishments within the survey area.

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

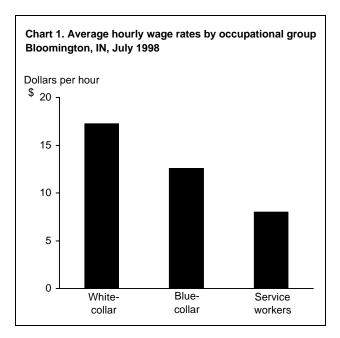
In tables containing work levels within occupational series, the work levels are derived from generic standards that *apply to all* occupational groups. The job levels in the OCS bulletins were based on narrowly-defined descriptions that were not comparable across specific occupations.

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

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

Wages in the Bloomington, IN Metropolitan Statistical Area

Straight-time wages in the Bloomington, IN, Metropolitan Statistical Area averaged \$14.24 per hour during July 1998. White-collar workers had an average wage of \$17.24 per hour. Blue-collar workers averaged \$12.55 per hour, while service workers had average earnings of \$7.99 per hour. (All comparisons in this analysis cover hourly rates for both full- and part-time workers, unless otherwise noted.)



Within each of these occupational groups, average hourly wages for individual occupations varied. For example, white-collar occupations included teachers, except college and university, at \$20.92 per hour and secretaries at \$10.95. Among occupations in the blue-collar category, Laborers, except construction, not elsewhere classified (N.E.C.) averaged \$8.19 per hour while stock handlers and baggers averaged \$7.68. Finally, service occupations included janitors and cleaners at \$9.18 per hour and cooks at \$6.95 per hour. Table A-1 presents earnings data for 18 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 Bloomington, IN earned \$12.67 per hour, while surveyed State and local government workers averaged \$17.55. Table A-2 reports the average hourly rate for white-collar occupations as \$15.23 in private industry and \$20.40 in State and local government. Blue-collar occupations showed an average hourly rate of \$12.16 in private industry and \$14.29 in State and local government. Service occupations within private industry averaged \$6.69 per hour while those found in State and local government averaged \$10.59.

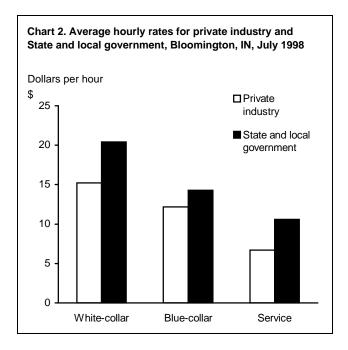
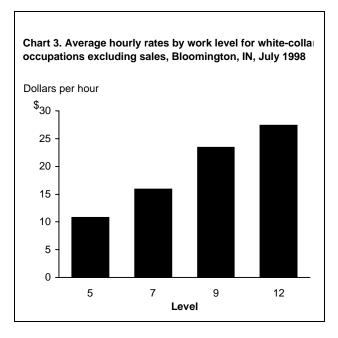


Table A-3 presents data for workers considered by the survey respondents to be either full-time or part-time. Average wages for full-time workers, all occupations, were \$14.92 per hour, compared with an average of \$7.16 per hour for part-time workers.

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 white-collar occupations excluding sales, ranged from level 2 to level 13. As illustrated in Chart 3, the average hourly rate was \$10.78 for level 5, \$15.95 for level 7, \$23.45 for level 9, and \$27.43 for level 12.

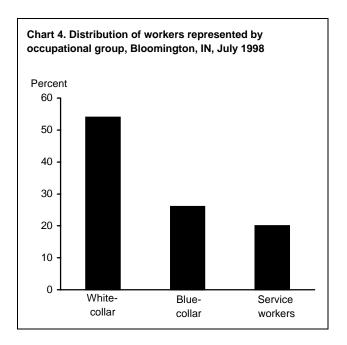


Surveyed union workers had an average hourly rate of \$14.72, as reported in table C-1. Wages for nonunion workers averaged \$14.10. Time workers, whose wages were based solely on an hourly rate or a salary, averaged \$14.77 per hour. Pay for incentive workers, whose wages were at least partially based on productivity payments, did not meet publication criteria.

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

hourly wages averaged \$12.67 in all private industries. Hourly wages averaged \$10.86 in all service-producing industries, \$21.31 in transportation, and public utilities, \$6.96 in wholesale and retail trade, \$14.81 in finance, insurance and real estate, and \$11.80 in services. Data for goods-producing industries did not meet publication criteria.

Table C-4 reports that a total of 31,284 workers were represented by the Bloomington, IN survey. White-collar occupations included 16,854 workers, or 54 percent, blue-collar occupations included 8,246 workers, or 26 percent; and service occupations included 6,183 workers, or 20 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, Bloomington, IN, July 1998

			All in	dustries		
Occupation ³				Percentil	es	
	Mean	10	25	Median 50	75	90
All occupations All occupations excluding sales		\$6.69 6.95	\$8.73 9.02	\$11.98 12.25	\$16.45 16.75	\$25.18 26.11
White-collar occupations		7.60 8.53	10.25 10.88	15.11 15.30	21.11 21.68	30.65 30.99
Professional specialty and technical occupations Professional specialty occupations Engineers, architects, and surveyors	25.61	10.16 10.03	14.28 17.50	19.62 25.70	29.02 30.96	37.25 41.86
Health related occupations Teachers, college and university	28.44 -	15.30	17.12	21.52	44.36	46.63
Teachers, except college and university Social, recreation, and religious workers Writers, authors, entertainers, athletes, and professionals, N.E.C.	-	8.33 - -	8.33 - -	21.87	31.04	32.36
Technical occupations	22.79 25.04	10.36 16.91 20.00 20.00	11.75 18.05 20.00 20.00	15.11 20.00 21.50 20.00	15.11 25.50 28.41 27.24	16.75 33.29 40.06 30.99
Management related occupations Sales occupations Sales workers, other commodities	17.51 8.37	14.33 5.25 5.25	16.91 5.55 6.00	17.67 6.59 7.21	18.16 8.77 7.77	18.28 15.00 9.00
Cashiers Administrative support occupations, including clerical Secretaries Administrative support occupations, N.E.C.	11.41 10.95	5.15 7.24 9.52 8.00	5.25 9.28 9.95 9.57	5.55 10.86 10.88 10.06	6.00 13.32 11.54 11.00	6.85 16.27 12.49 13.93
Blue-collar occupations	12.55	7.02	9.30	12.93	15.74	16.72
Precision production, craft, and repair occupations Machine operators, assemblers, and inspectors	_	10.30 - 9.00	14.89 - 9.46	16.17 - 10.34	16.18 - 12.32	20.03 - 15.50
Transportation and material moving occupations	10.44 7.68	9.00 6.00 5.65 5.56	9.46 6.66 6.25 5.56	9.10 7.15 6.95	14.16 9.10 10.91	16.83 10.50 12.02
Service occupations		2.13	6.00	8.40	9.93	11.62
Protective service occupations Food service occupations Waiters and waitresses Cooks	5.27 2.13	10.20 2.13 2.13 5.60	10.81 2.13 2.13 6.00	11.85 5.60 2.13 6.25	13.64 6.89 2.13 7.57	13.72 8.99 2.13 9.40
Food preparation occupations, N.E.C. Health service occupations Cleaning and building service occupations	7.24 8.30	5.50 5.50 7.50 6.25	5.75 8.12 8.00	6.23 6.13 8.40 9.89	7.94 8.40 10.00	9.97 8.75 10.40
Janitors and cleaners Personal service occupations	9.18	6.25 5.55	8.00 6.00	9.89 9.89 7.30	10.00 10.00 8.13	10.40 10.40 9.16

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

percentiles follow the same logic.

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

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

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

³ A classification system including about 480 individual

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."

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 A-2. Hourly earnings¹ for selected occupations, all workers², private industry and State and local government, Bloomington, IN, July 1998

			Private	e industry	ı			State	and loca	al govern	ment	
Occupation ³				Percentil	es				F	ercentile	s	
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90
All occupations		\$6.10 6.50	\$7.90 8.23	\$11.09 11.58	\$15.74 15.93	\$20.03 20.31	\$17.55 17.55	\$9.44 9.44	\$10.44 10.44	\$13.72 13.72	\$20.06 20.06	\$31.08 31.08
White-collar occupations	15.23 16.22	7.10 8.30	9.52 10.36	14.79 15.11	18.85 20.00	26.07 27.24	20.40 20.40	9.52 9.52	11.08 11.08	15.95 15.95	29.02 29.02	39.73 39.73
Professional specialty and technical occupations	17.42	10.06	12.92	15.11	20.60	28.47	27.32	10.88	19.34	28.87	33.16	44.65
Professional specialty occupations Engineers, architects, and surveyors Health related occupations	20.12 - -	9.61 - -	14.65 - -	19.63 - -	26.07 - -	29.33	29.38 - -	13.00 - -	23.14	29.02 - -	34.53	45.52 - -
Teachers, college and university Teachers, except college and university	_	_	- -	_	_	_ _	_	_ _	_ _	_ _	_	_ _
Social, recreation, and religious workers Writers, authors, entertainers, athletes, and professionals, N.E.C	_	_	_	_	_	_	_	_	_	_	_	_
Technical occupations Executive, administrative, and managerial occupations	14.47 24.17	10.36 15.87	12.11 20.00	15.11 20.00	15.11 28.32	17.82 34.71	_	_	_	_	_	_
Executives, administrators, and managers	24.91	20.00	20.00	21.50	28.41	34.71	_	_	_	_	_	_
Managers and administrators, N.E.C. Management related occupations Sales occupations	23.86 17.29 8.37	20.00 13.80 5.25	20.00 13.96 5.55	20.00 14.58 6.59	27.24 21.39 8.77	30.99 24.70 15.00	- -	-	_ _	- -	- - -	_ _
Sales workers, other commodities Cashiers	7.29 6.03	5.25 5.25 5.15	6.00 5.25	7.21 5.55	7.77 6.00	9.00 6.85	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	- -
Administrative support occupations, including clerical	11.27	7.23	8.32	10.29	13.59	16.97	11.59	8.57	10.06	11.11	12.87	15.95
Blue-collar occupations Precision production, craft, and repair	12.16	6.92	8.80	11.90	14.89	17.09	14.29	10.21	12.32	16.17	16.18	16.18
occupations Machine operators, assemblers, and inspectors	15.53	9.64	13.39	14.89	17.94	23.34	_	_	_	_	_	_
Transportation and material moving occupations	_	_	_	_	_	_	_	_	_	_	_	_
Handlers, equipment cleaners, helpers, and laborers	10.28 7.68	6.02 5.65	6.66 6.25	7.83 7.15	15.67 9.10	17.42 10.50	_ _	- -	_ _	_ _	_ _	_ _
Service occupations Protective service occupations	6.69 -	2.13 -	5.70 -	7.17 –	8.40	9.00	10.59 12.09	9.17 10.20	9.80 10.81	10.22 11.85	11.82 13.64	13.64 13.72
Food service occupations	5.10 2.13 6.13	2.13 2.13 5.35	2.13 2.13 5.80	5.50 2.13 6.00	6.50 2.13 6.25	8.01 2.13 7.00	- - -	- - -	- - -	- - -	- - -	- - -
Food preparation occupations, N.E.C. Health service occupations Cleaning and building service	7.24 8.30	5.50 7.50	5.75 8.12	6.13 8.40	7.94 8.40	9.97 8.75	_ _ _	-	- - -	- - -	- - -	_ _
occupations Janitors and cleaners Personal service occupations	7.64 7.64 7.46	5.75 5.75 5.75	6.25 6.25 6.00	7.28 7.28 7.84	8.55 8.55 8.47	10.00 10.00 9.36	- - -	- - -	- - -	- - -	- - -	_ _ _

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

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

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

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 A-3. Hourly earnings¹ for selected occupations, full-time and part-time workers², all industries, Bloomington, IN, July 1998

						All indu	stries						
			Fu	Il-time					Part	-time			
Occupation ³				Percentil	es				F	Percentile	es		
	Mean	10	25	Median 50	75	90	Mean	10	25	Median 50	75	90	
All occupations	\$14.92 15.06	\$7.37 7.51	\$9.50 9.55	\$12.82 12.93	\$16.91 16.97	\$26.96 27.24	\$7.16 7.42	\$2.13 2.13	\$5.25 5.25	\$6.00 6.25	\$8.00 8.53	\$12.75 14.49	
White-collar occupations White-collar occupations excluding sales	17.85 18.27	8.33 8.90	10.75 11.00	15.11 15.59	21.68 22.10	30.99 31.04	9.53 11.98	5.25 6.50	5.75 7.78	7.37 9.58	10.56 16.56	18.02 19.07	
Professional specialty and technical occupations Professional specialty occupations Engineers, architects, and surveyors	22.37 25.88	10.54 10.09	14.92 17.74	20.06 26.31	29.02 31.04	38.31 41.86	15.08 17.55	8.03 7.78	9.12 14.49	16.56 18.55	18.02 20.60	20.60 23.26	
Health related occupations Teachers, college and university	29.59 –	15.30 –	17.10 -	29.33 -	44.65 –	47.41 –	- - -	-	- -	_ _ _	_ _ _	_ _ _	
Teachers, except college and university Social, recreation, and religious workers Writers, authors, entertainers, athletes, and professionals, N.E.C	20.90	8.33 -	8.33	21.77	31.04	32.02	-	-	-	-	- -	_	
Technical occupations	14.04	10.88 16.91	11.78 18.16	15.11	15.11 25.50	16.75 33.29	_	_	_	_	_	_	
Executives, administrators, and managers	25.12 23.68	20.00	20.00	21.50	28.41 27.24	40.06 30.99	-	_	-	_	_ _	_	
Management related occupations Sales occupations	17.51	14.33 5.55 6.38	16.91 6.38 7.00	17.67 7.60 7.60	18.16 11.41 8.50	18.28 17.25 9.00	5.99 6.49	5.20 5.25	5.25 5.25	5.55 5.93	- 6.16 7.00	7.18 8.76	
Cashiers Administrative support occupations, including clerical	11.60	- 7.55	- 9.52	10.94	- 13.40	16.27	5.61 8.11	5.15 6.00	5.25 6.50	5.50 7.59	5.90 9.57	6.20	
Secretaries	10.95 10.80	9.52 8.00	9.95 9.58	10.88	11.54 11.55	12.49 15.51	_	_	_			_	
Blue-collar occupations	12.71	7.21	9.50	12.93	15.74	16.72	6.13	5.25	5.65	6.02	6.49	7.10	
Precision production, craft, and repair occupations	15.60	10.30	14.89	16.17	16.18	20.03	-	-	-	_	-	_	
inspectors Transportation and material moving occupations	11.25	9.00	- 9.46	10.34	- 12.32	- 15.50	_	_	_	_	_	_	
Handlers, equipment cleaners, helpers, and laborersStock handlers and baggers	11.16 8.38	6.25 6.66	6.95 6.92	10.91 8.25	15.67 9.85	17.04 10.50	6.18 6.18	5.25 5.25	5.65 5.65	6.02 6.02	6.50 6.50	7.10 7.10	
Service occupations	8.87 12.09	5.90 10.20	7.51 10.81	8.75 11.85	10.22 13.64	11.85 13.72	5.17 -	2.13 -	2.13 -	5.60 -	6.50 -	8.11 -	
Food service occupations Health service occupations Cleaning and building service	6.56 8.33	2.13 7.50	5.25 8.30	6.50 8.40	8.01 8.40	9.47 8.75	4.13 -	2.13 -	2.13 -	4.65 -	5.75 -	6.50 -	
occupations		6.25 6.25 5.55	8.17 8.17 5.70	9.93 9.93 7.90	10.21 10.21 8.70	10.40 10.40 9.41	- - -	- - -	<u>-</u> -	- - -	- - -	- - -	

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

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

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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 A-4. Weekly and annual earnings¹ and hours for selected occupations, full-time workers only², all industries, Bloomington, IN, July 1998

			All ind	ustries		
Occupation ³	Mean weekly	Weekly	earnings	Mean annual	Annual e	arnings
	hours ⁴	Mean	Median	hours	Mean	Median
All occupations	39.3	\$587	\$512	1,988	\$29,669	\$26,000
All occupations excluding sales	39.3	592	517	1,986	29,914	26,659
White-collar occupations	39.1	697	604	1,946	34,726	31,427
White-collar occupations excluding sales	39.0	713	604	1,939	35,426	31,427
Professional specialty and technical occupations	38.5	861	795	1,851	41,415	34,952
Professional specialty occupations	37.9	981	931	1,770	45,810	44,060
Engineers, architects, and surveyors	_	_	_			_ '
Health related occupations	39.9	1,181	1,173	2,076	61,432	61,006
Teachers, college and university	_	_	_	_	_	_
Teachers, except college and university	30.7	641	677	1,156	24,160	25,228
Social, recreation, and religious workers	_	_	_	_	-	_
Writers, authors, entertainers, athletes, and						
professionals, N.E.C.	_	_	_	_	-	_
Technical occupations	39.9	561	604	2,076	29,152	31,427
Executive, administrative, and managerial occupations	40.2	918	800	2,085	47,605	41,600
Executives, administrators, and managers	40.3	1,012	860	2,087	52,441	44,720
Managers and administrators, N.E.C	40.0	947	800	2,079	49,242	41,600
Management related occupations	40.0	701	707	2,080	36,426	36,761
Sales occupations	40.0	396	304	2,080	20,587	15,808
Sales workers, other commodities	40.0	315	304	2,080	16,388	15,808
Administrative support occupations, including clerical	39.3	455	435	2,006	23,261	22,523
Secretaries	39.7	435	430	2,066	22,619	22,339
Administrative support occupations, N.E.C	38.8	419	385	2,019	21,813	20,010
Blue-collar occupations	39.6	504	517	2,041	25,945	26,894
Precision production, craft, and repair occupations	40.0	624	647	2,080	32,448	33,640
Machine operators, assemblers, and inspectors	_	_	_			_ `
Transportation and material moving occupations	35.3	397	380	1,611	18,121	18,720
Handlers, equipment cleaners, helpers, and laborers	39.9	446	436	2,076	23,167	22,687
Stock handlers and baggers	39.7	333	330	2,064	17,296	17,160
Service occupations	39.8	353	336	2,043	18,115	17,472
Protective service occupations	44.3	535	502	2,302	27,823	26,083
Food service occupations	36.8	241	240	1,801	11,816	11,700
Health service occupations	39.3	327	336	2,044	17,016	17,472
Cleaning and building service occupations	40.0	370	397	2,078	19,243	20,653
Janitors and cleaners	40.0	370	397	2,078	19,243	20,653
Personal service occupations	39.7	304	316	2,063	15,834	16,432

¹ Earnings are the straight-time wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The median designates position--one-half of the workers receive the same as or more, and one-half receive the same as or less than the rate shown.
2 Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where

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

3 A classification system including about 480 individual occupations is used

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

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

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, Bloomington, IN, July 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-time workers	
All occupations	\$14.24	\$12.67	\$17.55	\$14.92	\$7.16	
All occupations excluding sales	14.49	12.94	17.55	15.06	7.42	
· · · · · · · · · · · · · · · · · · ·						
White-collar occupations	17.24	15.23	20.40	17.85	9.53	
Level 1	5.65	5.66	_		5.59	
Level 2	8.37	8.75	_	9.33	6.18	
Level 3		9.80	_	10.17	7.19	
Level 4	9.78	9.64	9.89	9.91	8.76	
Level 5	10.84	10.98	10.67	10.79	-	
Level 6	13.46		12.06	13.48	_	
Level 7	16.01	16.06	_	15.89	_	
Level 8	18.11	-	-	18.11	_	
Level 9	23.45	20.29	27.71	23.78	_	
Level 12	25.32	25.42	_	25.32	-	
Level 12	27.43	_	_	27.43	_	
Level 13	38.92	16.22	20.40	38.92	11.00	
White-collar occupations excluding sales Level 2	17.98 9.36	16.22 10.36	20.40	18.27 9.91	11.98	
Level 3	10.31	10.36		10.50	-	
Level 4	9.99	10.33	9.89	10.50	_	
Level 5	10.78	10.13	10.67	10.68		
Level 6	13.42	10.03	12.06	13.45	_	
Level 7	15.42	15.96	-	15.82	_	
Level 8	18.11	- 10.50	_	18.11	_	
Level 9	23.45	20.29	27.71	23.78	_	
Level 11	25.19	25.23		25.19	_	
Level 12	27.43	_	_	27.43	_	
Level 13	38.92	-	_	38.92	-	
Professional specialty and technical occupations	21.99	17.42	27.32	22.37	15.08	
Professional specialty occupations	25.61	20.12	29.38	25.88	17.55	
Level 9		_	_	23.81	-	
Engineers, architects, and surveyors		_	_		_	
Health related occupations	28.44	_	_	29.59	_	
Teachers, college and university	_	_	_	_	_	
Teachers, except college and university	20.92	_	_	20.90	_	
Social, religious, and recreation workers	_	_	_	_	_	
Writers, authors, entertainers, athletes, and	_	_	_	_	_	
professionals, N.E.C Technical occupations	13.96	14.47	<u>-</u>	14.04	_	
Level 5		-	_		-	
Executive, administrative, and managerial occupations	22.79	24.17	_	22.83	_	
Level 8	18.67		_	18.67	_	
Level 9	23.70	24.22	_	23.70	_	
Level 11	29.12	29.12	_	29.12	-	
Executives, administrators, and managers	25.04	24.91	_	25.12	-	
Level 9	23.59	24.16	_	23.59	-	
Level 11		29.12	_	29.12	-	
Management related occupations	17.51	17.29	_	17.51	-	
Sales occupations	8.37	8.37	-	9.90	5.99	
Level 2		6.20	_	_	5.65	
Level 3	7.28	7.28	_	7.87	_	
Level 5	11.46	11.46				
Administrative support occupations, including clerical		11.27	11.59	11.60	8.11	
Level 2	9.36	10.36	_	9.91	_	
Level 3	10.41	10.41	10.45	10.50	_	
Level 4 Level 5	10.16 11.51	10.19 –	10.15	10.17 11.52	-	
Blue-collar occupations	12.55	12.16	14 20	12.71	6 12	
Level 1	12.55 6.85	12.16 7.03	14.29	7.07	6.13 6.03	
Level 2	10.12	10.12	_	_ '.07	0.03	
Level 4	12.81	13.16	I _	12.81	_	
Level 5	14.77	14.77	_	14.77	<u>-</u>	
Level 6	12.61		_	12.61	_	
Level 7	17.34	19.45	_	17.34	_	
	l .		1	1	I	

See footnotes at end of table.

Table B-1. Mean hourly earnings¹ by occupational group and levels², all industries, private industry, State and local government, full-time and part-time workers, Bloomington, IN, July 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
Blue-collar occupations (-Continued)					
Precision production, craft, and repair occupations	\$15.60	\$15.53		\$15.60	
Level 7	17.39	20.07		17.39	
Machine operators, assemblers, and inspectors		20.07		17.55	
Level 5	14 47	14.47	_	14 47	_
Transportation and material moving occupations			_	11.25	_
Handlers, equipment cleaners, helpers, and laborers		10.28	_	11.16	\$6.18
Level 1	6.88	7.09	-	7.07	6.11
Service occupations	7.99	6.69	\$10.59	8.87	5.17
Level 1		5.86	· –	6.11	5.55
Level 2	7.18	6.00	_	8.32	3.58
Level 3	8.51	7.85	_	8.73	_
Level 4	9.06	8.95	_	9.08	_
Protective service occupations	12.09	_	12.09	12.09	_
Food service occupations	5.27	5.10	_	6.56	4.13
Level 1		5.30	_	5.89	5.05
Level 2	4.71	4.71	-	6.26	2.93
Health service occupations		8.30	-	8.33	-
Cleaning and building service occupations		7.64	-	9.26	-
Personal service occupations	7.24	7.46	-	7.68	_

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.

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.

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workers, weighted by hours.

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

more information.

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

4 Billiesters include full time and activities and activities are considered.

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

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, Bloomington, IN, July 1998

		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
White college accountings					
White-collar occupations: Executive, administrative, and managerial occupations:					
Managers and administrators, N.E.C	\$23.68	\$23.86		\$23.68	
Level 11	29.50	29.50	_	29.50	_
Sales occupations:	29.50	29.50	_	29.50	_
Sales workers, other commodities	7.29	7.29	_	7.88	\$6.49
Level 3	7.23	7.23	_	7.00	Ψ0.43
Cashiers	6.03	6.03	_	_	5.61
Administrative support occupations, including clerical:	0.00	0.00			0.01
Secretaries	10.95	_	_	10.95	_
Administrative support occupations, N.E.C	10.52	_	_	10.80	_
Blue-collar occupations:					
Handlers, equipment cleaners, helpers, and laborers:					
Stock handlers and baggers	7.68	7.68	_	8.38	6.18
Laborers except construction, N.E.C.	8.19	-	-	_	_
Service occupations:					
Food service occupations:					
Waiters and waitresses	2.13	2.13	_	_	_
Level 2	2.13	2.13	_	_	_
Cooks		6.13	_	_	_
Food preparation occupations, N.E.C.		7.24	_	_	_
Level 1	5.86	5.86	_	_	_
Cleaning and building service occupations:					
Janitors and cleaners	9.18	7.64	_	9.26	_

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

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

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.

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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.

determine the overall level of the occupation.

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

Table C-1. Mean hourly earnings1 by occupational group and selected characteristics, all industries, Bloomington, IN, July 1998

Occupational group ²	Full-time workers ³	Part-time workers ³	Union ⁴	Nonunion ⁴	Time ⁵	Incentive ⁵
All occupations	\$14.92	\$7.16	\$14.72	\$14.10	\$14.77	_
All occupations excluding sales	15.06	7.42	14.76	14.41	15.05	-
White-collar occupations	17.85	9.53	16.00	17.54	17.75	_
White-collar excluding sales	18.27	11.98	16.10	18.47	18.48	_
Professional specialty and technical occupations	22.37	15.08	20.21	22.44	21.99	_
Professional specialty occupations	25.88	17.55	27.24	25.40	25.61	_
Technical occupations	14.04	_	_	12.67	13.96	_
Executive, administrative, and managerial occupations	22.83	_	_	22.79	22.80	_
Sales occupations	9.90	5.99	_	8.35	7.91	\$10.52
Administrative support including clerical occupations	11.60	8.11	12.49	10.98	11.50	_
Blue-collar occupations	12.71	6.13	15.03	11.65	13.35	_
Precision production, craft, and repair occupations	15.60	_	16.66	14.93	15.60	_
Machine operators, assemblers, and inspectors	_	_	_	_	12.77	_
Transportation and material moving occupations		_	_	10.83	11.09	_
Handlers, equipment cleaners, helpers, and laborers		6.18	12.85	8.94	10.44	_
Service occupations	8.87	5.17	10.80	7.19	7.94	_

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, Bloomington, IN, July 1998

		Good	ls-produc	ing indus	stries ⁴	S	ervice-pr	oducing	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	\$12.67	_	_	_	_	\$10.86	\$21.31	\$6.96	\$14.81	\$11.80
All occupations excluding sales	12.94	_	_	_	_	11.22	21.31	6.84	14.23	11.80
White-collar occupations White-collar excluding sales	15.23 16.22	_ _	_ _	_ _	_ _	13.40 14.85	20.81 20.81	8.18 -	14.54 13.93	14.78 14.78
Professional specialty and technical occupations	17.42	_	_	_	_	15.26	_	_	_	14.99
Professional specialty occupations	20.12	_	-	_	-	16.31	_	-	_	16.23
Technical occupations	14.47	_	-	_	-	14.08	-	-	-	13.35
Executive, administrative, and managerial occupations	24.17	-	-	-	-	27.29	-	-	26.42	-
Sales occupations	8.37	-	-	-	-	7.93	-	7.26	-	-
Administrative support, including clerical occupations	11.27	_	_	_	_	10.08	_	_	9.15	9.21
Blue-collar occupations	12.16	_	_	_	_	11.21	_	8.74	_	_
Precision production, craft, and repair occupations	15.53	_	-	_	-	15.24	-	-	_	_
Machine operators, assemblers, and inspectors	-	_	-	-	-	-	-	-	-	-
Transportation and material moving occupations	_	-	-	-	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers	10.28	_	_	_	_	7.49	-	7.59	_	_
Service occupations	6.69	_	_	_	_	6.50	_	4.66	_	7.90

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.

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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

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.

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

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

Table C-3. Mean hourly earnings¹ by occupational group and establishment employment size, private industry, all workers², Bloomington, IN, July 1998

			100	workers or r	nore
Occupational group ³	All private industry workers	50 - 99 workers	Total	100 - 499 workers	500 workers or more
All occupations		\$10.89 11.11	\$13.25 13.54	\$11.98 12.52	\$14.21 14.21
White-collar occupations		16.19 18.11	15.03 15.85	12.52 14.01	16.79 16.79
Professional specialty and technical occupations	20.12 14.47 24.17 8.37 11.27	15.51 - 14.86 28.65 - 10.45	17.76 20.24 14.34 22.35 8.60 11.38	13.05 - 11.42 24.83 8.60 9.97	- - - - - 12.36
Blue-collar occupations Precision production, craft, and repair occupations Machine operators, assemblers, and inspectors Transportation and material moving occupations Handlers, equipment cleaners, helpers, and laborers	15.53	13.92 19.53 - - -	11.88 14.27 - - 10.85	12.24 13.99 12.47 - 10.85	- - - -
Service occupations	6.69	5.91	8.20	8.10	-

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

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

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schedule. $\frac{3}{3}$ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy.

Table C-4. Number of workers¹ represented by occupational group, Bloomington, IN, July 1998

		All workers	
Occupational group ²	All industries	Private industry	State and local govern- ment
All occupations All occupations excluding sales	31,284 29,691	21,065 19,472	10,219 10,219
White-collar occupations	16,854 15,261	9,955 8,362	6,899 6,899
Professional specialty and technical occupations	5,416 2,207 1,807	3,756 1,916 1,841 1,341 1,593 3,265	3,867 3,501 - - - 2,566
Blue-collar occupations Precision production, craft, and repair occupations Machine operators, assemblers, and inspectors Transportation and material moving occupations Handlers, equipment cleaners, helpers, and laborers	8,246 2,511 – 670	6,654 1,507 — — 1,199	1,593 - - - -
Service occupations	6,183	4,455	1,728

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

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in another establishment, where a 40-hour week is the 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 2000, the current NCS sample will be replenished on a rotating basis.

Survey scope

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

The Bloomington, IN, MSA includes Monroe County, IN.

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 Bloomington, IN, 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 April 1995. The sampling frame was reviewed prior to the survey and, when necessary, missing establishments were added, out-of-business and out-of-scope establishments were removed, and addresses, employment levels, industry classification, and other information were updated.

Sample design

The sample for this survey area was selected using a two stage stratified design with probability proportional to employment sampling at each stage. The first stage of sample selection was a probability sample of establishments. The sample of establishments was drawn by first stratifying the sampling frame where the strata are determined by industry and whether the establishment is Private, State government or Local government. The number of sample establishments allocated to each stratum is approximately proportional to the stratum employment. Each sampled establishment is selected within a stratum with a probability proportional to its employment. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. Weights were applied to each establishment when the data were tabulated so that the sample units within each stratum represent all the units within the stratum, both sampled and nonsampled. See appendix table 1 for a count of establishments in the survey by employment size. The second stage of sample selection, detailed below, was a probability sample of occupations within a sampled establishment.

Data collection

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

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

Occupational selection and classification

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

- 1. Probability-proportional-to-size selection of establishment jobs.
- 2. Classification of jobs into occupations based on the Census of Population system.

- 3. Characterization of jobs as full-time v. part-time, union v. nonunion, and time v. incentive.
- 4. Determination of the level of work of each job.

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

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

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

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

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 R

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 April 1998 through August 1998. The average payroll reference month was July 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, 16.3 percent (representing 6,261 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 (4.7 percent of the total sample) had their weights changed to zero. If only partial data were given by a sample establishment or occupation, or data were missing, the response was treated as a refusal.

Estimation

The wage series in the tables are computed by combining the wages for individual establishment/occupations. Before being combined, individual wage rates are weighted by: number of workers; the sample weight adjusted for non-responding 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 scientifically selected probability sample. There are two types of errors possible in an estimate based on a sample survey, sampling and nonsampling.

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

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

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

Nonsampling errors also affect survey results. They can stem from many sources, such as inability to obtain information for some establishments, difficulties with survey definitions, inability of the respondents to provide correct information, or mistakes in recording or coding the data obtained. A Technical Reinterview Program done in all survey areas will be used in the development of a formal quality assessment process to help compute nonsampling error. Although they 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, Bloomington, IN, July 1998

Industry	Number of establish- ments rep- resented	Number of establishments studied				
		Total studied	50 - 99 workers	100 workers or more		
				Total	100 - 499 workers	500 workers or more
All industries Private industry Goods-producing industries Construction Manufacturing Service-producing industries Tranportation and public utilities Wholesale and retail trade Finance, insurance and real estate Services State and local government	145 28 5 23 117 12 60 5	56 49 13 2 11 36 4 18 3	22 22 3 1 2 19 3 11 -	34 27 10 1 9 17 1 7 3 6	28 24 8 1 7 16 1 7 3	6 3 2 - 2 1 - - -

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, Bloomington, IN, July 1998

(in percent)

Occupation ³	All indus- tries	Private industry	State and local government
All occupations All occupations excluding sales	4.3 4.4	3.7 3.8	9.3 9.3
White-collar occupations	6.1 6.2	4.8 5.0	11.5 11.5
Professional specialty and technical occupations Professional specialty occupations Engineers, architects, and surveyors Health related occupations Teachers, college and university Teachers, except college and university Social, recreation, and religious workers Writers, authors, entertainers, athletes, and professionals, N.E.C. Technical occupations Executive, administrative, and managerial occupations Executives, administrators, and managers Managers and administrators, N.E.C. Management related occupations Sales occupations Sales workers, other commodities Cashiers	7.9 8.0 - 22.2 - 12.6 - 4.6 7.3 10.1 10.1 3.1 10.6 3.1 8.4	7.0 10.2 - - - - - - 4.1 8.8 10.3 10.6 12.2 10.6 3.1 8.4	11.2 8.7 - - - - - - - - - - - -
Administrative support occupations, including clerical Secretaries Administrative support occupations, N.E.C	4.3 5.0 4.2	6.0 - -	6.2 - -
Blue-collar occupations	3.9 4.6 - 3.7 12.2 7.2 16.8	4.4 7.6 - - 15.1 7.2	5.3 - - - - - -
Service occupations Protective service occupations Food service occupations Waiters and waitresses Cooks Food preparation occupations, N.E.C. Health service occupations Cleaning and building service occupations Janitors and cleaners Personal service occupations	4.9 4.5 13.0 0.0 7.4 13.3 0.4 4.4 4.4 5.9	4.8 - 14.0 0.0 2.6 13.3 0.4 4.4 4.4 6.2	3.4 4.5 - - - - - - -

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

classified into one of nine major occupational groups.

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

earnings for trose 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 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.

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

Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Bloomington, IN, July 1998

	All	Full-time	Part-time
Occupation ¹		workers	workers
All occupations	5	6	3
All occupations excluding sales	5	6	3
White-collar occupations	7	7	4
White-collar occupations excluding sales	7	7	5
Professional specialty and technical occupations		9	6
Professional specialty occupations	10	10	8
Engineers, architects, and surveyors	-	_	_
Health related occupations	11	11	_
Teachers, college and university	-	_	_
Teachers, except college and university	8	8	_
Social, recreation, and religious workers	-	_	_
Writers, authors, entertainers, athletes, and professionals, N.E.C.	_	_	_
Technical occupations	6	6	_
Executive, administrative, and managerial occupations		9	
Executives, administrators, and managers	9	9	_
Managers and administrators, N.E.C.		9	_
Management related occupations		8	_
Sales occupations		4	2
Sales workers, other commodities	3	3	3
Cashiers			2
Administrative support occupations, including clerical	4	5	3
Secretaries	5	5	
Administrative support occupations, N.E.C.	4	4	-
Blue-collar occupations	4	4	2
Precision production, craft, and repair occupations		6	_
Machine operators, assemblers, and inspectors		_	_
Transportation and material moving occupations	4	4	_
Handlers, equipment cleaners, helpers, and laborers	3	3	2
Stock handlers and baggers	2	2	2
Laborers except construction, N.E.C.		_	_
Service occupations	3	3	2
Protective service occupations		7	_
Food service occupations		2	2
Waiters and waitresses	2	_	
Cooks	1	_	_
Food preparation occupations, N.E.C.	I	_	_
Health service occupations		3	_
Cleaning and building service occupations	2	2	_
Janitors and cleaners	2	2	_
Personal service occupations	3	3	_
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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."