

# Minneapolis-St. Paul, MN-WI National Compensation Survey July 1998

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# Preface

Data shown in this bulletin were collected as part of the Bureau of Labor Statistics' (BLS) 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.

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.

For additional information regarding this survey, please contact any BLS regional office at the address and telephone number listed on the inside back cover of this bulletin. 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) 606-6199, or send e-mail to [ocltinfo@bls.gov](mailto:ocltinfo@bls.gov).

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

Results of earlier surveys of this area are also available from BLS regional offices, the Division of Compensation Data Analysis, or at the BLS Internet site.

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# Introduction

The tables in this bulletin summarize the NCS survey results for the Minneapolis-St. Paul, MN-WI metropolitan area. 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 are 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 products

The National Compensation Survey of the Bureau of Labor Statistics provides data on the occupational wages and employee benefits for localities, broad geographic regions, and the Nation as a whole. The Employment Cost Index, a quarterly measure of the change in employer costs for wages and benefits, will be derived from the NCS. Another product, Employer Costs for Employee Compensation, measures employers' average hourly costs for total compensation, that is, wages and benefits. Still another NCS product measures the incidence of benefit plans and their provisions. This bulletin is limited to data on occupational wages and salaries.

## About the tables

The tables that follow present data on straight-time occupational earnings. Straight-time earnings include wages and salaries, incentive pay, cost-of-living adjustments, and hazard pay. These earnings exclude premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. A total of 480 detailed occupations are used to describe all occupations in the civilian nonfarm economy (excluding the Federal Government and private households).

Table A-1 presents straight-time earnings for detailed occupations. Data are not shown for any occupations if they would raise concerns about the confidentiality of the survey respondent or if the data are insufficient to support reliable estimates. The earnings shown include the mean for each occupation, as well as earnings for selected percentiles in each occupation.

Table A-2 compares the type of data and details shown in table A-1 for the private industry and State and local

government sector.

Table A-3 compares the type of data and details shown in table A-1 for full-time and part-time workers. The definitions of full-time and part-time workers are those used in the surveyed establishments.

Table A-4 presents the weekly and annual straight-time earnings for full-time employees in specific occupations across all industries. For the weekly and annual earnings, the mean and median earnings and the mean hours are shown. The mean hours reflect hours employees are scheduled to work, excluding overtime hours.

Table B-1 presents mean straight-time hourly earnings for groups of occupations and for levels of job requirements related to occupations in the group. Separate data are also shown for private industry and government workers, and for full-time and part-time workers in all industries. (See appendix C, Generic Leveling Criteria, for more information on job ranking in this survey. Average work levels for published occupation groups and their component occupations are presented in appendix table 3.)

Table B-2 also presents mean straight-time hourly earnings, but for detailed occupations at several levels of job requirements for each detailed occupation.

Table C-1 presents mean straight-time hourly earnings for occupation groups and selected occupation characteristics. The occupation characteristics include full-time and part-time status, union and nonunion status, and time or incentive pay status. Union workers' wages are determined through collective bargaining. Time workers' wages are based solely on hourly rate or salary. Incentive workers' wages are at least partially based on productivity payments such as piece rates, commissions and production bonuses.

Table C-2 presents mean straight-time hourly earnings for occupation groups and industry division of employers; these are limited to the private sector.

Table C-3 presents mean straight-time hourly earnings for occupation groups and the employment size of employers; these are also limited to the private sector.

Table C-4 presents the employment scope of this survey. The occupation employment estimates shown relate to all employers in the area surveyed, not just the surveyed employers.

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>All occupations</b> .....	\$18.03	\$8.20	\$10.86	\$15.48	\$21.66	\$29.81
All occupations excluding sales .....	17.94	8.50	11.04	15.56	21.63	29.48
<b>White-collar occupations</b> .....	21.01	10.00	12.72	17.80	25.25	34.18
White-collar occupations excluding sales .....	21.19	10.50	13.22	18.16	25.42	34.11
Professional specialty and technical occupations .....	24.52	13.80	17.07	22.13	28.06	36.00
Professional specialty occupations .....	25.62	15.26	19.41	24.30	29.84	37.12
Engineers, architects, and surveyors .....	28.19	20.50	23.60	28.09	31.75	36.84
Electrical and electronic engineers .....	26.22	17.31	22.06	25.96	29.05	33.82
Mechanical engineers .....	27.44	21.16	24.84	26.93	30.29	33.52
Engineers, N.E.C. ....	28.62	19.94	23.21	28.60	32.16	37.91
Mathematical and computer scientists .....	25.34	15.64	20.42	24.75	29.42	35.31
Computer systems analysts and scientists .....	27.33	19.23	21.63	26.20	31.32	38.03
Operations and systems researchers and analysts .....	22.14	13.36	17.52	22.09	26.26	29.61
Natural scientists .....	19.43	13.73	15.10	17.64	22.92	27.48
Physical scientists, N.E.C. ....	28.30	22.51	23.94	25.92	31.88	38.47
Health related occupations .....	24.71	16.06	19.20	23.36	25.95	28.85
Registered nurses .....	22.75	16.80	19.55	23.15	25.63	27.00
Teachers, college and university .....	31.14	20.93	23.78	29.11	36.71	46.59
Art, drama and music teachers .....	34.83	24.19	28.29	31.32	44.87	53.55
Teachers, post secondary N.E.C. ....	32.02	17.25	27.78	37.25	39.12	39.12
Teachers, except college and university .....	27.18	15.77	21.53	26.62	34.21	39.02
Prekindergarten and kindergarten .....	24.18	8.84	11.35	24.85	34.28	39.00
Elementary school teachers .....	28.37	18.40	21.42	27.51	34.72	39.54
Secondary school teachers .....	27.74	17.94	22.05	27.12	33.82	37.17
Teachers, special education .....	27.74	20.64	23.28	27.45	31.07	38.03
Teachers, N.E.C. ....	28.11	15.14	21.93	26.68	36.00	39.21
Vocational and educational counselors .....	20.50	13.49	15.87	23.00	23.70	25.86
Librarians, archivists, and curators .....	24.47	15.19	17.69	23.12	29.74	35.76
Librarians .....	24.62	14.84	17.59	24.72	29.74	35.76
Social scientists and urban planners .....	23.50	13.62	18.11	23.57	30.03	30.03
Economists .....	24.50	13.62	19.22	25.25	30.03	30.03
Social, recreation, and religious workers .....	18.15	11.55	13.45	17.96	22.79	24.24
Social workers .....	17.93	11.55	13.38	17.82	22.79	24.24
Lawyers and judges .....	34.65	16.83	20.40	30.64	41.90	54.82
Lawyers .....	34.65	16.83	20.40	30.64	41.90	54.82
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	22.34	14.30	17.72	20.38	24.61	36.55
Professional occupations, N.E.C. ....	24.36	15.96	18.63	21.46	26.75	39.03
Technical occupations .....	21.27	12.14	14.12	16.80	20.37	25.22
Clinical laboratory technologists and technicians .....	17.97	12.84	14.77	18.00	20.73	21.42
Radiological technicians .....	15.87	12.00	12.86	16.62	18.01	19.83
Licensed practical nurses .....	14.05	11.75	12.44	13.85	15.03	17.00
Health technologists and technicians, N.E.C. ....	13.60	9.88	11.78	13.87	15.40	17.02
Electrical and electronic technicians .....	16.80	13.59	14.18	16.11	18.32	22.00
Engineering technicians, N.E.C. ....	19.02	14.45	17.58	19.70	20.61	22.38
Drafters .....	16.23	12.65	14.43	16.18	18.23	18.88
Science technicians, N.E.C. ....	12.72	10.00	10.10	12.18	13.38	14.71
Computer programmers .....	19.80	15.54	16.83	19.18	22.60	24.52
Legal assistants .....	19.56	12.74	16.30	18.79	21.79	23.96
Technical and related occupations, N.E.C. ....	18.05	11.74	13.20	15.81	21.63	26.75
Executive, administrative, and managerial occupations .....	27.75	15.38	18.93	24.21	32.73	44.83
Executives, administrators, and managers .....	33.34	17.85	22.31	29.23	41.56	50.74
Administrators and officials, public administration .....	26.09	18.22	25.25	28.06	28.24	30.21
Financial managers .....	34.47	20.96	22.31	32.45	43.67	51.17
Personnel and labor relations managers .....	31.26	17.61	22.66	32.12	39.16	50.98
Managers, marketing, advertising and public relations .....	39.52	24.21	32.60	36.21	44.83	57.69
Administrators, education and related fields .....	36.66	18.54	25.31	37.42	47.62	52.79
Managers, medicine and health .....	32.90	20.60	24.26	26.87	43.98	55.62
Managers, service organizations, N.E.C. ....	22.86	13.70	18.16	23.88	25.87	30.19
Managers and administrators, N.E.C. ....	33.35	18.83	21.18	26.05	38.46	49.50
Management related occupations .....	21.68	14.29	17.07	20.34	25.42	30.77
Accountants and auditors .....	21.32	15.00	17.07	19.23	22.88	29.80

See footnotes at end of table.

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>White-collar occupations</b> (-Continued)						
Executive, administrative, and managerial occupations (-Continued)						
Management related occupations (-Continued)						
Other financial officers .....	\$23.69	\$14.78	\$17.33	\$23.80	\$26.21	\$32.55
Management analysts .....	25.55	16.39	20.43	24.49	30.64	34.18
Personnel, training, and labor relations specialists .....	20.22	15.25	16.42	20.48	23.41	25.38
Purchasing agents and buyers, N.E.C. ....	26.56	10.85	17.76	21.68	40.14	40.14
Inspectors and compliance officers, except construction .....	19.23	13.80	16.63	20.34	21.78	24.51
Management related occupations, N.E.C. ....	19.15	11.97	14.50	18.27	21.29	28.17
Sales occupations .....	19.35	6.50	7.98	13.06	22.88	36.52
Supervisors, sales occupations .....	23.70	12.98	17.09	23.75	28.85	33.33
Sales occupations, other business services .....	23.21	11.25	14.67	16.82	21.00	41.13
Sales representatives, mining, manufacturing, and wholesale .....	29.33	15.00	18.75	24.42	30.40	47.08
Sales workers, apparel .....	8.32	5.75	6.00	6.75	7.20	17.78
Sales workers, other commodities .....	9.91	6.50	6.75	8.40	11.92	17.07
Cashiers .....	7.96	6.25	6.50	7.25	9.10	10.55
Sales support occupations, N.E.C. ....	13.45	8.45	9.62	12.67	15.14	21.81
Administrative support occupations, including clerical .....	12.95	9.16	10.41	12.34	14.50	17.68
Supervisors, general office .....	15.34	12.06	13.74	16.00	16.11	18.28
Secretaries .....	13.65	10.46	11.82	13.48	15.27	16.35
Typists .....	11.85	9.83	10.26	10.75	12.25	15.73
Receptionists .....	10.07	8.50	9.24	10.00	10.68	12.00
Information clerks, N.E.C. ....	10.81	7.22	9.30	11.27	12.16	13.02
Order clerks .....	15.45	9.25	12.12	16.18	18.12	21.58
Library clerks .....	10.74	8.72	10.07	10.67	11.32	13.13
File clerks .....	9.42	7.71	8.29	8.83	10.71	12.02
Records clerks, N.E.C. ....	12.69	9.78	10.77	12.00	14.42	16.90
Bookkeepers, accounting and auditing clerks .....	12.78	9.43	10.50	12.20	13.94	17.73
Payroll and timekeeping clerks .....	11.43	9.33	10.00	10.79	13.21	13.55
Dispatchers .....	20.76	9.42	10.50	16.82	33.59	33.59
Production coordinators .....	13.27	10.40	11.13	13.74	14.52	16.83
Traffic, shipping and receiving clerks .....	12.94	9.25	11.95	13.00	14.10	16.53
Stock and inventory clerks .....	12.45	9.40	11.08	12.15	13.46	14.91
Insurance adjusters, examiners, and investigators .....	13.92	10.36	10.96	12.88	16.36	19.57
Investigators and adjusters except insurance .....	12.53	9.50	11.25	12.55	13.94	14.54
General office clerks .....	12.47	9.00	10.41	12.59	13.85	16.10
Data entry keyers .....	10.62	9.12	9.56	10.41	11.71	12.67
Teachers' aides .....	11.85	9.07	10.00	11.74	13.29	15.90
Administrative support occupations, N.E.C. ....	12.23	9.25	10.13	12.21	13.40	15.60
<b>Blue-collar occupations</b> .....						
Precision production, craft, and repair occupations .....	14.75	8.25	10.40	14.50	17.83	21.78
Bus, truck, and stationary engine mechanics .....	17.04	9.70	12.60	17.22	21.25	23.56
Heavy equipment mechanics .....	14.43	11.30	13.00	14.10	14.30	18.98
Industrial machinery repairers .....	18.52	15.89	17.29	18.29	19.49	20.23
Mechanics and repairers, N.E.C. ....	18.22	13.25	17.60	19.25	19.79	19.94
Carpenters .....	16.85	13.77	15.70	16.55	18.52	19.98
Plumbers, pipefitters and steamfitters .....	19.41	17.81	17.81	19.00	22.04	22.08
Construction trades, N.E.C. ....	22.76	20.56	21.48	22.78	23.73	25.06
Supervisors, production occupations .....	15.44	12.48	13.25	15.63	18.85	18.85
Machinists .....	21.69	15.87	18.27	21.15	25.00	31.00
Electrical and electronic equipment assemblers ..	17.48	14.44	15.83	16.85	19.47	21.50
Miscellaneous precision workers, N.E.C. ....	9.88	7.25	8.00	9.52	11.60	13.22
Inspectors, testers, and graders .....	13.58	9.30	10.56	12.72	14.76	17.80
Water and sewer treatment plant operators .....	14.92	10.00	12.10	15.15	16.82	21.23
Machine operators, assemblers, and inspectors .....	20.31	18.51	18.51	18.73	22.65	24.20
Punching and stamping press operators .....	13.55	8.37	10.38	13.91	15.80	18.24
Fabricating machine operators, N.E.C. ....	11.59	7.75	8.50	10.25	15.04	15.71
Printing press operators .....	13.31	9.50	11.50	13.66	14.70	17.58
Packaging and filling machine operators .....	19.42	12.50	14.12	22.06	24.30	25.18
	12.06	8.00	8.55	10.17	15.01	18.12

See footnotes at end of table.

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>Blue-collar occupations</b> (-Continued)						
Machine operators, assemblers, and inspectors (-Continued)						
Painting and paint spraying machine operators ...	\$14.02	\$9.54	\$11.49	\$15.34	\$16.08	\$17.28
Slicing and cutting machine operators .....	15.08	13.91	14.00	15.20	15.71	18.09
Miscellaneous machine operators, N.E.C. ....	11.84	7.96	8.64	10.85	14.11	16.80
Welders and cutters .....	16.06	13.38	15.42	15.92	16.62	19.47
Assemblers .....	14.21	10.82	12.36	14.48	15.57	16.67
Miscellaneous hand working occupations, N.E.C. ....	11.72	8.31	8.56	9.93	14.15	20.52
Production inspectors, checkers and examiners ..	13.05	9.00	9.87	13.37	15.25	17.59
Transportation and material moving occupations .....	15.95	9.04	12.15	15.99	18.34	22.41
Truck drivers .....	18.01	12.34	14.70	16.71	21.25	25.39
Bus drivers .....	13.31	9.25	10.09	11.74	17.12	18.34
Industrial truck and tractor equipment operators ..	13.93	9.95	11.76	15.33	15.99	16.17
Miscellaneous material moving equipment operators, N.E.C. ....	15.65	10.45	13.23	17.79	17.86	18.12
Handlers, equipment cleaners, helpers, and laborers .....	11.15	6.76	8.00	10.21	14.20	16.82
Construction laborers .....	16.56	13.00	15.00	16.82	17.28	21.24
Production helpers .....	10.83	8.00	9.28	10.00	11.83	14.50
Stock handlers and baggers .....	10.78	6.50	7.50	10.26	14.31	16.06
Machine feeders and offbearers .....	12.31	6.82	9.75	11.51	15.17	17.84
Freight, stock, and material handlers, N.E.C. ....	11.55	7.00	8.00	9.00	16.18	18.46
Hand packers and packagers .....	9.28	5.83	7.00	9.15	12.19	14.83
Laborers except construction, N.E.C. ....	10.51	7.25	8.50	9.75	11.61	15.58
<b>Service occupations</b> .....						
Protective service occupations .....	17.22	9.00	12.68	18.20	21.78	23.12
Firefighting occupations .....	15.40	10.58	13.60	15.11	18.20	18.82
Police and detectives, public service .....	21.99	18.49	21.92	22.55	23.24	24.24
Sheriffs, bailiffs, and other law enforcement officers .....	17.79	11.11	15.71	19.89	21.08	21.37
Correctional institution officers .....	15.72	11.69	11.69	16.14	19.47	20.02
Guards and police except public service .....	9.45	7.00	7.75	9.00	9.00	12.70
Food service occupations .....	8.02	5.15	5.98	7.00	9.46	11.81
Supervisors, food preparation and service occupations .....	14.63	7.78	12.35	16.09	17.02	17.65
Bartenders .....	7.03	5.98	6.98	7.00	7.10	7.10
Waiters and waitresses .....	5.08	5.15	5.15	5.15	5.15	5.18
Cooks .....	9.34	7.25	7.83	9.36	10.43	11.92
Food counter, fountain, and related occupations .....	7.46	5.15	5.15	6.50	9.78	11.77
Kitchen workers, food preparation .....	6.85	5.50	5.65	6.00	7.25	9.87
Waiters'/Waitresses' assistants .....	7.97	6.00	6.50	8.32	9.11	9.74
Food preparation occupations, N.E.C. ....	7.44	5.50	6.15	6.90	8.46	11.03

See footnotes at end of table.

**Table A-1. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean	Percentiles				
		10	25	Median 50	75	90
<b>Service occupations (-Continued)</b>						
Health service occupations .....	\$9.80	\$7.60	\$8.44	\$9.73	\$11.05	\$12.01
Health aides, except nursing .....	10.89	8.65	9.91	10.79	11.89	12.72
Nursing aides, orderlies and attendants .....	9.54	7.41	8.31	9.32	10.86	11.94
Cleaning and building service occupations .....	10.55	7.25	7.85	9.48	13.40	15.60
Supervisors, cleaning and building service workers .....	13.14	8.27	11.55	13.63	13.63	18.08
Maids and housemen .....	8.70	6.62	7.56	8.31	9.76	11.56
Janitors and cleaners .....	10.79	7.25	7.85	9.75	13.40	15.73
Personal service occupations .....	11.97	7.00	8.00	9.36	13.98	20.26
Attendants, amusement and recreation facilities ..	7.59	5.15	5.50	7.00	8.10	10.48
Welfare service aides .....	9.42	7.50	8.00	8.00	12.25	12.81
Early childhood teachers' assistants .....	11.44	9.12	9.36	10.00	12.44	17.28
Child care workers, N.E.C. ....	7.90	6.50	7.04	8.50	8.50	8.93
Service occupations, N.E.C. ....	10.04	7.50	7.80	8.70	10.86	14.00

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

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

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

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

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.



**Table A-2. Hourly earnings<sup>1</sup> for selected occupations, all workers<sup>2</sup>, private industry and State and local government, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>All occupations</b> .....	\$17.57	\$7.85	\$10.32	\$14.70	\$21.17	\$29.33	\$20.23	\$11.42	\$14.29	\$17.92	\$24.06	\$32.64
All occupations excluding sales .....	17.42	8.00	10.45	14.76	21.15	28.95	20.24	11.42	14.32	17.92	24.08	32.64
<b>White-collar occupations</b> .....	20.78	9.50	12.29	17.47	24.90	33.65	21.91	11.96	15.07	19.76	26.71	36.00
White-collar occupations excluding sales .....	20.99	10.30	12.79	17.79	25.07	33.59	21.92	11.96	15.08	19.83	26.71	36.00
Professional specialty and technical occupations .....	24.44	13.25	16.63	21.83	27.38	34.77	24.75	15.56	18.54	23.01	29.50	37.64
Professional specialty occupations .....	25.58	15.09	19.53	24.40	29.48	36.30	25.73	15.82	19.23	24.20	31.12	38.73
Engineers, architects, and surveyors .....	28.70	21.00	24.40	28.60	31.88	36.74	-	-	-	-	-	-
Electrical and electronic engineers .....	26.22	17.31	22.06	25.96	29.05	33.82	-	-	-	-	-	-
Mechanical engineers .....	27.44	21.16	24.84	26.93	30.29	33.52	-	-	-	-	-	-
Engineers, N.E.C. ....	29.78	21.53	24.40	29.52	32.98	38.32	-	-	-	-	-	-
Mathematical and computer scientists .....	26.24	17.07	21.28	25.05	29.97	36.24	17.63	13.36	14.63	17.32	19.29	21.36
Computer systems analysts and scientists .....	28.64	20.78	23.90	27.28	32.35	39.28	18.60	14.63	16.18	18.54	19.94	21.36
Operations and systems researchers and analysts .....	22.77	15.32	19.70	23.03	26.39	30.60	-	-	-	-	-	-
Natural scientists .....	19.94	12.60	15.03	18.13	23.94	31.21	18.16	14.63	15.10	16.18	19.21	24.69
Health related occupations .....	24.66	15.38	18.92	22.62	25.74	28.85	24.92	18.64	21.36	24.90	27.43	28.96
Registered nurses .....	22.12	16.34	19.29	22.23	25.32	26.76	25.60	19.67	23.08	25.19	28.36	28.51
Teachers, college and university .....	31.36	21.30	23.71	29.11	37.25	47.26	31.04	20.87	24.19	29.26	36.66	46.59
Teachers, except college and university .....	15.97	8.83	10.88	13.65	20.07	26.92	28.61	18.92	22.73	27.62	35.26	39.21
Prekindergarten and kindergarten .....	-	-	-	-	-	-	30.35	21.38	23.53	30.30	36.92	39.66
Elementary school teachers .....	21.72	12.09	14.85	20.01	28.91	32.95	28.98	18.92	22.13	28.08	35.31	39.54
Secondary school teachers .....	-	-	-	-	-	-	27.71	17.94	22.05	27.06	33.82	37.17
Teachers, N.E.C. ....	15.52	11.50	12.00	14.60	17.12	22.75	-	-	-	-	-	-
Librarians, archivists, and curators .....	-	-	-	-	-	-	22.84	14.83	17.57	21.96	25.45	36.85
Librarians .....	-	-	-	-	-	-	22.84	14.83	17.57	21.96	25.45	36.85
Social scientists and urban planners .....	23.68	13.54	18.99	24.04	30.03	30.03	-	-	-	-	-	-
Economists .....	24.50	13.62	19.22	25.25	30.03	30.03	-	-	-	-	-	-
Social, recreation, and religious workers .....	14.86	10.60	11.86	13.39	17.07	20.88	20.97	15.74	17.82	21.82	24.24	24.51
Social workers .....	13.68	10.60	11.55	12.81	14.15	18.70	21.21	15.79	18.09	21.96	24.24	24.69
Lawyers and judges .....	35.30	16.83	19.59	27.16	48.08	58.49	-	-	-	-	-	-
Lawyers .....	35.30	16.83	19.59	27.16	48.08	58.49	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	23.08	13.50	17.72	20.91	27.16	37.53	20.35	14.65	16.60	19.23	21.92	23.66
Professional occupations, N.E.C. ....	25.90	15.95	20.29	22.68	35.54	39.78	-	-	-	-	-	-
Technical occupations .....	21.80	12.00	14.03	16.63	20.95	26.54	17.52	13.46	15.56	17.67	19.70	20.37
Clinical laboratory technologists and technicians .....	18.29	14.46	15.51	18.41	20.80	21.76	-	-	-	-	-	-
Radiological technicians .....	15.26	12.00	12.86	15.43	17.04	18.13	-	-	-	-	-	-
Licensed practical nurses .....	13.73	11.68	12.38	13.75	14.75	15.87	-	-	-	-	-	-
Health technologists and technicians, N.E.C. ....	13.66	9.88	11.78	14.00	15.40	17.49	13.05	9.83	12.14	12.14	14.27	16.16
Electrical and electronic technicians .....	16.60	13.59	14.13	15.36	17.13	22.80	-	-	-	-	-	-
Engineering technicians, N.E.C. ....	18.96	14.41	16.96	19.33	21.46	23.08	-	-	-	-	-	-
Drafters .....	15.80	11.87	13.76	15.31	17.78	19.82	-	-	-	-	-	-
Computer programmers .....	19.76	15.54	16.83	19.18	22.59	24.85	-	-	-	-	-	-
Legal assistants .....	19.58	12.74	16.30	19.20	21.79	26.42	-	-	-	-	-	-
Technical and related occupations, N.E.C. ....	18.56	11.74	12.57	16.76	21.73	27.93	15.64	13.40	15.56	15.56	16.80	17.57
Executive, administrative, and managerial occupations .....	27.63	15.23	18.27	23.33	33.11	44.51	28.39	18.22	21.59	25.26	30.21	46.63
Executives, administrators, and managers .....	33.28	17.61	21.25	29.45	40.51	51.46	33.61	22.89	25.31	28.24	44.34	48.27
Administrators and officials, public administration .....	-	-	-	-	-	-	26.09	18.22	25.25	28.06	28.24	30.21
Financial managers .....	34.50	20.96	22.31	32.45	43.78	51.17	-	-	-	-	-	-
Personnel and labor relations managers .....	30.54	17.61	22.66	32.12	32.12	50.98	-	-	-	-	-	-
Managers, marketing, advertising and public relations .....	39.52	24.21	32.60	36.21	44.83	57.69	-	-	-	-	-	-
Administrators, education and related fields .....	17.41	12.36	12.36	15.00	21.40	27.47	38.61	24.06	27.72	42.62	48.27	52.79
Managers, medicine and health .....	33.59	19.74	20.70	24.70	43.98	55.62	-	-	-	-	-	-

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government						
	Mean	Percentiles					Mean	Percentiles					
		10	25	Median 50	75	90		10	25	Median 50	75	90	
<b>White-collar occupations</b> (-Continued)													
Executive, administrative, and managerial occupations (-Continued)													
Executives, administrators, and managers (-Continued)													
Managers, service organizations, N.E.C. ....	\$22.11	\$13.70	\$17.81	\$20.60	\$25.87	\$30.19	—	—	—	—	—	—	—
Managers and administrators, N.E.C. ....	33.40	18.13	21.18	26.05	38.46	49.57	—	—	—	—	—	—	—
Management related occupations	21.57	13.85	16.63	19.97	25.57	32.31	\$22.29	\$17.50	\$19.94	\$22.96	\$24.93	\$25.42	\$25.42
Accountants and auditors	21.65	14.67	17.07	19.23	25.57	32.31	18.96	17.11	17.50	19.38	20.56	21.59	21.59
Other financial officers	23.78	14.62	16.59	20.25	30.53	37.24	—	—	—	—	—	—	—
Management analysts	25.90	15.61	20.03	27.98	33.11	34.18	—	—	—	—	—	—	—
Personnel, training, and labor relations specialists	20.13	15.25	16.42	20.11	23.26	25.38	—	—	—	—	—	—	—
Purchasing agents and buyers, N.E.C. ....	27.15	10.85	17.76	22.80	40.14	40.14	—	—	—	—	—	—	—
Management related occupations, N.E.C. ....	18.34	11.97	14.13	17.79	20.95	27.49	—	—	—	—	—	—	—
Sales occupations	19.37	6.50	7.98	13.05	22.88	36.52	—	—	—	—	—	—	—
Supervisors, sales occupations	23.70	12.98	17.09	23.75	28.85	33.33	—	—	—	—	—	—	—
Sales occupations, other business services	23.21	11.25	14.67	16.82	21.00	41.13	—	—	—	—	—	—	—
Sales representatives, mining, manufacturing, and wholesale	29.33	15.00	18.75	24.42	30.40	47.08	—	—	—	—	—	—	—
Sales workers, apparel	8.32	5.75	6.00	6.75	7.20	17.78	—	—	—	—	—	—	—
Sales workers, other commodities	9.91	6.50	6.75	8.40	11.92	17.07	—	—	—	—	—	—	—
Cashiers	7.90	6.25	6.50	7.25	9.10	10.55	—	—	—	—	—	—	—
Sales support occupations, N.E.C. ....	13.45	8.45	9.62	12.67	15.14	21.81	—	—	—	—	—	—	—
Administrative support occupations, including clerical	12.86	9.00	10.25	12.12	14.26	17.90	13.37	10.22	11.42	13.01	15.46	16.54	16.54
Secretaries	13.53	10.46	11.73	13.34	14.80	17.27	13.93	11.05	12.86	14.58	15.49	15.93	15.93
Receptionists	9.98	8.50	9.24	9.77	10.67	11.85	—	—	—	—	—	—	—
Information clerks, N.E.C. ....	10.81	7.22	9.30	11.27	12.16	13.02	—	—	—	—	—	—	—
Order clerks	15.45	9.25	12.12	16.18	18.12	21.58	—	—	—	—	—	—	—
Library clerks	—	—	—	—	—	—	10.74	8.72	10.07	10.67	11.32	13.13	13.13
File clerks	9.42	7.71	8.29	8.83	10.71	12.02	—	—	—	—	—	—	—
Records clerks, N.E.C. ....	12.65	9.66	10.65	12.00	14.42	17.17	—	—	—	—	—	—	—
Bookkeepers, accounting and auditing clerks	12.09	9.11	10.26	11.63	13.17	16.55	17.06	13.03	15.78	17.23	20.29	20.29	20.29
Payroll and timekeeping clerks	11.43	9.33	10.00	10.79	13.21	13.55	—	—	—	—	—	—	—
Dispatchers	21.68	9.25	10.50	18.97	33.59	33.59	—	—	—	—	—	—	—
Production coordinators	13.27	10.40	11.13	13.74	14.52	16.83	—	—	—	—	—	—	—
Traffic, shipping and receiving clerks	12.94	9.25	11.95	13.00	14.10	16.53	—	—	—	—	—	—	—
Stock and inventory clerks	12.26	9.40	11.08	12.15	13.46	14.91	—	—	—	—	—	—	—
Insurance adjusters, examiners, and investigators	13.92	10.36	10.96	12.88	16.36	19.57	—	—	—	—	—	—	—
Investigators and adjusters except insurance	12.53	9.50	11.25	12.55	13.94	14.54	—	—	—	—	—	—	—
General office clerks	12.00	8.48	9.61	12.12	13.70	15.51	13.26	10.42	11.67	12.81	14.94	16.30	16.30
Data entry keyers	10.62	9.12	9.56	10.41	11.71	12.67	—	—	—	—	—	—	—
Teachers' aides	—	—	—	—	—	—	12.05	9.53	10.00	11.82	13.31	15.90	15.90
Administrative support occupations, N.E.C. ....	12.01	9.13	9.65	12.21	13.29	15.53	12.88	10.71	11.70	12.31	14.86	15.60	15.60
<b>Blue-collar occupations</b>	14.55	8.15	10.09	14.14	17.75	22.02	17.23	13.73	16.60	17.28	18.34	20.59	20.59
Precision production, craft, and repair occupations	16.88	9.52	12.00	16.55	21.48	23.77	18.32	15.86	17.22	18.29	19.44	21.52	21.52
Industrial machinery repairers	18.22	13.25	17.60	19.25	19.79	19.94	—	—	—	—	—	—	—
Mechanics and repairers, N.E.C. ....	16.85	13.77	15.70	16.55	18.52	19.98	—	—	—	—	—	—	—
Carpenters	19.35	10.00	18.75	21.30	22.08	22.16	—	—	—	—	—	—	—
Plumbers, pipefitters and steamfitters	22.80	20.56	21.78	23.33	23.73	25.06	—	—	—	—	—	—	—
Supervisors, production occupations	21.69	15.87	18.27	21.15	25.00	31.00	—	—	—	—	—	—	—
Machinists	17.43	14.44	15.83	16.85	19.47	21.50	—	—	—	—	—	—	—
Electrical and electronic equipment assemblers	9.88	7.25	8.00	9.52	11.60	13.22	—	—	—	—	—	—	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government						
	Mean	Percentiles					Mean	Percentiles					
		10	25	Median 50	75	90		10	25	Median 50	75	90	
<b>Blue-collar occupations (-Continued)</b>													
Precision production, craft, and repair occupations (-Continued)													
Miscellaneous precision workers, N.E.C. ....	\$13.58	\$9.30	\$10.56	\$12.72	\$14.76	\$17.80	-	-	-	-	-	-	-
Inspectors, testers, and graders	14.92	10.00	12.10	15.15	16.82	21.23	-	-	-	-	-	-	-
Water and sewer treatment plant operators	-	-	-	-	-	-	\$20.31	\$18.51	\$18.51	\$18.73	\$22.65	\$24.20	
Machine operators, assemblers, and inspectors	13.55	8.37	10.38	13.91	15.80	18.24	-	-	-	-	-	-	-
Punching and stamping press operators	11.59	7.75	8.50	10.25	15.04	15.71	-	-	-	-	-	-	-
Fabricating machine operators, N.E.C. ....	13.31	9.50	11.50	13.66	14.70	17.58	-	-	-	-	-	-	-
Printing press operators	19.42	12.50	14.12	22.06	24.30	25.18	-	-	-	-	-	-	-
Packaging and filling machine operators	12.06	8.00	8.55	10.17	15.01	18.12	-	-	-	-	-	-	-
Painting and paint spraying machine operators	14.02	9.54	11.49	15.34	16.08	17.28	-	-	-	-	-	-	-
Slicing and cutting machine operators	15.08	13.91	14.00	15.20	15.71	18.09	-	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	11.84	7.96	8.64	10.78	14.11	16.80	-	-	-	-	-	-	-
Welders and cutters	16.06	13.38	15.42	15.92	16.62	19.47	-	-	-	-	-	-	-
Assemblers	14.21	10.82	12.36	14.48	15.57	16.67	-	-	-	-	-	-	-
Miscellaneous hand working occupations, N.E.C. ....	11.72	8.31	8.56	9.93	14.15	20.52	-	-	-	-	-	-	-
Production inspectors, checkers and examiners	13.05	9.00	9.87	13.37	15.25	17.59	-	-	-	-	-	-	-
Transportation and material moving occupations	16.00	9.00	11.91	15.84	18.46	22.82	15.52	11.00	12.85	16.71	18.34	18.34	18.34
Truck drivers	18.11	12.23	15.00	17.26	21.49	25.41	-	-	-	-	-	-	-
Bus drivers	-	-	-	-	-	-	15.62	11.00	12.85	17.12	18.34	18.34	18.34
Industrial truck and tractor equipment operators	13.93	9.95	11.76	15.33	15.99	16.17	-	-	-	-	-	-	-
Miscellaneous material moving equipment operators, N.E.C. ....	15.65	10.45	13.23	17.79	17.86	18.12	-	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers	10.61	6.50	8.00	9.70	12.23	15.64	16.52	15.14	16.45	16.81	17.07	17.60	17.60
Production helpers	10.83	8.00	9.28	10.00	11.83	14.50	-	-	-	-	-	-	-
Stock handlers and baggers	10.78	6.50	7.50	10.26	14.31	16.06	-	-	-	-	-	-	-
Machine feeders and offbearers	12.31	6.82	9.75	11.51	15.17	17.84	-	-	-	-	-	-	-
Freight, stock, and material handlers, N.E.C. ....	11.55	7.00	8.00	9.00	16.18	18.46	-	-	-	-	-	-	-
Hand packers and packagers	9.28	5.83	7.00	9.15	12.19	14.83	-	-	-	-	-	-	-
Laborers except construction, N.E.C. ....	10.21	7.25	8.50	9.70	11.13	13.47	-	-	-	-	-	-	-
<b>Service occupations</b>	9.07	5.50	6.98	8.23	10.34	12.47	15.39	9.64	11.69	15.05	18.82	22.14	22.14
Protective service occupations	9.71	7.00	7.75	9.00	9.00	12.70	18.25	11.69	15.11	18.82	21.98	23.20	23.20
Firefighting occupations	-	-	-	-	-	-	15.40	10.58	13.60	15.11	18.20	18.82	18.82
Police and detectives, public service ..	-	-	-	-	-	-	21.98	17.99	21.92	22.55	23.24	24.24	24.24
Sheriffs, bailiffs, and other law enforcement officers	-	-	-	-	-	-	17.79	11.11	15.71	19.89	21.08	21.37	21.37
Correctional institution officers	-	-	-	-	-	-	15.72	11.69	11.69	16.14	19.47	20.02	20.02
Guards and police except public service	8.82	7.00	7.75	9.00	9.00	10.50	-	-	-	-	-	-	-
Food service occupations	7.92	5.15	5.95	7.00	9.20	11.81	10.86	8.12	9.78	10.33	11.85	13.41	13.41
Supervisors, food preparation and service occupations	14.63	7.78	12.35	16.09	17.02	17.65	-	-	-	-	-	-	-
Bartenders	7.03	5.98	6.98	7.00	7.10	7.10	-	-	-	-	-	-	-
Waiters and waitresses	5.08	5.15	5.15	5.15	5.15	5.18	-	-	-	-	-	-	-
Cooks	9.24	7.25	7.83	9.36	10.43	11.60	-	-	-	-	-	-	-
Kitchen workers, food preparation	6.78	5.50	5.65	6.00	7.25	9.70	-	-	-	-	-	-	-
Waiters/Waitresses' assistants	7.97	6.00	6.50	8.32	9.11	9.74	-	-	-	-	-	-	-
Food preparation occupations, N.E.C. ....	7.23	5.50	6.08	6.75	7.96	10.42	10.72	8.43	9.98	11.01	11.82	13.16	13.16
Health service occupations	9.73	7.51	8.44	9.65	11.03	12.00	10.87	9.14	9.41	10.28	12.17	13.90	13.90

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	Private industry						State and local government					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Service occupations (-Continued)</b>												
Health service occupations (-Continued)												
Health aides, except nursing .....	\$10.91	\$8.65	\$9.91	\$10.81	\$11.89	\$12.72	—	—	—	—	—	—
Nursing aides, orderlies and attendants .....	9.43	7.32	8.22	9.16	10.86	11.82	\$10.91	\$9.14	\$9.41	\$10.28	\$12.19	\$13.90
Cleaning and building service occupations .....	9.05	7.04	7.50	8.47	10.05	11.90	14.22	9.83	13.40	14.97	15.67	16.63
Supervisors, cleaning and building service workers .....	12.37	8.27	11.55	13.63	13.63	15.38	—	—	—	—	—	—
Maids and housemen .....	8.71	6.62	7.56	8.31	9.76	11.56	—	—	—	—	—	—
Janitors and cleaners .....	9.00	7.04	7.31	8.45	10.00	12.00	14.18	9.83	13.40	14.97	15.67	16.63
Personal service occupations .....	12.13	6.75	7.50	8.50	14.32	23.80	11.55	9.12	9.36	10.30	12.81	16.95
Attendants, amusement and recreation facilities .....	7.59	5.15	5.50	7.00	8.10	10.48	—	—	—	—	—	—
Early childhood teachers' assistants ..	—	—	—	—	—	—	11.46	9.12	9.36	10.07	12.44	18.55
Child care workers, N.E.C. ....	7.90	6.50	7.04	8.50	8.50	8.93	—	—	—	—	—	—
Service occupations, N.E.C. ....	10.04	7.50	7.80	8.70	10.86	14.00	—	—	—	—	—	—

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table A-3. Hourly earnings<sup>1</sup> for selected occupations, full-time and part-time workers<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
<b>All occupations</b> .....	\$19.07	\$9.30	\$11.90	\$16.32	\$22.60	\$30.77	\$10.33	\$5.75	\$6.75	\$8.50	\$12.00	\$18.22
All occupations excluding sales .....	18.83	9.38	11.96	16.28	22.41	30.29	10.74	5.65	7.00	9.00	12.44	19.25
<b>White-collar occupations</b> .....	21.76	10.48	13.34	18.37	25.95	35.10	13.16	6.50	8.00	11.54	16.64	23.27
White-collar occupations excluding sales .....	21.62	10.72	13.46	18.54	25.94	34.81	15.39	9.00	10.72	14.16	19.36	24.52
Professional specialty and technical occupations .....	25.08	14.03	17.59	22.60	28.85	36.58	18.62	12.03	14.68	17.82	22.99	25.74
Professional specialty occupations .....	25.95	15.45	19.59	24.61	30.05	37.56	21.16	13.92	17.65	21.73	24.97	26.62
Engineers, architects, and surveyors .....	28.20	20.50	23.60	28.09	31.76	36.89	-	-	-	-	-	-
Electrical and electronic engineers .....	26.22	17.31	22.06	25.96	29.05	33.82	-	-	-	-	-	-
Mechanical engineers .....	27.44	21.16	24.84	26.93	30.29	33.52	-	-	-	-	-	-
Engineers, N.E.C. ....	28.64	19.94	23.08	28.68	32.16	37.95	-	-	-	-	-	-
Mathematical and computer scientists .....	25.34	15.64	20.42	24.75	29.42	35.31	-	-	-	-	-	-
Computer systems analysts and scientists .....	27.33	19.23	21.63	26.20	31.32	38.03	-	-	-	-	-	-
Operations and systems researchers and analysts .....	22.14	13.36	17.52	22.09	26.26	29.61	-	-	-	-	-	-
Natural scientists .....	19.27	13.66	15.10	17.15	21.90	26.81	-	-	-	-	-	-
Physical scientists, N.E.C. ....	28.30	22.51	23.94	25.92	31.88	38.47	-	-	-	-	-	-
Health related occupations .....	25.86	16.40	19.05	23.70	26.58	30.29	21.94	15.40	19.44	22.89	25.12	26.46
Registered nurses .....	22.99	16.93	19.59	23.27	25.94	28.36	22.35	16.80	19.55	23.11	25.30	26.58
Teachers, college and university .....	31.52	21.59	24.19	29.26	36.87	46.59	18.03	11.54	11.54	14.58	22.01	29.11
Teachers, except college and university .....	27.38	15.87	21.53	26.71	34.54	39.02	20.10	14.25	15.94	21.75	23.25	25.90
Prekindergarten and kindergarten .....	24.52	8.83	11.31	25.80	35.10	39.02	-	-	-	-	-	-
Elementary school teachers .....	28.39	18.40	21.44	27.61	34.72	39.54	-	-	-	-	-	-
Secondary school teachers .....	27.75	17.94	22.05	27.12	33.85	37.17	-	-	-	-	-	-
Teachers, special education .....	27.74	20.64	23.28	27.45	31.07	38.03	-	-	-	-	-	-
Teachers, N.E.C. ....	28.56	16.02	22.33	27.61	36.00	39.21	-	-	-	-	-	-
Vocational and educational counselors .....	20.50	13.49	15.87	23.00	23.70	25.86	-	-	-	-	-	-
Librarians, archivists, and curators .....	25.01	15.41	17.69	24.72	29.74	35.76	-	-	-	-	-	-
Librarians .....	25.20	15.41	17.69	25.45	29.74	36.85	-	-	-	-	-	-
Social scientists and urban planners .....	23.80	13.54	18.99	24.46	30.03	30.03	-	-	-	-	-	-
Economists .....	24.50	13.62	19.22	25.25	30.03	30.03	-	-	-	-	-	-
Social, recreation, and religious workers .....	18.32	11.55	13.38	18.81	22.96	24.24	-	-	-	-	-	-
Social workers .....	18.03	11.55	13.38	18.52	22.93	24.24	-	-	-	-	-	-
Lawyers and judges .....	35.48	18.03	21.56	31.01	42.11	54.84	-	-	-	-	-	-
Lawyers .....	35.48	18.03	21.56	31.01	42.11	54.84	-	-	-	-	-	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	22.53	14.59	17.72	20.63	25.03	36.78	-	-	-	-	-	-
Professional occupations, N.E.C. ....	24.36	15.96	18.63	21.46	26.75	39.03	-	-	-	-	-	-
Technical occupations .....	22.30	12.18	14.30	17.30	21.05	26.69	14.93	11.66	12.96	14.95	16.48	18.63
Clinical laboratory technologists and technicians .....	18.16	12.84	15.51	18.18	20.55	25.22	-	-	-	-	-	-
Licensed practical nurses .....	13.86	11.55	12.52	13.79	15.17	16.66	14.38	11.81	12.44	14.09	14.96	20.16
Health technologists and technicians, N.E.C. ....	13.14	9.98	11.59	12.76	14.98	16.28	14.45	8.57	14.00	15.40	16.25	17.86
Electrical and electronic technicians .....	16.80	13.59	14.18	16.11	18.32	22.00	-	-	-	-	-	-
Engineering technicians, N.E.C. ....	19.02	14.45	17.58	19.70	20.61	22.38	-	-	-	-	-	-
Drafters .....	15.85	12.65	13.76	15.57	17.54	19.64	-	-	-	-	-	-
Computer programmers .....	19.80	15.54	16.83	19.18	22.60	24.52	-	-	-	-	-	-
Legal assistants .....	19.56	12.74	16.30	18.79	21.79	23.96	-	-	-	-	-	-
Technical and related occupations, N.E.C. ....	18.60	11.98	13.20	16.76	21.73	27.84	-	-	-	-	-	-
Executive, administrative, and managerial occupations .....	27.79	15.43	19.00	24.21	32.73	44.83	-	-	-	-	-	-
Executives, administrators, and managers .....	33.40	17.85	22.31	29.45	41.60	50.74	-	-	-	-	-	-
Administrators and officials, public administration .....	26.09	18.22	25.25	28.06	28.24	30.21	-	-	-	-	-	-
Financial managers .....	34.47	20.96	22.31	32.45	43.67	51.17	-	-	-	-	-	-
Personnel and labor relations managers .....	31.26	17.61	22.66	32.12	39.16	50.98	-	-	-	-	-	-

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time					Part-time						
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
<b>White-collar occupations (-Continued)</b>												
Executive, administrative, and managerial occupations (-Continued)												
Executives, administrators, and managers (-Continued)												
Managers, marketing, advertising and public relations .....	\$39.52	\$24.21	\$32.60	\$36.21	\$44.83	\$57.69	-	-	-	-	-	-
Administrators, education and related fields .....	37.36	21.14	26.20	41.04	47.93	52.79	-	-	-	-	-	-
Managers, medicine and health .....	32.90	20.60	24.26	26.87	43.98	55.62	-	-	-	-	-	-
Managers, service organizations, N.E.C. ....	22.86	13.70	18.16	23.88	25.87	30.19	-	-	-	-	-	-
Managers and administrators, N.E.C. ....	33.35	18.83	21.18	26.05	38.46	49.50	-	-	-	-	-	-
Management related occupations .....	21.70	14.40	17.07	20.34	25.42	30.77	-	-	-	-	-	-
Accountants and auditors .....	21.32	15.00	17.07	19.23	22.88	29.80	-	-	-	-	-	-
Other financial officers .....	23.69	14.78	17.33	23.80	26.21	32.55	-	-	-	-	-	-
Management analysts .....	25.55	16.39	20.43	24.49	30.64	34.18	-	-	-	-	-	-
Personnel, training, and labor relations specialists .....	20.24	15.25	16.42	20.48	23.41	25.38	-	-	-	-	-	-
Purchasing agents and buyers, N.E.C. ....	26.56	10.85	17.76	21.68	40.14	40.14	-	-	-	-	-	-
Inspectors and compliance officers, except construction .....	19.23	13.80	16.63	20.34	21.78	24.51	-	-	-	-	-	-
Management related occupations, N.E.C. ....	19.20	11.97	14.65	18.27	21.29	28.17	-	-	-	-	-	-
Sales occupations .....	23.23	8.00	10.88	17.07	27.36	42.91	\$7.60	\$6.00	\$6.40	\$7.00	\$8.00	\$10.55
Supervisors, sales occupations .....	23.70	12.98	17.09	23.75	28.85	33.33	-	-	-	-	-	-
Sales occupations, other business services .....	23.88	12.50	15.10	16.82	21.00	41.13	-	-	-	-	-	-
Sales representatives, mining, manufacturing, and wholesale .....	29.33	15.00	18.75	24.42	30.40	47.08	-	-	-	-	-	-
Sales workers, other commodities .....	10.85	6.50	7.15	9.86	13.51	17.07	7.94	5.50	6.60	7.09	8.25	10.54
Cashiers .....	8.74	7.00	7.50	8.10	9.75	10.50	7.72	6.25	6.35	7.00	8.45	10.55
Administrative support occupations, including clerical .....	13.15	9.33	10.50	12.54	14.80	17.70	10.81	8.00	9.00	10.49	11.96	13.63
Supervisors, general office .....	15.34	12.06	13.74	16.00	16.11	18.28	-	-	-	-	-	-
Secretaries .....	13.78	10.69	11.87	13.63	15.30	16.50	12.09	10.00	11.00	11.95	13.48	14.80
Typists .....	11.85	9.83	10.26	10.75	12.25	15.73	-	-	-	-	-	-
Receptionists .....	10.46	8.91	9.46	10.48	11.20	12.00	9.14	7.25	9.00	9.24	10.00	10.17
Order clerks .....	15.45	9.25	12.12	16.18	18.12	21.58	-	-	-	-	-	-
Library clerks .....	11.07	8.72	10.22	10.22	11.83	13.65	-	-	-	-	-	-
Records clerks, N.E.C. ....	12.71	9.78	10.72	12.00	14.42	17.00	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks .....	12.83	9.43	10.52	12.49	14.06	17.73	-	-	-	-	-	-
Payroll and timekeeping clerks .....	11.43	9.33	10.00	10.79	13.21	13.55	-	-	-	-	-	-
Dispatchers .....	20.90	9.42	10.50	16.82	33.59	33.59	-	-	-	-	-	-
Production coordinators .....	13.27	10.40	11.13	13.74	14.52	16.83	-	-	-	-	-	-
Traffic, shipping and receiving clerks .....	13.27	9.35	12.37	13.00	14.10	16.67	-	-	-	-	-	-
Stock and inventory clerks .....	12.46	9.40	11.08	12.15	13.46	14.91	-	-	-	-	-	-
Insurance adjusters, examiners, and investigators .....	13.92	10.36	10.96	12.88	16.36	19.57	-	-	-	-	-	-
Investigators and adjusters except insurance .....	12.56	9.60	11.28	12.55	13.94	14.54	-	-	-	-	-	-
General office clerks .....	12.68	9.20	10.59	12.62	13.85	16.30	9.49	8.00	8.00	8.50	11.05	12.12
Data entry keyers .....	10.71	9.16	9.65	10.41	12.00	12.67	-	-	-	-	-	-
Teachers' aides .....	11.93	9.02	10.00	11.18	14.20	16.24	11.73	9.07	10.08	11.96	12.55	13.31
Administrative support occupations, N.E.C. ....	12.33	9.25	10.22	12.21	13.65	15.60	-	-	-	-	-	-
<b>Blue-collar occupations</b> .....	15.09	8.75	10.76	14.99	18.12	22.04	8.93	5.83	6.62	8.29	10.55	12.85
Precision production, craft, and repair occupations .....	17.07	9.75	12.60	17.22	21.25	23.56	-	-	-	-	-	-

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time					Part-time						
	Mean	Percentiles					Mean	Percentiles				
10		25	Median 50	75	90	10		25	Median 50	75	90	
<b>Blue-collar occupations</b> (-Continued)												
Precision production, craft, and repair occupations (-Continued)												
Bus, truck, and stationary engine mechanics .....	\$14.43	\$11.30	\$13.00	\$14.10	\$14.30	\$18.98	-	-	-	-	-	-
Heavy equipment mechanics .....	18.52	15.89	17.29	18.29	19.49	20.23	-	-	-	-	-	-
Industrial machinery repairers .....	18.22	13.25	17.60	19.25	19.79	19.94	-	-	-	-	-	-
Mechanics and repairers, N.E.C. ....	16.85	13.77	15.70	16.55	18.52	19.98	-	-	-	-	-	-
Carpenters .....	19.41	17.81	17.81	19.00	22.04	22.08	-	-	-	-	-	-
Plumbers, pipefitters and steamfitters .....	22.76	20.56	21.48	22.78	23.73	25.06	-	-	-	-	-	-
Construction trades, N.E.C. ....	15.44	12.48	13.25	15.63	18.85	18.85	-	-	-	-	-	-
Supervisors, production occupations ..	21.69	15.87	18.27	21.15	25.00	31.00	-	-	-	-	-	-
Machinists .....	17.48	14.44	15.83	16.85	19.47	21.50	-	-	-	-	-	-
Electrical and electronic equipment assemblers .....	9.94	7.45	8.06	9.52	11.64	13.22	-	-	-	-	-	-
Miscellaneous precision workers, N.E.C. ....	13.58	9.30	10.56	12.72	14.76	17.80	-	-	-	-	-	-
Inspectors, testers, and graders .....	14.92	10.00	12.10	15.15	16.82	21.23	-	-	-	-	-	-
Water and sewer treatment plant operators .....	20.31	18.51	18.51	18.73	22.65	24.20	-	-	-	-	-	-
Machine operators, assemblers, and inspectors .....	13.64	8.50	10.50	13.96	15.83	18.40	\$9.83	\$7.00	\$8.50	\$9.98	\$11.06	\$12.25
Punching and stamping press operators .....	11.76	8.00	8.55	10.27	15.04	15.71	-	-	-	-	-	-
Fabricating machine operators, N.E.C. ....	13.31	9.50	11.50	13.66	14.70	17.58	-	-	-	-	-	-
Printing press operators .....	19.42	12.50	14.12	22.06	24.30	25.18	-	-	-	-	-	-
Painting and paint spraying machine operators .....	14.02	9.54	11.49	15.34	16.08	17.28	-	-	-	-	-	-
Slicing and cutting machine operators .....	15.08	13.91	14.00	15.20	15.71	18.09	-	-	-	-	-	-
Miscellaneous machine operators, N.E.C. ....	11.93	7.96	8.64	10.95	14.42	17.20	-	-	-	-	-	-
Welders and cutters .....	16.06	13.38	15.42	15.92	16.62	19.47	-	-	-	-	-	-
Assemblers .....	14.21	10.82	12.36	14.48	15.57	16.67	-	-	-	-	-	-
Miscellaneous hand working occupations, N.E.C. ....	11.72	8.31	8.56	9.93	14.15	20.52	-	-	-	-	-	-
Production inspectors, checkers and examiners .....	13.05	9.00	9.87	13.37	15.25	17.59	-	-	-	-	-	-
Transportation and material moving occupations .....	16.34	9.50	12.68	16.00	18.39	22.72	10.60	6.62	8.00	10.09	13.80	13.80
Truck drivers .....	18.37	13.00	15.30	17.40	21.49	25.41	-	-	-	-	-	-
Bus drivers .....	13.51	9.35	10.09	11.20	18.34	18.34	-	-	-	-	-	-
Industrial truck and tractor equipment operators .....	13.93	9.95	11.76	15.33	15.99	16.17	-	-	-	-	-	-
Miscellaneous material moving equipment operators, N.E.C. ....	15.73	10.45	14.37	17.79	17.86	18.12	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers .....	11.84	7.50	9.00	10.72	14.71	17.08	8.27	5.65	6.35	7.25	9.70	11.50
Construction laborers .....	16.56	13.00	15.00	16.82	17.28	21.24	-	-	-	-	-	-
Production helpers .....	10.83	8.00	9.28	10.00	11.83	14.50	-	-	-	-	-	-
Stock handlers and baggers .....	11.83	7.00	8.63	10.80	14.40	16.90	8.36	5.50	6.40	7.50	10.55	11.33
Machine feeders and offbearers .....	12.50	6.82	11.25	11.58	15.17	17.84	-	-	-	-	-	-
Freight, stock, and material handlers, N.E.C. ....	-	-	-	-	-	-	8.15	6.35	7.00	8.51	9.18	10.08
Laborers except construction, N.E.C. ....	10.79	8.00	9.00	9.85	12.00	15.58	9.35	6.50	7.00	7.25	10.00	19.25
<b>Service occupations</b> .....	12.15	7.10	8.50	10.86	15.05	19.68	7.78	5.20	6.00	7.25	8.90	10.48
Protective service occupations .....	17.57	11.00	14.12	18.35	21.92	23.20	9.89	6.50	7.45	8.05	8.85	15.71
Police and detectives, public service ..	21.99	18.49	21.92	22.55	23.24	24.24	-	-	-	-	-	-
Sheriffs, bailiffs, and other law enforcement officers .....	18.43	12.31	15.71	20.21	21.08	21.37	-	-	-	-	-	-
Correctional institution officers .....	15.72	11.69	11.69	16.14	19.47	20.02	-	-	-	-	-	-

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries											
	Full-time						Part-time					
	Mean	Percentiles					Mean	Percentiles				
		10	25	Median 50	75	90		10	25	Median 50	75	90
<b>Service occupations (-Continued)</b>												
Protective service occupations (-Continued)												
Guards and police except public service .....	\$8.97	\$7.00	\$7.75	\$9.00	\$9.00	\$11.00	—	—	—	—	—	—
Food service occupations .....	9.60	5.98	7.10	9.09	11.11	16.03	\$6.50	\$5.15	\$5.50	\$6.24	\$7.00	\$8.10
Supervisors, food preparation and service occupations .....	15.06	10.35	13.38	16.09	17.02	17.65	—	—	—	—	—	—
Waiters and waitresses .....	5.15	5.15	5.15	5.15	5.15	5.15	5.04	4.50	5.15	5.15	5.15	6.00
Cooks .....	9.74	7.50	8.20	9.50	10.47	12.00	7.75	7.00	7.00	7.33	8.00	9.36
Kitchen workers, food preparation .....	—	—	—	—	—	—	6.79	5.50	5.65	6.00	7.25	9.80
Food preparation occupations, N.E.C. ....	8.64	6.25	7.00	8.50	10.57	11.35	6.59	5.20	5.50	6.25	7.00	8.00
Health service occupations .....	10.16	7.32	8.77	10.25	11.48	12.60	9.32	7.75	8.22	9.01	10.35	11.56
Health aides, except nursing .....	11.45	9.86	10.29	11.21	12.62	13.93	9.80	8.25	9.23	9.86	10.52	11.34
Nursing aides, orderlies and attendants .....	9.83	7.16	8.50	9.82	11.20	12.00	9.18	7.75	8.22	8.70	10.25	11.46
Cleaning and building service occupations .....	11.57	7.88	8.56	11.04	14.50	16.30	7.67	6.10	7.04	7.30	8.00	10.00
Supervisors, cleaning and building service workers .....	13.14	8.27	11.55	13.63	13.63	18.08	—	—	—	—	—	—
Maids and housemen .....	8.98	7.56	7.99	8.31	9.87	11.65	7.96	6.10	6.62	7.37	9.13	10.27
Janitors and cleaners .....	11.95	7.88	8.76	11.75	15.05	16.45	7.62	6.36	7.15	7.30	7.85	10.00
Personal service occupations .....	13.60	7.25	8.25	10.57	15.00	28.00	9.86	7.00	7.35	9.13	10.30	14.36

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

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

minimum full-time schedule.

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

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.



**Table A-4. Weekly and annual earnings<sup>1</sup> and hours for selected occupations, full-time workers only<sup>2</sup>, all industries, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>All occupations</b> .....	39.8	\$759	\$647	2,028	\$38,663	\$33,280
All occupations excluding sales .....	39.8	749	644	2,022	38,092	33,197
<b>White-collar occupations</b> .....	40.0	869	731	2,020	43,947	37,499
White-collar occupations excluding sales .....	39.9	862	738	2,011	43,479	37,690
Professional specialty and technical occupations .....	39.4	989	894	1,939	48,648	43,930
Professional specialty occupations .....	40.1	1,042	979	1,938	50,299	47,403
Engineers, architects, and surveyors .....	42.5	1,200	1,140	2,212	62,387	59,280
Electrical and electronic engineers .....	41.4	1,087	1,114	2,155	56,503	57,938
Mechanical engineers .....	40.3	1,106	1,106	2,097	57,528	57,491
Engineers, N.E.C. ....	43.9	1,257	1,193	2,282	65,342	62,027
Mathematical and computer scientists .....	39.9	1,012	986	2,076	52,615	51,258
Computer systems analysts and scientists .....	40.0	1,093	1,048	2,079	56,831	54,496
Operations and systems researchers and analysts .....	39.8	881	848	2,068	45,797	44,094
Natural scientists .....	40.4	778	714	2,099	40,448	37,120
Physical scientists, N.E.C. ....	40.0	1,132	1,037	2,080	58,872	53,914
Health related occupations .....	39.5	1,020	938	2,023	52,305	47,507
Registered nurses .....	39.5	908	920	2,042	46,932	46,530
Teachers, college and university .....	39.7	1,250	1,170	1,700	53,590	49,464
Teachers, except college and university .....	38.0	1,041	1,035	1,468	40,202	40,173
Prekindergarten and kindergarten .....	38.2	938	963	1,580	38,733	40,042
Elementary school teachers .....	38.8	1,102	1,080	1,447	41,068	40,593
Secondary school teachers .....	39.0	1,082	1,068	1,452	40,282	39,828
Teachers, special education .....	39.6	1,100	1,098	1,471	40,800	40,570
Teachers, N.E.C. ....	36.1	1,030	1,001	1,410	40,260	39,317
Vocational and educational counselors .....	37.9	776	690	1,809	37,087	35,880
Librarians, archivists, and curators .....	39.1	978	997	1,896	47,405	47,611
Librarians .....	39.1	984	1,115	1,883	47,444	51,418
Social scientists and urban planners .....	39.8	948	978	2,072	49,318	50,877
Economists .....	39.8	976	1,010	2,071	50,736	52,520
Social, recreation, and religious workers .....	40.0	733	752	2,079	38,095	39,125
Social workers .....	39.9	720	741	2,077	37,446	38,522
Lawyers and judges .....	48.3	1,712	1,450	2,510	89,047	75,379
Lawyers .....	48.3	1,712	1,450	2,510	89,047	75,379
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	39.9	898	825	1,981	44,624	41,406
Professional occupations, N.E.C. ....	39.8	970	848	1,958	47,685	42,994
Technical occupations .....	37.4	834	686	1,944	43,356	35,684
Clinical laboratory technologists and technicians .....	40.0	726	727	2,080	37,777	37,814
Licensed practical nurses .....	39.5	547	544	2,052	28,431	28,267
Health technologists and technicians, N.E.C. ....	40.0	525	510	2,080	27,322	26,541
Electrical and electronic technicians .....	41.1	691	669	2,138	35,921	34,801
Engineering technicians, N.E.C. ....	40.0	761	788	2,080	39,561	40,976
Drafters .....	40.0	634	623	2,080	32,970	32,380
Computer programmers .....	40.3	798	775	2,094	41,475	40,310
Legal assistants .....	39.2	766	750	2,036	39,818	39,000
Technical and related occupations, N.E.C. ....	39.9	742	670	2,076	38,607	34,855
Executive, administrative, and managerial occupations ...	41.0	1,139	981	2,116	58,791	51,106
Executives, administrators, and managers .....	41.6	1,388	1,262	2,129	71,114	65,000
Administrators and officials, public administration .....	40.0	1,044	1,122	2,080	54,269	58,365
Financial managers .....	41.9	1,445	1,309	2,180	75,135	68,078
Personnel and labor relations managers .....	39.7	1,241	1,285	2,065	64,543	66,810
Managers, marketing, advertising and public relations .....	41.2	1,629	1,448	2,144	84,720	75,317
Administrators, education and related fields .....	42.4	1,583	1,705	1,911	71,418	75,011
Managers, medicine and health .....	40.2	1,322	1,075	2,089	68,740	55,890
Managers, service organizations, N.E.C. ....	40.0	915	955	2,080	47,555	49,670
Managers and administrators, N.E.C. ....	42.2	1,407	1,110	2,193	73,147	57,728
Management related occupations .....	40.4	877	822	2,101	45,591	42,765
Accountants and auditors .....	39.5	843	775	2,056	43,851	40,310
Other financial officers .....	40.5	960	923	2,106	49,897	48,006
Management analysts .....	40.0	1,022	980	2,080	53,135	50,939
Personnel, training, and labor relations specialists .....	39.9	807	819	2,074	41,969	42,606
Purchasing agents and buyers, N.E.C. ....	40.0	1,062	867	2,080	55,246	45,085

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>White-collar occupations (-Continued)</b>						
Executive, administrative, and managerial occupations (-Continued)						
Management related occupations (-Continued)						
Inspectors and compliance officers, except construction .....	41.5	\$799	\$825	2,160	\$41,537	\$42,910
Management related occupations, N.E.C. ....	40.9	785	764	2,126	40,829	39,707
Sales occupations .....	40.9	951	682	2,129	49,437	35,485
Supervisors, sales occupations .....	41.7	987	950	2,166	51,324	49,400
Sales occupations, other business services .....	40.7	972	673	2,117	50,556	34,986
Sales representatives, mining, manufacturing, and wholesale .....	40.9	1,201	1,016	2,128	62,428	52,853
Sales workers, other commodities .....	40.0	434	394	2,080	22,572	20,509
Cashiers .....	39.7	348	324	2,067	18,072	16,848
Administrative support occupations, including clerical .....	39.8	523	499	2,049	26,941	25,682
Supervisors, general office .....	41.7	639	645	2,166	33,230	33,550
Secretaries .....	39.6	546	545	2,050	28,259	28,205
Typists .....	39.2	464	425	2,038	24,150	22,077
Receptionists .....	39.3	411	407	2,043	21,363	21,138
Order clerks .....	40.0	618	647	2,080	32,140	33,654
Library clerks .....	37.1	411	388	1,583	17,522	12,520
Records clerks, N.E.C. ....	39.3	500	480	2,046	26,007	24,960
Bookkeepers, accounting and auditing clerks .....	39.9	512	488	2,073	26,603	25,376
Payroll and timekeeping clerks .....	40.0	457	432	2,080	23,769	22,443
Dispatchers .....	40.2	840	686	2,090	43,679	35,651
Production coordinators .....	40.2	533	560	2,090	27,741	29,120
Traffic, shipping and receiving clerks .....	40.0	531	520	2,080	27,606	27,040
Stock and inventory clerks .....	40.0	498	486	2,080	25,912	25,272
Insurance adjusters, examiners, and investigators .....	39.4	548	515	2,048	28,510	26,790
Investigators and adjusters except insurance .....	40.0	502	502	2,080	26,128	26,104
General office clerks .....	39.8	504	505	2,059	26,113	26,119
Data entry keyers .....	40.0	428	416	2,080	22,270	21,653
Teachers' aides .....	36.7	438	409	1,397	16,669	15,999
Administrative support occupations, N.E.C. ....	39.5	487	480	2,054	25,327	24,934
<b>Blue-collar occupations</b>						
Precision production, craft, and repair occupations .....	40.2	606	596	2,069	31,228	30,784
Bus, truck, and stationary engine mechanics .....	40.1	684	689	2,080	35,497	35,818
Heavy equipment mechanics .....	40.0	577	564	2,080	30,024	29,328
Industrial machinery repairers .....	40.0	741	732	2,080	38,530	38,043
Mechanics and repairers, N.E.C. ....	40.0	729	770	2,080	37,905	40,040
Carpenters .....	40.0	674	662	2,080	35,040	34,424
Plumbers, pipefitters and steamfitters .....	40.0	777	760	2,080	40,379	39,520
Construction trades, N.E.C. ....	40.0	911	911	2,063	46,960	47,382
Supervisors, production occupations .....	40.0	617	625	2,080	32,109	32,510
Machinists .....	42.3	917	850	2,200	47,709	44,200
Electrical and electronic equipment assemblers ..	40.0	699	674	2,080	36,351	35,048
Miscellaneous precision workers, N.E.C. ....	40.0	397	381	2,080	20,670	19,802
Inspectors, testers, and graders .....	40.0	543	509	2,080	28,238	26,458
Water and sewer treatment plant operators .....	40.0	597	606	2,080	31,025	31,512
Machine operators, assemblers, and inspectors .....	40.0	812	749	2,080	42,250	38,958
Punching and stamping press operators .....	39.8	543	558	2,069	28,220	29,016
Fabricating machine operators, N.E.C. ....	39.9	469	411	2,075	24,406	21,352
Printing press operators .....	40.0	533	546	2,080	27,691	28,416
Painting and paint spraying machine operators ...	39.2	762	871	2,041	39,637	45,300
Slicing and cutting machine operators .....	40.0	561	614	2,080	29,171	31,907
Miscellaneous machine operators, N.E.C. ....	39.8	600	608	2,069	31,195	31,616
Welders and cutters .....	39.9	476	438	2,074	24,746	22,776
Assemblers .....	40.0	643	637	2,080	33,411	33,114
Miscellaneous hand working occupations, N.E.C. ...	40.0	568	579	2,080	29,560	30,118
Production inspectors, checkers and examiners ..	40.0	469	397	2,080	24,385	20,654
Transportation and material moving occupations .....	39.8	520	532	2,071	27,023	27,664
Truck drivers .....	41.2	673	640	2,039	33,306	33,259
Bus drivers .....	45.3	832	705	2,356	43,285	36,670
Industrial truck and tractor equipment operators ...	34.6	467	384	1,354	18,294	10,619
	40.0	557	613	2,080	28,972	31,886

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup>	All industries					
	Mean weekly hours <sup>4</sup>	Weekly earnings		Mean annual hours	Annual earnings	
		Mean	Median		Mean	Median
<b>Blue-collar occupations</b> (-Continued)						
Transportation and material moving occupations (-Continued)						
Miscellaneous material moving equipment operators, N.E.C. ....	40.0	\$629	\$712	2,080	\$32,712	\$37,003
Handlers, equipment cleaners, helpers, and laborers .....	40.0	473	429	2,078	24,610	22,298
Construction laborers .....	40.0	662	673	2,080	34,446	34,986
Production helpers .....	39.8	431	399	2,068	22,387	20,742
Stock handlers and baggers .....	40.0	473	432	2,078	24,574	22,464
Machine feeders and offbearers .....	40.0	500	463	2,080	25,993	24,082
Laborers except construction, N.E.C. ....	40.0	432	394	2,080	22,452	20,490
<b>Service occupations</b> .....						
Protective service occupations .....	38.2	464	414	1,971	23,937	21,320
Police and detectives, public service .....	41.0	721	768	2,134	37,486	39,915
Sheriffs, bailiffs, and other law enforcement officers .....	40.7	894	928	2,114	46,480	48,256
Correctional institution officers .....	40.0	737	808	2,080	38,339	42,037
Guards and police except public service .....	40.0	629	646	2,080	32,707	33,571
Food service occupations .....	39.8	357	354	2,069	18,545	18,416
Supervisors, food preparation and service occupations .....	38.4	368	343	1,979	18,993	17,306
Waiters and waitresses .....	39.1	588	644	2,031	30,579	33,467
Cooks .....	35.2	182	180	1,833	9,438	9,373
Food preparation occupations, N.E.C. ....	38.4	374	363	1,979	19,271	18,782
Health service occupations .....	38.3	331	323	1,951	16,867	16,536
Health aides, except nursing .....	39.3	399	402	2,042	20,745	20,920
Nursing aides, orderlies and attendants .....	39.1	448	439	2,034	23,289	22,827
Cleaning and building service occupations .....	39.3	386	386	2,044	20,085	20,072
Supervisors, cleaning and building service workers .....	39.7	459	442	2,054	23,763	22,963
Maid and housemen .....	39.9	525	545	2,077	27,306	28,350
Janitors and cleaners .....	39.1	351	326	2,033	18,255	16,933
Personal service occupations .....	39.8	475	467	2,057	24,581	24,440
	31.1	422	388	1,560	21,215	18,843

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

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

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

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

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data--at the quote level--with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table B-1. Mean hourly earnings<sup>1</sup> by occupational group and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Minneapolis-St. Paul, MN-WI, July 1998**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>All occupations</b> .....	\$18.03	\$17.57	\$20.23	\$19.07	\$10.33
All occupations excluding sales .....	17.94	17.42	20.24	18.83	10.74
<b>White-collar occupations</b> .....	21.01	20.78	21.91	21.76	13.16
Level 1 .....	7.76	7.71	—	8.58	7.53
Level 2 .....	9.48	8.52	11.37	9.93	8.36
Level 3 .....	10.51	10.12	12.63	10.73	9.57
Level 4 .....	12.24	12.02	13.60	12.33	11.16
Level 5 .....	13.80	13.59	15.02	13.72	14.45
Level 6 .....	16.33	16.31	16.41	16.41	15.26
Level 7 .....	19.13	19.16	18.97	18.93	20.98
Level 8 .....	21.85	19.74	25.63	21.89	20.91
Level 9 .....	24.20	22.93	27.13	24.26	22.23
Level 10 .....	27.20	26.70	30.62	27.24	—
Level 11 .....	30.30	30.53	29.09	30.28	—
Level 12 .....	36.93	36.73	38.99	36.97	—
Level 13 .....	47.33	48.70	—	47.38	—
Level 14 .....	50.99	56.62	38.42	50.99	—
Level 15 .....	66.93	66.93	—	66.93	—
Not able to be leveled .....	22.54	23.86	17.50	23.08	18.80
White-collar occupations excluding sales .....	21.19	20.99	21.92	21.62	15.39
Level 1 .....	9.10	9.01	—	9.22	9.03
Level 2 .....	10.17	9.15	11.41	10.31	9.45
Level 3 .....	10.75	10.34	12.63	10.85	10.17
Level 4 .....	12.41	12.20	13.60	12.41	12.33
Level 5 .....	13.73	13.48	15.01	13.63	14.45
Level 6 .....	15.92	15.79	16.41	15.97	15.26
Level 7 .....	18.67	18.59	18.97	18.40	20.98
Level 8 .....	21.70	18.97	25.63	21.74	20.91
Level 9 .....	23.90	22.42	27.13	23.95	22.23
Level 10 .....	26.35	25.66	30.62	26.37	—
Level 11 .....	28.01	27.78	29.09	27.97	—
Level 12 .....	36.53	36.28	38.99	36.57	—
Level 13 .....	47.33	48.70	—	47.38	—
Level 14 .....	50.99	56.62	38.42	50.99	—
Level 15 .....	66.93	66.93	—	66.93	—
Not able to be leveled .....	22.13	23.56	17.50	22.69	18.80
Professional specialty and technical occupations .....	24.52	24.44	24.75	25.08	18.62
Professional specialty occupations .....	25.62	25.58	25.73	25.95	21.16
Level 5 .....	13.86	13.45	—	14.03	—
Level 6 .....	15.05	15.03	—	15.05	—
Level 7 .....	19.40	19.61	18.80	19.00	21.08
Level 8 .....	24.57	19.94	26.31	24.82	21.60
Level 9 .....	25.07	22.83	28.27	25.22	22.23
Level 10 .....	26.30	26.48	25.22	26.34	—
Level 11 .....	26.95	27.37	24.70	26.88	—
Level 12 .....	32.92	32.68	—	32.98	—
Level 13 .....	40.07	41.35	—	40.07	—
Level 14 .....	42.57	50.27	—	42.57	—
Not able to be leveled .....	20.05	21.67	17.50	20.22	19.44
Engineers, architects, and surveyors .....	28.19	28.70	—	28.20	—
Level 7 .....	20.23	—	—	20.23	—
Level 8 .....	23.61	—	—	23.61	—
Level 9 .....	23.29	23.29	—	23.29	—
Level 10 .....	26.55	26.55	—	26.56	—
Level 11 .....	30.12	30.12	—	30.12	—
Level 12 .....	33.78	33.33	—	33.78	—
Mathematical and computer scientists .....	25.34	26.24	17.63	25.34	—
Level 7 .....	17.99	18.19	—	17.99	—
Level 9 .....	23.51	23.32	—	23.51	—
Level 10 .....	26.24	26.57	—	26.24	—
Level 11 .....	26.47	26.47	—	26.47	—
Level 12 .....	30.12	30.12	—	30.12	—
Natural scientists .....	19.43	19.94	18.16	19.27	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations (-Continued)</b>					
Health related occupations .....	\$24.71	\$24.66	\$24.92	\$25.86	\$21.94
Level 7 .....	22.23	22.32	21.69	22.44	21.97
Level 8 .....	21.22	20.01	—	20.55	—
Level 9 .....	23.06	22.62	24.55	23.34	22.04
Level 11 .....	29.20	—	—	—	—
Teachers, college and university .....	31.14	31.36	31.04	31.52	18.03
Level 9 .....	27.16	—	—	—	—
Level 11 .....	22.99	—	—	—	—
Teachers, except college and university .....	27.18	15.97	28.61	27.38	20.10
Level 7 .....	17.31	15.55	—	17.05	17.81
Level 8 .....	27.87	—	27.96	27.92	—
Level 9 .....	30.44	25.49	30.60	30.45	—
Librarians, archivists, and curators .....	24.47	—	22.84	25.01	—
Social scientists and urban planners .....	23.50	23.68	—	23.80	—
Level 9 .....	22.73	22.73	—	22.73	—
Social, religious, and recreation workers .....	18.15	14.86	20.97	18.32	—
Level 8 .....	17.74	—	—	—	—
Level 9 .....	20.96	—	21.95	20.96	—
Lawyers and judges .....	34.65	35.30	—	35.48	—
Level 12 .....	36.76	—	—	36.76	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	22.34	23.08	20.35	22.53	—
Level 7 .....	17.94	18.04	—	17.94	—
Level 8 .....	19.48	—	—	—	—
Level 9 .....	22.06	22.06	—	22.06	—
Not able to be leveled .....	15.18	—	—	—	—
Technical occupations .....	21.27	21.80	17.52	22.30	14.93
Level 4 .....	12.78	12.81	—	12.74	12.86
Level 5 .....	14.52	14.24	15.86	14.15	15.56
Level 6 .....	16.45	16.18	17.61	16.69	15.47
Level 7 .....	18.16	17.70	—	18.09	—
Level 8 .....	19.71	19.70	—	19.71	—
Level 9 .....	22.63	22.91	—	22.63	—
Level 11 .....	33.96	34.13	—	33.96	—
Executive, administrative, and managerial occupations ...	27.75	27.63	28.39	27.79	—
Level 5 .....	12.99	12.60	—	12.99	—
Level 6 .....	17.51	17.54	—	17.54	—
Level 7 .....	17.98	17.69	19.85	18.01	—
Level 8 .....	18.44	17.73	20.83	18.53	—
Level 9 .....	22.34	21.89	24.02	22.34	—
Level 10 .....	26.28	23.89	—	26.28	—
Level 11 .....	28.64	27.39	33.08	28.64	—
Level 12 .....	36.53	35.80	—	36.53	—
Level 13 .....	42.84	42.62	—	42.84	—
Level 14 .....	58.04	58.55	—	58.04	—
Executives, administrators, and managers .....	33.34	33.28	33.61	33.40	—
Level 7 .....	18.66	18.16	—	18.66	—
Level 8 .....	17.97	17.72	—	18.14	—
Level 9 .....	23.62	23.53	23.95	23.62	—
Level 10 .....	26.87	23.80	—	26.87	—
Level 11 .....	29.78	28.15	33.91	29.78	—
Level 12 .....	37.34	36.36	—	37.34	—
Level 13 .....	42.95	42.72	—	42.95	—
Level 14 .....	60.66	61.32	—	60.66	—
Management related occupations .....	21.68	21.57	22.29	21.70	—
Level 5 .....	12.99	12.61	—	12.99	—
Level 6 .....	15.79	—	—	—	—
Level 7 .....	17.86	17.63	—	17.90	—
Level 8 .....	18.89	17.75	—	18.89	—
Level 9 .....	21.62	20.94	24.06	21.62	—
Level 10 .....	24.16	24.16	—	24.16	—
Level 11 .....	26.46	26.23	—	26.46	—
Level 12 .....	34.92	34.92	—	34.92	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations (-Continued)</b>					
Sales occupations .....	\$19.35	\$19.37	—	\$23.23	\$7.60
Level 1 .....	7.30	7.30	—	—	7.17
Level 2 .....	7.56	7.55	—	—	7.60
Level 3 .....	8.94	8.94	—	9.52	—
Level 4 .....	10.46	10.46	—	11.25	8.27
Level 5 .....	14.36	14.34	—	14.36	—
Level 6 .....	21.42	21.42	—	21.42	—
Level 7 .....	25.68	25.68	—	25.68	—
Level 8 .....	22.90	22.90	—	22.90	—
Level 9 .....	30.79	30.79	—	30.79	—
Level 11 .....	50.19	50.19	—	50.19	—
Administrative support occupations, including clerical .....	12.95	12.86	\$13.37	13.15	10.81
Level 1 .....	9.10	9.01	—	9.22	9.03
Level 2 .....	10.17	9.15	11.41	10.31	9.45
Level 3 .....	10.75	10.34	12.63	10.85	10.17
Level 4 .....	12.36	12.11	13.65	12.38	11.61
Level 5 .....	13.45	13.29	14.45	13.43	13.65
Level 6 .....	15.58	15.47	15.88	15.61	—
Level 7 .....	17.57	17.62	—	17.57	—
Level 8 .....	17.60	17.60	—	17.60	—
Level 9 .....	21.29	21.29	—	21.29	—
<b>Blue-collar occupations</b> .....	14.75	14.55	17.23	15.09	8.93
Level 1 .....	9.15	9.15	—	9.65	7.63
Level 2 .....	11.56	11.50	—	11.86	8.33
Level 3 .....	12.40	11.98	15.98	12.54	10.02
Level 4 .....	13.40	13.41	—	13.50	11.86
Level 5 .....	16.51	16.43	17.09	16.60	—
Level 6 .....	15.40	15.31	16.63	15.40	—
Level 7 .....	19.09	19.22	18.31	19.09	—
Level 8 .....	20.70	20.54	—	20.70	—
Precision production, craft, and repair occupations .....	17.04	16.88	18.32	17.07	—
Level 4 .....	13.17	13.17	—	13.17	—
Level 5 .....	16.62	16.43	17.91	16.62	—
Level 6 .....	15.07	14.89	—	15.07	—
Level 7 .....	19.10	19.28	18.33	19.10	—
Level 8 .....	20.56	20.33	—	20.56	—
Machine operators, assemblers, and inspectors .....	13.55	13.55	—	13.64	9.83
Level 1 .....	11.20	11.20	—	11.45	—
Level 2 .....	10.73	10.72	—	10.79	—
Level 3 .....	13.19	13.19	—	13.32	—
Level 4 .....	13.12	13.12	—	13.12	—
Level 5 .....	14.38	14.38	—	14.43	—
Level 6 .....	14.64	14.64	—	14.64	—
Level 7 .....	18.41	18.41	—	18.41	—
Transportation and material moving occupations .....	15.95	16.00	15.52	16.34	10.60
Level 2 .....	13.98	13.86	—	14.09	—
Level 3 .....	14.28	12.59	—	14.66	—
Level 4 .....	14.95	15.10	—	15.20	—
Level 5 .....	19.13	—	—	19.13	—
Level 6 .....	18.08	18.08	—	18.08	—
Handlers, equipment cleaners, helpers, and laborers .....	11.15	10.61	16.52	11.84	8.27
Level 1 .....	8.95	8.95	—	9.54	7.70
Level 2 .....	10.78	10.79	—	11.61	7.60
Level 3 .....	11.68	11.45	—	11.86	—
Level 4 .....	12.14	12.02	—	12.57	—
Level 5 .....	15.75	13.46	16.81	16.32	—
<b>Service occupations</b> .....	10.50	9.07	15.39	12.15	7.78
Level 1 .....	7.47	7.34	9.78	8.69	6.69
Level 2 .....	8.82	8.09	11.65	9.60	7.94
Level 3 .....	9.21	8.48	12.38	9.97	8.07
Level 4 .....	10.86	10.08	13.83	10.91	10.50

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupational group <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Service occupations (-Continued)</b>					
Level 5 .....	\$13.62	\$12.89	\$16.52	\$13.62	\$13.61
Level 6 .....	14.34	13.70	—	14.61	—
Level 7 .....	19.95	—	18.45	20.03	—
Level 8 .....	20.35	—	21.78	20.41	—
Protective service occupations .....	17.22	9.71	18.25	17.57	9.89
Level 3 .....	9.35	—	—	—	—
Level 7 .....	18.81	—	18.81	18.79	—
Level 8 .....	21.80	—	21.80	—	—
Food service occupations .....	8.02	7.92	10.86	9.60	6.50
Level 1 .....	6.88	6.70	9.93	8.25	6.20
Level 2 .....	7.12	6.94	—	7.60	6.86
Level 3 .....	7.46	7.40	—	8.12	6.73
Level 4 .....	9.41	9.41	—	9.33	—
Health service occupations .....	9.80	9.73	10.87	10.16	9.32
Level 2 .....	9.33	9.29	—	9.23	9.47
Level 3 .....	9.31	9.10	—	9.78	8.94
Level 4 .....	10.54	10.54	—	10.51	—
Cleaning and building service occupations .....	10.55	9.05	14.22	11.57	7.67
Level 1 .....	8.33	8.33	—	9.23	7.32
Level 2 .....	10.55	9.68	—	10.74	—
Level 3 .....	12.13	10.37	12.81	12.34	—
Level 4 .....	15.08	—	—	15.08	—
Level 5 .....	15.70	—	16.17	15.70	—
Personal service occupations .....	11.97	12.13	11.55	13.60	9.86
Level 1 .....	7.53	7.07	—	—	7.58
Level 2 .....	9.35	7.50	—	—	9.00
Level 3 .....	9.15	—	—	9.54	7.28
Level 4 .....	10.76	—	—	10.95	—
Level 5 .....	12.10	—	—	—	—

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table B-2. Mean hourly earnings<sup>1</sup> for selected occupations and levels<sup>2</sup>, all industries, private industry, State and local government, full-time and part-time workers, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations:</b>					
Professional specialty and technical occupations:					
Professional specialty occupations:					
Electrical and electronic engineers .....	\$26.22	\$26.22	—	\$26.22	—
Mechanical engineers .....	27.44	27.44	—	27.44	—
Engineers, N.E.C. ....	28.62	29.78	—	28.64	—
Level 10 .....	26.67	26.67	—	26.70	—
Level 12 .....	34.93	34.93	—	34.93	—
Computer systems analysts and scientists .....	27.33	28.64	\$18.60	27.33	—
Level 7 .....	19.02	—	—	19.02	—
Level 9 .....	23.36	23.10	—	23.36	—
Level 10 .....	26.06	26.41	—	26.06	—
Level 11 .....	28.32	28.32	—	28.32	—
Level 12 .....	30.12	30.12	—	30.12	—
Operations and systems researchers and analysts .....	22.14	22.77	—	22.14	—
Level 11 .....	25.56	25.56	—	25.56	—
Physical scientists, N.E.C. ....	28.30	—	—	28.30	—
Registered nurses .....	22.75	22.12	25.60	22.99	\$22.35
Level 7 .....	22.56	22.54	22.73	22.61	22.50
Level 8 .....	21.48	20.19	—	20.83	—
Level 9 .....	22.75	22.01	—	23.00	22.04
Art, drama and music teachers .....	34.83	—	—	—	—
Teachers, post secondary N.E.C. ....	32.02	—	—	—	—
Prekindergarten and kindergarten .....	24.18	—	30.35	24.52	—
Elementary school teachers .....	28.37	21.72	28.98	28.39	—
Level 5 .....	18.56	18.56	—	18.56	—
Level 8 .....	27.05	—	—	27.07	—
Level 9 .....	30.74	—	—	30.76	—
Secondary school teachers .....	27.74	—	27.71	27.75	—
Level 9 .....	30.13	—	30.22	30.13	—
Teachers, special education .....	27.74	—	—	27.74	—
Teachers, N.E.C. ....	28.11	15.52	—	28.56	—
Level 7 .....	18.07	—	—	—	—
Vocational and educational counselors .....	20.50	—	—	20.50	—
Librarians .....	24.62	—	22.84	25.20	—
Economists .....	24.50	24.50	—	24.50	—
Level 9 .....	22.73	22.73	—	22.73	—
Social workers .....	17.93	13.68	21.21	18.03	—
Level 9 .....	21.05	—	21.95	21.05	—
Lawyers .....	34.65	35.30	—	35.48	—
Level 12 .....	36.76	—	—	36.76	—
Technical occupations:					
Clinical laboratory technologists and technicians .....	17.97	18.29	—	18.16	—
Level 7 .....	19.00	19.00	—	—	—
Radiological technicians .....	15.87	15.26	—	—	—
Licensed practical nurses .....	14.05	13.73	—	13.86	14.38
Level 4 .....	13.59	13.63	—	—	—
Level 5 .....	13.44	13.40	—	13.43	—
Level 6 .....	14.74	14.06	—	14.37	15.33
Health technologists and technicians, N.E.C. ....	13.60	13.66	13.05	13.14	14.45
Level 4 .....	11.71	11.69	—	—	—
Level 5 .....	14.93	15.21	—	—	—
Electrical and electronic technicians .....	16.80	16.60	—	16.80	—
Engineering technicians, N.E.C. ....	19.02	18.96	—	19.02	—
Level 7 .....	18.82	—	—	18.82	—
Level 8 .....	20.62	20.62	—	20.62	—
Drafters .....	16.23	15.80	—	15.85	—
Science technicians, N.E.C. ....	12.72	—	—	—	—
Computer programmers .....	19.80	19.76	—	19.80	—
Legal assistants .....	19.56	19.58	—	19.56	—
Technical and related occupations, N.E.C. ....	18.05	18.56	15.64	18.60	—
Level 5 .....	13.43	—	—	13.87	—
Executive, administrative, and managerial occupations:					
Administrators and officials, public administration .....	26.09	—	26.09	26.09	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations: (-Continued)</b>					
Executive, administrative, and managerial occupations: (-Continued)					
Financial managers .....	\$34.47	\$34.50	—	\$34.47	—
Personnel and labor relations managers .....	31.26	30.54	—	31.26	—
Managers, marketing, advertising and public relations .....	39.52	39.52	—	39.52	—
Level 11 .....	31.81	31.81	—	31.81	—
Administrators, education and related fields .....	36.66	17.41	\$38.61	37.36	—
Level 11 .....	37.05	—	—	37.05	—
Managers, medicine and health .....	32.90	33.59	—	32.90	—
Managers, service organizations, N.E.C. ....	22.86	22.11	—	22.86	—
Managers and administrators, N.E.C. ....	33.35	33.40	—	33.35	—
Level 8 .....	19.57	19.20	—	19.57	—
Level 9 .....	24.22	24.22	—	24.22	—
Level 10 .....	24.29	24.23	—	24.29	—
Level 11 .....	29.52	29.52	—	29.52	—
Level 12 .....	38.05	37.80	—	38.05	—
Level 13 .....	42.38	42.38	—	42.38	—
Accountants and auditors .....	21.32	21.65	18.96	21.32	—
Level 7 .....	19.12	18.89	—	19.12	—
Level 9 .....	22.38	22.40	—	22.38	—
Other financial officers .....	23.69	23.78	—	23.69	—
Management analysts .....	25.55	25.90	—	25.55	—
Level 9 .....	22.24	—	—	22.24	—
Personnel, training, and labor relations specialists .....	20.22	20.13	—	20.24	—
Purchasing agents and buyers, N.E.C. ....	26.56	27.15	—	26.56	—
Inspectors and compliance officers, except construction .....	19.23	—	—	19.23	—
Management related occupations, N.E.C. ....	19.15	18.34	—	19.20	—
Level 7 .....	17.87	17.43	—	18.12	—
Level 9 .....	19.36	19.16	—	19.36	—
Sales occupations:					
Supervisors, sales occupations .....	23.70	23.70	—	23.70	—
Level 8 .....	18.22	18.22	—	18.22	—
Sales occupations, other business services .....	23.21	23.21	—	23.88	—
Sales representatives, mining, manufacturing, and wholesale .....	29.33	29.33	—	29.33	—
Sales workers, apparel .....	8.32	8.32	—	—	—
Sales workers, other commodities .....	9.91	9.91	—	10.85	\$7.94
Cashiers .....	7.96	7.90	—	8.74	7.72
Level 1 .....	7.53	7.53	—	—	7.53
Level 2 .....	7.65	7.63	—	—	7.70
Level 3 .....	7.94	7.94	—	—	7.76
Sales support occupations, N.E.C. ....	13.45	13.45	—	—	—
Administrative support occupations, including clerical:					
Supervisors, general office .....	15.34	—	—	15.34	—
Secretaries .....	13.65	13.53	13.93	13.78	12.09
Level 3 .....	11.48	10.66	—	11.76	—
Level 4 .....	13.08	13.09	13.06	13.08	—
Level 5 .....	13.73	12.87	—	13.69	—
Level 6 .....	15.67	15.87	—	15.67	—
Level 7 .....	16.96	16.96	—	16.96	—
Typists .....	11.85	—	—	11.85	—
Receptionists .....	10.07	9.98	—	10.46	9.14
Level 2 .....	10.35	—	—	—	—
Level 3 .....	9.85	9.61	—	—	—
Information clerks, N.E.C. ....	10.81	10.81	—	—	—
Order clerks .....	15.45	15.45	—	15.45	—
Level 4 .....	12.70	12.70	—	12.70	—
Library clerks .....	10.74	—	10.74	11.07	—
File clerks .....	9.42	9.42	—	—	—
Records clerks, N.E.C. ....	12.69	12.65	—	12.71	—
Level 4 .....	12.32	—	—	—	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>White-collar occupations: (-Continued)</b>					
Administrative support occupations, including clerical: (-Continued)					
Bookkeepers, accounting and auditing clerks .....	\$12.78	\$12.09	\$17.06	\$12.83	—
Level 3 .....	9.79	9.79	—	9.81	—
Level 4 .....	12.60	12.60	—	12.60	—
Payroll and timekeeping clerks .....	11.43	11.43	—	11.43	—
Dispatchers .....	20.76	21.68	—	20.90	—
Production coordinators .....	13.27	13.27	—	13.27	—
Traffic, shipping and receiving clerks .....	12.94	12.94	—	13.27	—
Level 4 .....	12.32	12.32	—	12.32	—
Stock and inventory clerks .....	12.45	12.26	—	12.46	—
Level 4 .....	12.85	12.29	—	12.85	—
Insurance adjusters, examiners, and investigators .....	13.92	13.92	—	13.92	—
Investigators and adjusters except insurance .....	12.53	12.53	—	12.56	—
Level 4 .....	12.34	12.34	—	12.34	—
General office clerks .....	12.47	12.00	13.26	12.68	\$9.49
Level 2 .....	10.95	—	—	11.49	—
Level 3 .....	11.30	10.96	12.39	11.34	10.70
Level 4 .....	14.19	13.52	15.37	14.19	—
Level 5 .....	15.12	15.32	—	15.12	—
Data entry keyers .....	10.62	10.62	—	10.71	—
Teachers' aides .....	11.85	—	12.05	11.93	11.73
Administrative support occupations, N.E.C. ....	12.23	12.01	12.88	12.33	—
Level 3 .....	11.12	—	—	11.01	—
Level 4 .....	11.24	10.97	—	11.21	—
Level 6 .....	13.84	—	—	—	—
Professional occupations, N.E.C. ....	24.36	25.90	—	24.36	—
<b>Blue-collar occupations:</b>					
Precision production, craft, and repair occupations:					
Bus, truck, and stationary engine mechanics .....	14.43	—	—	14.43	—
Heavy equipment mechanics .....	18.52	—	—	18.52	—
Level 7 .....	18.53	—	—	18.53	—
Industrial machinery repairers .....	18.22	18.22	—	18.22	—
Mechanics and repairers, N.E.C. ....	16.85	16.85	—	16.85	—
Level 7 .....	18.24	18.24	—	18.24	—
Carpenters .....	19.41	19.35	—	19.41	—
Plumbers, pipefitters and steamfitters .....	22.76	22.80	—	22.76	—
Construction trades, N.E.C. ....	15.44	—	—	15.44	—
Supervisors, production occupations .....	21.69	21.69	—	21.69	—
Machinists .....	17.48	17.43	—	17.48	—
Level 7 .....	18.33	18.33	—	18.33	—
Electrical and electronic equipment assemblers ..	9.88	9.88	—	9.94	—
Miscellaneous precision workers, N.E.C. ....	13.58	13.58	—	13.58	—
Inspectors, testers, and graders .....	14.92	14.92	—	14.92	—
Water and sewer treatment plant operators .....	20.31	—	20.31	20.31	—
Machine operators, assemblers, and inspectors:					
Punching and stamping press operators .....	11.59	11.59	—	11.76	—
Fabricating machine operators, N.E.C. ....	13.31	13.31	—	13.31	—
Printing press operators .....	19.42	19.42	—	19.42	—
Packaging and filling machine operators .....	12.06	12.06	—	—	—
Painting and paint spraying machine operators ...	14.02	14.02	—	14.02	—
Slicing and cutting machine operators .....	15.08	15.08	—	15.08	—
Miscellaneous machine operators, N.E.C. ....	11.84	11.84	—	11.93	—
Level 2 .....	9.48	9.45	—	9.45	—
Level 3 .....	10.52	10.52	—	10.55	—
Level 4 .....	12.56	12.56	—	12.56	—
Welders and cutters .....	16.06	16.06	—	16.06	—
Level 5 .....	15.22	15.22	—	15.22	—
Assemblers .....	14.21	14.21	—	14.21	—
Level 1 .....	14.57	14.57	—	14.57	—
Level 3 .....	15.90	15.90	—	15.90	—
Level 4 .....	12.87	12.87	—	12.87	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Blue-collar occupations:</b> (-Continued)					
Machine operators, assemblers, and inspectors: (-Continued)					
Miscellaneous hand working occupations, N.E.C.	\$11.72	\$11.72	—	\$11.72	—
Production inspectors, checkers and examiners ..	13.05	13.05	—	13.05	—
Level 6 .....	13.31	13.31	—	13.31	—
Transportation and material moving occupations:					
Truck drivers .....	18.01	18.11	—	18.37	—
Level 4 .....	16.03	16.03	—	—	—
Bus drivers .....	13.31	—	\$15.62	13.51	—
Level 3 .....	15.63	—	—	—	—
Industrial truck and tractor equipment operators ..	13.93	13.93	—	13.93	—
Level 4 .....	14.56	14.56	—	14.56	—
Miscellaneous material moving equipment operators, N.E.C. ....	15.65	15.65	—	15.73	—
Handlers, equipment cleaners, helpers, and laborers:					
Construction laborers .....	16.56	—	—	16.56	—
Production helpers .....	10.83	10.83	—	10.83	—
Stock handlers and baggers .....	10.78	10.78	—	11.83	\$8.36
Level 1 .....	7.78	7.78	—	8.27	7.30
Level 3 .....	13.34	13.34	—	14.10	—
Level 4 .....	11.73	11.73	—	—	—
Machine feeders and offbearers .....	12.31	12.31	—	12.50	—
Freight, stock, and material handlers, N.E.C. ....	11.55	11.55	—	—	8.15
Level 1 .....	9.61	9.61	—	—	—
Hand packers and packagers .....	9.28	9.28	—	—	—
Laborers except construction, N.E.C. ....	10.51	10.21	—	10.79	9.35
Level 1 .....	9.22	9.22	—	—	9.50
Level 2 .....	10.89	10.92	—	12.00	—
Level 3 .....	10.73	10.25	—	10.65	—
<b>Service occupations:</b>					
Protective service occupations:					
Firefighting occupations .....	15.40	—	15.40	—	—
Police and detectives, public service .....	21.99	—	21.98	21.99	—
Sheriffs, bailiffs, and other law enforcement officers .....	17.79	—	17.79	18.43	—
Correctional institution officers .....	15.72	—	15.72	15.72	—
Guards and police except public service .....	9.45	8.82	—	8.97	—
Food service occupations:					
Supervisors, food preparation and service occupations .....	14.63	14.63	—	15.06	—
Bartenders .....	7.03	7.03	—	—	—
Waiters and waitresses .....	5.08	5.08	—	5.15	5.04
Level 1 .....	4.84	4.84	—	—	4.71
Level 2 .....	5.15	5.15	—	—	—
Cooks .....	9.34	9.24	—	9.74	7.75
Level 3 .....	8.96	8.77	—	9.58	—
Level 4 .....	9.75	9.75	—	9.75	—
Food counter, fountain, and related occupations	7.46	—	—	—	—
Level 1 .....	6.36	—	—	—	—
Kitchen workers, food preparation .....	6.85	6.78	—	—	6.79
Level 1 .....	6.71	6.64	—	—	6.71
Waiters'/Waitresses' assistants .....	7.97	7.97	—	—	—
Food preparation occupations, N.E.C. ....	7.44	7.23	10.72	8.64	6.59
Level 1 .....	7.40	7.19	—	9.21	6.26
Health service occupations:					
Health aides, except nursing .....	10.89	10.91	—	11.45	9.80
Nursing aides, orderlies and attendants .....	9.54	9.43	10.91	9.83	9.18
Level 2 .....	8.92	8.86	—	8.67	9.28
Level 3 .....	9.29	9.07	—	9.77	8.90
Level 4 .....	10.56	10.56	—	10.51	—

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, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>3</sup> and level	All workers <sup>4</sup>			All industries	
	All industries	Private industry	State and local government	Full-time workers	Part-time workers
<b>Service occupations: (-Continued)</b>					
Cleaning and building service occupations:					
Supervisors, cleaning and building service workers .....	\$13.14	\$12.37	—	\$13.14	—
Maids and housemen .....	8.70	8.71	—	8.98	\$7.96
Level 1 .....	8.20	8.21	—	—	—
Level 2 .....	9.31	9.31	—	—	—
Janitors and cleaners .....	10.79	9.00	\$14.18	11.95	7.62
Level 1 .....	8.36	8.36	—	9.34	7.34
Level 2 .....	11.26	9.99	—	11.50	—
Level 3 .....	12.29	10.64	12.81	12.52	—
Level 5 .....	15.35	—	—	15.35	—
Personal service occupations:					
Attendants, amusement and recreation facilities ..	7.59	7.59	—	—	—
Welfare service aides .....	9.42	—	—	—	—
Early childhood teachers' assistants .....	11.44	—	11.46	—	—
Child care workers, N.E.C. ....	7.90	7.90	—	—	—
Service occupations, N.E.C. ....	10.04	10.04	—	—	—

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table C-1. Mean hourly earnings<sup>1</sup> by occupational group and selected characteristics, all industries, Minneapolis-St. Paul, MN-WI, July 1998**

Occupational group <sup>2</sup>	Full-time workers <sup>3</sup>	Part-time workers <sup>3</sup>	Union <sup>4</sup>	Nonunion <sup>4</sup>	Time <sup>5</sup>	Incentive <sup>5</sup>
<b>All occupations</b> .....	\$19.07	\$10.33	\$18.80	\$17.66	\$17.75	\$24.01
All occupations excluding sales .....	18.83	10.74	19.03	17.39	17.89	20.18
<b>White-collar occupations</b> .....	21.76	13.16	22.03	20.67	20.76	26.84
White-collar excluding sales .....	21.62	15.39	22.71	20.66	21.19	21.79
Professional specialty and technical occupations .....	25.08	18.62	27.20	23.31	24.54	—
Professional specialty occupations .....	25.95	21.16	25.62	25.63	25.62	—
Technical occupations .....	22.30	14.93	33.73	17.32	21.32	—
Executive, administrative, and managerial occupations ...	27.79	—	28.85	27.63	27.70	—
Sales occupations .....	23.23	7.60	9.28	20.77	14.48	27.23
Administrative support including clerical occupations .....	13.15	10.81	14.84	12.21	12.96	—
<b>Blue-collar occupations</b> .....	15.09	8.93	17.53	12.54	14.43	19.37
Precision production, craft, and repair occupations .....	17.07	—	19.74	14.14	16.81	—
Machine operators, assemblers, and inspectors .....	13.64	9.83	16.66	12.46	13.57	—
Transportation and material moving occupations .....	16.34	10.60	17.26	13.59	14.77	—
Handlers, equipment cleaners, helpers, and laborers .....	11.84	8.27	13.36	9.70	11.16	—
<b>Service occupations</b> .....	12.15	7.78	12.94	8.59	10.25	—

<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.

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

<sup>3</sup> Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a 35-hour-per-week schedule might be considered a full-time employee in one establishment, but classified as part-time in another firm, where a 40-hour week is the minimum full-time schedule.

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

<sup>5</sup> Time workers' wages are based solely on an hourly rate or salary;

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

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table C-2. Mean hourly earnings<sup>1</sup> by occupational group and industry division, private industry, all workers<sup>2</sup>, Minneapolis-St. Paul, MN-WI, July 1998**

Occupational group <sup>3</sup>	All private industries	Goods-producing industries <sup>4</sup>				Service-producing industries <sup>5</sup>				
		Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
<b>All occupations</b> .....	\$17.57	\$18.75	—	\$20.45	\$18.64	—	—	—	—	—
All occupations excluding sales .....	17.42	18.48	—	20.47	18.35	—	—	—	—	—
<b>White-collar occupations</b> .....	20.78	23.61	—	21.65	23.69	—	—	—	—	—
White-collar excluding sales .....	20.99	23.39	—	21.89	23.45	—	—	—	—	—
Professional specialty and technical occupations .....	24.44	23.78	—	—	23.78	—	—	—	—	—
Professional specialty occupations .....	25.58	26.89	—	—	27.01	—	—	—	—	—
Technical occupations .....	21.80	17.46	—	—	17.46	—	—	—	—	—
Executive, administrative, and managerial occupations .....	27.63	32.48	—	28.43	32.69	—	—	—	—	—
Sales occupations .....	19.37	26.20	—	—	26.63	—	—	—	—	—
Administrative support, including clerical occupations .....	12.86	13.38	—	12.12	13.43	—	—	—	—	—
<b>Blue-collar occupations</b> .....	14.55	14.67	—	20.01	14.20	—	—	—	—	—
Precision production, craft, and repair occupations .....	16.88	16.25	—	21.53	15.13	—	—	—	—	—
Machine operators, assemblers, and inspectors .....	13.55	14.03	—	—	14.06	—	—	—	—	—
Transportation and material moving occupations .....	16.00	14.93	—	—	14.85	—	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers .....	10.61	11.86	—	13.74	11.71	—	—	—	—	—
<b>Service occupations</b> .....	9.07	14.47	—	—	14.54	—	—	—	—	—

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table C-3. Mean hourly earnings<sup>1</sup> by occupational group and establishment employment size, private industry, all workers<sup>2</sup>, Minneapolis-St. Paul, MN-WI, July 1998**

Occupational group <sup>3</sup>	All private industry workers	50 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
<b>All occupations</b> .....	\$17.57	\$14.29	\$18.17	\$16.20	\$20.04
All occupations excluding sales .....	17.42	13.21	18.14	16.31	19.80
<b>White-collar occupations</b> .....	20.78	18.36	21.09	19.44	22.27
White-collar excluding sales .....	20.99	17.04	21.38	20.30	22.06
Professional specialty and technical occupations .....	24.44	16.24	24.82	22.12	26.43
Professional specialty occupations .....	25.58	18.06	25.84	23.93	26.91
Technical occupations .....	21.80	14.14	22.36	18.28	25.17
Executive, administrative, and managerial occupations ...	27.63	24.38	28.12	27.91	28.30
Sales occupations .....	19.37	21.37	18.60	15.04	25.61
Administrative support, including clerical occupations .....	12.86	12.74	12.87	12.31	13.20
<b>Blue-collar occupations</b> .....	14.55	14.13	14.64	13.58	16.61
Precision production, craft, and repair occupations .....	16.88	18.13	16.62	15.17	18.08
Machine operators, assemblers, and inspectors .....	13.55	12.22	13.73	13.18	15.25
Transportation and material moving occupations .....	16.00	-	15.93	15.35	17.13
Handlers, equipment cleaners, helpers, and laborers .....	10.61	10.10	10.82	10.39	12.25
<b>Service occupations</b> .....	9.07	7.38	9.80	8.95	10.65

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Table C-4. Number of workers<sup>1</sup> represented by occupational group, Minneapolis-St. Paul, MN-WI, July 1998**

Occupational group <sup>2</sup>	All workers		
	All industries	Private industry	State and local government
<b>All occupations</b> .....	897,938	737,759	160,179
All occupations excluding sales .....	834,243	674,371	159,872
<b>White-collar occupations</b> .....	535,960	421,736	114,224
White-collar excluding sales .....	472,265	358,348	113,917
Professional specialty and technical occupations .....	228,643	161,250	67,393
Professional specialty occupations .....	169,244	109,137	60,106
Technical occupations .....	59,399	52,113	7,286
Executive, administrative, and managerial occupations ...	83,334	69,096	14,238
Sales occupations .....	63,695	63,388	—
Administrative support including clerical occupations .....	160,288	128,001	32,286
<b>Blue-collar occupations</b> .....	203,840	188,638	15,202
Precision production, craft, and repair occupations .....	68,237	60,619	7,618
Machine operators, assemblers, and inspectors .....	55,834	55,780	—
Transportation and material moving occupations .....	36,498	32,320	4,178
Handlers, equipment cleaners, helpers, and laborers .....	43,271	39,920	3,351
<b>Service occupations</b> .....	158,138	127,385	30,753

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.



# Appendix A: Technical Note

This section provides basic information on the procedures and concepts used to produce the data contained in this bulletin. It is divided into three parts: Planning for the survey; data collection; and processing and analyzing the data. Although 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 includes questions of scope, frame, and sample selection.

### Survey scope

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

The Minneapolis-St. Paul, MN-WI, Metropolitan Statistical area includes Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright Counties in Minnesota; and Pierce and St. Croix Counties in Wisconsin.

### 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. 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. Other contact methods, such as mail and telephone, were used to follow-up and update data.

### Occupational selection and classification

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

1. Probability-proportional-to-size selection of establishment jobs.
2. Classification of jobs into occupations based on the Census of Population system.
3. Characterization of jobs as full-time v. part-time, union v. nonunion, and time v. incentive.
4. Determination of the level of work of each job.

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

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

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

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

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

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

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

- 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

Appendix B contains a complete list of all individual occupations, classified by the MOG to which they belong. 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 data were collected over several months. 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 (e.g., Christmas bonuses, profit-sharing bonuses)
- Uniform and tool allowances
- Free room and board
- Payments made by third parties (e.g., tips, bonuses given by manufacturers to department store salespeople, referral incentives in real estate)
- On-call pay

In order to calculate earnings for various time periods (hourly, weekly, and annual), data on work schedules were also collected. For hourly workers, scheduled hours worked per day and per week, exclusive of overtime, were recorded. Annual weeks worked were determined. Because salaried workers, exempt from overtime provisions, often work beyond the assigned work schedule, their typical number of hours actually worked was collected.

### Definition of terms

*Full-time worker.* Any employee that the employer considers to be full time.

*Incentive worker.* Any employee whose earnings are tied, at least in part, to commissions, piece rates, production bonuses, or other incentives based on production or sales.

*Level.* A ranking of an occupation based on the requirements of the position. (See the description in the technical note and the example for more details on the leveling process.)

*Nonunion worker.* An employee in an occupation not meeting the conditions for union coverage (see below).

*Part-time worker.* Any employee that the employer considers to be part-time.

*Straight-time.* Time worked at the standard rate of pay for the job.

*Time-based worker.* Any employee whose earnings are tied to an hourly rate or salary, and not to a specific level of production.

*Union worker.* Any employee is in a union occupation when all of the following conditions are met:

- A labor organization is recognized as the bargaining agent for all workers in the occupation
- Wage and salary rates are determined through collective bargaining or negotiations
- Settlement terms, which must include earnings provisions and may include benefit provisions, are embodied in a signed mutually binding collective bargaining agreement

## Processing and analyzing the data

Data were processed and analyzed at the Bureau's National Office following collection.

### Weighting and nonresponse

Sample weights were calculated for each establishment 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 the individual establishments or occupations into the various data series. Some of the establishments surveyed could not supply or 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 that were additionally defined by major occupation group and job level.

Establishments that were determined to be out of business or outside the scope of the survey 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.

### Survey response

	Establish- ments
Total in sample	516
Responding	345
Out of business or not in survey scope	17
Unable or refused to pro- vide data	154

Some surveys may have a high nonresponse rate for the all industries or private industry iterations. Such instances are noted in the bulletin table footnotes.

### 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, Minneapolis-St. Paul, MN-WI, July 1998**

Industry	Number of establishments represented	Number of establishments studied				
		Total studied	50 - 99 workers	100 workers or more		
				Total	100 - 499 workers	500 workers or more
All industries .....	4,608	332	75	257	143	114
Private industry .....	4,433	291	73	218	131	87
Goods-producing industries .....	1,142	98	18	80	50	30
Mining .....	4	1	1	-	-	-
Construction .....	151	11	6	5	4	1
Manufacturing .....	987	86	11	75	46	29
Service-producing industries .....	3,291	193	55	138	81	57
Transportation and public utilities .....	178	13	2	11	6	5
Wholesale and retail trade .....	1,404	54	24	30	19	11
Finance, insurance and real estate .....	399	17	4	13	4	9
Services .....	1,311	109	25	84	52	32
State and local government .....	175	41	2	39	12	27

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>, Minneapolis-St. Paul, MN-WI, July 1998**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>All occupations</b> .....	1.8	2.2	2.2
All occupations excluding sales .....	1.8	2.2	2.2
<b>White-collar occupations</b> .....	2.1	2.5	2.9
White-collar occupations excluding sales .....	2.2	2.7	2.9
Professional specialty and technical occupations .....	3.1	4.1	2.8
Professional specialty occupations .....	2.3	3.1	3.0
Engineers, architects, and surveyors .....	3.3	2.6	-
Electrical and electronic engineers .....	3.9	3.9	-
Mechanical engineers .....	4.2	4.2	-
Engineers, N.E.C. ....	5.1	3.5	-
Mathematical and computer scientists .....	4.7	4.4	6.0
Computer systems analysts and scientists .....	5.0	4.1	4.5
Operations and systems researchers and analysts .....	6.0	5.4	-
Natural scientists .....	7.0	8.1	11.4
Physical scientists, N.E.C. ....	7.2	-	-
Health related occupations .....	5.6	7.0	3.5
Registered nurses .....	2.1	2.3	3.4
Teachers, college and university .....	6.1	8.7	7.9
Art, drama and music teachers .....	9.3	-	-
Teachers, post secondary N.E.C. ....	14.7	-	-
Teachers, except college and university .....	4.1	14.7	3.3
Prekindergarten and kindergarten .....	19.2	-	2.3
Elementary school teachers .....	3.9	9.2	4.2
Secondary school teachers .....	5.4	-	5.5
Teachers, special education .....	5.8	-	-
Teachers, N.E.C. ....	5.5	9.8	-
Vocational and educational counselors .....	5.1	-	-
Librarians, archivists, and curators .....	10.7	-	14.8
Librarians .....	11.4	-	14.8
Social scientists and urban planners .....	9.7	10.2	-
Economists .....	10.8	10.8	-
Social, recreation, and religious workers .....	8.7	12.5	3.7
Social workers .....	9.2	9.2	3.6
Lawyers and judges .....	15.3	18.4	-
Lawyers .....	15.3	18.4	-
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	6.7	8.1	9.8
Professional occupations, N.E.C. ....	9.2	11.0	-
Technical occupations .....	11.5	12.8	2.8
Clinical laboratory technologists and technicians .....	4.5	4.4	-
Radiological technicians .....	4.0	2.5	-
Licensed practical nurses .....	2.7	1.6	-
Health technologists and technicians, N.E.C. ....	5.5	6.1	4.9
Electrical and electronic technicians .....	7.2	7.8	-
Engineering technicians, N.E.C. ....	2.6	3.8	-
Drafters .....	2.7	3.1	-
Science technicians, N.E.C. ....	8.6	-	-
Computer programmers .....	3.5	3.6	-
Legal assistants .....	7.1	7.8	-
Technical and related occupations, N.E.C. ....	9.9	11.4	3.5
Executive, administrative, and managerial occupations ...	3.1	3.5	6.5
Executives, administrators, and managers .....	4.2	4.8	6.8
Administrators and officials, public administration .....	5.8	-	5.8
Financial managers .....	9.3	9.4	-
Personnel and labor relations managers .....	12.6	13.6	-
Managers, marketing, advertising and public relations .....	8.0	8.0	-
Administrators, education and related fields .....	8.6	11.9	8.6
Managers, medicine and health .....	15.2	16.4	-
Managers, service organizations, N.E.C. ....	10.5	11.8	-
Managers and administrators, N.E.C. ....	7.6	7.7	-
Management related occupations .....	3.1	3.6	3.2

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>, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>White-collar occupations (-Continued)</b>			
Executive, administrative, and managerial occupations (-Continued)			
Management related occupations (-Continued)			
Accountants and auditors .....	5.4	5.9	3.8
Other financial officers .....	6.2	8.1	-
Management analysts .....	11.6	14.1	-
Personnel, training, and labor relations specialists .....	5.4	5.9	-
Purchasing agents and buyers, N.E.C. ....	18.2	18.8	-
Inspectors and compliance officers, except construction .....	6.1	-	-
Management related occupations, N.E.C. ....	6.9	6.7	-
Sales occupations .....	7.8	7.8	-
Supervisors, sales occupations .....	10.0	10.0	-
Sales occupations, other business services .....	21.5	21.5	-
Sales representatives, mining, manufacturing, and wholesale .....	12.4	12.4	-
Sales workers, apparel .....	22.1	22.1	-
Sales workers, other commodities .....	8.5	8.5	-
Cashiers .....	2.3	2.3	-
Sales support occupations, N.E.C. ....	18.1	18.1	-
Administrative support occupations, including clerical .....	2.5	3.1	2.4
Supervisors, general office .....	4.1	-	-
Secretaries .....	2.9	3.7	4.1
Typists .....	7.8	-	-
Receptionists .....	2.1	2.1	-
Information clerks, N.E.C. ....	6.0	6.0	-
Order clerks .....	12.3	12.3	-
Library clerks .....	4.1	-	4.1
File clerks .....	5.5	5.5	-
Records clerks, N.E.C. ....	6.3	6.6	-
Bookkeepers, accounting and auditing clerks .....	5.2	4.9	7.5
Payroll and timekeeping clerks .....	5.5	5.5	-
Dispatchers .....	23.2	24.3	-
Production coordinators .....	4.9	4.9	-
Traffic, shipping and receiving clerks .....	5.7	5.7	-
Stock and inventory clerks .....	4.1	3.9	-
Insurance adjusters, examiners, and investigators .....	8.4	8.4	-
Investigators and adjusters except insurance .....	3.2	3.2	-
General office clerks .....	2.7	3.6	3.4
Data entry keyers .....	2.9	2.9	-
Teachers' aides .....	4.8	-	4.7
Administrative support occupations, N.E.C. ....	3.6	4.3	5.3
<b>Blue-collar occupations</b>			
Precision production, craft, and repair occupations .....	2.5	2.8	2.0
Bus, truck, and stationary engine mechanics .....	3.8	4.2	2.4
Heavy equipment mechanics .....	4.2	-	-
Industrial machinery repairers .....	2.3	-	-
Mechanics and repairers, N.E.C. ....	4.7	4.7	-
Carpenters .....	3.9	3.9	-
Plumbers, pipefitters and steamfitters .....	5.4	10.7	-
Construction trades, N.E.C. ....	0.7	0.7	-
Supervisors, production occupations .....	5.9	-	-
Machinists .....	7.9	7.9	-
Electrical and electronic equipment assemblers ..	5.9	6.0	-
Miscellaneous precision workers, N.E.C. ....	8.0	8.0	-
Inspectors, testers, and graders .....	7.6	7.6	-
Water and sewer treatment plant operators .....	8.9	8.9	-
Machine operators, assemblers, and inspectors .....	4.0	-	4.0
Punching and stamping press operators .....	3.0	3.0	-
Fabricating machine operators, N.E.C. ....	9.2	9.2	-
	7.6	7.6	-

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>, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>Blue-collar occupations</b> (-Continued)			
Machine operators, assemblers, and inspectors (-Continued)			
Printing press operators .....	11.8	11.8	—
Packaging and filling machine operators .....	12.0	12.0	—
Painting and paint spraying machine operators ...	8.1	8.1	—
Slicing and cutting machine operators .....	3.0	3.0	—
Miscellaneous machine operators, N.E.C. ....	7.4	7.4	—
Welders and cutters .....	3.2	3.2	—
Assemblers .....	2.5	2.5	—
Miscellaneous hand working occupations, N.E.C. ....	12.6	12.6	—
Production inspectors, checkers and examiners ..	6.7	6.7	—
Transportation and material moving occupations .....	7.0	7.8	3.2
Truck drivers .....	7.3	7.4	—
Bus drivers .....	8.9	—	3.6
Industrial truck and tractor equipment operators ..	4.3	4.3	—
Miscellaneous material moving equipment operators, N.E.C. ....	3.1	3.1	—
Handlers, equipment cleaners, helpers, and laborers .....	3.5	3.2	1.4
Construction laborers .....	5.9	—	—
Production helpers .....	5.4	5.4	—
Stock handlers and baggers .....	4.7	4.7	—
Machine feeders and offbearers .....	11.7	11.7	—
Freight, stock, and material handlers, N.E.C. ....	15.7	15.7	—
Hand packers and packagers .....	11.8	11.8	—
Laborers except construction, N.E.C. ....	5.1	4.9	—
<b>Service occupations</b> .....			
Protective service occupations .....	3.5	3.6	4.4
Firefighting occupations .....	5.6	10.7	5.3
Police and detectives, public service .....	6.4	—	6.4
Sheriffs, bailiffs, and other law enforcement officers .....	2.8	—	2.9
Correctional institution officers .....	6.2	—	6.2
Guards and police except public service .....	12.6	—	12.6
Food service occupations .....	8.4	6.2	—
Supervisors, food preparation and service occupations .....	5.3	5.5	4.3
Bartenders .....	9.0	9.0	—
Waiters and waitresses .....	3.8	3.8	—
Cooks .....	2.8	2.8	—
Food counter, fountain, and related occupations	4.0	4.1	—
Kitchen workers, food preparation .....	13.6	—	—
Waiters/Waitresses' assistants .....	7.6	7.5	—
Food preparation occupations, N.E.C. ....	4.2	4.2	—
	4.6	4.2	5.3

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>, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

(in percent)

Occupation <sup>3</sup>	All industries	Private industry	State and local government
<b>Service occupations (-Continued)</b>			
Health service occupations .....	3.1	3.3	5.5
Health aides, except nursing .....	3.9	4.1	—
Nursing aides, orderlies and attendants .....	3.2	3.3	5.9
Cleaning and building service occupations .....	4.6	3.3	4.0
Supervisors, cleaning and building service workers .....	7.7	6.8	—
Maids and housemen .....	4.1	4.1	—
Janitors and cleaners .....	5.6	4.1	4.0
Personal service occupations .....	10.0	13.1	7.5
Attendants, amusement and recreation facilities ..	9.0	9.0	—
Welfare service aides .....	11.4	—	—
Early childhood teachers' assistants .....	8.0	—	8.1
Child care workers, N.E.C. ....	6.4	6.4	—
Service occupations, N.E.C. ....	8.2	8.2	—

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

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.

**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Minneapolis-St. Paul, MN-WI, July 1998**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>All occupations</b> .....	6	6	3
All occupations excluding sales .....	6	6	3
<b>White-collar occupations</b> .....	7	8	4
White-collar occupations excluding sales .....	7	8	5
Professional specialty and technical occupations .....	9	9	7
Professional specialty occupations .....	9	9	8
Engineers, architects, and surveyors .....	10	10	—
Electrical and electronic engineers .....	10	10	—
Mechanical engineers .....	10	10	—
Engineers, N.E.C. ....	10	10	—
Mathematical and computer scientists .....	10	10	—
Computer systems analysts and scientists .....	10	10	—
Operations and systems researchers and analysts .....	10	10	—
Natural scientists .....	7	7	—
Physical scientists, N.E.C. ....	10	10	—
Health related occupations .....	8	9	8
Registered nurses .....	8	8	8
Teachers, college and university .....	12	12	9
Art, drama and music teachers .....	13	—	—
Teachers, post secondary N.E.C. ....	7	—	—
Teachers, except college and university .....	8	8	8
Prekindergarten and kindergarten .....	8	8	—
Elementary school teachers .....	8	8	—
Secondary school teachers .....	8	8	—
Teachers, special education .....	9	9	—
Teachers, N.E.C. ....	8	8	—
Vocational and educational counselors .....	8	8	—
Librarians, archivists, and curators .....	9	9	—
Librarians .....	9	9	—
Social scientists and urban planners .....	9	10	—
Economists .....	10	10	—
Social, recreation, and religious workers .....	8	9	—
Social workers .....	8	9	—
Lawyers and judges .....	12	12	—
Lawyers .....	12	12	—
Writers, authors, entertainers, athletes, and professionals, N.E.C. ....	9	9	—
Professional occupations, N.E.C. ....	10	10	—
Technical occupations .....	7	7	5
Clinical laboratory technologists and technicians .....	7	7	—
Radiological technicians .....	6	—	—
Licensed practical nurses .....	5	5	5
Health technologists and technicians, N.E.C. ....	5	5	5
Electrical and electronic technicians .....	6	6	—
Engineering technicians, N.E.C. ....	7	7	—
Drafters .....	6	6	—
Science technicians, N.E.C. ....	6	—	—
Computer programmers .....	7	7	—
Legal assistants .....	8	8	—
Technical and related occupations, N.E.C. ....	7	7	—
Executive, administrative, and managerial occupations .....	10	10	—
Executives, administrators, and managers .....	11	11	—
Administrators and officials, public administration .....	10	10	—
Financial managers .....	12	12	—
Personnel and labor relations managers .....	11	11	—
Managers, marketing, advertising and public relations ..	12	12	—
Administrators, education and related fields .....	11	11	—
Managers, medicine and health .....	11	11	—
Managers, service organizations, N.E.C. ....	10	10	—
Managers and administrators, N.E.C. ....	11	11	—
Management related occupations .....	9	9	—
Accountants and auditors .....	8	8	—
Other financial officers .....	9	9	—
Management analysts .....	10	10	—
Personnel, training, and labor relations specialists .....	9	9	—
Purchasing agents and buyers, N.E.C. ....	10	10	—
Inspectors and compliance officers, except construction	8	8	—

See footnotes at end of table.

**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>White-collar occupations</b> (-Continued)			
Executive, administrative, and managerial occupations (-Continued)			
Management related occupations (-Continued)			
Management related occupations, N.E.C. ....	8	8	—
Sales occupations .....	5	7	2
Supervisors, sales occupations .....	9	9	—
Sales occupations, other business services .....	6	7	—
Sales representatives, mining, manufacturing, and wholesale .....	9	9	—
Sales workers, apparel .....	2	—	—
Sales workers, other commodities .....	3	4	2
Cashiers .....	2	3	2
Sales support occupations, N.E.C. ....	5	—	—
Administrative support occupations, including clerical .....	4	4	3
Supervisors, general office .....	6	6	—
Secretaries .....	5	5	4
Typists .....	3	3	—
Receptionists .....	3	3	3
Information clerks, N.E.C. ....	4	—	—
Order clerks .....	5	5	—
Library clerks .....	3	2	—
File clerks .....	3	—	—
Records clerks, N.E.C. ....	5	5	—
Bookkeepers, accounting and auditing clerks .....	4	4	—
Payroll and timekeeping clerks .....	5	5	—
Dispatchers .....	5	5	—
Production coordinators .....	5	5	—
Traffic, shipping and receiving clerks .....	4	5	—
Stock and inventory clerks .....	4	4	—
Insurance adjusters, examiners, and investigators .....	6	6	—
Investigators and adjusters except insurance .....	5	5	—
General office clerks .....	3	3	2
Data entry keyers .....	4	4	—
Teachers' aides .....	3	2	4
Administrative support occupations, N.E.C. ....	5	5	—
<b>Blue-collar occupations</b> .....	4	5	2
Precision production, craft, and repair occupations .....	6	6	—
Bus, truck, and stationary engine mechanics .....	6	6	—
Heavy equipment mechanics .....	7	7	—
Industrial machinery repairers .....	6	6	—
Mechanics and repairers, N.E.C. ....	6	6	—
Carpenters .....	7	7	—
Plumbers, pipefitters and steamfitters .....	7	7	—
Construction trades, N.E.C. ....	6	6	—
Supervisors, production occupations .....	8	8	—
Machinists .....	6	6	—
Electrical and electronic equipment assemblers .....	3	3	—
Miscellaneous precision workers, N.E.C. ....	6	6	—
Inspectors, testers, and graders .....	5	5	—
Water and sewer treatment plant operators .....	6	6	—
Machine operators, assemblers, and inspectors .....	4	4	2
Punching and stamping press operators .....	3	4	—
Fabricating machine operators, N.E.C. ....	4	4	—
Printing press operators .....	6	6	—
Packaging and filling machine operators .....	3	—	—
Painting and paint spraying machine operators .....	4	4	—
Slicing and cutting machine operators .....	3	3	—
Miscellaneous machine operators, N.E.C. ....	3	3	—
Welders and cutters .....	5	5	—
Assemblers .....	4	4	—
Miscellaneous hand working occupations, N.E.C. ....	3	3	—
Production inspectors, checkers and examiners .....	4	4	—
Transportation and material moving occupations .....	4	4	3
Truck drivers .....	4	4	—
Bus drivers .....	3	2	—
Industrial truck and tractor equipment operators .....	3	3	—

See footnotes at end of table.

**Appendix table 3. Average work levels for selected occupations, all workers, full-time and part-time workers, Minneapolis-St. Paul, MN-WI, July 1998 — Continued**

Occupation <sup>1</sup>	All workers	Full-time workers	Part-time workers
<b>Blue-collar occupations</b> (-Continued)			
Transportation and material moving occupations (-Continued)			
Miscellaneous material moving equipment operators, N.E.C. ....	5	5	—
Handlers, equipment cleaners, helpers, and laborers .....	2	3	2
Construction laborers .....	4	4	—
Production helpers .....	2	2	—
Stock handlers and baggers .....	2	3	2
Machine feeders and offbearers .....	2	2	—
Freight, stock, and material handlers, N.E.C. ....	2	—	2
Hand packers and packagers .....	2	—	—
Laborers except construction, N.E.C. ....	2	2	2
<b>Service occupations</b> .....			
Protective service occupations .....	3	4	2
Firefighting occupations .....	6	6	4
Police and detectives, public service .....	6	—	—
Sheriffs, bailiffs, and other law enforcement officers .....	8	8	—
Correctional institution officers .....	7	7	—
Guards and police except public service .....	5	5	—
Food service occupations .....	3	3	—
Supervisors, food preparation and service occupations .....	2	3	2
Bartenders .....	5	5	—
Waiters and waitresses .....	2	—	—
Cooks .....	2	2	2
Food counter, fountain, and related occupations .....	3	4	3
Kitchen workers, food preparation .....	1	—	—
Waiters/Waitresses' assistants .....	2	—	2
Food preparation occupations, N.E.C. ....	2	—	—
Health service occupations .....	2	2	2
Health aides, except nursing .....	3	3	3
Nursing aides, orderlies and attendants .....	4	4	3
Cleaning and building service occupations .....	3	3	3
Supervisors, cleaning and building service workers .....	2	3	1
Maids and housemen .....	5	5	—
Janitors and cleaners .....	2	2	2
Personal service occupations .....	2	3	1
Attendants, amusement and recreation facilities .....	4	5	3
Welfare service aides .....	2	—	—
Early childhood teachers' assistants .....	2	—	—
Child care workers, N.E.C. ....	3	—	—
Service occupations, N.E.C. ....	2	—	—
	4	—	—

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

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups and occupational levels may

include data for categories not shown separately. N.E.C. means "not elsewhere classified."

NOTE: Individual and average wage rates were collected in this update survey. A procedure was put into place to "move" the positional statistics where averages were collected. This procedure compares current locality survey data—at the quote level—with the same quote from the prior survey. Individual rates from the prior survey are moved by the average change in mean wages for the occupation.