

# Montana National Compensation Survey June 1997

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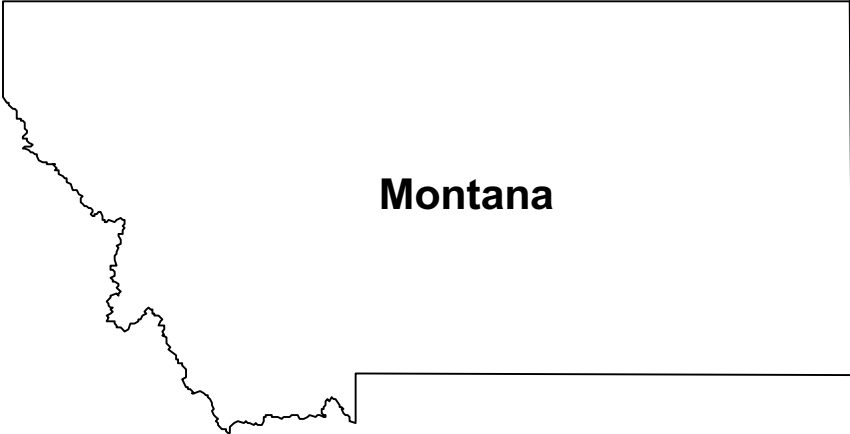
U.S. Department of Labor  
Alexis M. Herman, Secretary

Bureau of Labor Statistics  
Katharine G. Abraham, Commissioner

Revised March 1999

Bulletin 3090-25

# Montana



The Bureau of Labor Statistics has identified data errors in the National Compensation Survey bulletin previously published for this area. This revised bulletin presents the corrected data.

# Preface

This bulletin provides results of a June 1997 survey of occupational pay in Statewide Montana. This is one of a number of areas which the Bureau of Labor Statistics surveys at the request of the Employment Standards Administration, U.S. Department of Labor, for use in administering the Service Contract Act of 1965.

Data shown in this bulletin were collected as part of the Bureau of Labor Statistics' (BLS) new program known as the National Compensation Survey (NCS).

The survey could not have been conducted without the cooperation of the many private firms and government jurisdictions that provided pay data included in this bulletin. The Bureau thanks these respondents for their cooperation.

Survey data were collected and reviewed by Bureau of Labor Statistics field economists under the direction of Stan Suchman, Assistant Regional Commissioner for Operations of the Kansas City Regional Office. The Office of Compensation and Working Conditions, in cooperation with the Office of Field Operations and the Office of Technology and Survey Processing in the BLS National Office, designed the survey, processed the data, and analyzed the

survey results.

For additional information regarding this survey, please contact the BLS Kansas City Regional Office at (816) 426-2481. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning, 2 Massachusetts Avenue, NE, Room 4175, Washington, DC 20212-0001, or call (202) 606-6220, or send e-mail to [ocltinfo@bls.gov](mailto:ocltinfo@bls.gov).

The data contained in this bulletin are also available at the BLS Internet site (<https://www.bls.gov/ocs/#data>). 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 Statewide Montana.

This bulletin consists primarily of tables whose data are analyzed in the initial textual section. Tabulations provide information on earnings of workers in a variety of occupations and at a wide range of work levels. Also contained in this bulletin is information on the program, a technical note describing survey procedures, and several appendixes with detailed information on occupational classifications and the generic leveling methodology.

## **NCS design and products**

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

## **NCS more extensive than OCS**

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

the survey area.

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

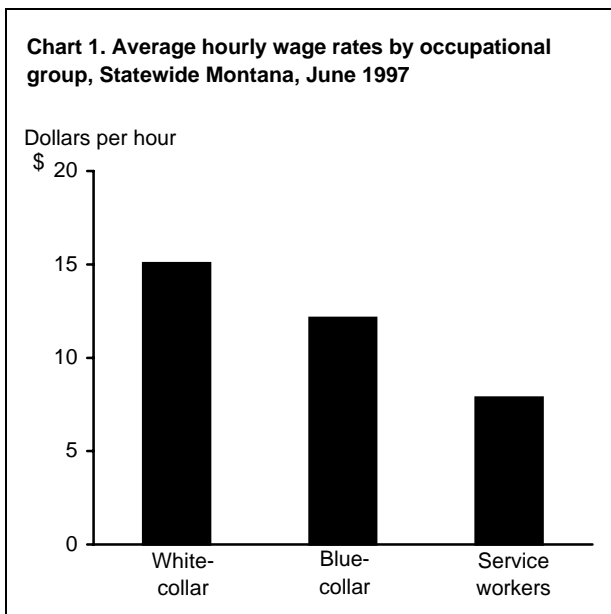
In tables containing work levels within occupational series, the work levels are derived from generic standards that *apply to all* occupational groups. The job levels in the OCS bulletins were based on narrowly-defined descriptions that were not comparable across specific occupations.

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

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

# Wages in Montana

Straight-time wages in Statewide Montana averaged \$12.90 per hour during June 1997. White-collar workers had an average wage of \$15.06 per hour. Blue-collar workers averaged \$12.13 per hour, while service workers had average earnings of \$7.87 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 registered nurses at \$16.90 per hour, secretaries at \$9.22, and teacher's aides at \$7.51. Among occupations in the blue-collar category, carpenters averaged \$13.84 per hour while bus drivers averaged \$12.06. Finally, service occupations included janitors and cleaners at \$7.86 per hour and kitchen workers, food preparation at \$5.81 per hour. Table A-1 presents earnings data for 56 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 Statewide Montana earned \$11.96 per hour, while surveyed State and local government workers averaged \$14.86. Ta-

ble A-2 reports the average hourly rate for white-collar occupations as \$13.91 in private industry and \$16.63 in State and local government. Blue-collar occupations showed an average hourly rate of \$12.24 in private industry and \$11.13 in State and local government. Service occupations within private industry averaged \$6.73 per hour while those found in State and local government averaged \$10.11.

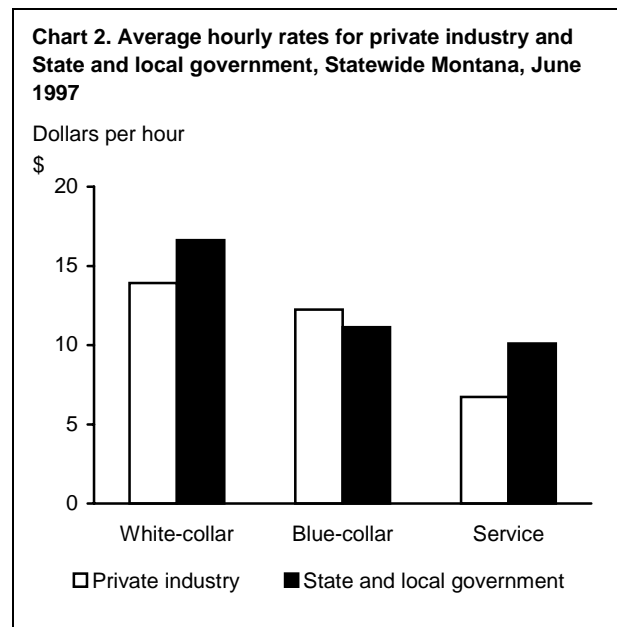
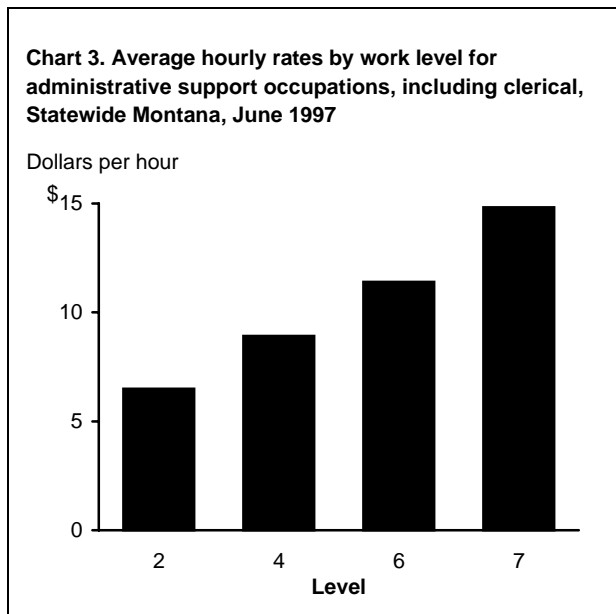


Table A-3 presents data for workers considered by the survey respondents to be either full-time or part-time. Average wages for full-time workers, all occupations, were \$13.77 per hour, compared with an average of \$8.22 per hour for part-time workers.

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 \$6.50 for level 2, \$8.92 for level 4, \$11.40 for level 6, and \$14.83 for level 7.

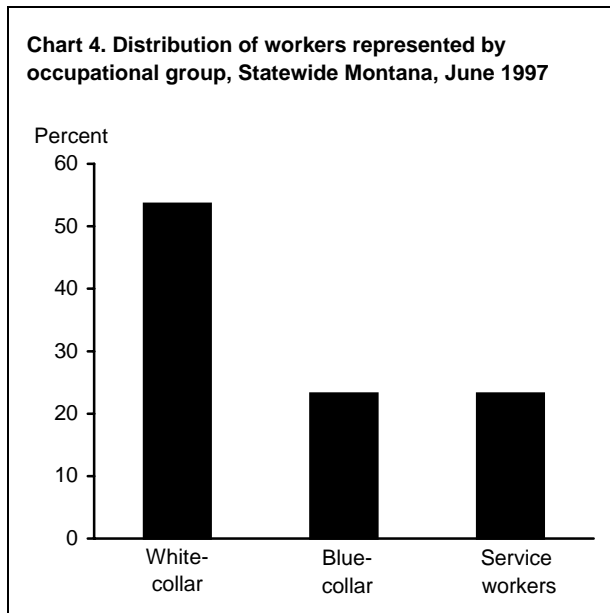


Surveyed union workers had an average hourly rate of \$15.37, as reported in table C-1. Wages for nonunion workers averaged \$12.41. Time workers, whose wages were based solely on an hourly rate or a salary, averaged \$12.92 per hour. Incentive workers, whose wages were at least partially based on productivity payments, averaged \$11.90 per hour.

Table C-2 shows wage data for specific industry divisions within private industry. In the private sector, hourly wages averaged \$14.31 in all goods-producing industries, \$19.60 in mining, \$14.66 in construction, and \$12.96 in

manufacturing. Hourly wages averaged \$11.26 in all service-producing industries, \$10.84 in wholesale and retail trade, \$10.93 in finance, insurance and real estate, and \$11.34 in services. Data for other industry divisions did not meet publication criteria.

Table C-4 reports that a total of 150,140 workers were represented by the Statewide Montana survey. White-collar occupations included 80,498 workers, or 54 percent; blue-collar occupations included 34,860 workers, or 23 percent; and service occupations included 34,781 workers, or 23 percent.



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

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Statewide Montana, June 1997**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>All occupations</b> .....	\$12.90	\$6.00	\$7.52	\$11.45	\$16.28	\$21.05
All occupations excluding sales .....	13.08	6.00	7.65	11.64	16.58	21.35
<b>White-collar occupations</b> .....	15.06	6.80	9.01	13.17	19.10	24.60
White-collar occupations excluding sales .....	15.62	7.28	9.66	13.84	19.43	25.00
Professional specialty and technical occupations .....	18.87	10.50	13.38	17.52	21.05	27.45
Professional specialty occupations .....	20.49	12.70	15.23	18.89	23.16	28.75
Engineers, architects, and surveyors .....	20.78	7.00	18.14	19.30	25.08	30.79
Mathematical and computer scientists .....	15.06	11.00	12.78	14.30	16.41	20.29
Computer systems analysts and scientists .....	17.40	11.90	14.65	16.41	20.19	25.00
Natural scientists .....	-	-	-	-	-	-
Health related occupations .....	21.38	13.40	15.00	18.03	20.00	21.64
Registered nurses .....	16.90	13.35	14.79	17.42	19.09	20.00
Teachers, college and university .....	25.43	15.65	20.00	26.71	28.63	36.04
Teachers, except college and university .....	21.13	13.21	16.34	20.68	25.89	31.45
Elementary school teachers .....	22.60	13.63	16.34	22.28	27.41	32.74
Secondary school teachers .....	19.84	15.47	17.46	20.02	22.36	24.65
Teachers, special education .....	22.20	19.96	20.79	20.79	23.52	26.09
Vocational and educational counselors .....	20.16	15.14	16.65	16.65	23.56	27.98
Librarians, archivists, and curators .....	-	-	-	-	-	-
Social scientists and urban planners .....	20.81	14.10	16.97	18.74	29.69	29.69
Social, recreation, and religious workers .....	12.28	7.53	10.50	11.85	16.69	16.69
Social workers .....	12.49	7.53	10.50	12.05	16.69	16.69
Lawyers and judges .....	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	15.49	9.91	12.59	16.00	18.97	19.82
Editors and reporters .....	14.52	9.91	9.91	14.39	17.16	20.94
Technical occupations .....	13.14	9.25	10.41	12.04	14.75	19.43
Licensed practical nurses .....	10.89	9.05	10.00	10.92	11.87	12.77
Health technologists and technicians, N.E.C. ....	12.73	8.91	10.15	12.62	13.91	19.38
Electrical and electronic technicians .....	14.93	8.89	11.15	13.95	18.87	23.84
Executive, administrative, and managerial occupations ...	19.21	11.48	13.32	17.94	21.39	27.69
Executives, administrators, and managers .....	20.64	12.81	16.53	19.23	21.39	28.85
Administrators and officials, public administration	18.23	16.28	17.07	18.40	19.88	20.47
Financial managers .....	23.36	16.79	19.90	19.90	27.50	27.50
Administrators, education and related fields .....	24.65	12.78	15.25	25.49	30.77	36.19
Managers, medicine and health .....	26.76	13.44	14.97	16.53	25.38	72.68
Managers and administrators, N.E.C. ....	21.72	16.39	19.23	21.39	22.93	29.33
Management related occupations .....	14.47	10.34	11.46	13.32	14.65	21.88
Accountants and auditors .....	13.31	10.34	10.45	11.84	12.65	14.73
Management related occupations, N.E.C. ....	13.86	10.10	10.10	13.85	16.20	18.68
Sales occupations .....	9.41	4.75	5.58	7.82	10.93	14.65
Supervisors, sales occupations .....	12.06	9.00	9.72	10.97	11.25	14.09
Sales workers, other commodities .....	7.40	4.75	5.00	5.26	8.10	13.22
Cashiers .....	6.32	4.75	5.00	5.97	6.95	9.25
Administrative support occupations, including clerical ....	9.34	6.00	7.10	8.66	10.87	13.14
Supervisors, general office .....	12.12	9.80	10.63	12.59	12.96	14.18
Secretaries .....	9.22	6.00	7.56	9.28	11.07	11.54
Receptionists .....	6.84	5.50	5.83	7.00	7.61	8.34
Records clerks, N.E.C. ....	8.65	7.43	7.86	8.42	8.86	9.27
Bookkeepers, accounting and auditing clerks .....	8.67	6.25	7.07	8.50	10.00	11.83
Traffic, shipping and receiving clerks .....	9.58	6.93	7.25	8.66	12.74	13.48
Stock and inventory clerks .....	13.27	4.75	4.75	18.27	18.27	18.27
General office clerks .....	9.17	7.20	7.72	9.01	10.54	11.46
Teachers' aides .....	7.51	5.46	6.40	7.00	8.27	10.96
Administrative support occupations, N.E.C. ....	8.06	5.25	6.36	7.56	9.57	10.79
<b>Blue-collar occupations</b> .....	12.13	6.93	8.38	11.97	13.80	18.27
Precision production, craft, and repair occupations .....	15.01	8.31	11.20	14.06	18.27	21.79
Supervisors, mechanics and repairers .....	17.82	9.23	9.97	17.25	22.74	30.94
Heavy equipment mechanics .....	16.29	11.50	11.78	17.80	18.30	20.05
Machinery maintenance occupations .....	16.87	11.89	13.97	18.12	20.41	22.35
Carpenters .....	13.84	13.00	13.04	13.74	14.97	15.50
Electricians .....	21.37	17.18	19.50	20.88	22.82	24.94
Supervisors, production occupations .....	14.44	9.65	9.65	12.13	16.25	27.07

See footnotes at end of table.



**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Statewide Montana, June 1997 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>Blue-collar occupations (-Continued)</b>						
Machine operators, assemblers, and inspectors .....	\$11.61	\$7.21	\$8.66	\$11.53	\$13.00	\$17.40
Laundering and dry cleaning machine operators .....	7.19	5.46	5.90	7.43	7.98	8.47
Miscellaneous machine operators, N.E.C. ....	12.05	7.50	9.66	11.53	12.75	20.88
Transportation and material moving occupations .....	12.25	7.12	10.50	12.52	13.79	15.83
Truck drivers .....	11.91	6.88	9.71	12.09	14.45	15.83
Bus drivers .....	12.06	10.75	11.60	12.00	12.88	13.28
Industrial truck and tractor equipment operators ..	13.51	7.80	11.97	13.45	14.43	20.88
Handlers, equipment cleaners, helpers, and laborers .....	9.29	6.00	7.00	8.50	13.00	13.00
Construction laborers .....	12.27	9.91	10.76	12.94	13.70	14.04
Freight, stock, and material handlers, N.E.C. ....	8.68	5.95	6.73	7.74	9.49	13.09
Laborers except construction, N.E.C. ....	8.09	6.00	6.00	7.50	9.10	12.44
<b>Service occupations</b> .....	7.87	5.00	5.65	6.90	8.88	12.34
Protective service occupations .....	12.17	8.84	11.00	12.11	14.53	15.58
Firefighting occupations .....	12.70	12.01	12.01	12.11	13.01	14.12
Police and detectives, public service .....	13.13	11.31	11.42	11.93	15.38	15.58
Food service occupations .....	6.04	4.75	5.00	5.50	6.45	7.94
Supervisors, food preparation and service occupations .....	8.16	5.70	6.00	7.45	8.76	14.90
Cooks .....	6.26	5.00	5.50	6.00	6.64	8.00
Kitchen workers, food preparation .....	5.81	4.75	5.11	5.50	6.40	6.79
Food preparation occupations, N.E.C. ....	6.66	5.62	5.62	6.41	7.20	8.90
Health service occupations .....	7.28	5.50	6.40	7.25	8.09	9.00
Health aides, except nursing .....	6.47	5.50	5.50	5.50	6.80	9.25
Nursing aides, orderlies and attendants .....	7.50	6.25	6.75	7.41	8.25	8.88
Cleaning and building service occupations .....	7.52	5.18	6.09	7.20	8.66	10.28
Maids and housemen .....	6.57	4.95	5.25	6.20	7.64	8.96
Janitors and cleaners .....	7.86	5.50	6.59	7.72	9.03	11.31
Personal service occupations .....	6.52	5.00	5.55	6.00	6.66	8.35
Service occupations, N.E.C. ....	6.37	5.25	5.30	6.25	7.00	8.15

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

<sup>2</sup> All workers include full-time and part-time workers.

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

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

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

**Table A-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Statewide Montana, June 1997**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>All occupations</b> .....	\$11.96	\$5.50	\$7.00	\$10.00	\$14.65	\$20.25	\$14.86	\$7.33	\$9.76	\$13.15	\$18.92	\$24.69
All occupations excluding sales .....	12.15	5.68	7.00	10.47	15.00	20.41	14.88	7.33	9.76	13.19	18.92	24.69
<b>White-collar occupations</b> .....	13.91	6.00	7.95	11.49	18.00	22.17	16.63	8.42	10.96	15.64	20.00	27.11
White-collar occupations excluding sales .....	14.73	6.75	8.66	12.67	18.27	22.87	16.65	8.44	10.99	15.64	20.00	27.11
Professional specialty and technical occupations .....	17.87	10.19	12.13	15.59	19.38	23.54	19.74	11.54	14.43	19.13	24.00	29.69
Professional specialty occupations .....	20.64	12.00	14.80	18.00	20.58	25.56	20.40	12.83	15.79	19.54	24.65	29.69
Engineers, architects, and surveyors .....	22.21	7.00	17.40	24.52	28.13	30.79	-	-	-	-	-	-
Mathematical and computer scientists .....	17.46	11.90	14.65	16.41	20.19	25.00	-	-	-	-	-	-
Computer systems analysts and scientists .....	17.72	11.90	14.65	16.41	20.29	25.00	-	-	-	-	-	-
Natural scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Health related occupations .....	22.43	14.25	15.16	18.06	19.89	22.55	15.58	8.59	12.35	14.60	20.00	20.00
Registered nurses .....	17.06	13.85	14.97	17.55	18.92	20.06	15.57	11.87	12.35	14.43	20.00	20.00
Teachers, college and university .....	19.05	12.19	15.06	17.01	20.47	25.56	27.69	20.00	23.50	27.52	29.97	36.30
Teachers, except college and university .....	13.56	9.97	11.56	12.93	16.09	18.25	21.47	13.32	16.65	20.79	26.09	31.45
Elementary school teachers .....	-	-	-	-	-	-	23.09	14.75	16.80	23.44	27.93	32.81
Secondary school teachers .....	-	-	-	-	-	-	19.87	15.47	17.46	20.02	22.36	24.65
Teachers, special education .....	-	-	-	-	-	-	22.20	19.96	20.79	20.79	23.52	26.09
Vocational and educational counselors .....	-	-	-	-	-	-	20.72	16.65	16.65	16.65	24.46	31.33
Librarians, archivists, and curators .....	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners .....	-	-	-	-	-	-	-	-	-	-	-	-
Social, recreation, and religious workers .....	10.02	7.53	7.53	10.50	10.60	12.05	-	-	-	-	-	-
Social workers .....	9.84	7.53	7.53	10.50	11.85	12.05	-	-	-	-	-	-
Lawyers and judges .....	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	15.66	8.00	11.75	15.75	18.71	21.67	15.36	9.91	12.59	16.00	18.97	18.97
Technical occupations .....	13.41	9.55	10.55	12.35	15.03	19.43	12.02	8.89	9.25	11.54	12.78	16.80
Licensed practical nurses .....	10.95	9.08	10.00	11.00	11.94	12.84	-	-	-	-	-	-
Health technologists and technicians, N.E.C. ....	12.73	8.91	10.15	12.62	13.91	19.38	-	-	-	-	-	-
Executive, administrative, and managerial occupations .....	20.47	10.96	13.84	20.19	23.53	28.85	17.88	11.84	13.32	17.51	19.88	24.69
Executives, administrators, and managers .....	21.15	12.28	15.25	21.39	24.46	29.33	20.03	15.30	16.79	18.85	20.17	28.79
Administrators and officials, public administration .....	-	-	-	-	-	-	18.26	16.28	17.07	18.40	19.88	20.47
Administrators, education and related fields .....	19.17	12.16	13.25	15.25	28.21	30.77	25.53	12.78	17.37	26.04	32.24	36.19
Managers, medicine and health .....	28.97	13.44	14.69	25.00	36.06	72.68	-	-	-	-	-	-
Managers and administrators, N.E.C. ....	22.00	16.39	21.39	21.39	22.93	29.33	-	-	-	-	-	-
Management related occupations .....	17.47	10.34	11.48	14.65	21.88	25.00	12.40	10.34	10.99	12.59	13.38	13.52
Accountants and auditors .....	19.55	10.55	10.91	14.73	25.00	45.67	-	-	-	-	-	-
Sales occupations .....	9.45	4.75	5.58	8.00	10.97	14.77	-	-	-	-	-	-
Supervisors, sales occupations .....	12.06	9.00	9.72	10.97	11.25	14.09	-	-	-	-	-	-
Sales workers, other commodities .....	7.43	4.75	5.00	5.28	8.30	13.22	-	-	-	-	-	-
Cashiers .....	6.32	4.75	5.00	5.95	6.95	9.25	-	-	-	-	-	-
Administrative support occupations, including clerical .....	9.15	5.50	6.78	8.25	10.53	14.37	9.68	7.18	7.99	9.47	11.12	12.78
Supervisors, general office .....	12.26	8.50	12.60	12.60	12.60	15.37	-	-	-	-	-	-
Secretaries .....	8.34	6.00	7.00	7.80	9.37	11.03	10.28	8.44	9.47	10.98	11.12	11.60
Receptionists .....	6.84	5.50	5.83	7.00	7.61	8.34	-	-	-	-	-	-
Records clerks, N.E.C. ....	9.08	7.40	7.93	8.83	8.83	12.98	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks .....	8.50	5.50	6.95	7.86	10.05	11.83	-	-	-	-	-	-
Traffic, shipping and receiving clerks .....	9.58	6.93	7.25	8.66	12.74	13.48	-	-	-	-	-	-
Stock and inventory clerks .....	13.27	4.75	4.75	18.27	18.27	18.27	-	-	-	-	-	-
General office clerks .....	9.49	7.29	7.69	9.50	11.46	12.50	8.74	7.20	7.90	8.81	9.37	10.67
Teachers' aides .....	-	-	-	-	-	-	7.60	5.46	6.52	7.09	8.27	10.96
Administrative support occupations, N.E.C. ....	7.89	5.20	6.00	7.50	9.00	11.93	9.03	7.56	7.63	9.26	9.99	9.99
<b>Blue-collar occupations</b> .....	12.24	6.93	8.31	11.97	14.04	19.50	11.13	6.46	8.79	11.52	13.37	14.59

See footnotes at end of table.

**Table A-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Statewide Montana, June 1997 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Blue-collar occupations (-Continued)</b>												
Precision production, craft, and repair occupations .....	\$15.22	\$8.25	\$11.20	\$14.80	\$18.30	\$21.86	\$12.74	\$9.53	\$11.09	\$13.18	\$14.59	\$15.88
Supervisors, mechanics and repairers .....	17.82	9.23	9.97	17.25	22.74	30.94	-	-	-	-	-	-
Heavy equipment mechanics .....	16.29	11.50	11.78	17.80	18.30	20.05	-	-	-	-	-	-
Machinery maintenance occupations .....	16.87	11.89	13.97	18.12	20.41	22.35	-	-	-	-	-	-
Carpenters .....	13.84	13.00	13.04	13.74	14.97	15.50	-	-	-	-	-	-
Electricians .....	21.37	17.18	19.50	20.88	22.82	24.94	-	-	-	-	-	-
Supervisors, production occupations ..	14.63	9.65	9.65	13.17	20.19	27.07	-	-	-	-	-	-
Machine operators, assemblers, and inspectors .....	11.69	7.30	8.66	11.64	13.00	17.40	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	12.05	7.50	9.66	11.53	12.75	20.88	-	-	-	-	-	-
Transportation and material moving occupations .....	12.41	6.70	10.40	12.61	15.44	17.03	11.79	8.79	10.99	12.30	13.20	13.79
Truck drivers .....	11.92	6.81	8.92	12.25	15.44	15.83	-	-	-	-	-	-
Industrial truck and tractor equipment operators .....	13.51	7.80	11.97	13.45	14.43	20.88	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers .....	9.41	6.00	7.00	8.74	13.00	13.00	7.21	4.91	5.00	6.46	8.03	12.94
Construction laborers .....	12.12	9.00	10.76	13.00	13.70	14.04	-	-	-	-	-	-
Freight, stock, and material handlers, N.E.C. ....	8.68	5.95	6.73	7.74	9.49	13.09	-	-	-	-	-	-
Laborers except construction, N.E.C. ....	8.09	6.00	6.00	7.50	9.10	12.44	-	-	-	-	-	-
<b>Service occupations</b> .....	6.73	4.75	5.50	6.40	7.54	8.76	10.11	5.62	6.88	9.72	12.49	15.18
Protective service occupations .....	10.23	7.00	7.50	9.50	12.19	14.12	12.37	8.84	11.31	12.34	14.87	15.74
Firefighting occupations .....	-	-	-	-	-	-	12.64	12.01	12.01	12.11	13.01	14.27
Police and detectives, public service ..	-	-	-	-	-	-	13.16	11.31	11.31	11.93	15.38	15.58
Food service occupations .....	6.01	4.75	4.75	5.48	6.44	7.90	6.36	5.00	5.49	5.78	6.66	8.95
Cooks .....	6.16	5.00	5.50	5.72	6.64	7.00	-	-	-	-	-	-
Kitchen workers, food preparation .....	5.80	4.75	5.11	5.50	6.40	6.79	5.86	5.00	5.00	5.49	6.42	6.88
Health service occupations .....	7.16	5.50	6.30	7.10	7.85	8.67	8.14	6.36	6.92	7.77	9.10	9.97
Nursing aides, orderlies and attendants .....	7.47	6.30	6.75	7.40	8.19	8.79	7.68	5.90	6.75	7.54	8.63	9.01
Cleaning and building service occupations .....	6.97	5.00	5.50	6.90	7.91	8.96	8.27	6.02	6.60	8.06	9.89	11.31
Maids and housemen .....	6.52	4.90	5.25	6.20	7.33	8.96	-	-	-	-	-	-
Janitors and cleaners .....	7.27	5.00	6.08	7.07	8.25	9.19	8.34	6.09	6.60	8.06	9.91	11.31
Personal service occupations .....	6.47	5.00	5.55	6.00	6.25	8.75	6.67	5.00	5.48	6.46	7.17	8.35

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

<sup>2</sup> All workers include full-time and part-time workers. Employees are classified as

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

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

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

**Table A-3. Hourly earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Statewide Montana, June 1997**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>All occupations</b> .....	\$13.77	\$6.75	\$8.60	\$12.26	\$17.37	\$21.79	\$8.22	\$4.75	\$5.25	\$6.36	\$9.15	\$14.68
All occupations excluding sales .....	13.89	6.80	8.66	12.54	17.49	21.82	8.48	4.75	5.50	6.79	9.85	14.91
<b>White-collar occupations</b> .....	15.64	7.43	9.72	13.52	19.38	25.37	10.44	4.75	5.39	7.69	14.68	20.00
White-collar occupations excluding sales .....	16.01	7.55	10.00	14.15	19.54	25.56	11.89	5.00	6.75	9.91	16.91	20.00
Professional specialty and technical occupations .....	19.33	11.00	13.70	17.78	22.20	28.07	15.40	8.00	10.60	15.44	20.00	20.67
Professional specialty occupations .....	21.14	13.21	15.56	18.97	24.00	29.69	15.85	7.50	11.79	16.91	20.00	20.96
Engineers, architects, and surveyors .....	20.78	7.00	18.14	19.30	25.08	30.79	-	-	-	-	-	-
Mathematical and computer scientists .....	15.06	11.00	12.78	14.30	16.41	20.29	-	-	-	-	-	-
Computer systems analysts and scientists .....	17.40	11.90	14.65	16.41	20.19	25.00	-	-	-	-	-	-
Natural scientists .....	-	-	-	-	-	-	-	-	-	-	-	-
Health related occupations .....	22.34	13.40	15.00	17.97	19.87	22.50	17.81	13.42	14.79	19.34	20.00	20.51
Registered nurses .....	16.98	13.51	14.97	17.48	18.66	20.07	16.58	12.00	14.28	16.44	19.34	20.00
Teachers, college and university .....	26.26	15.56	23.50	26.71	29.97	36.04	20.23	18.00	18.00	20.00	20.00	20.00
Teachers, except college and university .....	21.91	13.63	16.65	20.79	26.37	31.75	14.44	6.25	7.14	14.68	20.02	23.56
Elementary school teachers .....	22.61	13.63	16.34	22.35	27.41	32.74	-	-	-	-	-	-
Secondary school teachers .....	20.24	15.47	17.49	20.51	22.36	25.29	-	-	-	-	-	-
Librarians, archivists, and curators .....	-	-	-	-	-	-	-	-	-	-	-	-
Social scientists and urban planners .....	20.81	14.10	16.97	18.74	29.69	29.69	-	-	-	-	-	-
Social, recreation, and religious workers .....	12.50	8.01	10.50	11.85	16.69	16.69	-	-	-	-	-	-
Social workers .....	12.74	7.53	10.50	12.25	16.69	16.69	-	-	-	-	-	-
Lawyers and judges .....	-	-	-	-	-	-	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	17.30	13.75	14.29	18.04	18.97	20.94	10.19	7.50	8.50	9.91	10.00	16.00
Technical occupations .....	13.13	9.25	10.41	12.02	14.75	19.38	13.27	9.47	10.50	12.50	13.95	20.00
Licensed practical nurses .....	10.74	8.96	9.96	10.71	11.56	12.53	-	-	-	-	-	-
Health technologists and technicians, N.E.C. ....	13.63	9.55	12.43	12.62	13.91	19.38	-	-	-	-	-	-
Electrical and electronic technicians .....	14.93	8.89	11.15	13.95	18.87	23.84	-	-	-	-	-	-
Executive, administrative, and managerial occupations .....	19.14	11.49	13.32	17.94	21.39	27.69	-	-	-	-	-	-
Executives, administrators, and managers .....	20.55	12.95	16.53	19.23	21.39	28.85	-	-	-	-	-	-
Administrators and officials, public administration .....	18.26	16.28	17.07	18.40	19.88	20.47	-	-	-	-	-	-
Financial managers .....	23.36	16.79	19.90	19.90	27.50	27.50	-	-	-	-	-	-
Administrators, education and related fields .....	24.65	12.78	15.25	25.49	30.77	36.19	-	-	-	-	-	-
Managers, medicine and health .....	25.73	13.44	14.97	16.53	25.00	72.68	-	-	-	-	-	-
Managers and administrators, N.E.C. ....	21.72	16.39	19.23	21.39	22.93	29.33	-	-	-	-	-	-
Management related occupations .....	14.47	10.34	11.46	13.32	14.65	21.88	-	-	-	-	-	-
Accountants and auditors .....	13.31	10.34	10.45	11.84	12.65	14.73	-	-	-	-	-	-
Management related occupations, N.E.C. ....	13.86	10.10	10.10	13.85	16.20	18.68	-	-	-	-	-	-
Sales occupations .....	10.95	5.75	7.00	9.66	11.25	20.86	5.53	4.75	4.75	5.00	5.75	6.25
Supervisors, sales occupations .....	12.23	9.00	9.72	11.09	11.25	14.09	-	-	-	-	-	-
Sales workers, other commodities .....	10.20	5.58	6.08	8.30	13.22	13.22	5.44	4.75	4.75	5.00	5.25	6.80
Cashiers .....	7.02	5.00	5.75	6.25	9.25	9.25	5.41	4.75	4.75	5.20	6.00	6.25
Administrative support occupations, including clerical .....	9.66	6.50	7.50	9.00	11.12	13.34	6.90	4.75	5.25	6.45	7.75	9.30
Supervisors, general office .....	12.01	9.80	10.63	12.55	12.85	13.97	-	-	-	-	-	-
Secretaries .....	9.21	6.00	7.50	9.28	11.07	11.31	-	-	-	-	-	-
Receptionists .....	7.04	5.83	6.49	7.00	7.84	8.34	-	-	-	-	-	-
Records clerks, N.E.C. ....	8.74	7.40	7.94	8.69	8.86	12.02	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks .....	8.71	6.25	7.10	8.60	10.00	11.83	-	-	-	-	-	-
Traffic, shipping and receiving clerks .....	9.73	7.07	7.25	8.66	12.74	13.48	-	-	-	-	-	-
General office clerks .....	9.49	7.58	8.02	9.31	10.54	11.47	7.41	6.18	6.34	7.65	8.36	9.01
Teachers' aides .....	7.82	6.00	6.52	7.37	8.44	10.96	-	-	-	-	-	-
Administrative support occupations, N.E.C. ....	8.07	5.20	6.00	7.50	9.66	11.65	8.02	6.36	7.00	7.56	9.44	10.31

See footnotes at end of table.

**Table A-3. Hourly earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Statewide Montana, June 1997 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Blue-collar occupations</b> .....	\$12.71	\$7.00	\$9.10	\$12.75	\$14.67	\$19.50	\$8.60	\$5.60	\$7.00	\$8.00	\$10.96	\$13.00
Precision production, craft, and repair occupations .....	15.34	8.37	11.00	15.39	18.30	21.86	-	-	-	-	-	-
Supervisors, mechanics and repairers .....	17.82	9.23	9.97	17.25	22.74	30.94	-	-	-	-	-	-
Heavy equipment mechanics .....	16.29	11.50	11.78	17.80	18.30	20.05	-	-	-	-	-	-
Machinery maintenance occupations .....	16.87	11.89	13.97	18.12	20.41	22.35	-	-	-	-	-	-
Carpenters .....	13.84	13.00	13.04	13.74	14.97	15.50	-	-	-	-	-	-
Electricians .....	21.37	17.18	19.50	20.88	22.82	24.94	-	-	-	-	-	-
Supervisors, production occupations ..	14.44	9.65	9.65	12.13	16.25	27.07	-	-	-	-	-	-
Machine operators, assemblers, and inspectors .....	11.68	7.30	8.66	11.53	13.00	17.40	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	12.05	7.50	9.66	11.53	12.75	20.88	-	-	-	-	-	-
Transportation and material moving occupations .....	12.32	7.12	10.50	12.61	13.92	15.83	11.16	6.70	8.80	11.92	12.00	13.83
Truck drivers .....	11.90	6.81	9.69	12.09	14.45	15.83	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers .....	10.18	6.00	7.00	10.00	13.00	13.00	7.63	5.50	7.00	7.00	8.27	9.85
Construction laborers .....	12.27	9.91	10.76	12.94	13.70	14.04	-	-	-	-	-	-
Laborers except construction, N.E.C. ....	8.16	6.00	6.00	7.50	9.10	12.44	7.63	5.00	5.50	7.50	7.50	12.96
<b>Service occupations</b> .....	8.80	5.72	6.60	7.81	10.73	13.20	5.67	4.75	4.90	5.50	6.00	6.93
Protective service occupations .....	12.30	8.84	11.31	12.25	14.53	15.58	6.58	5.00	6.10	6.10	6.78	7.33
Firefighting occupations .....	12.70	12.01	12.01	12.11	13.01	14.12	-	-	-	-	-	-
Police and detectives, public service ..	13.13	11.31	11.42	11.93	15.38	15.58	-	-	-	-	-	-
Food service occupations .....	6.99	5.15	5.70	6.42	7.45	8.90	5.17	4.75	4.75	5.00	5.30	5.80
Cooks .....	6.90	5.72	6.40	6.64	6.84	8.95	-	-	-	-	-	-
Kitchen workers, food preparation .....	5.90	5.11	5.11	5.49	6.40	6.45	5.68	4.75	4.75	5.50	6.00	6.99
Food preparation occupations, N.E.C. ....	6.69	5.62	5.62	6.41	7.20	8.90	-	-	-	-	-	-
Health service occupations .....	7.50	5.95	6.70	7.41	8.28	9.10	6.21	5.50	5.50	5.50	6.88	7.63
Health aides, except nursing .....	7.23	5.30	5.75	6.80	8.69	9.78	-	-	-	-	-	-
Nursing aides, orderlies and attendants .....	7.55	6.40	6.76	7.50	8.28	8.97	7.04	5.65	6.40	6.98	7.63	8.36
Cleaning and building service occupations .....	7.95	5.79	6.60	7.75	9.05	11.31	6.16	4.75	5.00	6.16	6.93	7.91
Maids and housemen .....	6.67	5.25	5.25	6.25	7.79	9.05	-	-	-	-	-	-
Janitors and cleaners .....	8.31	6.09	6.84	8.06	9.67	11.31	5.98	4.85	5.00	5.50	6.93	7.45
Personal service occupations .....	7.67	5.48	6.30	6.83	8.35	11.56	5.88	4.75	5.50	6.00	6.00	6.25

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

<sup>2</sup> Employees are classified as working either a full-time or a part-time schedule based

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

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

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

**Table A-4. Weekly and annual earnings<sup>1</sup> and hours for selected occupations, full-time workers only<sup>2</sup>, all industries, Statewide Montana, June 1997**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>All occupations</b> .....	39.8	\$549	\$490	1,965	\$27,046	\$24,752
All occupations excluding sales .....	39.8	553	502	1,958	27,196	24,981
<b>White-collar occupations</b> .....	39.7	621	541	1,934	30,254	27,040
White-collar occupations excluding sales .....	39.6	634	565	1,920	30,742	27,936
Professional specialty and technical occupations .....	39.2	758	700	1,794	34,682	32,282
Professional specialty occupations .....	39.0	825	757	1,730	36,576	34,518
Engineers, architects, and surveyors .....	40.5	841	850	2,104	43,729	44,179
Mathematical and computer scientists .....	40.0	603	572	2,080	31,330	29,744
Computer systems analysts and scientists .....	40.0	696	656	2,080	36,198	34,133
Natural scientists .....	-	-	-	-	-	-
Health related occupations .....	39.2	875	702	1,992	44,498	36,234
Registered nurses .....	39.5	671	697	2,036	34,568	35,818
Teachers, college and university .....	39.9	1,047	1,068	1,647	43,241	41,830
Teachers, except college and university .....	38.0	832	827	1,449	31,747	31,233
Elementary school teachers .....	37.5	847	863	1,426	32,226	32,628
Secondary school teachers .....	39.5	799	820	1,496	30,275	30,683
Librarians, archivists, and curators .....	-	-	-	-	-	-
Social scientists and urban planners .....	40.0	833	750	1,857	38,647	38,979
Social, recreation, and religious workers .....	40.0	500	474	1,977	24,712	22,048
Social workers .....	40.0	510	490	1,965	25,034	24,648
Lawyers and judges .....	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	40.0	691	722	2,059	35,621	37,523
Technical occupations .....	39.7	522	475	2,054	26,962	24,565
Licensed practical nurses .....	39.2	421	418	2,016	21,652	21,424
Health technologists and technicians, N.E.C. ....	40.0	545	505	1,981	27,004	26,250
Electrical and electronic technicians .....	40.0	597	558	2,080	31,064	29,016
Executive, administrative, and managerial occupations ...	40.3	771	720	2,080	39,802	37,315
Executives, administrators, and managers .....	40.4	830	769	2,083	42,795	39,998
Administrators and officials, public administration	40.4	738	736	2,103	38,393	38,272
Financial managers .....	40.3	941	796	2,003	46,784	41,392
Administrators, education and related fields .....	40.1	988	1,034	2,003	49,384	53,789
Managers, medicine and health .....	40.3	1,037	661	2,097	53,935	34,382
Managers and administrators, N.E.C. ....	40.3	876	856	2,098	45,567	44,491
Management related occupations .....	39.9	577	533	2,070	29,965	27,706
Accountants and auditors .....	39.9	531	474	2,077	27,637	24,627
Management related occupations, N.E.C. ....	40.1	556	648	2,043	28,303	33,696
Sales occupations .....	41.0	449	376	2,130	23,328	19,552
Supervisors, sales occupations .....	41.1	503	450	2,139	26,151	23,400
Sales workers, other commodities .....	37.6	384	324	1,955	19,942	16,848
Cashiers .....	39.5	277	240	2,054	14,425	12,480
Administrative support occupations, including clerical ....	39.7	384	355	2,004	19,365	18,366
Supervisors, general office .....	40.1	481	504	2,083	25,020	26,187
Secretaries .....	40.1	369	364	1,995	18,376	18,741
Receptionists .....	40.0	282	280	2,080	14,642	14,560
Records clerks, N.E.C. ....	39.7	347	348	2,067	18,055	18,075
Bookkeepers, accounting and auditing clerks .....	40.0	348	344	2,080	18,121	17,888
Traffic, shipping and receiving clerks .....	40.0	389	346	2,013	19,593	18,013
General office clerks .....	39.9	379	372	2,030	19,267	19,365
Teachers' aides .....	36.1	282	280	1,356	10,600	10,259
Administrative support occupations, N.E.C. ....	39.8	321	300	2,059	16,606	15,600
<b>Blue-collar occupations</b> .....	40.2	511	504	2,051	26,080	25,584
Precision production, craft, and repair occupations .....	40.2	616	600	2,058	31,578	30,347
Supervisors, mechanics and repairers .....	40.5	722	690	2,107	37,549	35,880
Heavy equipment mechanics .....	40.1	653	712	1,961	31,938	34,944
Machinery maintenance occupations .....	40.8	688	725	2,121	35,780	37,690
Carpenters .....	39.6	547	540	1,878	25,989	27,102
Electricians .....	40.0	855	835	1,995	42,641	43,430
Supervisors, production occupations .....	42.1	608	485	2,191	31,639	25,230
Machine operators, assemblers, and inspectors .....	40.0	467	461	2,015	23,538	21,572
Miscellaneous machine operators, N.E.C. ....	40.0	482	461	1,955	23,556	20,800
Transportation and material moving occupations .....	40.5	498	493	2,053	25,289	25,384
Truck drivers .....	44.0	524	508	2,290	27,257	26,395
Handlers, equipment cleaners, helpers, and laborers .....	40.0	407	400	2,074	21,113	20,800

See footnotes at end of table.

**Table A-4. Weekly and annual earnings<sup>1</sup> and hours for selected occupations, full-time workers only<sup>2</sup>, all industries, Statewide Montana, June 1997 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>Blue-collar occupations</b> (-Continued)						
Handlers, equipment cleaners, helpers, and laborers (-Continued)						
Construction laborers .....	39.9	\$490	\$518	2,005	\$24,601	\$26,915
Laborers except construction, N.E.C. ....	40.0	326	300	2,080	16,976	15,600
<b>Service occupations</b> .....						
Protective service occupations .....	39.8	351	309	1,943	17,109	15,496
Firefighting occupations .....	40.9	503	518	2,118	26,057	26,208
Police and detectives, public service .....	43.5	553	571	2,225	28,264	27,456
Food service occupations .....	40.0	525	477	2,080	27,313	24,814
Cooks .....	39.0	273	254	1,775	12,403	12,350
Kitchen workers, food preparation .....	37.7	261	266	1,649	11,380	13,811
Food preparation occupations, N.E.C. ....	39.6	234	220	1,801	10,627	10,629
Health service occupations .....	40.0	268	256	1,827	12,218	12,605
Health aides, except nursing .....	39.4	296	293	1,980	14,851	14,664
Nursing aides, orderlies and attendants .....	39.6	287	264	1,979	14,305	13,056
Cleaning and building service occupations .....	39.4	297	294	1,980	14,943	14,851
Maids and housemen .....	40.0	318	310	1,949	15,495	15,142
Janitors and cleaners .....	40.0	267	250	2,028	13,531	12,584
Personal service occupations .....	40.0	332	322	2,024	16,811	16,598
	39.2	301	273	1,616	12,395	11,024

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

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

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

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

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

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

**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Statewide Montana, June 1997**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>All occupations</b> .....	\$12.90	\$11.96	\$14.86	\$13.77	\$8.22
All occupations excluding sales .....	13.08	12.15	14.88	13.89	8.48
<b>White-collar occupations</b> .....	15.06	13.91	16.63	15.64	10.44
Level 1 .....	5.36	—	—	—	—
Level 2 .....	6.18	6.16	6.34	6.47	5.51
Level 3 .....	7.44	7.16	8.06	7.66	6.75
Level 4 .....	9.12	9.15	9.02	9.37	7.07
Level 5 .....	10.47	10.35	10.91	10.37	11.59
Level 6 .....	13.68	11.82	14.79	13.77	12.27
Level 7 .....	15.28	15.32	15.25	15.42	12.37
Level 8 .....	18.26	18.74	17.79	18.34	—
Level 9 .....	19.73	17.73	23.49	19.96	17.97
Level 10 .....	19.96	21.16	19.45	19.73	21.44
Level 11 .....	23.91	25.63	23.33	24.22	—
Level 12 .....	38.66	42.62	—	38.60	—
Not able to be leveled .....	23.55	33.15	—	25.15	—
White-collar occupations excluding sales .....	15.62	14.73	16.65	16.01	11.89
Level 2 .....	6.50	6.52	6.34	6.61	6.08
Level 3 .....	7.66	7.39	8.12	7.83	7.00
Level 4 .....	9.34	9.50	9.02	9.43	8.28
Level 5 .....	10.44	10.27	10.91	10.36	—
Level 6 .....	13.72	11.76	14.79	13.81	12.27
Level 7 .....	15.23	15.20	15.25	15.36	12.37
Level 8 .....	18.17	18.63	17.79	18.26	—
Level 9 .....	19.72	17.68	23.49	19.94	17.97
Level 10 .....	19.96	21.16	19.45	19.73	21.44
Level 11 .....	23.81	25.32	23.33	24.12	—
Level 12 .....	38.62	42.62	—	38.56	—
Not able to be leveled .....	24.18	36.43	—	25.96	—
Professional specialty and technical occupations .....	18.87	17.87	19.74	19.33	15.40
Professional specialty occupations .....	20.49	20.64	20.40	21.14	15.85
Level 6 .....	17.53	12.20	18.43	17.71	—
Level 7 .....	17.67	15.95	18.42	18.11	11.82
Level 8 .....	18.23	16.79	18.68	18.39	—
Level 9 .....	20.49	17.58	25.02	21.00	17.81
Level 10 .....	20.75	20.32	20.99	20.54	21.44
Level 11 .....	23.26	26.23	22.22	23.73	—
Level 12 .....	46.48	68.91	—	46.39	—
Not able to be leveled .....	23.14	—	—	—	—
Engineers, architects, and surveyors .....	20.78	22.21	—	20.78	—
Level 11 .....	20.51	24.71	—	20.51	—
Mathematical and computer scientists .....	15.06	17.46	—	15.06	—
Natural scientists .....	—	—	—	—	—
Health related occupations .....	21.38	22.43	15.58	22.34	17.81
Level 7 .....	15.93	—	13.73	15.97	—
Level 8 .....	17.23	17.23	—	17.17	—
Level 9 .....	17.68	17.50	—	17.71	17.59
Teachers, college and university .....	25.43	19.05	27.69	26.26	20.23
Level 11 .....	26.16	—	—	—	—
Teachers, except college and university .....	21.13	13.56	21.47	21.91	14.44
Level 6 .....	19.17	—	19.43	19.21	—
Level 7 .....	19.12	—	20.00	19.17	—
Level 8 .....	22.69	—	22.69	—	—
Level 9 .....	26.30	—	26.30	26.33	—
Librarians, archivists, and curators .....	—	—	—	—	—
Social scientists and urban planners .....	20.81	—	—	20.81	—
Social, religious, and recreation workers .....	12.28	10.02	—	12.50	—
Lawyers and judges .....	—	—	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	15.49	15.66	15.36	17.30	10.19
Level 9 .....	17.21	17.21	—	17.21	—
Not able to be leveled .....	13.86	—	—	—	—
Technical occupations .....	13.14	13.41	12.02	13.13	13.27

See footnotes at end of table.



**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Statewide Montana, June 1997 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations (-Continued)</b>					
Technical occupations (-Continued)					
Level 4 .....	\$13.30	\$13.30	—	\$13.64	—
Level 5 .....	10.71	10.63	—	10.74	—
Level 6 .....	11.05	11.68	—	10.97	—
Level 7 .....	13.01	13.21	—	13.01	—
Level 8 .....	17.15	17.15	—	17.15	—
Executive, administrative, and managerial occupations ...	19.21	20.47	\$17.88	19.14	—
Level 6 .....	11.20	10.97	—	11.20	—
Level 7 .....	12.61	—	—	12.61	—
Level 8 .....	18.39	—	15.05	18.39	—
Level 9 .....	18.28	17.92	19.37	18.31	—
Level 10 .....	18.10	—	—	18.10	—
Level 11 .....	24.61	23.75	—	24.61	—
Level 12 .....	29.82	28.47	—	29.82	—
Not able to be leveled .....	24.63	40.24	—	24.72	—
Executives, administrators, and managers .....	20.64	21.15	20.03	20.55	—
Level 8 .....	19.45	—	16.96	19.45	—
Level 9 .....	18.23	17.76	19.37	18.25	—
Level 10 .....	18.10	—	—	18.10	—
Level 11 .....	24.75	—	—	24.75	—
Level 12 .....	29.82	28.47	—	29.82	—
Not able to be leveled .....	24.19	40.99	—	24.26	—
Management related occupations .....	14.47	17.47	12.40	14.47	—
Level 6 .....	11.22	11.00	—	11.22	—
Level 9 .....	18.65	18.65	—	18.65	—
Sales occupations .....	9.41	9.45	—	10.95	\$5.53
Level 1 .....	5.07	5.07	—	—	5.07
Level 2 .....	5.49	5.49	—	—	—
Level 3 .....	6.38	6.37	—	6.55	6.13
Level 4 .....	7.80	7.80	—	8.91	5.27
Level 5 .....	10.56	10.56	—	10.41	—
Level 6 .....	12.52	12.52	—	12.52	—
Level 8 .....	19.39	19.39	—	19.39	—
Administrative support occupations, including clerical .....	9.34	9.15	9.68	9.66	6.90
Level 2 .....	6.50	6.52	6.34	6.61	6.08
Level 3 .....	7.67	7.39	8.18	7.83	6.99
Level 4 .....	8.92	8.86	9.02	9.00	7.98
Level 5 .....	10.35	10.35	—	10.35	—
Level 6 .....	11.40	12.38	11.07	11.21	—
Level 7 .....	14.83	—	—	14.84	—
<b>Blue-collar occupations</b> .....	12.13	12.24	11.13	12.71	8.60
Level 1 .....	7.71	7.68	—	8.05	6.46
Level 2 .....	8.42	8.67	—	9.05	5.78
Level 3 .....	9.09	9.12	—	9.59	—
Level 4 .....	12.61	12.86	—	12.88	10.13
Level 5 .....	12.29	12.32	11.99	12.28	—
Level 6 .....	14.16	14.74	—	14.20	—
Level 7 .....	15.43	15.94	12.68	15.43	—
Level 8 .....	18.57	—	—	18.57	—
Level 9 .....	23.84	—	—	23.84	—
Precision production, craft, and repair occupations .....	15.01	15.22	12.74	15.34	—
Level 4 .....	14.01	14.45	—	16.22	—
Level 5 .....	11.33	11.33	—	10.69	—
Level 6 .....	13.21	13.26	—	13.21	—
Level 7 .....	15.60	16.23	—	15.60	—
Level 9 .....	23.84	—	—	23.84	—
Machine operators, assemblers, and inspectors .....	11.61	11.69	—	11.68	—
Level 2 .....	8.63	8.72	—	8.70	—
Level 3 .....	10.34	10.35	—	10.35	—
Transportation and material moving occupations .....	12.25	12.41	11.79	12.32	11.16
Level 3 .....	8.63	—	—	8.63	—
Level 4 .....	13.21	13.42	—	13.90	—

See footnotes at end of table.

**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Statewide Montana, June 1997 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Blue-collar occupations</b> (-Continued)					
Transportation and material moving occupations (-Continued)					
Level 5 .....	\$13.29	\$13.60	—	\$13.32	—
Level 6 .....	13.40	14.51	—	13.45	—
Level 7 .....	17.29	—	—	17.29	—
Handlers, equipment cleaners, helpers, and laborers .....	9.29	9.41	\$7.21	10.18	\$7.63
Level 1 .....	7.45	7.46	—	7.70	6.55
Level 2 .....	7.15	7.72	—	—	—
Level 3 .....	8.22	—	—	8.65	—
<b>Service occupations</b> .....	7.87	6.73	10.11	8.80	5.67
Level 1 .....	6.05	5.95	6.40	7.15	5.16
Level 2 .....	6.22	6.23	6.19	6.49	—
Level 3 .....	7.01	6.82	7.71	7.47	—
Level 4 .....	7.26	7.20	7.56	7.59	—
Level 5 .....	9.25	—	10.39	9.80	—
Level 6 .....	9.98	—	9.93	9.91	—
Level 7 .....	12.61	—	13.21	12.61	—
Level 8 .....	13.11	—	—	13.11	—
Protective service occupations .....	12.17	10.23	12.37	12.30	6.58
Level 7 .....	13.22	—	13.21	13.22	—
Food service occupations .....	6.04	6.01	6.36	6.99	5.17
Level 1 .....	5.42	5.35	5.78	6.66	—
Level 2 .....	5.68	5.62	—	6.02	—
Level 3 .....	6.50	6.39	—	—	6.33
Health service occupations .....	7.28	7.16	8.14	7.50	6.21
Level 1 .....	6.00	6.02	—	—	—
Level 2 .....	6.73	6.75	—	6.76	—
Level 3 .....	7.54	7.56	—	7.49	—
Level 4 .....	7.24	7.15	—	7.66	—
Cleaning and building service occupations .....	7.52	6.97	8.27	7.95	6.16
Level 1 .....	6.97	6.53	—	7.35	5.88
Level 2 .....	7.27	7.47	—	7.27	—
Level 3 .....	7.25	—	—	8.00	—
Personal service occupations .....	6.52	6.47	6.67	7.67	5.88
Level 1 .....	5.42	—	—	—	5.43
Level 4 .....	6.81	—	—	6.81	—

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

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

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

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

<sup>4</sup> All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

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

**Table B-2. Mean hourly earnings<sup>1</sup> for selected occupations and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Statewide Montana, June 1997**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations:</b>					
Professional specialty and technical occupations:					
Professional specialty occupations:					
Computer systems analysts and scientists .....	\$17.40	\$17.72	—	\$17.40	—
Registered nurses .....	16.90	17.06	\$15.57	16.98	\$16.58
Level 7 .....	16.25	—	13.90	16.30	—
Level 8 .....	16.08	16.08	—	15.89	—
Level 9 .....	17.40	17.30	—	17.55	17.01
Elementary school teachers .....	22.60	—	23.09	22.61	—
Level 7 .....	18.63	—	19.87	18.62	—
Secondary school teachers .....	19.84	—	19.87	20.24	—
Teachers, special education .....	22.20	—	22.20	—	—
Vocational and educational counselors .....	20.16	—	20.72	—	—
Social workers .....	12.49	9.84	—	12.74	—
Editors and reporters .....	14.52	—	—	—	—
Technical occupations:					
Licensed practical nurses .....	10.89	10.95	—	10.74	—
Level 5 .....	10.61	10.61	—	10.64	—
Level 6 .....	11.03	—	—	10.64	—
Health technologists and technicians, N.E.C. ....	12.73	12.73	—	13.63	—
Electrical and electronic technicians .....	14.93	—	—	14.93	—
Executive, administrative, and managerial occupations:					
Administrators and officials, public administration	18.23	—	18.26	18.26	—
Financial managers .....	23.36	—	—	23.36	—
Administrators, education and related fields .....	24.65	19.17	25.53	24.65	—
Managers, medicine and health .....	26.76	28.97	—	25.73	—
Level 9 .....	19.48	19.48	—	19.48	—
Managers and administrators, N.E.C. ....	21.72	22.00	—	21.72	—
Level 9 .....	20.28	—	—	20.28	—
Not able to be leveled .....	29.32	29.32	—	29.32	—
Accountants and auditors .....	13.31	19.55	—	13.31	—
Management related occupations, N.E.C. ....	13.86	—	—	13.86	—
Sales occupations:					
Supervisors, sales occupations .....	12.06	12.06	—	12.23	—
Sales workers, other commodities .....	7.40	7.43	—	10.20	5.44
Level 4 .....	9.55	9.55	—	—	—
Cashiers .....	6.32	6.32	—	7.02	5.41
Level 3 .....	6.23	6.20	—	—	—
Administrative support occupations, including clerical:					
Supervisors, general office .....	12.12	12.26	—	12.01	—
Level 7 .....	12.65	—	—	12.65	—
Secretaries .....	9.22	8.34	10.28	9.21	—
Level 3 .....	6.88	—	—	—	—
Level 4 .....	8.97	8.33	—	8.91	—
Level 5 .....	10.41	—	—	10.41	—
Receptionists .....	6.84	6.84	—	7.04	—
Level 3 .....	7.42	7.42	—	—	—
Records clerks, N.E.C. ....	8.65	9.08	—	8.74	—
Bookkeepers, accounting and auditing clerks .....	8.67	8.50	—	8.71	—
Level 4 .....	8.59	8.08	—	8.68	—
Traffic, shipping and receiving clerks .....	9.58	9.58	—	9.73	—
Stock and inventory clerks .....	13.27	13.27	—	—	—
General office clerks .....	9.17	9.49	8.74	9.49	7.41
Level 3 .....	8.41	8.55	—	8.65	—
Level 4 .....	9.34	—	9.05	9.52	—
Teachers' aides .....	7.51	—	7.60	7.82	—
Administrative support occupations, N.E.C. ....	8.06	7.89	9.03	8.07	8.02
Level 3 .....	7.59	7.54	—	—	—
Level 4 .....	9.74	9.72	—	9.94	—
<b>Blue-collar occupations:</b>					
Precision production, craft, and repair occupations:					
Supervisors, mechanics and repairers .....	17.82	17.82	—	17.82	—
Heavy equipment mechanics .....	16.29	16.29	—	16.29	—
Machinery maintenance occupations .....	16.87	16.87	—	16.87	—

See footnotes at end of table.

**Table B-2. Mean hourly earnings<sup>1</sup> for selected occupations and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Statewide Montana, June 1997 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Blue-collar occupations: (-Continued)</b>					
Precision production, craft, and repair occupations: (-Continued)					
Carpenters .....	\$13.84	\$13.84	—	\$13.84	—
Electricians .....	21.37	21.37	—	21.37	—
Level 7 .....	20.49	20.49	—	20.49	—
Supervisors, production occupations .....	14.44	14.63	—	14.44	—
Machine operators, assemblers, and inspectors:					
Laundrying and dry cleaning machine operators .....	7.19	—	—	—	—
Miscellaneous machine operators, N.E.C. ....	12.05	12.05	—	12.05	—
Transportation and material moving occupations:					
Truck drivers .....	11.91	11.92	—	11.90	—
Level 5 .....	13.89	—	—	13.89	—
Bus drivers .....	12.06	—	—	—	—
Industrial truck and tractor equipment operators ..	13.51	13.51	—	—	—
Handlers, equipment cleaners, helpers, and laborers:					
Construction laborers .....	12.27	12.12	—	12.27	—
Freight, stock, and material handlers, N.E.C. ....	8.68	8.68	—	—	—
Laborers except construction, N.E.C. ....	8.09	8.09	—	8.16	\$7.63
Level 1 .....	7.32	7.32	—	7.46	—
<b>Service occupations:</b>					
Protective service occupations:					
Firefighting occupations .....	12.70	—	\$12.64	12.70	—
Police and detectives, public service .....	13.13	—	13.16	13.13	—
Food service occupations:					
Supervisors, food preparation and service occupations .....	8.16	—	—	—	—
Cooks .....	6.26	6.16	—	6.90	—
Kitchen workers, food preparation .....	5.81	5.80	5.86	5.90	5.68
Level 2 .....	5.54	—	—	—	—
Food preparation occupations, N.E.C. ....	6.66	—	—	6.69	—
Level 1 .....	6.66	—	—	6.69	—
Health service occupations:					
Health aides, except nursing .....	6.47	—	—	7.23	—
Nursing aides, orderlies and attendants .....	7.50	7.47	7.68	7.55	7.04
Level 2 .....	6.85	6.88	—	—	—
Level 3 .....	7.59	7.63	—	7.54	—
Level 4 .....	7.61	7.55	—	7.66	6.75
Cleaning and building service occupations:					
Maids and housemen .....	6.57	6.52	—	6.67	—
Janitors and cleaners .....	7.86	7.27	8.34	8.31	5.98
Level 1 .....	7.93	7.96	—	8.27	—
Level 2 .....	7.11	—	—	—	—
Level 3 .....	7.25	—	—	—	—
Personal service occupations:					
Service occupations, N.E.C. ....	6.37	—	—	—	—

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

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

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

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

<sup>4</sup> All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

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

**Table C-1. Mean hourly earnings<sup>1</sup> by occupational group and selected characteristics, all industries, Statewide Montana, June 1997**

Occupational group <sup>2</sup>	Full-time workers <sup>3</sup>	Part-time workers <sup>3</sup>	Union <sup>4</sup>	Nonunion <sup>4</sup>	Time <sup>5</sup>	Incentive <sup>5</sup>
<b>All occupations</b> .....	\$13.77	\$8.22	\$15.37	\$12.41	\$12.92	\$11.90
All occupations excluding sales .....	13.89	8.48	15.45	12.59	13.11	-
<b>White-collar occupations</b> .....	15.64	10.44	17.65	14.64	15.08	13.06
White-collar excluding sales .....	16.01	11.89	17.86	15.22	15.64	-
Professional specialty and technical occupations .....	19.33	15.40	20.27	18.41	18.87	-
Professional specialty occupations .....	21.14	15.85	20.78	20.36	20.49	-
Technical occupations .....	13.13	13.27	-	13.17	13.14	-
Executive, administrative, and managerial occupations ...	19.14	-	-	19.45	19.21	-
Sales occupations .....	10.95	5.53	-	9.45	8.88	14.35
Administrative support including clerical occupations .....	9.66	6.90	10.14	9.26	9.34	-
<b>Blue-collar occupations</b> .....	12.71	8.60	15.16	11.18	12.16	-
Precision production, craft, and repair occupations .....	15.34	-	18.42	13.80	15.01	-
Machine operators, assemblers, and inspectors .....	11.68	-	-	10.21	11.61	-
Transportation and material moving occupations .....	12.32	11.16	13.45	11.69	12.51	-
Handlers, equipment cleaners, helpers, and laborers .....	10.18	7.63	11.38	9.04	9.29	-
<b>Service occupations</b> .....	8.80	5.67	9.56	7.59	7.87	-

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

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

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

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

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

<sup>5</sup> Time workers' wages are based solely on an hourly rate or salary; incentive workers are those whose wages are at least partially based on productivity payments such as piece rates, commissions, and production bonuses.

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

**Table C-2. Mean hourly earnings<sup>1</sup> by occupational group and industry division, private industry, all workers<sup>2</sup>, Statewide Montana, June 1997**

Occupational group <sup>3</sup>	All private industries	Goods-producing industries <sup>4</sup>				Service-producing industries <sup>5</sup>				
		Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
<b>All occupations</b> .....	\$11.96	\$14.31	\$19.60	\$14.66	\$12.96	\$11.26	—	\$10.84	\$10.93	\$11.34
All occupations excluding sales .....	12.15	14.39	19.60	14.62	13.04	11.44	—	11.08	10.87	11.43
<b>White-collar occupations</b> .....	13.91	16.23	24.58	18.15	14.98	13.49	—	12.20	11.36	14.28
White-collar excluding sales .....	14.73	16.68	24.58	18.19	15.41	14.33	—	14.40	11.36	14.56
Professional specialty and technical occupations .....	17.87	18.97	21.14	—	18.33	17.64	—	—	—	17.81
Professional specialty occupations .....	20.64	20.58	22.40	—	19.96	20.66	—	—	—	20.75
Technical occupations .....	13.41	13.97	—	—	—	13.34	—	—	—	12.13
Executive, administrative, and managerial occupations .....	20.47	24.05	30.99	19.74	22.85	19.59	—	—	19.88	19.93
Sales occupations .....	9.45	—	—	—	—	9.31	—	9.80	11.31	7.19
Administrative support, including clerical occupations .....	9.15	9.79	—	10.70	9.42	9.03	—	11.56	8.69	7.90
<b>Blue-collar occupations</b> .....	12.24	13.47	18.63	13.70	11.86	11.21	—	—	—	8.71
Precision production, craft, and repair occupations .....	15.22	16.46	19.21	14.57	15.15	13.56	—	—	—	—
Machine operators, assemblers, and inspectors .....	11.69	11.55	15.32	—	11.21	—	—	—	—	9.57
Transportation and material moving occupations .....	12.41	15.32	19.00	—	13.35	11.36	—	11.21	—	—
Handlers, equipment cleaners, helpers, and laborers .....	9.41	9.08	—	12.12	8.14	9.53	—	—	—	6.75
<b>Service occupations</b> .....	6.73	11.07	—	—	—	6.66	—	5.55	—	7.03

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

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

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

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

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

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

**Table C-3. Mean hourly earnings<sup>1</sup> by occupational group and establishment employment size, private industry, all workers<sup>2</sup>, Statewide Montana, June 1997**

Occupational group <sup>3</sup>	All private industry workers	50 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
<b>All occupations</b> .....	\$11.96	\$10.52	\$12.52	\$11.68	\$15.40
All occupations excluding sales .....	12.15	10.58	12.69	11.75	16.02
<b>White-collar occupations</b> .....	13.91	11.92	14.76	13.23	18.30
White-collar excluding sales .....	14.73	12.72	15.37	13.55	19.72
Professional specialty and technical occupations .....	17.87	16.16	18.41	16.08	20.71
Professional specialty occupations .....	20.64	17.70	21.24	17.53	24.99
Technical occupations .....	13.41	14.98	12.55	12.97	12.15
Executive, administrative, and managerial occupations ...	20.47	17.92	21.03	19.36	27.87
Sales occupations .....	9.45	10.15	8.38	9.33	-
Administrative support, including clerical occupations .....	9.15	8.44	9.42	9.26	10.40
<b>Blue-collar occupations</b> .....	12.24	11.09	12.62	12.27	15.38
Precision production, craft, and repair occupations .....	15.22	12.43	16.34	16.33	16.37
Machine operators, assemblers, and inspectors .....	11.69	9.41	11.79	11.51	14.09
Transportation and material moving occupations .....	12.41	11.59	13.19	13.03	-
Handlers, equipment cleaners, helpers, and laborers .....	9.41	8.74	9.59	9.63	-
<b>Service occupations</b> .....	6.73	5.82	7.07	7.04	7.18

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

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

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

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

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

**Table C-4. Number of workers<sup>1</sup> represented by occupational group, Statewide Montana, June 1997**

Occupational group <sup>2</sup>	All workers		
	All industries	Private industry	State and local government
<b>All occupations</b> .....	150,140	100,062	50,078
All occupations excluding sales .....	142,840	92,947	49,893
<b>White-collar occupations</b> .....	80,498	43,702	36,796
White-collar excluding sales .....	73,199	36,587	36,611
Professional specialty and technical occupations .....	36,785	15,336	21,449
Professional specialty occupations .....	30,167	9,938	20,229
Technical occupations .....	6,618	5,399	1,220
Executive, administrative, and managerial occupations ...	12,199	6,304	5,895
Sales occupations .....	7,300	7,115	—
Administrative support including clerical occupations .....	24,215	14,947	9,268
<b>Blue-collar occupations</b> .....	34,860	30,848	4,012
Precision production, craft, and repair occupations .....	10,069	9,284	785
Machine operators, assemblers, and inspectors .....	5,736	5,564	—
Transportation and material moving occupations .....	7,371	5,156	2,215
Handlers, equipment cleaners, helpers, and laborers .....	11,684	10,843	841
<b>Service occupations</b> .....	34,781	25,511	9,270

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

<sup>2</sup> A classification system including about 480 individual

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

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



# 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, which was based on the type of data to be produced, had to be developed before data collection could begin.

### Survey scope

This survey of Statewide Montana 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.

### Sampling frame

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

## Data collection

The collection of data from survey respondents required detailed procedures. Collection was the responsibility of the field economists, working out of the Regional Office, who visited each establishment surveyed.

### 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 the establishment. The greater the number of people working in a job in the establishment, the greater its chance of selection.

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

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

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

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

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

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

In step three, certain other job characteristics of the chosen worker were identified. First, the worker was identified as holding either a full-time or part-time job, based on the establishment’s definition of those terms. Then the worker was classified as having a time versus incentive job, depending on whether any part of pay was directly based on the actual production of the worker, rather than solely on hours worked. Finally, the worker was identified as being in a union job or a nonunion job. See the “Definition of Terms” section on the following page for more detail.

## Generic leveling through point factor analysis

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

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

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

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

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

Wage data collected in prior surveys using the new generic leveling method were evaluated by BLS researchers using regression techniques. For each of the major occupational groups, wages were compared to the 10 generic level factors (and levels within those factors). The analysis showed that several of the generic level factors, most notably knowledge and supervision received, had strong ex

planatory 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 May 1997 through August 1997. The average payroll reference month was June 1997. 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 sched-

ules 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, 14.0 percent (representing 20,420 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 (2.6 percent of the total sample) had their weights changed to zero. If only partial data were given by a sample establishment or occupation, or data were missing, the response was treated as a refusal.

### Estimation

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

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

The number of workers estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because occupational structures

among establishments differ, estimates of the number of workers obtained from the sample of establishments serve only to indicate the relative importance of the occupational groups studied.

### Data reliability

The data in this bulletin are estimates from a scientifically selected probability sample. There are two types of errors possible in an estimate based on a sample survey, sampling and nonsampling.

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

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

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

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

**Appendix table 1. Number of establishments studied by industry division and establishment employment size, and number of establishments represented, Statewide Montana, June 1997**

Industry	Number of establishments represented	Number of establishments studied				
		Total studied	50 - 99 workers	100 workers or more		
				Total	100 - 499 workers	500 workers or more
All industries .....	1,002	159	59	100	78	22
Private industry .....	806	124	50	74	62	12
Goods-producing industries .....	145	34	10	24	20	4
Mining .....	14	10	1	9	7	2
Construction .....	26	8	5	3	3	—
Manufacturing .....	105	16	4	12	10	2
Service-producing industries .....	661	90	40	50	42	8
Transportation and public utilities .....	72	8	5	3	3	—
Wholesale and retail trade .....	263	24	14	10	9	1
Finance, insurance and real estate .....	32	11	7	4	3	1
Services .....	295	47	14	33	27	6
State and local government .....	195	35	9	26	16	10

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

**Appendix table 2. Relative standard errors of mean hourly earnings<sup>1</sup> for selected occupations, all industries, private industry, and State and local government, all workers<sup>2</sup>, Statewide Montana, June 1997**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>All occupations</b> .....	2.6	3.6	3.0
All occupations excluding sales .....	2.5	3.5	3.0
<b>White-collar occupations</b> .....	3.6	5.5	3.8
White-collar occupations excluding sales .....	3.4	5.5	3.8
Professional specialty and technical occupations .....	4.1	7.6	4.2
Professional specialty occupations .....	4.6	10.4	4.2
Engineers, architects, and surveyors .....	4.6	4.0	-
Mathematical and computer scientists .....	11.3	12.5	-
Computer systems analysts and scientists .....	10.9	12.5	-
Natural scientists .....	-	-	-
Health related occupations .....	14.2	15.8	9.2
Registered nurses .....	1.8	1.8	8.4
Teachers, college and university .....	6.9	8.9	6.6
Teachers, except college and university .....	5.7	7.7	5.7
Elementary school teachers .....	9.5	-	9.5
Secondary school teachers .....	4.6	-	4.7
Teachers, special education .....	4.2	-	4.2
Vocational and educational counselors .....	12.2	-	13.4
Librarians, archivists, and curators .....	-	-	-
Social scientists and urban planners .....	14.5	-	-
Social, recreation, and religious workers .....	12.4	11.3	-
Social workers .....	13.6	14.0	-
Lawyers and judges .....	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	7.0	9.2	10.4
Editors and reporters .....	12.9	-	-
Technical occupations .....	3.3	3.4	8.3
Licensed practical nurses .....	2.3	2.4	-
Health technologists and technicians, N.E.C. ....	10.6	10.6	-
Electrical and electronic technicians .....	6.7	-	-
Executive, administrative, and managerial occupations ...	4.7	6.5	6.4
Executives, administrators, and managers .....	4.9	7.5	5.9
Administrators and officials, public administration	3.2	-	3.2
Financial managers .....	8.8	-	-
Administrators, education and related fields .....	13.2	18.4	14.6
Managers, medicine and health .....	27.8	30.3	-
Managers and administrators, N.E.C. ....	3.1	3.3	-
Management related occupations .....	5.6	7.2	3.7
Accountants and auditors .....	9.5	21.4	-
Management related occupations, N.E.C. ....	13.5	-	-
Sales occupations .....	8.7	8.8	-
Supervisors, sales occupations .....	11.8	11.8	-
Sales workers, other commodities .....	15.7	15.9	-
Cashiers .....	5.4	5.6	-
Administrative support occupations, including clerical ....	4.2	6.2	3.9
Supervisors, general office .....	4.3	4.8	-
Secretaries .....	4.1	5.2	3.6
Receptionists .....	3.7	3.7	-
Records clerks, N.E.C. ....	4.0	7.3	-
Bookkeepers, accounting and auditing clerks .....	4.6	5.2	-
Traffic, shipping and receiving clerks .....	10.4	10.4	-
Stock and inventory clerks .....	20.8	20.8	-
General office clerks .....	3.3	3.6	5.2
Teachers' aides .....	8.5	-	9.0
Administrative support occupations, N.E.C. ....	8.8	9.4	3.7
<b>Blue-collar occupations</b> .....	2.7	2.9	4.5
Precision production, craft, and repair occupations .....	4.1	4.4	5.8
Supervisors, mechanics and repairers .....	22.5	22.5	-
Heavy equipment mechanics .....	5.1	5.1	-
Machinery maintenance occupations .....	8.5	8.5	-
Carpenters .....	3.2	3.2	-
Electricians .....	3.3	3.3	-

See footnotes at end of table.

**Appendix table 2. Relative standard errors of mean hourly earnings<sup>1</sup> for selected occupations, all industries, private industry, and State and local government, all workers<sup>2</sup>, Statewide Montana, June 1997 — Continued**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>Blue-collar occupations</b> (-Continued)			
Precision production, craft, and repair occupations (-Continued)			
Supervisors, production occupations .....	17.6	19.0	—
Machine operators, assemblers, and inspectors .....	6.5	6.7	—
Laundering and dry cleaning machine operators	5.0	—	—
Miscellaneous machine operators, N.E.C. ....	8.7	8.7	—
Transportation and material moving occupations .....	5.8	7.5	5.4
Truck drivers .....	11.0	11.5	—
Bus drivers .....	2.3	—	—
Industrial truck and tractor equipment operators ..	9.2	9.2	—
Handlers, equipment cleaners, helpers, and laborers .....	5.2	5.0	18.6
Construction laborers .....	4.6	5.5	—
Freight, stock, and material handlers, N.E.C. ....	8.2	8.2	—
Laborers except construction, N.E.C. ....	6.1	6.1	—
<b>Service occupations</b> .....	3.9	3.2	4.7
Protective service occupations .....	4.8	9.9	5.0
Firefighting occupations .....	2.2	—	2.1
Police and detectives, public service .....	7.8	—	8.1
Food service occupations .....	6.9	7.6	5.2
Supervisors, food preparation and service occupations .....	17.4	—	—
Cooks .....	5.1	5.1	—
Kitchen workers, food preparation .....	3.3	4.2	4.1
Food preparation occupations, N.E.C. ....	6.5	—	—
Health service occupations .....	2.4	2.7	2.8
Health aides, except nursing .....	5.7	—	—
Nursing aides, orderlies and attendants .....	1.9	2.2	2.8
Cleaning and building service occupations .....	4.7	5.8	6.1
Maids and housemen .....	6.8	7.2	—
Janitors and cleaners .....	4.9	6.6	6.6
Personal service occupations .....	4.6	5.5	7.3
Service occupations, N.E.C. ....	7.3	—	—

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

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

the minimum full-time schedule.

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

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

**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Statewide Montana, June 1997**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>All occupations</b> .....	5	6	4
All occupations excluding sales .....	5	6	4
<b>White-collar occupations</b> .....	6	7	5
White-collar occupations excluding sales .....	7	7	6
Professional specialty and technical occupations .....	8	8	7
Professional specialty occupations .....	8	8	7
Engineers, architects, and surveyors .....	11	11	—
Mathematical and computer scientists .....	8	8	—
Computer systems analysts and scientists .....	8	8	—
Natural scientists .....	—	—	—
Health related occupations .....	9	9	9
Registered nurses .....	8	8	9
Teachers, college and university .....	11	11	10
Teachers, except college and university .....	7	7	6
Elementary school teachers .....	7	7	—
Secondary school teachers .....	8	7	—
Teachers, special education .....	6	—	—
Vocational and educational counselors .....	9	—	—
Librarians, archivists, and curators .....	—	—	—
Social scientists and urban planners .....	10	10	—
Social, recreation, and religious workers .....	8	7	—
Social workers .....	8	8	—
Lawyers and judges .....	—	—	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	8	8	7
Editors and reporters .....	8	—	—
Technical occupations .....	6	6	6
Licensed practical nurses .....	6	6	—
Health technologists and technicians, N.E.C. ....	6	6	—
Electrical and electronic technicians .....	6	6	—
Executive, administrative, and managerial occupations .....	9	9	—
Executives, administrators, and managers .....	9	9	—
Administrators and officials, public administration .....	10	10	—
Financial managers .....	10	10	—
Administrators, education and related fields .....	10	10	—
Managers, medicine and health .....	10	9	—
Managers and administrators, N.E.C. ....	8	8	—
Management related occupations .....	7	7	—
Accountants and auditors .....	7	7	—
Management related occupations, N.E.C. ....	7	7	—
Sales occupations .....	4	5	3
Supervisors, sales occupations .....	6	6	—
Sales workers, other commodities .....	3	4	2
Cashiers .....	3	3	2
Administrative support occupations, including clerical .....	4	4	3
Supervisors, general office .....	7	7	—
Secretaries .....	5	5	—
Receptionists .....	3	3	—
Records clerks, N.E.C. ....	4	4	—
Bookkeepers, accounting and auditing clerks .....	4	4	—
Traffic, shipping and receiving clerks .....	4	4	—
Stock and inventory clerks .....	5	—	—
General office clerks .....	4	4	3
Teachers' aides .....	3	3	—
Administrative support occupations, N.E.C. ....	3	3	4
<b>Blue-collar occupations</b> .....	4	5	3
Precision production, craft, and repair occupations .....	6	6	—
Supervisors, mechanics and repairers .....	8	8	—
Heavy equipment mechanics .....	6	6	—
Machinery maintenance occupations .....	5	5	—
Carpenters .....	6	6	—
Electricians .....	7	7	—
Supervisors, production occupations .....	7	7	—
Machine operators, assemblers, and inspectors .....	4	4	—
Laundry and dry cleaning machine operators .....	2	—	—
Miscellaneous machine operators, N.E.C. ....	4	4	—
Transportation and material moving occupations .....	5	5	4

See footnotes at end of table.



**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Statewide Montana, June 1997 — Continued**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>Blue-collar occupations (-Continued)</b>			
Transportation and material moving occupations (-Continued)			
Truck drivers .....	4	4	—
Bus drivers .....	4	—	—
Industrial truck and tractor equipment operators .....	5	—	—
Handlers, equipment cleaners, helpers, and laborers .....	3	3	3
Construction laborers .....	3	3	—
Freight, stock, and material handlers, N.E.C. ....	3	—	—
Laborers except construction, N.E.C. ....	2	2	2
<b>Service occupations</b> .....			
Protective service occupations .....	3	4	2
Firefighting occupations .....	6	7	3
Police and detectives, public service .....	7	7	—
Police and detectives, public service .....	8	8	—
Food service occupations .....	2	3	2
Supervisors, food preparation and service occupations	5	—	—
Cooks .....	2	2	—
Kitchen workers, food preparation .....	2	2	2
Food preparation occupations, N.E.C. ....	1	1	—
Health service occupations .....	3	3	3
Health aides, except nursing .....	3	3	—
Nursing aides, orderlies and attendants .....	3	4	3
Cleaning and building service occupations .....	2	3	2
Maids and housemen .....	2	2	—
Janitors and cleaners .....	2	3	2
Personal service occupations .....	3	4	3
Service occupations, N.E.C. ....	2	—	—

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

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