

Billings, MT

National Compensation Survey

August 2010



U.S. Department of Labor
U.S. Bureau of Labor Statistics
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This summary provides results of an August 2010 survey of occupational pay in the Billings, MT, Metropolitan Statistical Area (MSA). The MSA includes Carbon and Yellowstone Counties.

Data shown in this summary were collected as part of the Bureau of Labor Statistics (BLS) National Compensation Survey (NCS). The NCS provides comprehensive measures of occupational earnings, compensation cost trends, benefit incidence, and detailed plan provisions. This summary is limited to data on occupational wages and salaries.

Table 1 presents an overview of all tables in this summary. Mean hourly earnings, weekly hours, and relative standard errors are given for all industries, private industry, and State and local government for selected worker and establishment characteristics.

Table 2 presents mean hourly earnings data by work level for occupational major groups and for detailed occupations. Separate data are also shown for full-time and part-time workers. Table 3 provides work level data for private industry workers. Table 4 provides similar data for State and local government workers.

Tables 5 through 7 present hourly wage percentiles that describe the distribution of hourly earnings for individual workers within each published occupation. Data are provided for the 10th, 25th, 50th, 75th, and 90th percentiles for detailed occupations within all industries, private industry, and State and local government.

Table 8 presents mean and median hourly, weekly, and annual earnings, and the associated hours, for major occupational groups and detailed occupations for full-time workers. Table 9 provides the same type of information for

private industry workers. Table 10 provides similar data for State and local government workers.

The survey could not have been conducted without the cooperation of the many government agencies that provided pay data included in this summary. The Bureau thanks these respondents for their cooperation. Field economists of the Bureau of Labor Statistics collected and reviewed the survey data. The Office of Compensation and Working Conditions, in cooperation with the Office of Field Operations and the Office of Technology and Survey Processing in the BLS National Office, designed the survey, processed the data, and prepared the survey for publication.

Where to find more information

The data contained in this summary are available at <http://www.bls.gov/ncs/ocs/compub.htm>, the BLS Internet site. Data are presented in a Portable Document Format (PDF) file and in an ASCII file containing the published table formats.

For additional information regarding this survey, including a list of occupational classifications, please contact any BLS regional office. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning, 2 Massachusetts Ave., NE., Room 4175, Washington, DC 20212, telephone (202) 691-6199, or send an e-mail to NCSinfo@bls.gov.

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Table 1. Summary: Mean hourly earnings¹ and weekly hours for selected worker and establishment characteristics, Billings, MT, August 2010

Worker and establishment characteristics	Civilian workers			Private industry workers			State and local government workers		
	Hourly earnings		Mean weekly hours ³	Hourly earnings		Mean weekly hours ³	Hourly earnings		Mean weekly hours ³
	Mean	Relative error ² (percent)		Mean	Relative error ² (percent)		Mean	Relative error ² (percent)	
All workers	\$21.00	5.5	35.6	\$20.44	6.1	35.5	\$26.64	5.8	36.4
Worker characteristics^{4,5}									
Management, professional, and related	34.88	7.1	38.3	35.23	8.3	38.9	33.08	6.2	35.4
Management, business, and financial	33.49	8.9	40.1	34.67	9.7	40.1	—	—	—
Professional and related	35.41	11.0	37.6	35.47	13.5	38.4	35.14	8.0	34.6
Service	9.88	6.2	30.3	9.08	5.1	29.9	20.36	6.9	36.3
Sales and office	14.07	8.2	34.3	14.04	8.6	34.2	14.68	8.6	37.8
Sales and related	14.50	19.7	31.6	14.50	19.7	31.6	—	—	—
Office and administrative support	13.84	4.9	36.0	13.77	5.2	35.9	14.68	8.6	37.8
Natural resources, construction, and maintenance	19.33	5.0	40.0	19.34	5.5	40.0	19.20	10.9	40.0
Construction and extraction	20.47	6.4	40.0	20.80	7.0	40.0	19.20	10.9	40.0
Installation, maintenance, and repair	19.12	4.2	40.0	19.12	4.2	40.0	—	—	—
Production, transportation, and material moving	18.32	5.6	37.4	18.30	5.7	37.4	—	—	—
Production	21.48	10.2	38.8	21.46	10.3	38.8	—	—	—
Transportation and material moving	16.47	10.9	36.7	16.43	11.3	36.6	—	—	—
Full time	22.72	5.4	40.0	22.30	6.0	40.0	26.56	4.9	39.3
Part time	10.53	8.2	21.3	9.72	4.7	21.5	—	—	—
Union	27.38	5.0	37.1	25.39	7.0	36.2	29.46	6.1	38.2
Nonunion	19.99	6.6	35.4	20.03	6.7	35.4	18.54	6.2	32.3
Time	20.89	5.5	35.3	20.29	6.1	35.2	26.64	5.8	36.4
Incentive	24.21	24.1	45.2	24.21	24.1	45.2	—	—	—
Establishment characteristics									
Goods producing	(⁶)	(⁶)	(⁶)	—	—	—	(⁶)	(⁶)	(⁶)
Service providing	(⁶)	(⁶)	(⁶)	19.88	6.9	35.2	(⁶)	(⁶)	(⁶)
1-99 workers	16.50	5.6	34.5	16.46	5.8	34.6	18.18	11.9	32.4
100-499 workers	20.07	4.6	36.7	19.88	4.8	36.8	21.74	6.4	35.7
500 workers or more	37.53	7.8	39.0	41.06	9.1	39.6	29.98	6.1	37.8

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

² The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs, see appendix A.

³ Mean weekly hours are the hours an employee is scheduled to work in a week, exclusive of overtime.

⁴ Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Union workers are those whose wages are determined through collective bargaining. Wages of time workers are based solely on

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.

⁵ Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

⁶ Estimates for goods-producing and service-providing industries are published for private industry only. Industries are determined by the 2007 North American Industry Classification System (NAICS).

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

Table 2. **Civilian workers: Mean hourly earnings¹ for full-time and part-time workers² by work levels³, Billings, MT, August 2010**

Occupation ⁴ and level	Total		Full-time workers		Part-time workers	
	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)
All workers	\$21.00	5.5	\$22.72	5.4	\$10.53	8.2
Management occupations	39.13	12.4	39.13	12.4	—	—
Level 9	26.29	4.6	26.29	4.6	—	—
Business and financial operations occupations	24.34	11.9	24.34	11.9	—	—
Architecture and engineering occupations	25.84	13.5	25.84	13.5	—	—
Community and social services occupations	16.22	6.5	16.33	6.6	—	—
Education, training, and library occupations	33.82	8.6	34.62	8.2	13.77	15.3
Level 9	38.38	2.6	38.47	2.8	—	—
Primary, secondary, and special education school teachers	36.05	5.6	36.10	5.7	—	—
Level 9	38.67	2.5	38.76	2.7	—	—
Elementary and middle school teachers	34.04	9.6	34.19	9.9	—	—
Level 9	37.32	2.7	—	—	—	—
Elementary school teachers, except special education	34.15	10.2	34.31	10.5	—	—
Secondary school teachers	39.35	6.0	39.35	6.0	—	—
Level 9	39.35	6.0	39.35	6.0	—	—
Secondary school teachers, except special and vocational education	39.35	6.0	39.35	6.0	—	—
Level 9	39.35	6.0	39.35	6.0	—	—
Healthcare practitioner and technical occupations	47.98	16.2	48.67	16.5	—	—
Level 8	30.93	2.7	30.92	2.7	—	—
Licensed practical and licensed vocational nurses	17.83	1.8	17.83	1.8	—	—
Healthcare support occupations	12.21	4.6	12.17	4.3	—	—
Nursing, psychiatric, and home health aides	11.62	1.4	11.66	1.3	—	—
Protective service occupations	22.07	4.8	22.90	5.5	—	—
Food preparation and serving related occupations	8.19	5.7	8.72	9.5	7.67	2.1
Level 2	7.61	2.3	—	—	7.50	2.7
Level 3	7.89	1.6	—	—	—	—
Cooks	10.65	20.5	—	—	—	—
Food service, tipped	7.43	.8	—	—	7.31	.9
Level 2	7.38	2.1	—	—	—	—
Waiters and waitresses	7.25	.4	—	—	7.21	.4
Level 2	7.25	.5	—	—	—	—
Building and grounds cleaning and maintenance occupations	10.76	11.4	12.22	15.1	—	—
Building cleaning workers	9.62	6.6	—	—	—	—
Maids and housekeeping cleaners	9.44	8.6	—	—	—	—
Personal care and service occupations	9.18	4.3	9.04	5.1	—	—
Sales and related occupations	14.50	19.7	16.17	23.4	9.62	11.0
Level 3	10.51	3.4	10.55	.4	—	—
First-line supervisors/managers, sales workers	23.63	5.4	23.63	5.4	—	—
First-line supervisors/managers of retail sales workers	23.63	5.4	23.63	5.4	—	—
Retail sales workers	10.81	3.8	11.35	3.5	9.62	11.0
Level 3	10.51	3.4	10.55	.4	—	—
Cashiers, all workers	9.73	3.9	—	—	—	—
Cashiers	9.73	3.9	—	—	—	—
Retail salespersons	11.37	5.7	11.94	5.1	10.24	8.8
Level 3	10.61	4.8	—	—	—	—
Office and administrative support occupations	13.84	4.9	14.08	4.7	12.43	9.7
Level 3	11.39	1.7	11.57	2.5	10.73	4.3
Level 4	15.27	6.9	15.28	7.4	—	—
Level 5	16.46	4.7	16.28	5.4	—	—
Level 6	19.40	11.5	19.40	11.5	—	—

See footnotes at end of table.

Table 2. **Civilian workers: Mean hourly earnings¹ for full-time and part-time workers² by work levels³, Billings, MT, August 2010** — Continued

Occupation ⁴ and level	Total		Full-time workers		Part-time workers	
	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)
Office and administrative support occupations —Continued						
Financial clerks	\$13.09	9.0	\$13.23	9.1	\$12.62	12.3
Level 5	15.83	4.2	—	—	—	—
Bookkeeping, accounting, and auditing clerks	15.06	6.2	15.13	6.5	—	—
Office clerks, general	13.23	5.5	13.34	5.6	—	—
Level 3	12.00	3.5	12.00	3.5	—	—
Level 4	15.68	8.4	15.68	8.4	—	—
Construction and extraction occupations	20.47	6.4	20.47	6.4	—	—
Installation, maintenance, and repair occupations	19.12	4.2	19.12	4.2	—	—
Level 6	21.39	6.3	21.39	6.3	—	—
Production occupations	21.48	10.2	23.14	8.2	—	—
Transportation and material moving occupations	16.47	10.9	17.90	9.2	—	—
Level 4	18.36	5.9	18.36	5.9	—	—
Driver/sales workers and truck drivers	16.63	9.6	17.94	6.2	—	—
Laborers and material movers, hand	10.88	10.5	—	—	—	—

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

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

³ Each occupation for which data are collected in an establishment is evaluated based on four factors, including knowledge, job controls and complexity, contacts, and physical environment. The knowledge factor is tailored to 24 families of closely related jobs. Points are assigned based on the

occupation's rank within each factor. The points are summed to determine the overall level of the occupation. See appendix A for more information.

⁴ Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

⁵ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs, see appendix A.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately.

Table 3. Private industry workers: Mean hourly earnings¹ for full-time and part-time workers² by work levels³, Billings, MT, August 2010

Occupation ⁴ and level	Total		Full-time workers		Part-time workers	
	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)
All workers	\$20.44	6.1	\$22.30	6.0	\$9.72	4.7
Management occupations	39.83	12.9	39.83	12.9	—	—
Level 9	26.29	4.6	26.29	4.6	—	—
Business and financial operations occupations	24.80	14.1	24.80	14.1	—	—
Architecture and engineering occupations	25.84	13.5	25.84	13.5	—	—
Community and social services occupations	15.63	7.0	—	—	—	—
Healthcare practitioner and technical occupations	48.20	16.7	48.80	16.5	—	—
Level 8	30.93	2.7	30.92	2.7	—	—
Licensed practical and licensed vocational nurses	17.83	1.8	17.83	1.8	—	—
Healthcare support occupations	12.21	4.6	12.17	4.3	—	—
Nursing, psychiatric, and home health aides	11.62	1.4	11.66	1.3	—	—
Food preparation and serving related occupations	8.17	5.7	8.68	9.5	7.66	2.1
Level 2	7.60	2.3	—	—	7.49	2.8
Level 3	7.83	.6	—	—	—	—
Food service, tipped	7.43	.8	—	—	7.31	.9
Level 2	7.38	2.1	—	—	—	—
Waiters and waitresses	7.25	.4	—	—	7.21	.4
Level 2	7.25	.5	—	—	—	—
Building and grounds cleaning and maintenance occupations	10.62	12.6	—	—	—	—
Building cleaning workers	9.31	7.5	—	—	—	—
Personal care and service occupations	9.18	4.3	9.04	5.1	—	—
Sales and related occupations	14.50	19.7	16.17	23.4	9.62	11.0
Level 3	10.51	3.4	10.55	.4	—	—
First-line supervisors/managers, sales workers	23.63	5.4	23.63	5.4	—	—
First-line supervisors/managers of retail sales workers	23.63	5.4	23.63	5.4	—	—
Retail sales workers	10.81	3.8	11.35	3.5	9.62	11.0
Level 3	10.51	3.4	10.55	.4	—	—
Cashiers, all workers	9.73	3.9	—	—	—	—
Cashiers	9.73	3.9	—	—	—	—
Retail salespersons	11.37	5.7	11.94	5.1	10.24	8.8
Level 3	10.61	4.8	—	—	—	—
Office and administrative support occupations	13.77	5.2	14.04	5.0	12.35	9.9
Level 3	11.31	1.7	11.50	2.6	10.60	4.8
Level 4	15.35	7.1	15.36	7.6	—	—
Level 5	16.40	4.8	16.21	5.6	—	—
Financial clerks	13.07	9.1	13.21	9.2	—	—
Level 5	15.83	4.2	—	—	—	—
Bookkeeping, accounting, and auditing clerks	15.06	6.4	—	—	—	—
Office clerks, general	13.38	6.2	13.51	6.4	—	—
Level 3	11.97	4.0	11.97	4.0	—	—
Level 4	16.05	8.6	16.05	8.6	—	—
Construction and extraction occupations	20.80	7.0	20.80	7.0	—	—
Installation, maintenance, and repair occupations	19.12	4.2	19.12	4.2	—	—
Level 6	21.39	6.3	21.39	6.3	—	—
Production occupations	21.46	10.3	23.12	8.3	—	—
Transportation and material moving occupations	16.43	11.3	17.90	9.5	—	—

See footnotes at end of table.

Table 3. Private industry workers: Mean hourly earnings¹ for full-time and part-time workers² by work levels³, Billings, MT, August 2010 — Continued

Occupation ⁴ and level	Total		Full-time workers		Part-time workers	
	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)
Transportation and material moving occupations —Continued						
Level 4	\$18.38	6.2	\$18.38	6.2	—	—
Driver/sales workers and truck drivers	16.63	9.6	17.94	6.2	—	—
Laborers and material movers, hand	10.88	10.5	—	—	—	—

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

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

³ Each occupation for which data are collected in an establishment is evaluated based on four factors, including knowledge, job controls and complexity, contacts, and physical environment. The knowledge factor is tailored to 24 families of closely related jobs. Points are assigned based on the

occupation's rank within each factor. The points are summed to determine the overall level of the occupation. See appendix A for more information.

⁴ Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

⁵ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs, see appendix A.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 4. State and local government workers: Mean hourly earnings¹ for full-time and part-time workers² by work levels³, Billings, MT, August 2010

Occupation ⁴ and level	Total		Full-time workers		Part-time workers	
	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)	Mean	Relative error ⁵ (percent)
All workers	\$26.64	5.8	\$26.56	4.9	–	–
Education, training, and library occupations	36.70	6.7	37.72	4.9	–	–
Level 9	38.38	2.6	38.47	2.8	–	–
Primary, secondary, and special education school teachers	38.19	1.4	38.28	1.6	–	–
Level 9	38.67	2.5	38.76	2.7	–	–
Elementary and middle school teachers	36.93	2.3	37.22	2.5	–	–
Level 9	37.32	2.7	–	–	–	–
Elementary school teachers, except special education	37.30	2.6	–	–	–	–
Secondary school teachers	39.35	6.0	39.35	6.0	–	–
Level 9	39.35	6.0	39.35	6.0	–	–
Secondary school teachers, except special and vocational education	39.35	6.0	39.35	6.0	–	–
Level 9	39.35	6.0	39.35	6.0	–	–
Protective service occupations	22.07	4.8	22.90	5.5	–	–
Office and administrative support occupations	14.68	8.6	14.60	9.0	–	–
Office clerks, general	12.17	.6	–	–	–	–
Construction and extraction occupations	19.20	10.9	19.20	10.9	–	–

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

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

³ Each occupation for which data are collected in an establishment is evaluated based on four factors, including knowledge, job controls and complexity, contacts, and physical environment. The knowledge factor is tailored to 24 families of closely related jobs. Points are assigned based on the

occupation's rank within each factor. The points are summed to determine the overall level of the occupation. See appendix A for more information.

⁴ Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

⁵ The relative standard error (RSE) is the standard error expressed as a percent of the estimate. It can be used to calculate a "confidence interval" around a sample estimate. For more information about RSEs, see appendix A.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 5. Civilian workers: Hourly wage percentiles¹, Billings, MT, August 2010

Occupation ²	10	25	Median 50	75	90
All workers	\$8.25	\$10.50	\$15.83	\$24.30	\$35.66
Management occupations	22.29	24.04	28.85	35.66	45.73
Business and financial operations occupations	15.99	19.48	23.36	30.65	37.02
Architecture and engineering occupations	14.00	18.45	24.30	31.15	41.54
Community and social services occupations	10.50	12.50	17.31	19.35	20.40
Education, training, and library occupations	17.23	24.98	34.74	48.15	49.54
Primary, secondary, and special education school teachers	24.36	27.40	36.65	46.60	49.54
Elementary and middle school teachers	25.16	26.33	30.00	44.43	48.47
Elementary school teachers, except special education	25.16	26.33	30.00	44.52	48.47
Secondary school teachers	27.40	34.44	39.35	49.54	49.54
Secondary school teachers, except special and vocational education	27.40	34.44	39.35	49.54	49.54
Healthcare practitioner and technical occupations	16.00	20.39	29.66	44.57	181.73
Licensed practical and licensed vocational nurses	15.44	16.00	18.13	19.17	20.39
Healthcare support occupations	10.22	10.62	11.96	12.67	13.52
Nursing, psychiatric, and home health aides	10.12	10.58	11.59	12.67	12.80
Protective service occupations	16.82	19.92	22.17	26.27	27.22
Food preparation and serving related occupations	7.25	7.25	7.50	8.75	9.50
Cooks	7.93	9.29	9.29	14.31	14.31
Food service, tipped	7.12	7.25	7.25	7.47	8.00
Waiters and waitresses	7.12	7.25	7.25	7.25	7.25
Building and grounds cleaning and maintenance occupations	7.84	8.86	8.86	11.50	17.38
Building cleaning workers	7.25	8.86	8.86	10.50	12.39
Maids and housekeeping cleaners	7.25	7.84	8.86	10.50	11.50
Personal care and service occupations	7.25	7.61	9.00	10.00	11.00
Sales and related occupations	8.15	9.60	10.90	14.20	18.81
First-line supervisors/managers, sales workers	12.10	15.40	21.68	34.13	34.13
First-line supervisors/managers of retail sales workers	12.10	15.40	21.68	34.13	34.13
Retail sales workers	8.15	9.00	10.50	11.50	14.20
Cashiers, all workers	8.00	8.50	9.50	10.50	11.70
Cashiers	8.00	8.50	9.50	10.50	11.70
Retail salespersons	8.00	9.63	11.00	11.68	16.00
Office and administrative support occupations	10.20	11.03	12.68	15.87	18.79
Financial clerks	10.20	10.86	12.00	15.53	16.00
Bookkeeping, accounting, and auditing clerks	12.00	13.75	16.00	16.26	18.00
Office clerks, general	10.44	11.03	12.55	13.99	16.20
Construction and extraction occupations	10.00	14.07	21.05	24.94	31.95
Installation, maintenance, and repair occupations	13.00	15.00	19.96	21.00	23.00
Production occupations	9.00	10.15	14.00	34.00	37.22
Transportation and material moving occupations	8.00	12.00	16.67	20.92	27.60
Driver/sales workers and truck drivers	9.22	16.00	16.67	20.92	20.92
Laborers and material movers, hand	7.50	8.00	11.53	13.40	14.65

¹ Percentiles designate position in the earnings distribution and are calculated from individual-worker earnings and the hours they are scheduled to work. At the 50th percentile, the median, half of the hours are paid the same as or more than the rate shown, and half are paid the same as or less than the rate shown. At the 25th percentile, one-fourth of the hours are paid the same as or less than the rate shown. At the 75th percentile, one-fourth are paid the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic. Hourly wages 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, and holidays;

nonproduction bonuses; and tips.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 6. Private industry workers: Hourly wage percentiles¹, Billings, MT, August 2010

Occupation ²	10	25	Median 50	75	90
All workers	\$8.00	\$10.20	\$15.00	\$23.38	\$34.16
Management occupations	22.29	26.25	33.90	35.66	45.73
Business and financial operations occupations	14.64	19.48	25.00	32.28	37.02
Architecture and engineering occupations	14.00	18.45	24.30	31.15	41.54
Community and social services occupations	10.50	11.25	16.18	19.76	20.40
Healthcare practitioner and technical occupations	16.00	20.39	29.66	44.57	181.73
Licensed practical and licensed vocational nurses	15.44	16.00	18.13	19.17	20.39
Healthcare support occupations	10.22	10.62	11.96	12.67	13.52
Nursing, psychiatric, and home health aides	10.12	10.58	11.59	12.67	12.80
Food preparation and serving related occupations	7.25	7.25	7.50	8.75	9.50
Food service, tipped	7.12	7.25	7.25	7.47	8.00
Waiters and waitresses	7.12	7.25	7.25	7.25	7.25
Building and grounds cleaning and maintenance occupations	7.25	8.50	8.86	11.50	17.38
Building cleaning workers	7.25	8.42	8.86	10.12	11.50
Personal care and service occupations	7.25	7.61	9.00	10.00	11.00
Sales and related occupations	8.15	9.60	10.90	14.20	18.81
First-line supervisors/managers, sales workers	12.10	15.40	21.68	34.13	34.13
First-line supervisors/managers of retail sales workers	12.10	15.40	21.68	34.13	34.13
Retail sales workers	8.15	9.00	10.50	11.50	14.20
Cashiers, all workers	8.00	8.50	9.50	10.50	11.70
Cashiers	8.00	8.50	9.50	10.50	11.70
Retail salespersons	8.00	9.63	11.00	11.68	16.00
Office and administrative support occupations	10.18	11.00	12.59	16.00	18.27
Financial clerks	10.20	10.86	12.00	15.53	16.00
Bookkeeping, accounting, and auditing clerks	12.00	13.75	16.00	16.26	18.00
Office clerks, general	10.44	11.03	12.55	15.25	16.20
Construction and extraction occupations	10.00	15.22	21.05	25.56	31.95
Installation, maintenance, and repair occupations	13.00	15.00	19.96	21.00	23.00
Production occupations	9.00	10.15	14.00	34.00	37.22
Transportation and material moving occupations	8.00	12.00	16.67	20.92	27.60
Driver/sales workers and truck drivers	9.22	16.00	16.67	20.92	20.92
Laborers and material movers, hand	7.50	8.00	11.53	13.40	14.65

¹ Percentiles designate position in the earnings distribution and are calculated from individual-worker earnings and the hours they are scheduled to work. At the 50th percentile, the median, half of the hours are paid the same as or more than the rate shown, and half are paid the same as or less than the rate shown. At the 25th percentile, one-fourth of the hours are paid the same as or less than the rate shown. At the 75th percentile, one-fourth are paid the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic. Hourly wages 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, and holidays;

nonproduction bonuses; and tips.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 7. State and local government workers: Hourly wage percentiles¹, Billings, MT, August 2010

Occupation ²	10	25	Median 50	75	90
All workers	\$12.98	\$17.23	\$22.63	\$37.47	\$48.47
Education, training, and library occupations	18.70	29.00	39.35	48.15	49.54
Primary, secondary, and special education school teachers	26.07	30.00	39.35	48.47	49.54
Elementary and middle school teachers	26.78	30.00	34.35	48.47	48.47
Elementary school teachers, except special education	28.33	30.00	34.99	48.47	48.47
Secondary school teachers	27.40	34.44	39.35	49.54	49.54
Secondary school teachers, except special and vocational education	27.40	34.44	39.35	49.54	49.54
Protective service occupations	16.82	19.92	22.17	26.27	27.22
Office and administrative support occupations	11.62	11.63	13.20	15.75	25.24
Office clerks, general	10.71	11.63	12.00	13.00	13.30
Construction and extraction occupations	13.82	13.82	19.19	23.04	24.94

¹ Percentiles designate position in the earnings distribution and are calculated from individual-worker earnings and the hours they are scheduled to work. At the 50th percentile, the median, half of the hours are paid the same as or more than the rate shown, and half are paid the same as or less than the rate shown. At the 25th percentile, one-fourth of the hours are paid the same as or more than the rate shown. At the 75th percentile, one-fourth are paid the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic. Hourly wages 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, and holidays;

nonproduction bonuses; and tips.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 8. Full-time¹ civilian workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours, Billings, MT, August 2010

Occupation ²	Hourly earnings ³		Weekly earnings ⁴			Annual earnings ⁵		
	Mean	Median	Mean	Median	Mean weekly hours	Mean	Median	Mean annual hours
All workers	\$22.72	\$17.08	\$908	\$695	40.0	\$46,084	\$35,516	2,029
Management occupations	39.13	28.85	1,573	1,154	40.2	81,793	60,002	2,090
Business and financial operations occupations	24.34	23.36	974	934	40.0	50,626	48,593	2,080
Architecture and engineering occupations	25.84	24.30	1,044	1,038	40.4	53,288	53,999	2,062
Community and social services occupations	16.33	17.31	653	692	40.0	33,964	36,005	2,080
Education, training, and library occupations	34.62	36.11	1,302	1,339	37.6	49,393	50,747	1,427
Primary, secondary, and special education school teachers	36.10	36.94	1,349	1,375	37.4	50,358	51,418	1,395
Elementary and middle school teachers	34.19	30.00	1,268	1,125	37.1	47,408	42,072	1,386
Elementary school teachers, except special education	34.31	30.00	1,267	1,125	36.9	47,372	42,072	1,381
Secondary school teachers	39.35	39.35	1,487	1,476	37.8	55,372	55,187	1,407
Secondary school teachers, except special and vocational education	39.35	39.35	1,487	1,476	37.8	55,372	55,187	1,407
Healthcare practitioner and technical occupations	48.67	29.66	1,985	1,142	40.8	103,229	59,361	2,121
Licensed practical and licensed vocational nurses	17.83	18.13	713	725	40.0	37,090	37,710	2,080
Healthcare support occupations	12.17	11.92	483	477	39.7	25,106	24,794	2,063
Nursing, psychiatric, and home health aides	11.66	11.72	466	469	40.0	24,255	24,378	2,080
Protective service occupations	22.90	22.17	933	969	40.7	48,507	50,368	2,118
Food preparation and serving related occupations	8.72	8.00	331	306	38.0	17,138	15,912	1,966
Building and grounds cleaning and maintenance occupations	12.22	11.00	475	440	38.9	24,716	22,880	2,023
Personal care and service occupations	9.04	9.00	362	360	40.0	17,971	16,120	1,988
Sales and related occupations	16.17	11.39	642	456	39.7	33,379	23,691	2,064
First-line supervisors/managers, sales workers	23.63	21.68	945	867	40.0	49,148	45,094	2,080
First-line supervisors/managers of retail sales workers	23.63	21.68	945	867	40.0	49,148	45,094	2,080
Retail sales workers	11.35	10.73	449	420	39.6	23,370	21,840	2,060
Retail salespersons	11.94	11.22	469	449	39.2	24,362	23,327	2,041
Office and administrative support occupations	14.08	12.86	559	514	39.7	28,979	26,562	2,058
Financial clerks	13.23	12.68	529	507	40.0	27,527	26,374	2,080
Bookkeeping, accounting, and auditing clerks	15.13	16.00	605	640	40.0	31,473	33,280	2,080
Office clerks, general	13.34	12.55	516	502	38.7	26,586	26,042	1,993
Construction and extraction occupations	20.47	21.05	818	842	40.0	42,557	43,788	2,079
Installation, maintenance, and repair occupations	19.12	19.96	765	798	40.0	39,775	41,521	2,080

See footnotes at end of table.

Table 8. Full-time¹ civilian workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours, Billings, MT, August 2010 — Continued

Occupation ²	Hourly earnings ³		Weekly earnings ⁴			Annual earnings ⁵		
	Mean	Median	Mean	Median	Mean weekly hours	Mean	Median	Mean annual hours
Production occupations	\$23.14	\$14.00	\$926	\$560	40.0	\$48,128	\$29,120	2,080
Transportation and material moving occupations	17.90	16.67	765	837	42.7	39,770	43,518	2,222
Driver/sales workers and truck drivers	17.94	16.67	808	837	45.0	42,001	43,518	2,342

¹ 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.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

³ 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. See appendix A for more information.

⁴ Mean weekly earnings are the straight-time weekly wages or salaries

paid to employees. Median weekly earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean weekly hours are the hours an employee is scheduled to work in a week, exclusive of overtime.

⁵ Mean annual earnings are the straight-time annual wages or salaries paid to employees. Median annual earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean annual hours are the hours an employee is scheduled to work in a year, exclusive of overtime.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 9. Full-time¹ private industry workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours, Billings, MT, August 2010

Occupation ²	Hourly earnings ³		Weekly earnings ⁴			Annual earnings ⁵		
	Mean	Median	Mean	Median	Mean weekly hours	Mean	Median	Mean annual hours
All workers	\$22.30	\$16.67	\$893	\$656	40.0	\$46,000	\$33,696	2,063
Management occupations	39.83	33.90	1,601	1,356	40.2	83,269	70,502	2,090
Business and financial operations occupations	24.80	25.00	992	1,000	40.0	51,581	52,000	2,080
Architecture and engineering occupations	25.84	24.30	1,044	1,038	40.4	53,288	53,999	2,062
Healthcare practitioner and technical occupations	48.80	29.66	1,990	1,142	40.8	103,503	59,361	2,121
Licensed practical and licensed vocational nurses	17.83	18.13	713	725	40.0	37,090	37,710	2,080
Healthcare support occupations	12.17	11.92	483	477	39.7	25,106	24,794	2,063
Nursing, psychiatric, and home health aides	11.66	11.72	466	469	40.0	24,255	24,378	2,080
Food preparation and serving related occupations	8.68	8.00	330	306	38.0	17,135	15,912	1,974
Personal care and service occupations	9.04	9.00	362	360	40.0	17,971	16,120	1,988
Sales and related occupations	16.17	11.39	642	456	39.7	33,379	23,691	2,064
First-line supervisors/managers, sales workers	23.63	21.68	945	867	40.0	49,148	45,094	2,080
First-line supervisors/managers of retail sales workers	23.63	21.68	945	867	40.0	49,148	45,094	2,080
Retail sales workers	11.35	10.73	449	420	39.6	23,370	21,840	2,060
Retail salespersons	11.94	11.22	469	449	39.2	24,362	23,327	2,041
Office and administrative support occupations	14.04	12.86	556	511	39.6	28,928	26,562	2,061
Financial clerks	13.21	12.49	528	500	40.0	27,471	25,979	2,080
Office clerks, general	13.51	12.55	520	502	38.5	27,025	26,104	2,001
Construction and extraction occupations	20.80	21.05	832	842	40.0	43,245	43,788	2,079
Installation, maintenance, and repair occupations	19.12	19.96	765	798	40.0	39,775	41,521	2,080
Production occupations	23.12	14.00	925	560	40.0	48,092	29,120	2,080
Transportation and material moving occupations	17.90	16.67	767	837	42.8	39,872	43,518	2,228
Driver/sales workers and truck drivers	17.94	16.67	808	837	45.0	42,001	43,518	2,342

¹ 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.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

³ 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. See appendix A for more information.

⁴ Mean weekly earnings are the straight-time weekly wages or salaries

paid to employees. Median weekly earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean weekly hours are the hours an employee is scheduled to work in a week, exclusive of overtime.

⁵ Mean annual earnings are the straight-time annual wages or salaries paid to employees. Median annual earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean annual hours are the hours an employee is scheduled to work in a year, exclusive of overtime.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Table 10. Full-time¹ State and local government workers: Mean and median hourly, weekly, and annual earnings and mean weekly and annual hours, Billings, MT, August 2010

Occupation ²	Hourly earnings ³		Weekly earnings ⁴			Annual earnings ⁵		
	Mean	Median	Mean	Median	Mean weekly hours	Mean	Median	Mean annual hours
All workers	\$26.56	\$22.63	\$1,044	\$934	39.3	\$46,745	\$45,789	1,760
Education, training, and library occupations	37.72	39.35	1,440	1,476	38.2	54,844	55,187	1,454
Primary, secondary, and special education school teachers	38.28	39.35	1,449	1,476	37.9	54,060	55,187	1,412
Elementary and middle school teachers	37.22	34.99	1,411	1,293	37.9	52,783	48,358	1,418
Secondary school teachers	39.35	39.35	1,487	1,476	37.8	55,372	55,187	1,407
Secondary school teachers, except special and vocational education	39.35	39.35	1,487	1,476	37.8	55,372	55,187	1,407
Protective service occupations	22.90	22.17	933	969	40.7	48,507	50,368	2,118
Office and administrative support occupations	14.60	13.20	584	528	40.0	29,549	27,456	2,023
Construction and extraction occupations	19.20	19.19	768	768	40.0	39,945	39,915	2,080

¹ 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.

² Workers are classified by occupation using the 2000 Standard Occupational Classification (SOC) system. See appendix B for more information.

³ 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. See appendix A for more information.

⁴ Mean weekly earnings are the straight-time weekly wages or salaries

paid to employees. Median weekly earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean weekly hours are the hours an employee is scheduled to work in a week, exclusive of overtime.

⁵ Mean annual earnings are the straight-time annual wages or salaries paid to employees. Median annual earnings designates position - one-half of the hours are paid the same as or more than the rate shown. Mean annual hours are the hours an employee is scheduled to work in a year, exclusive of overtime.

SOURCE: Bureau of Labor Statistics, National Compensation Survey.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately

Appendix: Technical note

Survey scope

This survey of the Billings, MT, Metropolitan Statistical Area (MSA) covered establishments employing one worker or more in private goods-producing industries (mining, construction, and manufacturing); private service-providing industries (trade, transportation, and utilities, information, financial activities, professional and business services, education and health services, leisure and hospitality, and other services); State governments; and local governments. Agriculture, forestry, fishing and hunting, private households, and the Federal Government were excluded from the scope of the survey. For purposes of this survey, an establishment is an economic unit that 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 is usually at a single physical location. For State and local governments, an establishment is defined as all locations of a government agency within the sampled area.

Sampling frame

The list of establishments from which the survey sample was selected (sampling frame) was developed from State unemployment insurance reports. Due to the volatility of industries within the private sector, sampling frames were developed using the most recent month of reference available at the time the sample was selected.

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-proportional-to-size sample of establishments. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. The second stage of sample selection, detailed below, was a probability sample of occupations within a sampled establishment.

Occupational selection and classification

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

1. Probability-proportional-to-size selection of establishment jobs
2. Classification of jobs into occupations based on the 2000 Standard Occupational Classification (SOC) system
3. Characterization of jobs as full-time or part-time, union or nonunion, and time or incentive
4. Determination of the level of work of each job

For each occupation, wage data were collected for those workers whose jobs could be characterized by the criteria identified in the last three steps. In step one, the jobs to be sampled were selected at each establishment by the BLS field economist. A complete list of employees was used for sampling, with each selected worker representing a job within the establishment. The greater the number of people working in a job in the establishment, the greater its chance of selection.

The second step of the process entailed classifying the selected jobs into occupations based on their duties. NCS uses the 2000 Standard Occupational Classification (SOC) system. A selected job may fall into any one of about 800 occupational classifications, from accountant to zoologist. When workers could be classified in more than one occupation, they were classified in the occupation that required the higher skill level. When there was no perceptible difference in skill level, the workers were classified in the occupation that described their primary activity.

Each occupational classification is an element of a broader classification known as a major group. Occupations can fall into any of 22 major groups. A complete list of all individual occupations, classified by the major group to which they belong, is available from BLS.

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 and also identified as being in a union or a nonunion job.

Occupational leveling

In the last step before wage data were collected, the work level of each selected job was determined using a "point factor leveling" process. Point factor leveling matches certain aspects of a job to specific levels of work with assigned point values. Points for each factor are then totaled to determine the overall work level for the job.

The NCS program is in the process of converting from a nine-factor to a four-factor occupational leveling system. The conversion is being phased in via annual NCS sample replenishment groups and will require several years for full implementation. The four occupational leveling factors are:

- Knowledge
- Job controls and complexity
- Contacts (nature and purpose)
- Physical environment

Each factor consists of several levels, and each level has an associated description and assigned points. A knowledge guide for 24 families of closely related occupations contains short definitions of the point levels of knowledge expected for the occupations and presents relevant examples. The other three factors use identical descriptions for all occupational categories and contain a definition of each point level within each factor.

The description within each factor best matching the job is chosen. The point levels within each factor are designed to describe the thresholds of distinct levels of work. When a job does not meet the full description of a point level, the next lowest point level is used. Points for the four factors are totaled to determine the overall work level. NCS publishes data for up to 15 work levels.

Most supervisory occupations are evaluated based on their duties and responsibilities. A modified approach is used for professional and administrative supervisors when they direct professional work and are paid primarily to supervise. Such supervisory occupations are leveled based on the work level of the highest position reporting to them.

For a complete description of point factor leveling, refer to the publication “National Compensation Survey: Guide for Evaluating Your Firm’s Jobs and Pay,” available at the BLS National Compensation Survey Internet site at <http://www.bls.gov/ncs/ocs/sp/ncbr0004.pdf>.

Collection period

Survey data were collected over a 14-month period for the larger areas in the NCS program. For the smaller areas, data were collected over a 5-month period. For each establishment in the survey, the data reflect the establishment’s most recent information at the time of collection. The payroll reference month shown in the tables reflects the average date of this information for all sample units.

Earnings

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

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

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

- Shift differentials, defined as extra payment for working a schedule that varies from the norm, such as night or weekend work
- Premium pay for overtime, holidays, and weekends
- Bonuses not directly tied to production (such as Christmas and profit-sharing bonuses)
- Uniform and tool allowances
- Free or subsidized room and board
- Payments made by third parties (for example, tips)
- On-call pay

To calculate earnings for various periods (hourly, weekly, and annual), data on work schedules also were 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 who are exempt from overtime provisions often work beyond the assigned work schedule, their typical number of hours actually worked was collected.

Weighting and nonresponse

Sample weights were calculated for each establishment and occupation in the survey. These weights reflected the relative size of the occupation within the establishment and of the establishment within the sample universe. Weights were used to aggregate data for the individual establishments or occupations into the various data series.

If data were not provided by a sample member during the initial interview, 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 data for the nonrespondents equals the mean value of data for the respondents at some detailed “cell” level. Responding and nonresponding establishments were classified into these cells according to industry and employment size. Responding and nonresponding occupations within responding establishments were classified into cells that were additionally defined by major occupation group.

If average hourly earnings data were not provided by a sample member during the update interview, then missing average hourly earnings were imputed by multiplying prior average hourly earnings by the rate of change in the average hourly earnings of respondents. The regression model that takes into account available establishment characteristics is used to derive the rate of change in the average hourly earnings.

Establishments that were determined to be out of business or outside the scope of the survey had their weights changed to zero.

Survey response

	<i>Establish- ments</i>
Total in sampling frame	4,400
Total in sample	116
Responding	82
Refused or unable to provide data	23
Out of business or not in survey scope	11

Estimation

The wage series in the tables are computed by combining the wages for each sampled occupation. Before being combined, individual wage rates are weighted by the number of workers; the sample weight, adjusted for nonresponding establishments and other factors; and the occupation's scheduled hours of work.

The sample weight reflects the inverse of each unit's probability of selection at each sample selection stage and four weight adjustment factors. The first factor adjusts for establishment nonresponse and the second factor adjusts for occupational nonresponse. The third factor adjusts for any special situations that may have occurred during data collection. The fourth factor, post-stratification, also called benchmarking, is introduced to adjust estimated employment totals to the current counts of employment by industry. The latest available employment counts were used to derive average hourly earnings in this publication.

Not all calculated series met the criteria for publication. Before any series was published, it was reviewed to make sure that the number of observations underlying it was suf-

ficient. This review prevented the publication of a series that could have revealed information about a specific establishment.

Data reliability

The data in this summary 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 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. RSE data are provided alongside the earnings data in the summary tables.

The standard error can be used to calculate a "confidence interval" around a sample estimate. As an example, suppose a table shows that mean hourly earnings for all workers were \$17.75, with a relative standard error of 1.0 percent for this estimate. At the 90-percent level, the confidence interval for this estimate is from \$17.46 to \$18.04 (\$17.75 minus and plus \$0.29, where \$0.29 is the product of 1.645 times 1.0 percent times \$17.75). 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. 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, computer edits of the data, and detailed data review.