

COMP2000 Pilot Survey Allentown-Bethlehem-Easton, PA Metropolitan Statistical Area May–June 1996

U.S. Department of Labor
Robert B. Reich, Secretary

Bureau of Labor Statistics
Katharine G. Abraham, Commissioner

October 1996

Bulletin 3082-2

Preface

This survey of occupational pay was conducted in May/June 1996 in the Allentown-Bethlehem-Easton, PA Metropolitan Statistical Area (MSA). The MSA includes the counties of Carbon, Lehigh, and Northampton.

Allentown is the second area selected for a series of tests using a new way of identifying and classifying occupations in establishments. The revised data collection procedure introduces a new method for determining the level of duties and responsibilities of surveyed occupations. This method, called “generic leveling,” will replace the job classification system now used in the Occupational Compensation Survey program (OCS). An entirely new statistical program will replace the existing OCS program, Employment Cost Index, and Employee Benefit Survey series. The working title of the program is COMP2000.

Hourly wage rates for various occupational classifications compose the bulk of the information contained in this bulletin. One table contains data on weekly wage rates. Tables showing the number of workers included in the wage data are also presented. The bulletin consists primarily of tables whose data are analyzed in the initial textual section. Also contained in this bulletin is information on the new COMP2000 program, a technical note describing survey procedures, and several appendixes with detailed information on occupational classifications and the generic leveling methodology.

Survey data were collected and reviewed by Bureau of Labor Statistics (BLS) field economists under the direction

of the Philadelphia Regional Office. The Office of Compensation and Working Conditions, in cooperation with the Office of Field Operations and the Office of Technology and Survey Processing, in the BLS National Office was responsible for the survey design and data processing and analysis.

Where to find more information

For additional information regarding this survey, please contact the BLS Philadelphia Regional Office at (215) 596-1154. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning, 2 Massachusetts Avenue, NE, Washington, DC 20212-0001, or call (202) 606-6220.

The data contained in this bulletin are also available on the Internet’s World Wide Web through the BLS site: <http://stats.bls.gov/comhome.htm> Data are in ASCII files containing exactly the published table format. Electronic files for future surveys will contain positional columns of data in an ASCII file for easy manipulation as a data base or spreadsheet. A third format will be Portable Document Format that will contain the entire bulletin.

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A New Compensation Survey

This bulletin represents the second test results of a new Bureau of Labor Statistics program called COMP2000. COMP2000 integrates three existing programs: the Occupational Compensation Survey (OCS), the Employment Cost Index (ECI), and the Employee Benefits Survey (EBS), into one comprehensive compensation program. Data from the new survey will be jointly collected from one common sample of establishments. The survey has several major goals: To make the most efficient use of available resources—dollars, people, and technology; to minimize the burden of collection on respondents; and to provide a wide range of statistical outputs reflecting up-to-date economic and statistical concepts.

The streamlining of programs and the addition of data will be phased in over time. At first, testing will concentrate on wage level data (such as contained in this bulletin) and the collection of demographic characteristics of workers (e.g., length of service). In Fall 1996, a new area-based sample will be put into place that will allow for the collection of wage data based on the methods refined in the early tests. The larger metropolitan area collections will yield bulletins similar to this one, which will replace the current Occupational Compensation Survey bulletins.

Further testing concerning benefit data, wage trend data, and other compensation characteristics will begin within the next year. Based on those test results, new collection procedures for those types of statistics will be developed. The new procedures will be implemented beginning in 1998. Eventually, wage data and benefit information collected from the sample will be used to produce compensation indexes and statistics on benefit provisions and incidence. These new series will supplant the current ECI and EBS programs.

COMP2000 versus OCS

The wage data in this bulletin differ from those in previous Occupational Compensation Survey bulletins by providing broader coverage of occupations and establishments within the survey area. The same holds for all future COMP2000 products.

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

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

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

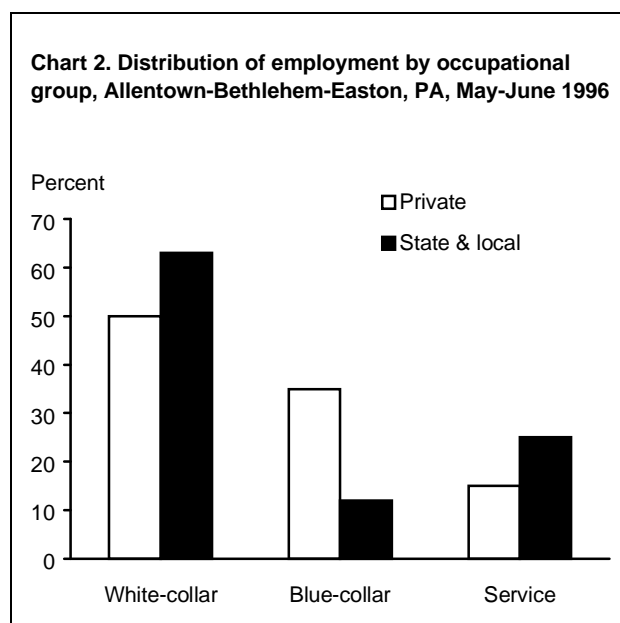
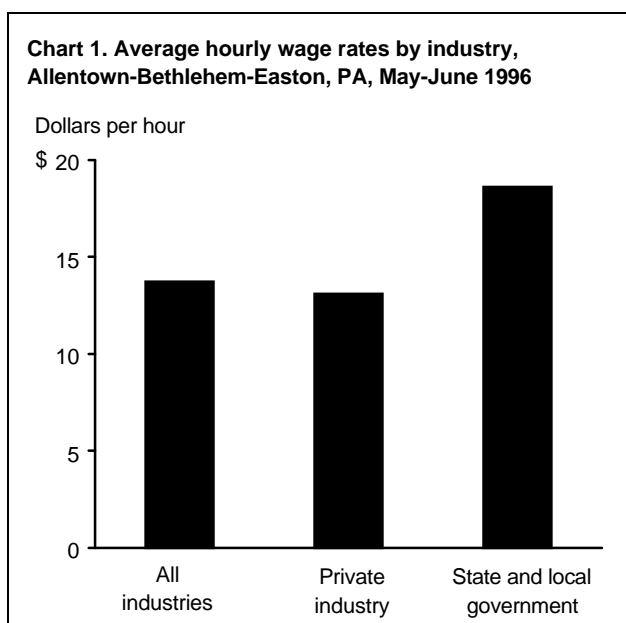
Finally, the establishments surveyed in this bulletin were selected from among all private and State and local government establishments. Previous OCS samples were limited to establishments with 50 or more employees. The wider scope of the COMP2000 program means that virtually all workers in the Allentown metropolitan statistical area are covered, excluding only private household and farm workers and employees of the Federal Government.

Wages in the Allentown-Bethlehem-Easton, PA metropolitan area

Straight-time wages in the Allentown-Bethlehem-Easton metropolitan area averaged \$13.73 per hour during May and June, 1996 (table 2). White-collar workers had the highest average wage level, \$16.32 per hour. Blue-collar workers averaged \$11.99 per hour, while service workers had average earnings of \$8.26 per hour.

Within each of these occupational groups, average wages for individual occupations varied widely. For example, white-collar occupations included financial managers at \$28.49 per hour, licensed practical nurses at \$13.98 per hour, and receptionists at \$9.14 per hour. Among occupations in the blue-collar category, electricians averaged \$18.34 per hour while hand packers and packagers averaged \$8.09 per hour. Finally, service workers included waiters and waitresses at \$3.16 per hour (not including tips) and police and detectives, public service at \$16.38 per hour. Table 2 presents earnings data for 84 detailed occupations; data for other detailed occupations could not be reported separately due to concerns about the confidentiality of survey respondents.

Private industry workers, about 88 percent of the Allentown labor force studied, averaged \$13.11 per hour, while State and local government workers earned \$18.61 per hour (chart 1). (All comparisons in this analysis cover hourly rates for both full- and part-time workers, unless otherwise noted.) The difference in wages between the private and government sectors reflects several factors (chart 2). First, there was a greater proportion of higher paid, professional specialty and technical workers in State and local governments (40 percent of all employees) than in private industry (14 percent). Similarly, there was a greater proportion of government employees in service occupations (25 percent) than there were in the private sector (15 percent). Service workers in State and local governments, which included such jobs as police officers and firefighters, average \$12.24 per hour compared to an average of \$7.19 per hour for private sector service workers, which were more often food and health-related occupations.



Average wages for full-time workers in Allentown were \$14.67 per hour, compared with an average of \$7.70 per hour for part-time workers (tables 3-4). For some occupations, there was a large difference in wages between full- and part-time workers. For example, full-time truck-drivers averaged \$12.01 per hour compared with \$8.55 per hour for their part-time counterparts. In other occupations, wages varied only slightly based on full- or part-time work schedule.

Wages for higher levels of work within major occupational groups usually were greater than for lower-level work (table 7). This general pattern can vary somewhat depending on the mix of specific occupations (and industries) represented by the broad group. A given level within a group may not have data because no workers were identified at that level or because there were not enough data to guarantee confidentiality.

Among professional specialty occupations, workers at level 5 (typically entry level workers with a college degree) averaged \$10.09 per hour. Workers at level 11, considered a fully functional professional, averaged \$23.93 per hour. Finally, at the more senior level 13, professionals averaged \$37.06 per hour.

Blue-collar and service occupations were typically classified at lower work levels. The range in wages between

lower and higher levels of work in the professional specialty occupations and executive, administrative, and managerial occupations was significantly higher than in any of the blue-collar and service occupations. To illustrate, professional specialty occupations' wages ranged from an average of \$10.09 per hour to \$38.53 per hour.

Union workers had higher hourly wage rates (\$16.12) in Allentown than nonunion workers (\$13.01) (table 9). Approximately 22 percent of the employees in Allentown were classified as union employees.

Data are also available on average wages for employees paid on an incentive basis (typically a base pay plus commission or piece work) and employees paid strictly based on time (table 9). Average pay for incentive workers, six percent of the Allentown workforce, was \$13.33 per hour, very similar to the \$13.75 per hour for time-based employees. However, among sales occupations, incentive workers averaged \$26.86 per hour compared with an average of \$9.81 per hour for time-based sales workers.

In the private sector, hourly wages averaged \$14.46 in goods-producing industries compared with \$12.30 in service-producing industries (table 13). However, average hourly wages varied more widely between industry divisions.

Table 1. Number of workers studied by occupation, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ¹	Full-time and part-time workers ²			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
All workers	234,553	206,559	27,994	178,503	157,442	21,061	56,050	49,117	6,933
All workers excluding sales	215,616	187,956	27,660	168,304	147,541	20,763	47,312	40,415	6,896
White-collar occupations	121,053	103,377	17,676	95,340	81,662	13,678	25,713	21,715	3,998
Professional specialty and technical occupations	39,820	28,522	11,298	33,729	25,094	8,635	6,091	3,428	2,663
Professional specialty occupations	30,434	19,827	10,606	25,990	18,047	7,943	4,443	1,780	2,663
Mechanical engineers	964	964	-	964	964	-	-	-	-
Engineers, N.E.C.	539	539	-	539	539	-	-	-	-
Computer systems analysts and scientists	2,005	1,909	-	2,005	1,909	-	-	-	-
Operations and systems researchers and analysts	485	485	-	485	485	-	-	-	-
Registered nurses	4,736	4,166	570	3,571	3,263	-	1,164	902	-
Elementary school teachers	2,842	-	2,655	2,842	-	2,655	-	-	-
Secondary school teachers	2,152	-	2,025	2,152	-	2,025	-	-	-
Teachers, N.E.C.	919	-	-	588	-	-	-	-	-
Substitute teachers	1,783	-	1,783	-	-	-	1,783	-	1,783
Social workers	1,813	-	1,084	1,682	-	953	-	-	-
Technical occupations	9,386	8,695	691	7,738	7,047	691	1,648	1,648	-
Licensed practical nurses	2,056	1,569	-	1,297	-	-	759	759	-
Health technologists and technicians, N.E.C.	905	-	-	905	-	-	-	-	-
Electrical and electronic technicians	1,204	1,204	-	1,204	1,204	-	-	-	-
Mechanical engineering technicians	390	390	-	390	390	-	-	-	-
Drafters	813	813	-	813	813	-	-	-	-
Computer programmers	1,042	1,042	-	895	895	-	-	-	-
Executive, administrative, and managerial occupations	16,662	14,915	1,747	16,271	14,523	1,747	-	-	-
Financial managers	1,464	1,412	-	1,464	1,412	-	-	-	-
Administrators, education and related fields	688	-	481	688	-	481	-	-	-
Managers, medicine and health	571	562	-	480	471	-	-	-	-
Managers and administrators, N.E.C. ..	3,997	3,858	-	3,997	3,858	-	-	-	-
Accountants and auditors	1,453	1,364	-	1,453	1,364	-	-	-	-
Other financial officers	789	789	-	789	789	-	-	-	-
Purchasing agents and buyers, N.E.C. ..	969	969	-	969	969	-	-	-	-
Management related occupations, N.E.C.	3,190	2,747	443	2,890	2,447	443	-	-	-
Sales occupations	18,937	18,603	-	10,199	9,901	-	8,738	8,701	-
Supervisors, sales occupations	657	-	-	657	-	-	-	-	-
Sales workers, apparel	1,159	1,159	-	-	-	-	-	-	-
Sales workers, other commodities	5,318	5,318	-	2,368	2,368	-	2,950	2,950	-
Sales counter clerks	1,186	1,186	-	-	-	-	-	-	-
Cashiers	5,740	5,470	-	1,962	1,692	-	3,778	3,778	-
Sales support occupations, N.E.C.	633	633	-	633	633	-	-	-	-
Administrative support including clerical occupations	45,634	41,337	4,296	35,142	32,143	2,999	10,492	9,194	1,298
Secretaries	5,898	4,921	977	4,175	3,448	727	1,723	1,472	-
Typists	722	623	-	578	-	-	-	-	-
Receptionists	1,750	1,723	-	1,344	1,344	-	-	-	-
Order clerks	1,131	1,131	-	1,038	1,038	-	-	-	-
Bookkeepers, accounting and auditing clerks	3,849	3,497	352	2,929	2,644	284	921	-	-
Payroll and timekeeping clerks	836	836	-	836	836	-	-	-	-
Traffic, shipping and receiving clerks ...	1,593	1,593	-	1,416	1,416	-	-	-	-
Stock and inventory clerks	1,789	1,664	-	1,392	1,267	-	-	-	-
Investigators and adjusters except insurance	1,399	1,349	-	1,326	1,276	-	-	-	-
General office clerks	7,064	6,300	764	4,916	4,387	528	2,148	1,912	-
Data entry keyers	911	868	-	642	599	-	-	-	-
Teachers' aides	1,123	-	1,123	-	-	-	585	-	585
Administrative support occupations, N.E.C.	1,828	1,710	-	1,251	1,133	-	-	-	-
White-collar occupations excluding sales	102,116	84,774	17,342	85,141	71,760	13,381	16,975	13,014	3,961

See footnotes at end of table.

Table 1. Number of workers studied by occupation, Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupation ¹	Full-time and part-time workers ²			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Blue-collar occupations	74,878	71,614	3,264	64,197	61,730	2,467	10,681	9,884	797
Precision production, craft, and repair occupations	21,463	20,934	529	20,681	20,152	529	—	—	—
Automobile mechanics	1,421	1,359	—	1,421	1,359	—	—	—	—
Industrial machinery repairers	1,520	1,482	—	1,490	1,451	—	—	—	—
Mechanics and repairers, N.E.C.	1,984	—	—	1,984	—	—	—	—	—
Carpenters	1,042	1,004	—	1,042	1,004	—	—	—	—
Electricians	588	547	—	588	547	—	—	—	—
Plumbers, pipefitters and steamfitters ..	738	738	—	738	738	—	—	—	—
Roofers	1,334	1,334	—	1,334	1,334	—	—	—	—
Supervisors, production occupations	2,080	2,041	—	2,080	2,041	—	—	—	—
Machinists	629	629	—	629	629	—	—	—	—
Machine operators, assemblers, and inspectors	26,716	26,401	—	25,219	24,904	—	1,496	1,496	—
Printing press operators	595	595	—	595	595	—	—	—	—
Textile sewing machine operators	4,696	4,696	—	4,160	4,160	—	—	—	—
Packaging and filling machine operators	1,017	1,017	—	1,017	1,017	—	—	—	—
Painting and paint spraying machine operators	1,114	1,114	—	1,114	1,114	—	—	—	—
Miscellaneous machine operators, N.E.C.	2,015	2,015	—	2,015	2,015	—	—	—	—
Welders and cutters	775	775	—	775	775	—	—	—	—
Assemblers	3,702	3,702	—	3,543	3,543	—	—	—	—
Production inspectors, checkers and examiners	955	955	—	955	955	—	—	—	—
Transportation and material moving occupations	9,730	8,342	1,388	6,266	5,388	878	3,464	2,954	509
Truck drivers	4,900	4,732	—	3,781	3,613	—	1,119	1,119	—
Bus drivers	2,426	1,664	762	—	—	—	2,173	1,664	509
Industrial truck and tractor equipment operators	1,287	1,287	—	1,287	1,287	—	—	—	—
Miscellaneous material moving equipment operators, N.E.C.	306	—	—	306	—	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers	16,970	15,937	1,033	12,031	11,286	745	4,938	4,651	—
Groundskeepers and gardeners except farm	592	—	—	592	—	—	—	—	—
Helpers, mechanics and repairers	1,036	—	—	1,036	—	—	—	—	—
Helpers, construction trades	1,325	1,325	—	—	—	—	—	—	—
Production helpers	803	803	—	—	—	—	—	—	—
Stock handlers and baggers	4,073	4,073	—	2,227	2,227	—	1,846	1,846	—
Freight, stock, and material handlers, N.E.C.	759	759	—	727	727	—	—	—	—
Hand packers and packagers	2,428	2,428	—	1,757	1,757	—	671	671	—
Laborers except construction, N.E.C.	3,482	3,482	—	2,684	2,684	—	—	—	—
Service occupations	38,622	31,568	7,054	18,966	14,051	4,915	19,656	17,518	2,139
Police and detectives, public service	1,286	—	1,286	1,286	—	1,286	—	—	—
Guards and police except public service	1,403	1,403	—	788	788	—	615	615	—
Bartenders	861	861	—	—	—	—	—	—	—
Waiters and waitresses	3,637	3,637	—	849	849	—	2,788	2,788	—
Cooks	3,901	3,810	—	2,278	2,234	—	1,623	1,575	—
Food counter, fountain, and related occupations	2,453	2,234	—	—	—	—	1,757	1,538	—
Food preparation occupations, N.E.C.	4,132	3,606	526	1,951	1,866	—	2,181	1,740	—
Nursing aides, orderlies and attendants	4,210	3,237	973	2,050	1,274	—	2,159	1,962	—
Maids and housemen	1,179	1,051	—	1,040	912	—	—	—	—
Janitors and cleaners	5,447	3,620	1,827	2,945	1,639	1,306	2,502	1,981	521

See footnotes at end of table.

Table 1. Number of workers studied by occupation, Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupation ¹	Full-time and part-time workers ²			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Child care workers, N.E.C.	499	—	—	—	—	—	499	—	—
Service occupations, N.E.C.	2,307	2,217	—	1,017	928	—	—	—	—

¹ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

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

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

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupation and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified." Because of rounding, sums of individual items may not equal totals.

Table 2. Hourly earnings¹ for selected occupations, all workers ², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
All workers	\$13.73	\$11.85	\$8.01 - \$16.79	\$13.11	\$11.36	\$7.80 - \$16.32	\$18.61	\$14.56	\$10.92 - \$25.09
All workers excluding sales	13.85	12.01	8.38 - 17.00	13.20	11.67	8.00 - 16.50	18.66	14.32	10.85 - 25.33
White-collar occupations	16.32	13.91	9.20 - 20.33	15.35	13.46	8.93 - 19.00	22.61	19.85	12.49 - 31.46
Professional specialty and technical occupations	21.32	19.00	14.62 - 26.25	19.41	18.12	14.52 - 22.13	27.08	27.08	16.55 - 36.78
Professional specialty occupations	23.21	21.03	17.05 - 28.86	21.02	20.00	16.73 - 24.59	28.25	28.47	19.36 - 37.51
Mechanical engineers	22.34	-	-	22.34	-	-	-	-	-
Engineers, N.E.C.	29.11	-	-	29.11	-	-	-	-	-
Computer systems analysts and scientists	22.73	20.92	17.74 - 28.80	22.42	20.82	17.74 - 30.09	-	-	-
Operations and systems researchers and analysts	18.81	-	-	18.81	-	-	-	-	-
Registered nurses	19.17	18.63	17.60 - 20.33	19.11	18.63	17.60 - 20.23	19.70	-	-
Elementary school teachers	33.81	34.57	27.14 - 41.87	-	-	-	35.56	36.20	28.51 - 41.91
Secondary school teachers	32.39	32.14	25.60 - 39.93	-	-	-	32.97	32.80	26.76 - 40.98
Teachers, N.E.C.	25.61	-	-	-	-	-	-	-	-
Substitute teachers	9.90	-	-	-	-	-	9.90	-	-
Social workers	13.59	12.31	9.62 - 16.10	-	-	-	16.15	-	-
Technical occupations	15.44	14.84	13.05 - 17.31	15.61	15.00	13.05 - 17.31	13.52	-	-
Licensed practical nurses	13.98	14.15	13.33 - 14.75	14.34	-	-	-	-	-
Health technologists and technicians, N.E.C.	14.13	-	-	-	-	-	-	-	-
Electrical and electronic technicians	14.53	-	-	14.53	-	-	-	-	-
Mechanical engineering technicians	17.97	-	-	17.97	-	-	-	-	-
Drafters	15.45	-	-	15.45	-	-	-	-	-
Computer programmers	15.99	-	-	15.99	-	-	-	-	-
Executive, administrative, and managerial occupations	23.18	21.63	15.87 - 28.26	23.09	21.49	15.87 - 28.13	24.00	22.16	15.39 - 30.43
Financial managers	28.49	-	-	28.81	-	-	-	-	-
Administrators, education and related fields	29.35	-	-	-	-	-	31.41	-	-
Managers, medicine and health	24.71	-	-	24.77	-	-	-	-	-
Managers and administrators, N.E.C.	27.60	28.13	20.66 - 33.31	27.77	28.13	20.66 - 34.85	-	-	-
Accountants and auditors	15.49	-	-	15.28	-	-	-	-	-
Other financial officers	14.17	-	-	14.17	-	-	-	-	-
Purchasing agents and buyers, N.E.C.	20.18	-	-	20.18	-	-	-	-	-
Management related occupations, N.E.C.	19.32	19.23	15.48 - 23.05	19.93	20.76	15.50 - 23.05	15.65	-	-
Sales occupations	12.09	8.26	6.00 - 14.17	12.03	8.25	6.00 - 13.80	-	-	-
Supervisors, sales occupations ..	15.95	-	-	-	-	-	-	-	-
Sales workers, apparel	5.51	-	-	5.51	-	-	-	-	-
Sales workers, other commodities	14.04	8.26	6.50 - 11.00	14.04	8.26	6.50 - 11.00	-	-	-
Sales counter clerks	8.13	-	-	8.13	-	-	-	-	-
Cashiers	7.27	6.05	5.25 - 8.10	6.73	5.80	5.10 - 7.56	-	-	-
Sales support occupations, N.E.C.	10.50	-	-	10.50	-	-	-	-	-
Administrative support including clerical occupations	10.59	9.75	8.00 - 12.36	10.54	9.63	7.88 - 12.29	11.13	10.92	9.15 - 13.05
Secretaries	11.31	11.25	9.00 - 13.63	11.11	11.18	8.65 - 13.58	12.33	-	-
Typists	10.00	-	-	9.78	-	-	-	-	-
Receptionists	9.14	8.40	7.65 - 10.51	9.12	8.40	7.65 - 10.51	-	-	-
Order clerks	11.92	11.69	7.50 - 16.33	11.92	11.69	7.50 - 16.33	-	-	-
Bookkeepers, accounting and auditing clerks	11.01	9.23	8.25 - 13.75	10.76	9.23	8.00 - 13.75	13.79	-	-
Payroll and timekeeping clerks ...	10.20	-	-	10.20	-	-	-	-	-
Traffic, shipping and receiving clerks	9.17	-	-	9.17	-	-	-	-	-
Stock and inventory clerks	9.69	9.52	8.00 - 11.50	9.24	9.00	8.00 - 9.92	-	-	-
Investigators and adjusters except insurance	15.21	14.81	10.04 - 20.33	15.27	-	-	-	-	-
General office clerks	10.07	9.47	7.97 - 11.11	10.01	9.35	7.70 - 11.11	10.54	-	-
Data entry keyers	8.81	-	-	8.81	-	-	-	-	-
Teachers' aides	8.74	-	-	-	-	-	8.74	-	-

See footnotes at end of table.

Table 2. Hourly earnings¹ for selected occupations, all workers ², Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
Administrative support occupations, N.E.C.	\$10.47	\$10.75	\$8.47 - \$11.75	\$10.32	\$10.25	\$8.00 - \$11.59	-	-	- -
White-collar occupations excluding sales	17.01	14.62	9.90 - 21.19	15.97	14.25	9.55 - 20.00	\$22.77	\$20.00	\$12.37 - \$31.80
Blue-collar occupations	11.99	11.60	8.25 - 15.00	12.00	11.54	8.10 - 15.25	11.87	12.32	9.85 - 13.82
Precision production, craft, and repair occupations	14.83	14.66	12.00 - 17.13	14.85	14.70	12.00 - 17.14	14.14	-	- -
Automobile mechanics	12.32	-	- -	12.27	-	- -	-	-	- -
Industrial machinery repairers	14.62	14.48	13.81 - 15.68	14.60	-	- -	-	-	- -
Mechanics and repairers, N.E.C.	14.86	-	- -	-	-	- -	-	-	- -
Carpenters	12.53	-	- -	12.55	-	- -	-	-	- -
Electricians	18.34	-	- -	18.44	-	- -	-	-	- -
Plumbers, pipefitters and steamfitters	19.05	-	- -	19.05	-	- -	-	-	- -
Roofers	15.01	-	- -	15.01	-	- -	-	-	- -
Supervisors, production occupations	16.06	16.75	14.42 - 17.92	16.03	16.75	14.42 - 18.27	-	-	- -
Machinists	14.05	-	- -	14.05	-	- -	-	-	- -
Machine operators, assemblers, and inspectors	11.19	10.19	7.39 - 14.32	11.21	10.28	7.39 - 14.41	-	-	- -
Printing press operators	11.96	-	- -	11.96	-	- -	-	-	- -
Textile sewing machine operators	7.53	6.99	6.05 - 8.66	7.53	6.99	6.05 - 8.66	-	-	- -
Packaging and filling machine operators	12.47	-	- -	12.47	-	- -	-	-	- -
Painting and paint spraying machine operators	15.49	-	- -	15.49	-	- -	-	-	- -
Miscellaneous machine operators, N.E.C.	10.80	10.00	7.08 - 13.60	10.80	10.00	7.08 - 13.60	-	-	- -
Welders and cutters	16.78	-	- -	16.78	-	- -	-	-	- -
Assemblers	15.10	20.10	9.84 - 20.10	15.10	20.10	9.84 - 20.10	-	-	- -
Production inspectors, checkers and examiners	11.15	-	- -	11.15	-	- -	-	-	- -
Transportation and material moving occupations	11.60	11.67	8.00 - 14.27	11.40	11.34	7.45 - 14.21	12.93	13.00	12.21 - 14.68
Truck drivers	11.59	11.46	8.00 - 14.27	11.60	11.46	8.00 - 14.28	-	-	- -
Bus drivers	9.74	10.83	6.70 - 12.00	8.28	-	- -	12.95	-	- -
Industrial truck and tractor equipment operators	13.48	-	- -	13.48	-	- -	-	-	- -
Miscellaneous material moving equipment operators, N.E.C.	13.86	-	- -	-	-	- -	-	-	- -
Handlers, equipment cleaners, helpers, and laborers	9.53	9.22	6.75 - 11.67	9.51	9.13	6.75 - 11.28	9.94	-	- -
Groundskeepers and gardeners except farm	8.39	-	- -	-	-	- -	-	-	- -
Helpers, mechanics and repairers	12.61	-	- -	-	-	- -	-	-	- -
Helpers, construction trades	8.44	-	- -	8.44	-	- -	-	-	- -
Production helpers	11.43	-	- -	11.43	-	- -	-	-	- -
Stock handlers and baggers	8.80	9.06	6.50 - 10.99	8.80	9.06	6.50 - 10.99	-	-	- -
Freight, stock, and material handlers, N.E.C.	10.82	-	- -	10.82	-	- -	-	-	- -
Hand packers and packagers	8.09	7.25	6.00 - 10.00	8.09	7.25	6.00 - 10.00	-	-	- -
Laborers except construction, N.E.C.	9.74	8.30	6.75 - 11.90	9.74	8.30	6.75 - 11.90	-	-	- -
Service occupations	8.26	7.50	5.50 - 10.00	7.19	6.75	5.25 - 8.70	12.24	12.32	9.08 - 15.14
Police and detectives, public service	16.38	-	- -	-	-	- -	16.38	-	- -
Guards and police except public service	8.50	-	- -	8.50	-	- -	-	-	- -
Bartenders	4.75	-	- -	4.75	-	- -	-	-	- -
Waiters and waitresses	3.16	2.41	2.34 - 3.06	3.16	2.41	2.34 - 3.06	-	-	- -
Cooks	8.23	8.25	6.74 - 9.00	8.16	8.25	6.53 - 9.00	-	-	- -
Food counter, fountain, and related occupations	6.21	-	- -	5.99	-	- -	-	-	- -
Food preparation occupations, N.E.C.	8.05	6.50	5.45 - 8.55	7.96	6.25	5.35 - 7.80	8.90	-	- -
Nursing aides, orderlies and attendants	8.58	8.13	7.00 - 9.54	8.10	7.72	6.75 - 9.00	9.82	-	- -

See footnotes at end of table.

Table 2. Hourly earnings¹ for selected occupations, all workers ², Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
Maids and housemen	\$6.96	—	— —	\$6.57	—	— —	—	—	— —
Janitors and cleaners	9.26	\$9.00	\$6.50 - \$11.65	7.85	\$7.50	\$6.00 - \$9.60	\$11.65	\$12.32	\$9.08 - \$13.68
Child care workers, N.E.C.	6.98	—	— —	—	—	— —	—	—	— —
Service occupations, N.E.C..	6.66	—	— —	6.31	—	— —	—	—	— —

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² All workers include full-time and part-time workers. Employees are classified as working either a full-time or a part-time schedule based on the definition used by each

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

³ A classification system including about 450 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." Because of rounding, sums of individual items may not equal totals.

Table 3. Hourly earnings¹ for selected occupations, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
All workers	\$14.67	\$12.84	\$9.00 - \$17.55	\$14.01	\$12.36	\$8.70 - \$17.27	\$19.82	\$15.05	\$12.31 - \$27.24
All workers excluding sales	14.67	12.97	9.13 - 17.76	13.96	12.49	8.90 - 17.31	19.89	15.14	12.29 - 27.47
White-collar occupations	17.29	14.75	10.01 - 21.19	16.25	14.37	9.62 - 19.98	23.88	22.13	13.62 - 32.66
Professional specialty and technical occupations	21.78	19.69	15.14 - 26.92	19.61	18.40	14.62 - 22.40	28.63	28.60	19.41 - 37.74
Professional specialty occupations	23.70	21.64	17.48 - 29.17	21.13	20.14	16.76 - 25.20	30.08	29.65	22.65 - 38.34
Mechanical engineers	22.34	-	-	22.34	-	-	-	-	-
Engineers, N.E.C.	29.11	-	-	29.11	-	-	-	-	-
Computer systems analysts and scientists	22.73	20.92	17.74 - 28.80	22.42	20.82	17.74 - 30.09	-	-	-
Operations and systems researchers and analysts	18.81	-	-	18.81	-	-	-	-	-
Registered nurses	19.42	18.63	18.01 - 20.33	19.26	18.63	18.01 - 20.23	-	-	-
Elementary school teachers	33.81	34.57	27.14 - 41.87	-	-	-	35.56	36.20	28.51 - 41.91
Secondary school teachers	32.39	32.14	25.60 - 39.93	-	-	-	32.97	32.80	26.76 - 40.98
Teachers, N.E.C.	26.06	-	-	-	-	-	-	-	-
Social workers	13.25	12.31	9.62 - 15.78	-	-	-	15.65	-	-
Technical occupations	15.54	14.90	13.00 - 17.31	15.74	15.76	13.05 - 17.67	13.52	-	-
Licensed practical nurses	14.11	-	-	-	-	-	-	-	-
Health technologists and technicians, N.E.C.	14.13	-	-	-	-	-	-	-	-
Electrical and electronic technicians	14.53	-	-	14.53	-	-	-	-	-
Mechanical engineering technicians	17.97	-	-	17.97	-	-	-	-	-
Drafters	15.45	-	-	15.45	-	-	-	-	-
Computer programmers	16.56	-	-	16.56	-	-	-	-	-
Executive, administrative, and managerial occupations	23.17	21.63	15.87 - 28.85	23.08	21.49	15.87 - 28.13	24.00	22.16	15.39 - 30.43
Financial managers	28.49	-	-	28.81	-	-	-	-	-
Administrators, education and related fields	29.35	-	-	-	-	-	31.41	-	-
Managers, medicine and health Managers and administrators, N.E.C.	24.79	-	-	24.85	-	-	-	-	-
Accountants and auditors	27.60	28.13	20.66 - 33.31	27.77	28.13	20.66 - 34.85	-	-	-
Other financial officers	15.49	-	-	15.28	-	-	-	-	-
Purchasing agents and buyers, N.E.C.	14.17	-	-	14.17	-	-	-	-	-
Management related occupations, N.E.C.	20.18	-	-	20.18	-	-	-	-	-
Sales occupations	18.98	19.23	15.43 - 23.05	19.59	20.00	15.48 - 23.05	15.65	-	-
Supervisors, sales occupations ..	14.68	10.98	7.56 - 15.32	14.67	10.30	7.56 - 15.50	-	-	-
Sales workers, other commodities	15.95	-	-	-	-	-	-	-	-
Cashiers	19.24	10.05	8.26 - 11.00	19.24	10.05	8.26 - 11.00	-	-	-
Sales support occupations, N.E.C.	8.06	-	-	7.04	-	-	-	-	-
Administrative support including clerical occupations	10.50	-	-	10.50	-	-	-	-	-
Secretaries	10.98	10.40	8.31 - 12.76	10.92	10.23	8.18 - 12.69	11.59	11.37	9.47 - 13.42
Typists	11.80	12.03	9.00 - 13.82	11.60	11.94	8.58 - 13.63	12.78	-	-
Receptionists	10.47	-	-	-	-	-	-	-	-
Order clerks	9.15	-	-	9.15	-	-	-	-	-
Bookkeepers, accounting and auditing clerks	12.29	-	-	12.29	-	-	-	-	-
Payroll and timekeeping clerks ...	11.35	9.42	8.50 - 14.25	11.08	9.23	8.50 - 14.25	13.91	-	-
Traffic, shipping and receiving clerks	10.20	-	-	10.20	-	-	-	-	-
Stock and inventory clerks	9.50	-	-	9.50	-	-	-	-	-
Investigators and adjusters except insurance	9.73	9.52	8.00 - 11.12	9.26	-	-	-	-	-
General office clerks	15.60	-	-	15.66	-	-	-	-	-
Data entry keyers	10.62	9.70	8.50 - 11.36	10.58	9.52	8.27 - 11.11	10.92	-	-
Administrative support occupations, N.E.C.	9.30	-	-	9.33	-	-	-	-	-
	10.77	-	-	10.61	-	-	-	-	-

See footnotes at end of table.

**Table 3. Hourly earnings¹ for selected occupations, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996
— Continued**

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
White-collar occupations excluding sales	\$17.62	\$15.33	\$10.66 - \$22.09	\$16.48	\$14.75	\$10.05 - \$20.55	\$24.08	\$22.79	\$13.56 - \$33.09
Blue-collar occupations	12.38	12.00	8.91 - 15.36	12.40	11.98	8.75 - 15.40	12.01	12.42	9.85 - 13.82
Precision production, craft, and repair occupations	14.88	14.70	12.00 - 17.14	14.90	14.70	12.00 - 17.34	14.14	-	-
Automobile mechanics	12.32	-	-	12.27	-	-	-	-	-
Industrial machinery repairers	14.60	-	-	14.58	-	-	-	-	-
Mechanics and repairers, N.E.C.	14.86	-	-	-	-	-	-	-	-
Carpenters	12.53	-	-	12.55	-	-	-	-	-
Electricians	18.34	-	-	18.44	-	-	-	-	-
Plumbers, pipefitters and steamfitters	19.05	-	-	19.05	-	-	-	-	-
Roofers	15.01	-	-	15.01	-	-	-	-	-
Supervisors, production occupations	16.06	16.75	14.42 - 17.92	16.03	16.75	14.42 - 18.27	-	-	-
Machinists	14.05	-	-	14.05	-	-	-	-	-
Machine operators, assemblers, and inspectors	11.33	10.37	7.59 - 14.56	11.36	10.50	7.50 - 14.59	-	-	-
Printing press operators	11.96	-	-	11.96	-	-	-	-	-
Textile sewing machine operators	7.53	-	-	7.53	-	-	-	-	-
Packaging and filling machine operators	12.47	-	-	12.47	-	-	-	-	-
Painting and paint spraying machine operators	15.49	-	-	15.49	-	-	-	-	-
Miscellaneous machine operators, N.E.C.	10.80	10.00	7.08 - 13.60	10.80	10.00	7.08 - 13.60	-	-	-
Welders and cutters	16.78	-	-	16.78	-	-	-	-	-
Assemblers	15.39	20.10	9.84 - 20.10	15.39	20.10	9.84 - 20.10	-	-	-
Production inspectors, checkers and examiners	11.15	-	-	11.15	-	-	-	-	-
Transportation and material moving occupations	12.39	12.57	9.00 - 14.73	12.30	11.90	8.50 - 14.70	13.01	-	-
Truck drivers	12.01	11.90	8.50 - 14.32	12.03	11.90	8.50 - 14.47	-	-	-
Industrial truck and tractor equipment operators	13.48	-	-	13.48	-	-	-	-	-
Miscellaneous material moving equipment operators, N.E.C.	13.86	-	-	-	-	-	-	-	-
Handlers, equipment cleaners, helpers, and laborers	10.18	10.00	7.40 - 11.90	10.17	10.00	7.30 - 11.90	10.40	-	-
Groundskeepers and gardeners except farm	8.39	-	-	-	-	-	-	-	-
Helpers, mechanics and repairers	12.61	-	-	-	-	-	-	-	-
Stock handlers and baggers	9.86	10.22	8.50 - 11.17	9.86	10.22	8.50 - 11.17	-	-	-
Freight, stock, and material handlers, N.E.C.	10.93	-	-	10.93	-	-	-	-	-
Hand packers and packagers	8.79	-	-	8.79	-	-	-	-	-
Laborers except construction, N.E.C.	10.31	10.45	7.40 - 11.90	10.31	10.45	7.40 - 11.90	-	-	-
Service occupations	9.36	8.70	6.50 - 11.60	7.97	7.64	6.00 - 9.38	13.19	13.62	10.25 - 15.85
Police and detectives, public service	16.38	-	-	-	-	-	16.38	-	-
Guards and police except public service	8.79	-	-	8.79	-	-	-	-	-
Waiters and waitresses	3.21	-	-	3.21	-	-	-	-	-
Cooks	8.72	8.70	7.50 - 9.50	8.64	8.70	7.50 - 9.50	-	-	-
Food preparation occupations, N.E.C.	9.15	-	-	9.16	-	-	-	-	-
Nursing aides, orderlies and attendants	9.30	-	-	8.64	-	-	-	-	-

See footnotes at end of table.

**Table 3. Hourly earnings¹ for selected occupations, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996
— Continued**

Occupation ³	All industries			Private industry			State and local government		
	Mean	Median	Middle range	Mean	Median	Middle range	Mean	Median	Middle range
Maids and housemen	\$7.03	—	— —	\$6.63	—	— —	—	—	— —
Janitors and cleaners	10.38	\$10.00	\$8.54 - \$12.63	8.71	—	— —	\$12.49	\$13.05	\$11.47 - \$14.17
Service occupations, N.E.C.	7.06	—	— —	6.59	—	— —	—	—	— —

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a

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

³ A classification system including about 450 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." Because of rounding, sums of individual items may not equal totals.

Table 4. Hourly earnings¹ for selected occupations, part-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ³	All industries				Private industry			State and local government				
	Mean	Median	Middle range		Mean	Median	Middle range	Mean	Median	Middle range		
All workers	\$7.70	\$6.75	\$5.47 -	\$9.00	\$7.48	\$6.55	\$5.25 -	\$8.80	\$9.73	\$9.14	\$7.00 -	\$11.36
All workers excluding sales	7.99	7.00	5.63 -	9.25	7.77	6.95	5.50 -	9.00	9.66	9.14	7.00 -	11.25
White-collar occupations	8.95	7.62	6.00 -	9.98	8.69	7.18	5.68 -	9.30	10.96	9.63	8.28 -	12.31
Professional specialty and technical occupations	14.74	14.15	11.00 -	17.05	16.13	15.05	13.61 -	19.00	12.23	11.11	9.14 -	13.33
Professional specialty occupations	14.85	13.89	9.63 -	17.66	18.09	17.35	16.25 -	21.13	12.23	11.11	9.14 -	13.33
Registered nurses	17.55	-	-	-	17.91	-	-	-	-	-	-	-
Substitute teachers	9.90	-	-	-	-	-	-	-	9.90	-	-	-
Technical occupations	14.54	-	-	-	14.54	-	-	-	-	-	-	-
Licensed practical nurses	13.57	-	-	-	13.57	-	-	-	-	-	-	-
Sales occupations	6.23	5.50	5.00 -	6.75	6.16	5.50	5.00 -	6.75	-	-	-	-
Sales workers, other commodities	6.18	6.25	5.00 -	6.75	6.18	6.25	5.00 -	6.75	-	-	-	-
Cashiers	6.46	5.50	5.00 -	7.85	6.46	5.50	5.00 -	7.85	-	-	-	-
Administrative support including clerical occupations	8.05	7.95	6.55 -	9.00	7.97	7.95	6.55 -	9.00	8.75	8.20	7.25 -	9.93
Secretaries	9.02	-	-	-	8.96	-	-	-	-	-	-	-
Bookkeepers, accounting and auditing clerks	8.80	-	-	-	-	-	-	-	-	-	-	-
General office clerks	7.64	7.05	6.55 -	9.00	7.58	-	-	-	-	-	-	-
Teachers' aides	8.58	-	-	-	-	-	-	-	8.58	-	-	-
White-collar occupations excluding sales	10.53	9.00	7.25 -	12.14	10.46	8.81	7.05 -	12.14	10.84	9.36	8.28 -	12.22
Blue-collar occupations	7.62	6.95	6.00 -	9.80	7.44	6.75	6.00 -	9.00	10.77	-	-	-
Machine operators, assemblers, and inspectors	6.79	-	-	-	6.79	-	-	-	-	-	-	-
Transportation and material moving occupations	8.79	7.45	6.45 -	10.83	8.29	7.00	6.45 -	10.83	12.57	-	-	-
Truck drivers	8.55	-	-	-	8.55	-	-	-	-	-	-	-
Bus drivers	9.04	-	-	-	8.28	-	-	-	12.57	-	-	-
Handlers, equipment cleaners, helpers, and laborers	6.61	6.50	5.25 -	7.13	6.64	6.50	5.25 -	7.13	-	-	-	-
Stock handlers and baggers	6.46	5.51	5.15 -	7.00	6.46	5.51	5.15 -	7.00	-	-	-	-
Hand packers and packagers	5.46	-	-	-	5.46	-	-	-	-	-	-	-
Service occupations	6.17	5.75	4.90 -	7.50	5.97	5.75	4.75 -	7.40	7.78	7.20	6.25 -	9.24
Guards and police except public service	7.95	-	-	-	7.95	-	-	-	-	-	-	-
Waiters and waitresses	3.13	-	-	-	3.13	-	-	-	-	-	-	-
Cooks	6.90	-	-	-	6.84	-	-	-	-	-	-	-
Food counter, fountain, and related occupations	5.91	-	-	-	5.46	-	-	-	-	-	-	-
Food preparation occupations, N.E.C.	6.31	5.75	5.00 -	7.35	5.78	-	-	-	-	-	-	-
Nursing aides, orderlies and attendants	7.40	-	-	-	7.47	-	-	-	-	-	-	-
Janitors and cleaners	6.55	6.25	5.25 -	7.00	6.41	-	-	-	7.13	-	-	-
Child care workers, N.E.C.	6.98	-	-	-	-	-	-	-	-	-	-	-

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² Employees are classified as working either a full-time or a part-time schedule based on the definition used by each establishment. Therefore, a worker with a

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

³ A classification system including about 450 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." Because of rounding, sums of individual items may not equal totals.

Table 5. Mean weekly earnings¹ and hours for selected white-collar occupations, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ³	All industries			Private industry			State and local government		
	Mean weekly hours ⁴	Weekly earnings		Mean weekly hours ⁴	Weekly earnings		Mean weekly hours ⁴	Weekly earnings	
		Mean	Median		Mean	Median		Mean	Median
White-collar occupations	39.2	\$678	\$580	39.5	\$643	\$563	37.3	\$891	\$849
Professional specialty and technical occupations	38.9	847	771	39.6	777	736	36.6	1048	1040
Professional specialty occupations	38.6	914	865	39.6	836	790	36.3	1092	1076
Mechanical engineers	40.0	894	-	40.0	894	-	-	-	-
Engineers, N.E.C.	39.8	1159	-	39.8	1159	-	-	-	-
Computer systems analysts and scientists	39.9	907	834	39.9	895	833	-	-	-
Operations and systems researchers and analysts	41.8	786	-	41.8	786	-	-	-	-
Registered nurses	39.5	767	745	39.4	760	745	-	-	-
Elementary school teachers	35.6	1203	1216	-	-	-	35.3	1254	1253
Secondary school teachers	36.0	1165	1165	-	-	-	35.9	1183	1199
Teachers, N.E.C.	34.1	888	-	-	-	-	-	-	-
Social workers	39.4	522	492	-	-	-	39.0	610	-
Technical occupations	39.8	619	596	39.8	627	635	40.0	541	-
Licensed practical nurses	40.0	565	-	-	-	-	-	-	-
Health technologists and technicians, N.E.C.	40.0	565	-	-	-	-	-	-	-
Electrical and electronic technicians	40.0	581	-	40.0	581	-	-	-	-
Mechanical engineering technicians	40.0	719	-	40.0	719	-	-	-	-
Drafters	40.0	618	-	40.0	618	-	-	-	-
Computer programmers	40.0	662	-	40.0	662	-	-	-	-
Executive, administrative, and managerial occupations	40.0	927	850	40.1	925	850	39.2	940	821
Financial managers	40.0	1140	-	40.0	1152	-	-	-	-
Administrators, education and related fields	39.3	1153	-	-	-	-	39.3	1234	-
Managers, medicine and health	38.6	957	-	38.6	961	-	-	-	-
Managers and administrators, N.E.C. ...	40.9	1129	1129	41.0	1139	1191	-	-	-
Accountants and auditors	39.8	617	-	40.0	611	-	-	-	-
Other financial officers	39.9	565	-	39.9	565	-	-	-	-
Purchasing agents and buyers, N.E.C.	39.8	803	-	39.8	803	-	-	-	-
Management related occupations, N.E.C.	40.2	763	769	40.2	787	812	40.3	631	-
Sales occupations	40.1	589	425	40.2	590	412	-	-	-
Supervisors, sales occupations	43.4	693	-	-	-	-	-	-	-
Sales workers, other commodities	40.5	779	412	40.5	779	412	-	-	-
Cashiers	39.0	314	-	39.3	276	-	-	-	-
Sales support occupations, N.E.C.	39.3	413	-	39.3	413	-	-	-	-
Administrative support including clerical occupations	38.9	428	400	39.0	426	400	38.3	444	448
Secretaries	38.1	449	448	38.2	442	448	37.6	480	-
Typists	38.2	400	-	-	-	-	-	-	-
Receptionists	38.0	348	-	38.0	348	-	-	-	-
Order clerks	39.6	487	-	39.6	487	-	-	-	-
Bookkeepers, accounting and auditing clerks	39.9	453	377	40.0	443	369	39.3	547	-
Payroll and timekeeping clerks	40.0	408	-	40.0	408	-	-	-	-
Traffic, shipping and receiving clerks ...	39.0	370	-	39.0	370	-	-	-	-
Stock and inventory clerks	39.9	389	381	40.0	370	-	-	-	-
Investigators and adjusters except insurance	40.7	635	-	40.7	638	-	-	-	-
General office clerks	38.7	411	381	38.6	408	381	40.0	437	-
Data entry keyers	39.4	366	-	39.5	369	-	-	-	-
Administrative support occupations, N.E.C.	39.4	424	-	39.5	419	-	-	-	-

See footnotes at end of table.

Table 5. Mean weekly earnings¹ and hours for selected white-collar occupations, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupation ³	All industries			Private industry			State and local government		
	Mean weekly hours ⁴	Weekly earnings		Mean weekly hours ⁴	Weekly earnings		Mean weekly hours ⁴	Weekly earnings	
		Mean	Median		Mean	Median		Mean	Median
White-collar occupations excluding sales	39.1	\$689	\$604	39.4	\$650	\$577	37.3	\$899	\$878

¹ Earnings are the straight-time weekly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

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

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

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

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." Because of rounding, sums of individual items may not equal totals.

Table 6. Numbers of workers by occupational group and level¹, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ² and level	Full-time and part-time workers ³			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
White-collar occupations	121,053	103,377	17,676	95,340	81,662	13,678	25,713	21,715	3,998
Professional specialty and technical occupations	39,820	28,522	11,298	33,729	25,094	8,635	6,091	3,428	2,663
Professional specialty occupations	30,434	19,827	10,606	25,990	18,047	7,943	4,443	1,780	2,663
Level 5	2,959	1,561	1,398	1,435	1,435	-	1,523	-	1,398
Level 6	1,615	-	943	1,270	-	-	-	-	-
Level 7	3,205	2,567	637	2,828	2,362	466	376	-	-
Level 8	2,290	1,417	872	2,233	1,417	815	-	-	-
Level 9	8,993	4,118	4,875	7,648	3,381	4,267	1,344	737	-
Level 10	1,683	1,209	474	1,593	1,209	383	-	-	-
Level 11	3,647	3,058	589	3,445	2,921	523	-	-	-
Level 12	2,793	2,387	406	2,690	2,284	406	-	-	-
Level 13	1,012	637	375	1,012	637	375	-	-	-
Level 14	452	452	-	452	452	-	-	-	-
Level 15	630	-	-	630	-	-	-	-	-
Technical occupations	9,386	8,695	691	7,738	7,047	691	1,648	1,648	-
Level 5	1,369	1,113	-	897	641	-	-	-	-
Level 6	1,359	1,321	-	1,128	1,089	-	-	-	-
Level 7	1,668	1,398	-	1,450	1,180	-	-	-	-
Level 8	1,225	1,098	-	1,225	1,098	-	-	-	-
Level 9	2,257	2,257	-	1,750	1,750	-	-	-	-
Executive, administrative, and managerial occupations	16,662	14,915	1,747	16,271	14,523	1,747	-	-	-
Level 6	633	398	-	633	398	-	-	-	-
Level 7	978	721	-	978	721	-	-	-	-
Level 8	1,828	1,790	-	1,828	1,790	-	-	-	-
Level 9	1,805	1,796	-	1,726	1,717	-	-	-	-
Level 10	629	539	-	629	539	-	-	-	-
Level 11	3,183	2,826	357	3,021	2,665	357	-	-	-
Level 12	2,778	2,707	-	2,628	2,556	-	-	-	-
Level 13	1,665	1,362	-	1,665	1,362	-	-	-	-
Level 14	1,103	792	-	1,103	792	-	-	-	-
Managers and administrators, N.E.C.	3,997	3,858	-	3,997	3,858	-	-	-	-
Level 12	536	536	-	536	536	-	-	-	-
Level 13	614	614	-	614	614	-	-	-	-
Sales occupations	18,937	18,603	-	10,199	9,901	-	8,738	8,701	-
Level 1	2,171	2,171	-	1,031	1,031	-	1,140	1,140	-
Level 2	4,521	4,521	-	1,168	1,168	-	3,353	3,353	-
Level 3	2,630	2,630	-	1,358	1,358	-	1,272	1,272	-
Level 4	3,195	3,195	-	1,557	1,557	-	1,639	1,639	-
Level 5	2,252	2,252	-	954	954	-	1,298	1,298	-
Level 6	1,103	834	-	1,103	834	-	-	-	-
Level 8	589	553	-	553	553	-	-	-	-
Cashiers	5,740	5,470	-	1,962	1,692	-	3,778	3,778	-
Level 1	1,234	1,234	-	-	-	-	-	-	-
Level 2	2,824	2,824	-	-	-	-	2,487	2,487	-
Administrative support including clerical occupations	45,634	41,337	4,296	35,142	32,143	2,999	10,492	9,194	1,298
Level 1	2,291	2,291	-	1,879	1,879	-	-	-	-
Level 2	6,547	5,969	578	3,914	3,820	-	2,633	2,149	484
Level 3	12,728	11,821	908	7,135	6,567	568	5,594	5,254	340
Level 4	8,866	7,554	1,312	7,834	6,798	1,036	1,032	756	-
Level 5	7,289	6,940	349	7,016	6,729	-	-	-	-
Level 6	4,197	3,468	730	4,090	3,361	730	-	-	-
Level 7	2,164	1,833	330	1,812	1,529	-	-	-	-
Secretaries	5,898	4,921	977	4,175	3,448	727	1,723	1,472	-
Level 3	1,650	1,514	-	-	-	-	-	-	-
Level 4	820	630	-	786	596	-	-	-	-
Level 5	1,518	1,475	-	1,307	1,263	-	-	-	-
Level 6	1,303	929	-	1,303	929	-	-	-	-
Bookkeepers, accounting and auditing clerks	3,849	3,497	352	2,929	2,644	284	921	-	-
Level 3	1,066	1,066	-	-	-	-	-	-	-
Level 4	1,343	1,343	-	1,343	1,343	-	-	-	-

See footnotes at end of table.

Table 6. Numbers of workers by occupational group and level¹, Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupational group ² and level	Full-time and part-time workers ³			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Level 5	617	—	—	617	—	—	—	—	—
General office clerks	7,064	6,300	764	4,916	4,387	528	2,148	1,912	—
Level 2	1,992	1,831	—	—	—	—	—	—	—
Level 3	2,156	1,914	—	1,162	995	—	994	919	—
Level 4	1,990	1,758	—	1,898	1,666	—	—	—	—
White-collar occupations excluding sales	102,116	84,774	17,342	85,141	71,760	13,381	16,975	13,014	3,961
Level 1	2,291	2,291	—	1,879	1,879	—	—	—	—
Level 2	6,547	5,969	578	3,914	3,820	—	2,633	2,149	484
Level 3	13,060	12,152	908	7,135	6,567	568	5,925	5,585	340
Level 4	9,911	8,599	1,312	8,736	7,700	1,036	1,175	899	—
Level 5	11,876	9,874	2,003	9,608	9,064	543	2,269	809	1,459
Level 6	7,804	5,858	1,946	7,121	5,448	1,672	—	—	—
Level 7	8,014	6,520	1,494	7,068	5,792	1,276	946	728	—
Level 8	5,492	4,454	1,038	5,435	4,454	981	—	—	—
Level 9	13,242	8,358	4,884	11,311	7,035	4,276	1,931	1,323	—
Level 10	2,611	2,048	564	2,521	2,048	473	—	—	—
Level 11	7,319	6,373	946	6,955	6,075	880	—	—	—
Level 12	5,767	5,289	478	5,514	5,036	478	—	—	—
Level 13	2,676	1,999	678	2,676	1,999	678	—	—	—
Level 14	1,556	1,244	—	1,556	1,244	—	—	—	—
Level 15	2,432	2,318	—	2,432	2,318	—	—	—	—
Not able to be leveled ...	1,519	1,429	—	—	—	—	—	—	—
Blue-collar occupations	74,878	71,614	3,264	64,197	61,730	2,467	10,681	9,884	797
Precision production, craft, and repair occupations	21,463	20,934	529	20,681	20,152	529	—	—	—
Level 4	2,012	1,937	—	1,565	1,490	—	—	—	—
Level 5	3,307	3,252	—	3,307	3,252	—	—	—	—
Level 6	1,946	1,858	—	1,946	1,858	—	—	—	—
Level 7	7,405	7,285	—	7,127	7,007	—	—	—	—
Level 8	1,953	1,840	—	1,953	1,840	—	—	—	—
Level 9	2,482	2,443	—	2,482	2,443	—	—	—	—
Level 10	1,242	1,242	—	1,242	1,242	—	—	—	—
Machine operators, assemblers, and inspectors	26,716	26,401	—	25,219	24,904	—	1,496	1,496	—
Level 1	2,733	2,733	—	2,574	2,574	—	—	—	—
Level 2	6,421	6,106	—	5,921	5,607	—	—	—	—
Level 3	3,225	3,225	—	2,463	2,463	—	—	—	—
Level 4	6,483	6,483	—	6,483	6,483	—	—	—	—
Level 5	4,139	4,139	—	4,062	4,062	—	—	—	—
Level 6	888	888	—	888	888	—	—	—	—
Level 7	2,253	2,253	—	2,253	2,253	—	—	—	—
Transportation and material moving occupations	9,730	8,342	1,388	6,266	5,388	878	3,464	2,954	509
Level 2	1,728	1,627	—	1,236	1,198	—	—	—	—
Level 3	1,794	1,437	356	938	—	—	856	648	—
Level 4	3,498	3,035	—	1,891	1,544	—	—	—	—
Level 5	1,551	1,224	—	1,271	1,067	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers	16,970	15,937	1,033	12,031	11,286	745	4,938	4,651	—
Level 1	6,850	6,427	—	3,590	3,454	—	3,260	2,973	—
Level 2	2,259	2,259	—	1,584	1,584	—	675	675	—
Level 3	2,948	2,724	—	2,878	2,654	—	—	—	—
Level 4	2,410	2,302	—	1,725	1,618	—	—	—	—
Level 5	940	840	—	692	—	—	—	—	—
Service occupations	38,622	31,568	7,054	18,966	14,051	4,915	19,656	17,518	2,139
Level 1	13,987	13,072	915	5,022	4,844	—	8,965	8,228	737
Level 2	4,462	3,599	863	1,995	1,827	—	2,467	1,772	695
Level 3	7,648	5,618	2,030	3,134	1,418	1,716	4,514	4,200	314
Level 4	4,239	3,570	669	2,418	2,032	386	1,821	1,538	—
Level 5	1,875	1,581	—	1,323	1,090	—	552	—	—
Level 6	3,071	2,412	—	1,781	1,122	—	1,290	1,290	—
Level 7	1,312	—	684	1,265	—	—	—	—	—
Level 8	542	—	—	542	—	—	—	—	—
Level 9	—	—	639	—	—	639	—	—	—

See footnotes at end of table.

Table 6. Numbers of workers by occupational group and level¹, Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupational group ² and level	Full-time and part-time workers ³			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Protective service occupations	3,896	1,457	2,439	3,014	842	2,172	882	615	—
Level 3	720	720	—	—	—	—	—	—	—
Food service occupations	16,284	15,447	837	6,140	6,011	—	10,144	9,436	708
Level 1	8,477	8,087	—	2,617	2,617	—	5,860	5,469	—
Level 2	1,834	1,589	—	—	—	—	1,384	1,176	—
Level 3	1,922	1,813	—	—	—	—	1,575	1,513	—
Level 4	1,542	1,494	—	825	825	—	717	—	—
Health service occupations	5,384	4,222	—	2,920	1,954	966	2,464	2,267	—
Level 2	1,054	905	—	—	—	—	—	—	—
Level 3	2,216	1,471	—	1,208	—	—	1,008	—	—
Level 4	1,191	1,097	—	731	—	—	—	—	—
Nursing aides, orderlies and attendants	4,210	3,237	973	2,050	1,274	—	2,159	1,962	—
Level 2	1,054	905	—	—	—	—	—	—	—
Level 3	1,888	1,333	—	—	—	—	—	—	—
Cleaning and building service occupations	6,626	4,670	1,955	3,985	2,551	1,434	2,640	2,119	521
Level 1	3,931	3,406	525	1,721	1,543	—	2,210	1,863	—
Level 2	664	—	—	513	—	—	—	—	—
Level 3	1,256	—	1,018	1,062	—	971	—	—	—
Level 4	425	—	—	339	—	—	—	—	—
Janitors and cleaners	5,447	3,620	1,827	2,945	1,639	1,306	2,502	1,981	521
Level 1	3,085	2,560	525	1,013	835	—	2,072	1,725	—
Level 2	664	—	—	513	—	—	—	—	—
Level 3	1,128	—	890	934	—	843	—	—	—
Personal services occupations	6,432	5,772	660	2,906	2,692	—	3,526	3,081	446
Level 3	1,534	1,376	—	—	—	—	1,462	—	—
Level 4	661	—	—	—	—	—	—	—	—

¹ 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.

² A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Employees are classified as working either a full-time or a part-time schedule

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

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupation and occupational levels may include data for categories not shown separately. Because of rounding, sums of individual items may not equal totals.

Table 7. Mean hourly earnings¹ by occupational group and level², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³ and level	Full-time and part-time workers ⁴			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
White-collar occupations	\$16.32	\$15.35	\$22.61	\$17.29	\$16.25	\$23.88	\$8.95	\$8.69	\$10.96
Professional specialty and technical occupations	21.32	19.41	27.08	21.78	19.61	28.63	14.74	16.13	12.23
Professional specialty occupations	23.21	21.02	28.25	23.70	21.13	30.08	14.85	18.09	12.23
Level 5	10.09	10.16	9.83	10.20	10.20	-	9.74	-	9.83
Level 6	20.35	-	22.97	21.12	-	-	-	-	-
Level 7	17.93	17.82	18.45	18.04	17.88	18.85	16.38	-	-
Level 8	18.25	14.89	24.48	18.29	14.89	24.71	-	-	-
Level 9	26.25	18.95	32.95	26.81	18.84	33.88	17.53	20.32	-
Level 10	22.14	21.73	23.32	22.32	21.73	24.25	-	-	-
Level 11	23.93	22.95	29.77	24.01	23.07	29.60	-	-	-
Level 12	26.29	26.00	28.02	26.33	26.04	28.02	-	-	-
Level 13	37.06	39.83	32.17	37.06	39.83	32.17	-	-	-
Level 14	32.30	32.30	-	32.30	32.30	-	-	-	-
Level 15	38.53	-	-	38.53	-	-	-	-	-
Technical occupations	15.44	15.61	13.52	15.54	15.74	13.52	14.54	14.54	-
Level 5	16.06	17.12	-	15.70	16.95	-	-	-	-
Level 6	12.64	12.53	-	12.50	12.38	-	-	-	-
Level 7	15.42	15.72	-	15.61	15.99	-	-	-	-
Level 8	16.24	16.56	-	16.24	16.56	-	-	-	-
Level 9	16.36	16.36	-	16.73	16.73	-	-	-	-
Executive, administrative, and managerial occupations	23.18	23.09	24.00	23.17	23.08	24.00	-	-	-
Level 6	14.51	13.92	-	14.51	13.92	-	-	-	-
Level 7	13.77	13.64	-	13.77	13.64	-	-	-	-
Level 8	15.42	15.48	-	15.42	15.48	-	-	-	-
Level 9	17.68	17.67	-	17.62	17.62	-	-	-	-
Level 10	16.96	16.64	-	16.96	16.64	-	-	-	-
Level 11	20.56	20.49	21.13	20.30	20.20	21.13	-	-	-
Level 12	25.60	25.51	-	25.70	25.62	-	-	-	-
Level 13	31.35	30.95	-	31.35	30.95	-	-	-	-
Level 14	29.89	29.10	-	29.89	29.10	-	-	-	-
Managers and administrators, N.E.C.	27.60	27.77	-	27.60	27.77	-	-	-	-
Level 12	22.41	22.41	-	22.41	22.41	-	-	-	-
Level 13	27.95	27.95	-	27.95	27.95	-	-	-	-
Sales occupations	12.09	12.03	-	14.68	14.67	-	6.23	6.16	-
Level 1	6.49	6.49	-	6.68	6.68	-	6.16	6.16	-
Level 2	6.69	6.69	-	7.47	7.47	-	6.19	6.19	-
Level 3	7.04	7.04	-	7.50	7.50	-	6.14	6.14	-
Level 4	8.67	8.67	-	9.91	9.91	-	6.26	6.26	-
Level 5	8.95	8.95	-	10.99	10.99	-	5.99	5.99	-
Level 6	13.57	13.23	-	13.57	13.23	-	-	-	-
Level 8	49.18	50.48	-	50.48	50.48	-	-	-	-
Cashiers	7.27	6.73	-	8.06	7.04	-	6.46	6.46	-
Level 1	5.87	5.87	-	-	-	-	-	-	-
Level 2	6.41	6.41	-	-	-	-	6.41	6.41	-
Administrative support including clerical occupations	10.59	10.54	11.13	10.98	10.92	11.59	8.05	7.97	8.75
Level 1	7.95	7.95	-	8.03	8.03	-	-	-	-
Level 2	7.44	7.39	8.31	7.80	7.76	-	6.46	6.31	7.74
Level 3	9.25	9.28	8.88	9.56	9.61	8.97	8.48	8.47	8.57
Level 4	11.41	11.48	11.00	11.57	11.61	11.26	8.70	8.51	-
Level 5	11.00	10.98	11.26	11.05	11.01	-	-	-	-
Level 6	12.41	12.29	13.02	12.51	12.40	13.02	-	-	-
Level 7	14.35	14.30	14.63	14.50	14.46	-	-	-	-
Secretaries	11.31	11.11	12.33	11.80	11.60	12.78	9.02	8.96	-
Level 3	9.17	9.08	-	-	-	-	-	-	-
Level 4	11.14	10.45	-	11.18	10.47	-	-	-	-
Level 5	12.28	12.28	-	12.58	12.59	-	-	-	-
Level 6	11.63	11.01	-	11.63	11.01	-	-	-	-
Bookkeepers, accounting and auditing clerks	11.01	10.76	13.79	11.35	11.08	13.91	8.80	-	-
Level 3	8.13	8.13	-	-	-	-	-	-	-
Level 4	11.65	11.65	-	11.65	11.65	-	-	-	-

See footnotes at end of table.

Table 7. Mean hourly earnings¹ by occupational group and level², Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupational group ³ and level	Full-time and part-time workers ⁴			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Level 5	\$9.42	—	—	\$9.42	—	—	—	—	—
General office clerks	10.07	\$10.01	\$10.54	10.62	\$10.58	\$10.92	\$7.64	\$7.58	—
Level 2	7.69	7.70	—	—	—	—	—	—	—
Level 3	10.31	10.37	—	10.78	10.93	—	9.02	8.98	—
Level 4	11.89	11.93	—	12.01	12.07	—	—	—	—
White-collar occupations excluding sales	17.01	15.97	22.77	17.62	16.48	24.08	10.53	10.46	\$10.84
Level 1	7.95	7.95	—	8.03	8.03	—	—	—	—
Level 2	7.44	7.39	8.31	7.80	7.76	—	6.46	6.31	7.74
Level 3	9.26	9.29	8.88	9.56	9.61	8.97	8.51	8.51	8.57
Level 4	11.64	11.73	11.00	11.80	11.87	11.26	8.74	8.58	—
Level 5	11.43	11.47	11.06	11.43	11.37	12.31	11.45	13.66	9.58
Level 6	14.10	13.01	17.71	14.21	13.06	18.11	—	—	—
Level 7	15.92	15.94	15.85	16.03	16.06	15.89	14.32	14.03	—
Level 8	16.67	15.47	22.45	16.68	15.47	22.61	—	—	—
Level 9	23.03	17.93	32.92	23.56	17.99	33.84	16.41	17.26	—
Level 10	20.69	20.21	22.58	20.77	20.21	23.26	—	—	—
Level 11	21.89	21.30	26.25	21.80	21.22	26.07	—	—	—
Level 12	25.87	25.67	28.12	25.94	25.74	28.12	—	—	—
Level 13	33.38	33.60	32.67	33.38	33.60	32.67	—	—	—
Level 14	30.59	30.25	—	30.59	30.25	—	—	—	—
Level 15	38.11	38.09	—	38.11	38.09	—	—	—	—
Not able to be leveled ...	18.29	18.29	—	—	—	—	—	—	—
Blue-collar occupations	11.99	12.00	11.87	12.38	12.40	12.01	7.62	7.44	10.77
Precision production, craft, and repair occupations	14.83	14.85	14.14	14.88	14.90	14.14	—	—	—
Level 4	10.96	10.95	—	10.98	10.97	—	—	—	—
Level 5	13.08	13.09	—	13.08	13.09	—	—	—	—
Level 6	13.36	13.33	—	13.36	13.33	—	—	—	—
Level 7	14.74	14.74	—	14.78	14.78	—	—	—	—
Level 8	17.92	18.06	—	17.92	18.06	—	—	—	—
Level 9	17.42	17.41	—	17.42	17.41	—	—	—	—
Level 10	20.44	20.44	—	20.44	20.44	—	—	—	—
Machine operators, assemblers, and inspectors	11.19	11.21	—	11.33	11.36	—	6.79	6.79	—
Level 1	6.47	6.47	—	6.56	6.56	—	—	—	—
Level 2	7.76	7.68	—	7.85	7.77	—	—	—	—
Level 3	11.22	11.22	—	11.75	11.75	—	—	—	—
Level 4	13.10	13.10	—	13.10	13.10	—	—	—	—
Level 5	11.85	11.85	—	11.85	11.85	—	—	—	—
Level 6	15.03	15.03	—	15.03	15.03	—	—	—	—
Level 7	16.14	16.14	—	16.14	16.14	—	—	—	—
Transportation and material moving occupations	11.60	11.40	12.93	12.39	12.30	13.01	8.79	8.29	12.57
Level 2	9.17	9.12	—	9.25	9.21	—	—	—	—
Level 3	9.31	8.66	12.45	9.50	—	—	8.84	7.67	—
Level 4	12.18	12.07	—	14.13	14.35	—	—	—	—
Level 5	14.22	14.46	—	14.49	14.69	—	—	—	—
Handlers, equipment cleaners, helpers, and laborers	9.53	9.51	9.94	10.18	10.17	10.40	6.61	6.64	—
Level 1	7.17	7.07	—	7.77	7.61	—	6.01	6.02	—
Level 2	10.45	10.45	—	11.10	11.10	—	7.14	7.14	—
Level 3	10.82	10.82	—	10.84	10.85	—	—	—	—
Level 4	9.75	9.79	—	9.85	9.91	—	—	—	—
Level 5	10.24	9.91	—	11.18	—	—	—	—	—

See footnotes at end of table.

Table 7. Mean hourly earnings¹ by occupational group and level², Allentown-Bethlehem-Easton, PA, May-June 1996 — Continued

Occupational group ³ and level	Full-time and part-time workers ⁴			Full-time workers			Part-time workers		
	All industries	Private industry	State and local government	All industries	Private industry	State and local government	All industries	Private industry	State and local government
Service occupations	\$8.26	\$7.19	\$12.24	\$9.36	\$7.97	\$13.19	\$6.17	\$5.97	\$7.78
Level 1	5.95	5.78	9.01	6.51	6.35	—	5.35	5.13	8.22
Level 2	7.63	7.41	8.66	7.93	7.62	—	7.14	6.94	7.57
Level 3	8.07	6.59	10.72	9.51	7.48	11.12	6.04	5.98	6.69
Level 4	8.54	8.18	10.46	9.22	8.79	11.39	6.92	6.78	—
Level 5	7.98	7.43	—	7.86	7.27	—	8.48	—	—
Level 6	10.01	8.52	—	10.71	8.75	—	8.15	8.15	—
Level 7	12.89	—	16.05	12.90	—	—	—	—	—
Level 8	11.94	—	—	11.94	—	—	—	—	—
Level 9	—	—	16.50	—	—	16.50	—	—	—
Protective service occupations	12.89	8.76	15.14	13.83	9.17	15.61	7.81	7.95	—
Level 3	7.45	7.45	—	—	—	—	—	—	—
Food service occupations	6.64	6.52	9.33	7.80	7.75	—	5.29	5.02	8.99
Level 1	5.22	5.12	—	5.54	5.54	—	4.96	4.76	—
Level 2	7.22	6.79	—	—	—	—	7.21	6.62	—
Level 3	4.96	4.73	—	—	—	—	4.56	4.44	—
Level 4	6.82	6.77	—	7.25	7.25	—	5.75	—	—
Health service occupations	9.11	8.89	—	9.86	9.69	10.19	7.64	7.73	—
Level 2	8.65	8.90	—	—	—	—	—	—	—
Level 3	8.28	7.60	—	8.68	—	—	7.56	—	—
Level 4	10.02	10.18	—	11.36	—	—	—	—	—
Nursing aides, orderlies and attendants	8.58	8.10	9.82	9.30	8.64	—	7.40	7.47	—
Level 2	8.65	8.90	—	—	—	—	—	—	—
Level 3	8.04	7.37	—	—	—	—	—	—	—
Cleaning and building service occupations	8.80	7.52	11.49	9.55	8.00	12.24	6.52	6.37	7.13
Level 1	7.22	6.93	9.26	7.76	7.45	—	6.33	6.06	—
Level 2	8.23	—	—	8.58	—	—	—	—	—
Level 3	11.94	—	12.26	12.31	—	12.45	—	—	—
Level 4	10.20	—	—	10.87	—	—	—	—	—
Janitors and cleaners	9.26	7.85	11.65	10.38	8.71	12.49	6.55	6.41	7.13
Level 1	7.52	7.17	9.26	8.62	8.24	—	6.36	6.08	—
Level 2	8.23	—	—	8.58	—	—	—	—	—
Level 3	12.22	—	12.65	12.67	—	12.87	—	—	—
Personal services occupations	6.98	6.80	8.65	7.03	6.82	—	6.88	6.77	7.52
Level 3	5.99	5.93	—	—	—	—	5.72	—	—
Level 4	7.31	—	—	—	—	—	—	—	—

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay—one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ 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. Because of rounding, sums of individual items may not equal totals.

Table 8. Number of workers by occupational group and selected characteristic, all industries, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ¹	Union ²	Nonunion ²	Full-time workers ³	Part-time workers ³	Time ⁴	Incentive ⁴
All workers	52,418	182,135	178,503	56,050	220,920	13,633
All workers excluding sales	49,929	165,687	168,304	47,312	204,027	11,589
White-collar occupations	17,945	103,108	95,340	25,713	118,308	2,745
Professional specialty and technical occupations	10,149	29,671	33,729	6,091	39,820	—
Professional specialty occupations	9,500	20,934	25,990	4,443	30,434	—
Technical occupations	649	8,737	7,738	1,648	9,386	—
Executive, administrative, and managerial occupations	—	16,195	16,271	—	16,349	—
Sales occupations	—	16,448	10,199	8,738	16,893	2,044
Administrative support including clerical occupations	4,840	40,794	35,142	10,492	45,246	—
Blue-collar occupations	27,950	46,928	64,197	10,681	65,344	9,534
Precision production, craft, and repair occupations	7,282	14,181	20,681	—	20,717	—
Machine operators, assemblers, and inspectors	12,732	13,984	25,219	1,496	19,755	6,961
Transportation and material moving occupations	3,489	6,241	6,266	3,464	7,976	1,754
Handlers, equipment cleaners, helpers, and laborers	4,447	12,523	12,031	4,938	16,896	—
Service occupations	6,523	32,099	18,966	19,656	37,268	—

¹ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

² Union workers are those whose wages are determined through collective bargaining.

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

minimum full-time schedule.

⁴ Time workers wages are based solely on hourly or weekly rates; 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. Because of rounding, sums of individual items may not equal totals.

Table 9. Mean hourly earnings¹ by occupational group and selected characteristic, all industries, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ²	Union ³	Nonunion ³	Full-time workers ⁴	Part-time workers ⁴	Time ⁵	Incentive ⁵
All workers	\$16.12	\$13.01	\$14.67	\$7.70	\$13.75	\$13.33
All workers excluding sales	16.29	13.08	14.67	7.99	14.03	10.80
White-collar occupations	21.25	15.52	17.29	8.95	16.12	25.16
Professional specialty and technical occupations	27.04	19.50	21.78	14.74	21.32	—
Professional specialty occupations	28.14	21.15	23.70	14.85	23.21	—
Technical occupations	13.82	15.58	15.54	14.54	15.44	—
Executive, administrative, and managerial occupations	—	23.31	23.17	—	23.31	—
Sales occupations	—	12.22	14.68	6.23	9.81	26.86
Administrative support including clerical occupations	13.87	10.18	10.98	8.05	10.56	—
Blue-collar occupations	14.13	10.67	12.38	7.62	12.18	10.74
Precision production, craft, and repair occupations	16.53	13.93	14.88	—	14.84	—
Machine operators, assemblers, and inspectors	13.41	9.19	11.33	6.79	11.70	9.62
Transportation and material moving occupations	14.40	9.72	12.39	8.79	11.27	12.67
Handlers, equipment cleaners, helpers, and laborers	11.65	8.77	10.18	6.61	9.51	—
Service occupations	11.98	7.36	9.36	6.17	8.26	—

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay—one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Union workers are those whose wages are determined through

collective bargaining.

⁴ 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.

⁵ Time workers wages are based solely on hourly or weekly rates; 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. Because of rounding, sums of individual items may not equal totals.

Table 10. Mean hourly earnings¹ by occupational group and selected characteristic, private industry, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ²	Union ³	Nonunion ³	Full-time workers ⁴	Part-time workers ⁴	Time ⁵	Incentive ⁵
All workers	\$14.13	\$12.88	\$14.01	\$7.48	\$13.09	\$13.33
All workers excluding sales	14.28	12.95	13.96	7.77	13.36	10.80
White-collar occupations	15.05	15.38	16.25	8.69	15.09	25.16
Professional specialty and technical occupations	18.31	19.51	19.61	16.13	19.41	—
Professional specialty occupations	18.52	21.32	21.13	18.09	21.02	—
Technical occupations	—	15.62	15.74	14.54	15.61	—
Executive, administrative, and managerial occupations	—	23.09	23.08	—	23.22	—
Sales occupations	—	12.20	14.67	6.16	9.68	26.86
Administrative support including clerical occupations	14.73	10.13	10.92	7.97	10.50	—
Blue-collar occupations	14.23	10.68	12.40	7.44	12.20	10.74
Precision production, craft, and repair occupations	16.69	13.92	14.90	—	14.85	—
Machine operators, assemblers, and inspectors	13.41	9.19	11.36	6.79	11.74	9.62
Transportation and material moving occupations	14.85	9.56	12.30	8.29	10.93	12.67
Handlers, equipment cleaners, helpers, and laborers	11.66	8.81	10.17	6.64	9.49	—
Service occupations	8.48	7.10	7.97	5.97	7.14	—

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay—one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Union workers are those whose wages are determined through

collective bargaining.

⁴ 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.

⁵ Time workers wages are based solely on hourly or weekly rates; 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. Because of rounding, sums of individual items may not equal totals.

Table 11. Mean hourly earnings¹ by occupational group and selected characteristic, State and local government, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ²	Union ³	Nonunion ³	Full-time workers ⁴	Part-time workers ⁴	Time ⁵
All workers	\$20.80	\$15.14	\$19.82	\$9.73	\$18.61
White-collar occupations	26.15	17.64	23.88	10.96	22.61
Professional specialty and technical occupations ..	30.01	19.39	28.63	12.23	27.08
Professional specialty occupations	31.49	19.84	30.08	12.23	28.25
Technical occupations	13.52	—	13.52	—	13.52
Executive, administrative, and managerial occupations	—	25.96	24.00	—	24.00
Administrative support including clerical occupations	11.69	10.81	11.59	8.75	11.13
Blue-collar occupations	12.78	10.26	12.01	10.77	11.87
Precision production, craft, and repair occupations	13.81	—	14.14	—	14.14
Transportation and material moving occupations ...	13.03	—	13.01	12.57	12.93
Handlers, equipment cleaners, helpers, and laborers	11.58	—	10.40	—	9.94
Service occupations	13.28	10.09	13.19	7.78	12.24

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay—one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

² A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Union workers are those whose wages are determined

through collective bargaining.

⁴ 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.

⁵ Time workers wages are based solely on hourly or weekly rates; 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. Because of rounding, sums of individual items may not equal totals.

Table 12. Number of workers¹ by occupational group, private industry, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ²	All private industries	Goods-producing industries ³			Service-producing industries ⁴				
		Total	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
All workers	206,559	69,968	6,738	62,723	136,591	11,456	46,250	10,577	68,309
All workers excluding sales	187,956	68,044	6,381	61,156	119,912	11,456	31,576	10,419	66,462
White-collar occupations	103,377	23,425	799	22,119	79,952	4,724	21,431	10,425	43,371
Professional specialty and technical occupations	28,522	7,691	—	7,691	20,831	—	—	732	18,054
Professional specialty occupations	19,827	4,952	—	4,952	14,876	—	—	697	12,280
Technical occupations	8,695	2,740	—	2,740	5,955	—	—	—	5,774
Executive, administrative, and managerial occupations	14,915	5,413	—	4,881	9,502	622	1,742	3,444	3,694
Sales occupations	18,603	1,924	—	1,567	16,679	—	14,674	—	1,847
Administrative support including clerical occupations	41,337	8,397	—	7,979	32,940	2,764	4,310	6,091	19,776
Blue-collar occupations	71,614	45,664	5,938	39,725	25,950	6,711	11,126	—	8,113
Precision production, craft, and repair occupations	20,934	12,583	4,481	8,101	8,352	—	2,651	—	3,050
Machine operators, assemblers, and inspectors	26,401	23,612	—	23,612	2,788	—	—	—	2,242
Transportation and material moving occupations	8,342	1,976	—	1,976	6,366	3,461	1,925	—	—
Handlers, equipment cleaners, helpers, and laborers	15,937	7,493	1,457	6,036	8,444	—	6,004	—	1,842
Service occupations	31,568	879	—	879	30,689	—	13,692	—	16,825

¹ 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.

² A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

³ Goods-producing industries include mining, construction, and manufacturing.

⁴ 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. Because of rounding, sums of individual items may not equal totals.

Table 13. Mean hourly earnings¹ by occupational group, private industry, all workers², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³	All private industries	Goods-producing industries ⁴			Service-producing industries ⁵				
		Total	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
All workers	\$13.11	\$14.46	\$13.25	\$14.56	\$12.30	\$16.37	\$9.75	\$16.19	\$12.46
All workers excluding sales	13.20	14.38	13.51	14.45	12.43	16.37	9.26	15.95	12.46
White-collar occupations	15.35	18.39	11.36	18.68	14.34	19.41	11.60	16.34	14.47
Professional specialty and technical occupations	19.41	20.19	—	20.19	19.10	—	—	19.78	18.07
Professional specialty occupations	21.02	22.88	—	22.88	20.35	—	—	19.86	19.15
Technical occupations	15.61	15.23	—	15.23	15.81	—	—	—	15.69
Executive, administrative, and managerial occupations	23.09	24.81	—	25.58	22.09	27.09	17.95	23.71	21.92
Sales occupations	12.03	17.04	—	18.66	11.32	—	10.86	—	12.65
Administrative support including clerical occupations	10.54	12.72	—	12.82	9.91	12.94	8.30	10.76	9.49
Blue-collar occupations	12.00	12.50	13.52	12.36	11.05	14.16	9.67	—	10.17
Precision production, craft, and repair occupations	14.85	14.86	14.88	14.85	14.83	—	13.58	—	13.71
Machine operators, assemblers, and inspectors	11.21	11.60	—	11.60	7.78	—	—	—	7.61
Transportation and material moving occupations	11.40	14.64	—	14.64	10.13	11.45	8.93	—	—
Handlers, equipment cleaners, helpers, and laborers	9.51	10.43	7.54	10.91	8.64	—	8.04	—	8.32
Service occupations	7.19	9.33	—	9.33	7.12	—	6.28	—	7.74

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay—one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

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

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ Goods-producing industries include mining, construction, and manufacturing.

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

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. Because of rounding, sums of individual items may not equal totals.

Table 14. Mean hourly earnings¹ by occupational group, private industry, full-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³	All private industries	Goods-producing industries ⁴			Service-producing industries ⁵				
		Total	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
All workers	\$14.01	\$14.63	\$13.61	\$14.71	\$13.56	\$17.45	\$11.47	\$16.84	\$13.23
All workers excluding sales	13.96	14.55	13.79	14.61	13.50	17.45	10.66	16.59	13.18
White-collar occupations	16.25	18.56	12.02	18.81	15.37	19.94	13.46	17.02	15.04
Professional specialty and technical occupations	19.61	20.30	-	20.30	19.31	-	-	19.78	18.23
Professional specialty occupations	21.13	22.88	-	22.88	20.46	-	-	19.86	19.22
Technical occupations	15.74	15.41	-	15.41	15.93	-	-	-	15.80
Executive, administrative, and managerial occupations	23.08	24.81	-	25.58	22.05	27.09	17.95	23.71	21.78
Sales occupations	14.67	17.59	-	18.66	14.07	-	13.54	-	15.16
Administrative support including clerical occupations	10.92	12.79	-	12.90	10.30	13.32	8.40	11.23	9.86
Blue-collar occupations	12.40	12.62	13.82	12.47	11.90	15.33	10.57	-	10.65
Precision production, craft, and repair occupations	14.90	14.93	15.05	14.87	14.87	-	13.68	-	13.69
Machine operators, assemblers, and inspectors	11.36	11.73	-	11.73	7.91	-	-	-	7.75
Transportation and material moving occupations	12.30	14.59	-	14.59	11.03	13.03	9.21	-	-
Handlers, equipment cleaners, helpers, and laborers	10.17	10.55	-	11.04	9.69	-	9.12	-	8.86
Service occupations	7.97	-	-	-	7.92	-	7.48	-	8.20

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

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

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ Goods-producing industries include mining, construction, and manufacturing.

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

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupation and occupational levels may include data for categories not shown separately. Because of rounding, sums of individual items may not equal totals.

Table 15. Mean hourly earnings¹ by occupational group, private industry, part-time workers only², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³	All private industries	Goods-producing industries ⁴		Service-producing industries ⁵				
		Total	Manufacturing	Total	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services
All workers	\$7.48	\$8.78	\$8.49	\$7.36	\$8.62	\$5.80	\$7.62	\$8.88
All workers excluding sales	7.77	8.87	8.49	7.65	8.62	5.61	7.62	8.99
White-collar occupations	8.69	9.32	-	8.67	-	6.30	7.62	10.91
Professional specialty and technical occupations	16.13	-	-	16.50	-	-	-	16.50
Professional specialty occupations	18.09	-	-	18.09	-	-	-	18.09
Technical occupations	14.54	-	-	15.09	-	-	-	15.09
Sales occupations	6.16	-	-	6.15	-	6.12	-	-
Administrative support including clerical occupations	7.97	-	-	7.84	-	7.72	7.62	7.87
Blue-collar occupations	7.44	8.57	7.76	7.07	8.68	6.42	-	6.57
Machine operators, assemblers, and inspectors	6.79	-	-	-	-	-	-	-
Transportation and material moving occupations	8.29	-	-	8.06	8.68	7.39	-	-
Handlers, equipment cleaners, helpers, and laborers	6.64	-	-	6.19	-	6.13	-	6.49
Service occupations	5.97	-	-	5.85	-	4.97	-	6.81

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call 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. The middle range is defined by two rates of pay--one-fourth of the workers earn the same as or less than the lower of these rates, and one-fourth earn the same as or more than the higher rate.

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

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

⁴ Goods-producing industries include mining, construction, and manufacturing.

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

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Table 16. Number of workers¹ by occupational group, private industry by establishment employment size, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ²	All workers	1 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All workers	206,559	89,178	117,381	70,269	47,112
All workers excluding sales	187,956	76,581	111,375	65,477	45,899
White-collar occupations	103,377	41,834	61,543	31,954	29,589
Professional specialty and technical occupations	28,522	6,247	22,275	10,246	12,029
Professional specialty occupations	19,827	4,230	15,598	6,599	8,999
Technical occupations	8,695	2,017	6,678	3,648	3,030
Executive, administrative, and managerial occupations	14,915	6,131	8,784	3,797	4,987
Sales occupations	18,603	12,597	6,006	4,792	1,214
Administrative support including clerical occupations	41,337	16,860	24,477	13,118	11,359
Blue-collar occupations	71,614	30,312	41,302	27,623	13,679
Precision production, craft, and repair occupations	20,934	10,442	10,492	6,829	3,663
Machine operators, assemblers, and inspectors	26,401	7,384	19,017	11,716	7,301
Transportation and material moving occupations	8,342	5,734	2,608	2,089	-
Handlers, equipment cleaners, helpers, and laborers	15,937	6,752	9,185	6,989	2,195
Service occupations	31,568	17,032	14,536	10,692	3,844

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

² A classification system including about 450 individual occupations is used to cover all workers in the civilian

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

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Table 17. Mean hourly earnings¹ by occupational group, private industry by establishment employment size, all workers², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³	All workers	1 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All workers	\$13.11	\$11.48	\$14.21	\$12.36	\$16.82
All workers excluding sales	13.20	11.34	14.35	12.48	16.90
White-collar occupations	15.35	13.66	16.38	14.45	18.42
Professional specialty and technical occupations	19.41	16.97	20.06	18.52	21.37
Professional specialty occupations	21.02	17.11	22.02	20.48	23.10
Technical occupations	15.61	16.67	15.31	15.07	15.62
Executive, administrative, and managerial occupations	23.09	21.33	24.34	23.11	25.30
Sales occupations	12.03	12.40	11.28	10.49	13.88
Administrative support including clerical occupations	10.54	9.62	11.08	9.79	12.57
Blue-collar occupations	12.00	10.74	12.87	11.44	15.62
Precision production, craft, and repair occupations	14.85	13.67	15.99	15.45	17.00
Machine operators, assemblers, and inspectors	11.21	8.71	12.12	10.00	15.42
Transportation and material moving occupations	11.40	10.18	14.07	13.01	—
Handlers, equipment cleaners, helpers, and laborers	9.51	8.26	10.30	9.21	13.42
Service occupations	7.19	6.55	7.84	7.53	8.54

¹ Earnings are the straight-time hourly wages or salary paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call pay. Excluded are premium pay for overtime, vacations, and holidays, and nonproduction bonuses.

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

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

³ A classification system including about 450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

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Table 18. Mean hourly earnings¹ by occupational group, private industry by establishment employment size, full-time workers² only, Allentown-Bethlehem-Easton, PA, May-June 1996

Occupational group ³	All workers	1 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All workers	\$14.01	\$12.57	\$14.87	\$13.14	\$17.14
All workers excluding sales	13.96	12.21	14.93	13.15	17.21
White-collar occupations	16.25	14.95	16.95	15.19	18.70
Professional specialty and technical occupations	19.61	17.08	20.29	18.64	21.68
Professional specialty occupations	21.13	17.25	22.14	20.66	23.13
Technical occupations	15.74	16.68	15.46	15.18	15.90
Executive, administrative, and managerial occupations	23.08	21.24	24.36	23.14	25.31
Sales occupations	14.67	15.45	13.28	12.83	14.32
Administrative support including clerical occupations	10.92	10.03	11.38	10.14	12.74
Blue-collar occupations	12.40	11.19	13.15	11.78	15.65
Precision production, craft, and repair occupations	14.90	13.75	16.01	15.45	17.08
Machine operators, assemblers, and inspectors	11.36	8.85	12.23	10.10	15.42
Transportation and material moving occupations	12.30	11.07	14.36	13.36	-
Handlers, equipment cleaners, helpers, and laborers	10.17	8.64	11.00	9.94	13.50
Service occupations	7.97	7.12	8.74	8.81	8.59

¹ Earnings are the straight-time hourly wages or salary paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call pay. Excluded are premium pay for overtime, vacations, and holidays, and nonproduction bonuses.

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Table 19. Mean hourly earnings¹ by occupational group, private industry by establishment employment size, part-time workers² only, Allentown-Bethlehem-Easton, PA, March 1996

Occupational group ³	All workers	1 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All workers	\$7.48	\$7.17	\$7.92	\$6.88	\$11.28
All workers excluding sales	7.77	7.40	8.24	7.11	11.41
White-collar occupations	8.69	7.90	9.80	8.36	13.08
Professional specialty and technical occupations	16.13	—	16.44	16.51	16.39
Professional specialty occupations	18.09	—	19.17	18.01	—
Technical occupations	14.54	—	13.97	12.66	—
Sales occupations	6.16	6.35	5.69	5.66	—
Administrative support including clerical occupations	7.97	7.99	7.94	7.00	9.93
Blue-collar occupations	7.44	7.70	6.92	6.52	—
Machine operators, assemblers, and inspectors	6.79	—	—	—	—
Transportation and material moving occupations	8.29	8.02	—	—	—
Handlers, equipment cleaners, helpers, and laborers	6.64	7.21	5.96	5.95	—
Service occupations	5.97	5.81	6.18	5.49	8.39

¹ Earnings are the straight-time hourly wages or salary paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, and on-call pay. Excluded are premium pay for overtime, vacations, and holidays, and nonproduction bonuses.

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

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Appendix A: Technical Note

This section provides basic information on the procedures and concepts used to produce the data contained in this bulletin. It is divided into three parts: Planning for the survey; data collection; and processing and analyzing the data. While this section answers some questions commonly asked by data users, it is not a comprehensive description of all the steps required to produce the data.

Planning for the survey

The overall design of the survey, which was based on the type of data to be produced, had to be developed before data collection could begin.

Survey scope

This survey of the Allentown-Bethlehem-Easton, PA Metropolitan Statistical Area covered establishments employing workers¹ 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. 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 all industries in this survey and for State and local governments, the establishment was usually at a single physical location.

Sampling frame

The list of establishments from which the survey sample was selected (the sampling frame) was developed from the State unemployment insurance reports for the Allentown-Bethlehem-Easton, PA Metropolitan Statistical Area (July 1994). The sampling frame was reviewed prior to the survey and, when necessary, missing establishments were added.

Sample design

The sample design for this survey area was a two stage probability sample of detailed occupations. The first stage

¹If an establishment had at least one employee at the time data were collected, it was in-scope for the survey. In theory, any sampled establishment in the universe could have one or more employees when the data are actually collected.

of sample selection was a probability-proportional-to-size sample of establishments. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. 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

Numerous procedures were developed for the actual collection of data from survey respondents.

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 company 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 only for those workers who met all the criteria identified in the last three steps.

In step one, the company 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 company 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>
0-49	4
50-99	8
100-249	10
250-499	12
500-999	16
1,000+	20

NOTE: If the number of employees in an establishment was less than four, then the number of company jobs selected would be equal to the number of employees.

The second step of the process entailed classifying the selected jobs into occupations based on their duties. The COMP2000 occupational classification system is based on the 1990 Census of Population. A selected company 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, classification was based on the primary duty.

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

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

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

In step three, certain other job characteristics of the chosen worker were identified. First, the worker was identified as holding either a full-time or part-time job, based on the establishment's definition of those terms. Then the worker was classified as having a time versus incentive job, depending on whether any part of pay was directly based on the actual production of the workers, rather than solely on hours worked. Finally, the worker was identified as being in a union job if: 1) a labor organization was recognized as the bargaining agent for all workers in the occupation; 2) wage and salary rates were determined through collective bargaining or negotiations; and 3) settlement terms, which must include earnings provisions and may include benefit provisions, were embodied in a signed, mutually binding collective bargaining

agreement. If these conditions were not met, the worker's job was classified as nonunion.

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 the Allentown 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, is an attempt to account for the effect of supervisory duties. It is considered experimental. The 10 factors were:

- Knowledge
- Supervisory controls
- 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 differs 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 the 10 factors were recorded and totaled. The total determines the overall level of the occupation. A description of the levels for each factor, followed by the corresponding point value, 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 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 fac-

tors (and levels within those factors). The analysis showed that several of the generic level factors, most notably knowledge and supervisory controls, had strong explanatory power for wages. That is, as the levels within a given factor increased, the wages also increased. Detailed research continues in this area. The results of this research will be published by BLS in the future.

Reference period

The survey was collected between May 7th and June 21st, 1996. For each establishment in the survey, the data reflect the establishment's practices on the day of collection.

Earnings

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

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

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, and
- Payments made by third parties (e.g., bonuses given by manufacturers to department store salespeople, referral incentives in real estate).

To calculate earnings per hour worked, data on work schedules were also collected. For hourly workers, scheduled hours worked per week were recorded. Because salaried workers 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 when the employee is getting the standard rate of pay for the job.

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

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

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

Processing and Analyzing the Data

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

Weighting and nonresponse

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

Of the establishments surveyed, 19.2 percent 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.² This technique assumes that the mean value of the nonrespondents equals the mean value of the respondents at some detailed “cell” level. Responding and nonresponding establishments were classified into these cells according to industry and employment size. Responding and nonresponding occupations within responding establishments were classified into cells which were additionally defined by major occupation group and job level. When a sampled occupation was considered a refusal and could not be classified into a major occupational group, nonresponse adjustments were made for that occupation in the service occupational group.

Establishments which were determined to be out of business or outside the scope of the survey (3.9 percent of the total sample) had their weights changed to zero. If only partial data were given by a sample establishment or occupation, or data were missing, the response was not used.

Estimation

Weights, adjusted for nonresponse, were multiplied by the wage rate of each establishment/occupation, which itself was the average wage of all workers in the occupation. The resulting products were aggregated and then divided by the sum of the weighted occupational employments to obtain the data series contained in the tables in the bulletin.

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 were sufficient. This review prevented publishing a series that could have revealed information about a specific establishment.

² Due to insufficient data, weights for nonresponding occupations in the following major occupational group/work level category could not be fully adjusted: administrative support, including clerical occupations level 9. Because of this, worker counts for these categories may be slightly underestimated.

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 all 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.

The standard error can be used to calculate a “confidence interval” around a sample estimate. For example, table 2 shows that mean hourly earnings for all workers was \$13.73 per hour. Appendix Table 2 shows a standard error of 2.0 percent for this estimate. Thus, at the 95-percent level, the confidence interval for this estimate is \$13.18 to \$14.28 (\$13.73 plus and minus 2 times 2.0 percent times \$13.73). If all possible samples were selected to estimate the population value, the interval from each sample would include the true population value approximately 95 percent of the time. All comparisons made in this publication are significant at the 95 percent confidence level, unless stated otherwise.

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 tested in Allentown 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 high response rate, the extensive training of the field economists who gathered the survey data by personal visit, computer edits of the data, and detailed data review.

Table A1. Number of establishments studied by industry group and employment size, Allentown-Bethlehem-Easton, PA, May-June 1996

Industry	All workers	1 - 99 workers	100 workers or more		
			Total	100 - 499 workers	500 workers or more
All industries	289	150	139	100	39
Private industry	252	144	108	84	24
Goods-producing industries	74	34	40	28	12
Manufacturing	57	19	38	26	12
Mining	1	1	-	-	-
Construction	16	14	2	2	-
Service-producing industries	178	110	68	56	12
Transportation and public utilities	14	8	6	5	1
Wholesale and retail trade	67	50	17	15	2
Finance, insurance and real estate	14	9	5	4	1
Services	83	43	40	32	8
State and local government	37	6	31	16	15

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

Table A2. Relative standard errors of mean hourly earnings¹ for selected occupations, all workers², Allentown-Bethlehem-Easton, PA, May-June 1996

Occupation ³	All industries	Private industry	State and local government
All workers	2.0%	2.3%	3.0%
All workers excluding sales	1.9	2.2	3.0
White-collar occupations	2.6	3.0	3.5
Professional specialty and technical occupations	2.7	3.1	3.4
Professional specialty occupations	3.0	3.8	3.1
Technical occupations	2.9	3.1	-
Executive, administrative, and managerial occupations	3.7	4.1	-
Financial managers	12.7	12.9	-
Managers and administrators, N.E.C. ..	8.4	8.7	-
Management related occupations, N.E.C.	4.8	4.7	-
Sales occupations	13.1	13.4	-
Sales workers, other commodities	37.0	37.0	-
Cashiers	9.7	7.5	-
Administrative support including clerical occupations	3.0	3.3	3.2
Secretaries	5.0	5.9	-
Receptionists	6.8	6.9	-
Bookkeepers, accounting and auditing clerks	9.8	10.9	-
Traffic, shipping and receiving clerks ...	8.4	8.4	-
Stock and inventory clerks	5.0	4.3	-
General office clerks	7.1	8.0	-
Administrative support occupations, N.E.C.	5.0	5.4	-
White-collar occupations excluding sales	2.4	2.8	3.5
Blue-collar occupations	2.8	2.9	-
Precision production, craft, and repair occupations	2.6	2.7	-
Industrial machinery repairers	1.8	1.8	-
Supervisors, production occupations ...	2.3	2.4	-
Machine operators, assemblers, and inspectors	5.2	5.2	-
Miscellaneous machine operators, N.E.C.	8.3	8.3	-
Transportation and material moving occupations	6.4	7.6	-
Truck drivers	9.3	9.6	-
Handlers, equipment cleaners, helpers, and laborers	4.2	4.4	-
Stock handlers and baggers	6.5	6.5	-
Hand packers and packagers	9.3	9.3	-
Laborers except construction, N.E.C. ...	10.2	10.2	-
Service occupations	3.1	3.2	3.3
Waiters and waitresses	11.6	11.6	-
Cooks	5.2	5.3	-
Food preparation occupations, N.E.C.	15.7	17.7	-
Janitors and cleaners	6.3	6.6	5.5
Service occupations, N.E.C.	6.9	6.7	-

¹ The relative standard error is the standard error expressed as a percent of the estimate.

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

³ A classification system including about

450 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups. See the technical note for a complete listing of occupations.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupation and occupational levels may include data for categories not shown separately. N.E.C. means "not elsewhere classified." Because of rounding, sums of individual items may not equal totals.

Appendix B. Occupational Classifications

NOTE: The four-digit code before each occupation title is used to classify it into one of three major groups. **White-collar** workers include those classified in Major groups A through D. **Blue-collar** workers include those classified in Major groups E through H. **Service** workers are classified in Major group K.

Major group A:

PROFESSIONAL AND TECHNICAL OCCUPATIONS

PROFESSIONAL OCCUPATIONS

ENGINEERS, ARCHITECTS, AND SURVEYORS

A043 Architects
A044-057, A059 Engineers
A044 Aerospace Engineers
A045 Metallurgical and Materials Engineers
A046 Mining Engineers
A047 Petroleum Engineers
A048 Chemical Engineers
A049 Nuclear Engineers
A053 Civil Engineers
A054 Agricultural Engineers
A055 Electrical and Electronic Engineers
A056 Industrial Engineers
A057 Mechanical Engineers
A058 Marine Engineers and Naval Architects
A059 Engineers, n.e.c.¹
A063 Surveyors and Mapping Scientists

MATHEMATICAL AND COMPUTER SCIENTISTS

A064 Computer Systems Analysts and Scientists
A065 Operations and Systems Researchers and Analysts
A066 Actuaries
A067 Statisticians
A068 Mathematical Scientists, n.e.c.

NATURAL SCIENTISTS

A069 Physicists and Astronomers
A073 Chemists, Except Biochemists
A074 Atmospheric and Space Scientists
A075 Geologists and Geodesists
A076 Physical Scientists, n.e.c.
A077 Agricultural and Food Scientists
A078 Biological and Life Scientists
A079 Forestry and Conservation Scientists
A083 Medical Scientists

HEALTH DIAGNOSING OCCUPATIONS

A084 Physicians
A085 Dentists
A086 Veterinarians
A087 Optometrists
A088 Podiatrists
A089 Health Diagnosing Practitioners, n.e.c.

HEALTH ASSESSMENT AND TREATING OCCUPATIONS

A095 Registered Nurses
A096 Pharmacists
A097 Dietitians
A098 Respiratory Therapists
A099 Occupational Therapists
A103 Physical Therapists
A104 Speech Therapists
A105 Therapists, n.e.c.
A106 Physicians' Assistants

TEACHERS

A113-154 Teachers, College and University

¹ n.e.c. in an occupation title means not elsewhere classified.

A113 Earth, Environmental and Marine Science Teachers
A114 Biological Science Teachers
A115 Chemistry Teachers
A116 Physics Teachers
A117 Natural Science Teachers, n.e.c.
A118 Psychology Teachers
A119 Economics Teachers
A123 History Teachers
A124 Political Science Teachers
A125 Sociology Teachers
A126 Social Science Teachers, n.e.c.
A127 Engineering Teachers
A128 Mathematical Science Teachers
A129 Computer Science Teachers
A133 Medical Science Teachers
A134 Health Specialties Teachers
A135 Business, Commerce and Marketing Teachers
A136 Agriculture and Forestry Teachers
A137 Art, Drama, and Music Teachers
A138 Physical Education Teachers
A139 Education Teachers
A143 English Teachers
A144 Foreign Language Teachers
A145 Law Teachers
A146 Social Work Teachers
A147 Theology Teachers
A148 Trade and Industrial Teachers
A149 Home Economics Teachers
A153 Teachers, Post Secondary, n.e.c.
A154 Post Secondary Teachers, Subject not specified
A155-163 Teachers, except College and University
A155 Prekindergarten and Kindergarten Teachers
A156 Elementary School Teachers
A157 Secondary School Teachers
A158 Teachers, Special Education
A159 Teachers, n.e.c.
A160 Substitute Teachers
A163 Vocational and Educational Counselors

LIBRARIANS, ARCHIVISTS AND CURATORS

A164 Librarians
A165 Archivists and Curators

SOCIAL SCIENTISTS AND URBAN PLANNERS

A166 Economists
A167 Psychologists
A168 Sociologists
A169 Social Scientists, n.e.c.
A173 Urban Planners

SOCIAL, RECREATION, AND RELIGIOUS WORKERS

A174 Social Workers
A175 Recreation Workers

A176 Clergy
A177 Religious Workers, n.e.c.

LAWYERS AND JUDGES

A178 Lawyers
A179 Judges

WRITERS, AUTHORS, ENTERTAINERS AND ATHLETES

A183 Authors
A184 Technical Writers
A185 Designers
A186 Musicians and Composers
A187 Actors and Directors
A188 Painters, Sculptors, Craft-Artists, and Artist Print-Makers
A189 Photographers
A193 Dancers
A194 Artists, Performers, and Related Workers, n.e.c.
A195 Editors and Reporters
A197 Public Relations Specialists
A198 Announcers
A199 Athletes
A999 Professional Occupations, n.e.c.

TECHNICAL AND RELATED OCCUPATIONS

HEALTH TECHNOLOGISTS AND TECHNICIANS

A203 Clinical Laboratory Technologists and Technicians
A204 Dental Hygienists
A205 Health Record Technologists and Technicians
A206 Radiologic Technicians
A207 Licensed Practical Nurses
A208 Health Technologists and Technicians, n.e.c.

ENGINEERING AND RELATED TECHNOLOGISTS AND TECHNICIANS

A213 Electrical and Electronic Technicians
A214 Industrial Engineering Technicians
A215 Mechanical Engineering Technicians
A216 Engineering Technicians, n.e.c.
A217 Drafters
A218 Surveying and Mapping Technicians

SCIENCE TECHNICIANS

A223 Biological Technicians
A224 Chemical Technicians

A225 Science Technicians, n.e.c.

MISCELLANEOUS TECHNICIANS

A226 Airplane Pilots and Navigators
A227 Air Traffic Controllers
A228 Broadcast Equipment Operators
A229 Computer Programmers
A233 Tool Programmers, Numerical Control
A234 Legal Assistants
A235 Technical and Related Occupations, n.e.c.

Major group B:

EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS

B003 Legislators
B004 Chief Executives and General Administrators,
Public Administration
B005 Administrators and Officials, Public Admini-
stration
B007 Financial Managers
B008 Personnel and Labor Relations Managers
B009 Purchasing Managers
B013 Managers; Marketing, Advertising and Public
Relations
B014 Administrators, Education and Related Fields
B015 Managers, Medicine and Health
B016 Postmasters and Mail Superintendents
B017 Managers, Food Serving and Lodging Estab-
lishments
B018 Managers, Properties and Real Estate
B019 Funeral Directors
B021 Managers, Service Organizations, n.e.c.
B022 Managers and Administrators, n.e.c.

MANAGEMENT RELATED OCCUPATIONS

B023 Accountants and Auditors
B024 Underwriters
B025 Other Financial Officers
B026 Management Analysts
B027 Personnel, Training, and Labor Relations
Specialists
B028 Purchasing Agents and Buyers, Farm Products
B029 Buyers, Wholesale and Retail Trade, Except
Farm Products
B033 Purchasing Agents and Buyers, n.e.c.
B034 Business and Promotion Agents

B035 Construction Inspectors
B036 Inspectors and Compliance Officers, Except
Construction
B037 Management Related Occupations, n.e.c.

Major group C:

SALES OCCUPATIONS

C243 Supervisors, Sales Occupations

FINANCE AND BUSINESS SERVICES, SALES REPRESENTATIVES

C253 Insurance Sales Occupations
C254 Real Estate Sales Occupations
C255 Securities and Financial Services Sales Occu-
pations
C256 Advertising and Related Sales Occupations
C257 Sales Occupations, Other Business Services

SALES REPRESENTATIVES, COMMODITIES EXCEPT RETAIL

C258 Sales Engineers
C259 Sales Representatives; Mining, Manufactur-
ing, and Wholesale

RETAIL AND PERSONAL SERVICES SALES WORKERS

C263 Sales Workers, Motor Vehicles and Boats
C264 Sales Workers, Apparel
C265 Sales Workers, Shoes
C266 Sales Workers, Furniture and Home Furnish-
ings
C267 Sales Workers, Radio, TV, Hi-Fi, and Appli-
ances
C268 Sales Workers, Hardware and Building Sup-
plies
C269 Sales Workers, Parts
C274 Sales Workers, Other Commodities
C275 Sales Counter Clerks
C276 Cashiers
C277 Street and Door-To-Door Sales Workers
C278 News Vendors

SALES RELATED OCCUPATIONS

C283 Demonstrators, Promoters, and Models, Sales
C284 Auctioneers
C285 Sales Support Occupations, n.e.c.

Major group D:

ADMINISTRATIVE SUPPORT OCCUPATIONS, INCLUDING CLERICAL

SUPERVISORS, CLERICAL AND
ADMINISTRATIVE SUPPORT

- D303 Supervisors, General Office
- D304 Supervisors, Computer Equipment Operators
- D305 Supervisors, Financial Records Processing
- D306 Chief Communications Operators
- D307 Supervisors, Distribution, Scheduling, and
Adjusting Clerks

COMPUTER EQUIPMENT OPERATORS

- D308 Computer Operators
- D309 Peripheral Equipment Operators

SECRETARIES, STENOGRAPHERS, AND TYPISTS

- D313 Secretaries
- D314 Stenographers
- D315 Typists

INFORMATION CLERKS

- D316 Interviewers
- D317 Hotel Clerks
- D318 Transportation Ticket and Reservation Agents
- D319 Receptionists
- D323 Information Clerks, n.e.c.

RECORDS PROCESSING CLERKS, EXCEPT
FINANCIAL

- D325 Classified-Ad Clerks
- D326 Correspondence Clerks
- D327 Order Clerks
- D328 Personnel Clerks, Except Payroll and Time-
keeping
- D329 Library Clerks
- D335 File Clerks
- D336 Records Clerks, n.e.c.

FINANCIAL RECORDS PROCESSING CLERKS

- D337 Bookkeepers, Accounting and Auditing
Clerks
- D338 Payroll and Timekeeping Clerks
- D339 Billing Clerks
- D343 Cost and Rate Clerks
- D344 Billing, Posting, and Calculating Machine
Operators

DUPLICATING, MAIL, AND OTHER OFFICE
MACHINE OPERATORS

- D345 Duplicating Machine Operators
- D346 Mail Preparing and Paper Handling Machine
Operators

- D347 Office Machine Operators, n.e.c.

COMMUNICATIONS EQUIPMENT OPERATORS

- D348 Telephone Operators
- D353 Communications Equipment Operators, n.e.c.

MAIL AND MESSAGE DISTRIBUTING
OCCUPATIONS

- D354 Postal Clerks, Except Mail Carriers
- D355 Mail Carriers, Postal Service
- D356 Mail Clerks, Except Postal Service
- D357 Messengers

MATERIAL RECORDING, SCHEDULING, AND
DISTRIBUTING CLERKS

- D359 Dispatchers
- D363 Production Coordinators
- D364 Traffic, Shipping, and Receiving Clerks
- D365 Stock and Inventory Clerks
- D366 Meter Readers
- D368 Weighers, Measurers, Checkers, and Sam-
plers
- D373 Expeditors
- D374 Material Recording, Scheduling, and Distrib-
uting Clerks, n.e.c.

ADJUSTERS AND INVESTIGATORS

- D375 Insurance Adjusters, Examiners, and Investi-
gators
- D376 Investigators and Adjusters, Except Insurance
- D377 Eligibility Clerks, Social Welfare
- D378 Bill and Account Collectors

MISCELLANEOUS ADMINISTRATIVE SUPPORT
OCCUPATIONS

- D379 General Office Clerks
- D383 Bank Tellers
- D384 Proofreaders
- D385 Data Entry Keyers
- D386 Statistical Clerks
- D387 Teachers' Aides
- D389 Administrative Support Occupations, n.e.c.

Major group E:

**PRECISION PRODUCTION, CRAFT, AND REPAIR
OCCUPATIONS**

MECHANICS AND REPAIRERS

E503 Supervisors; Mechanics and Repairers
E505 Automobile Mechanics
E506 Automobile Mechanic Apprentices
E507 Bus, Truck, and Stationary Engine Mechanics
E508 Aircraft Engine Mechanics
E509 Small Engine Repairers
E514 Automobile Body and Related Repairers
E515 Aircraft Mechanics, Except Engine
E516 Heavy Equipment Mechanic
E517 Farm Equipment Mechanics
E518 Industrial Machinery Repairers
E519 Machinery Maintenance Occupations
E523 Electronic Repairers, Communications and Industrial Equipment
E525 Data Processing Equipment Repairers
E526 Household Appliance and Power Tool Repairers
E527 Telephone Line Installers and Repairers
E529 Telephone Installers and Repairers
E534 Heating, Air Conditioning, and Refrigeration Mechanics
E535 Camera, Watch, and Musical Instrument Repairers
E536 Locksmiths and Safe Repairers
E538 Office Machine Repairers
E539 Mechanical Controls and Valve Repairers
E543 Elevator Installers and Repairers
E544 Millwrights
E547 Mechanics and Repairers, n.e.c.

SUPERVISORS, CONSTRUCTION TRADES

E553 Supervisors; Brickmasons, Stonemasons, and Tilesetters
E554 Supervisors; Carpenters and Related Workers
E555 Supervisors; Electricians and Power Transmission Installers
E556 Supervisors; Painters, Paperhangers, and Plasterers
E557 Supervisors; Plumbers, Pipefitters, and Steamfitters
E558 Supervisors; Construction Trades, n.e.c.

CONSTRUCTION TRADES OCCUPATIONS

E563 Brickmasons and Stonemasons
E564 Brickmason and Stonemason Apprentices
E565 Tile Setters, Hard and Soft
E566 Carpet Installers
E567 Carpenters
E569 Carpenter Apprentices
E573 Drywall Installers
E575 Electricians
E576 Electrician Apprentices
E577 Electrical Power Installers and Repairers

E579 Painters, Construction and Maintenance
E583 Paperhangers
E584 Plasterers
E585 Plumbers, Pipefitters, and Steamfitters
E587 Plumber, Pipefitter, and Steamfitter Apprentices
E588 Concrete and Terrazzo Finishers
E589 Glaziers
E593 Insulation Workers
E594 Paving, Surfacing, and Tamping Equipment Operators
E595 Roofers
E596 Sheetmetal Duct Installers
E597 Structural Metal Workers
E598 Drillers, Earth
E599 Construction Trades, n.e.c.

EXTRACTIVE OCCUPATIONS

E613 Supervisors, Extractive Occupations
E614 Drillers, Oil Well
E615 Explosives Workers
E616 Mining Machine Operators
E617 Mining Occupations, n.e.c.

PRECISION PRODUCTION OCCUPATIONS

E628 Supervisors, Production Occupations

PRECISION METAL WORKING OCCUPATIONS

E634 Tool and Die Makers
E635 Tool and Die Maker Apprentices
E636 Precision Assemblers, Metal
E637 Machinists
E639 Machinist Apprentices
E643 Boilermakers
E644 Precision Grinders, Filers, and Tool Sharpeners
E645 Patternmakers and Modelmakers, Metal
E646 Layout Workers
E647 Precious Stones and Metals Workers
E649 Engravers, Metal
E653 Sheet Metal Workers
E654 Sheet Metal Worker Apprentices

PRECISION WOODWORKING OCCUPATIONS

E656 Patternmakers and Modelmakers, Wood
E657 Cabinet Makers and Bench Carpenters
E658 Furniture and Wood Finishers

PRECISION TEXTILE, APPAREL, AND FURNISHINGS MACHINE WORKERS

E666 Dressmakers
E667 Tailors

E668 Upholsterers
E669 Shoe Repairers

PRECISION WORKERS, ASSORTED MATERIALS

E675 Hand Molders and Shapers, Except Jewelers
E676 Patternmakers, Layout Workers, and Cutters
E677 Optical Goods Workers
E678 Dental Laboratory and Medical Appliance Technicians
E679 Bookbinders
E683 Electrical and Electronic Equipment Assemblers
E684 Miscellaneous Precision Workers, n.e.c.

PRECISION FOOD PRODUCTION OCCUPATIONS

E685 Precision Food Production Occupations, n.e.c.
E686 Butchers and Meat Cutters
E687 Bakers
E688 Food Batchmakers

PRECISION INSPECTORS, TESTERS, AND RELATED WORKERS

E689 Inspectors, Testers, and Graders
E690 Precision Inspectors, Testers, and Related Workers, n.e.c.
E693 Adjusters and Calibrators

PLANT AND SYSTEM OPERATORS

E694 Water and Sewage Treatment Plant Operators
E695 Power Plant Operators
E696 Stationary Engineers
E699 Miscellaneous Plant and System Operators, n.e.c.

Major group F:

MACHINE OPERATORS, ASSEMBLERS, AND INSPECTORS

METALWORKING AND PLASTIC WORKING MACHINE OPERATORS

F703 Lathe and Turning-Machine Set-Up Operators
F704 Lathe and Turning-Machine Operators
F705 Milling and Planing Machine Operators
F706 Punching and Stamping Press Operators
F707 Rolling Machine Operators
F708 Drilling and Boring Machine Operators
F709 Grinding, Abrading, Buffing, and Polishing Machine Operators
F713 Forging Machine Operators
F714 Numerical Control Machine Operators
F717 Fabricating Machine Operators, n.e.c.

F719 Molding and Casting Machine Operators
F723 Metal Plating Machine Operators
F724 Heat Treating Equipment Operators

WOODWORKING MACHINE OPERATORS

F726 Wood Lathe, Routing, and Planing Machine Operators
F727 Sawing Machine Operators
F728 Shaping and Joining Machine Operators
F729 Nailing and Tacking Machine Operators

PRINTING MACHINE OPERATORS

F734 Printing Press Operators
F735 Photoengravers and Lithographers
F736 Typesetters and Compositors

TEXTILE, APPAREL, AND FURNISHINGS MACHINE OPERATORS

F738 Winding and Twisting Machine Operators
F739 Knitting, Looping, Taping, and Weaving Machine Operators
F743 Textile Cutting Machine Operators
F744 Textile Sewing Machine Operators
F745 Shoe Machine Operators
F747 Pressing Machine Operators
F748 Laundering and Dry Cleaning Machine Operators

MACHINE OPERATORS, ASSORTED MATERIALS

F753 Cementing and Gluing Machine Operators
F754 Packaging and Filling Machine Operators
F755 Extruding and Forming Machine Operators
F756 Mixing and Blending Machine Operators
F757 Separating, Filtering, and Clarifying Machine Operators
F758 Compressing and Compacting Machine Operators
F759 Painting and Paint Spraying Machine Operators
F763 Roasting and Baking Machine Operators, Food
F764 Washing, Cleaning, and Pickling Machine Operators
F765 Folding Machine Operators
F766 Furnace, Kiln, and Oven Operators, Except Food
F768 Crushing and Grinding Machine Operators
F769 Slicing and Cutting Machine Operators
F773 Motion Picture Projectionists
F774 Photographic Process Machine Operators
F777 Miscellaneous Machine Operators, n.e.c.

FABRICATORS, ASSEMBLERS, AND HAND WORKING OCCUPATIONS

- F783 Welders and Cutters
- F784 Solderers and Braziers
- F785 Assemblers
- F786 Hand Cutting and Trimming Occupations
- F787 Hand Molding, Casting, and Forming Occupations
- F789 Hand Painting, Coating, and Decorating Occupations
- F793 Hand Engraving and Printing Occupations
- F795 Miscellaneous Hand Working Occupations, n.e.c.

PRODUCTION INSPECTORS, TESTERS, SAMPLERS, AND WEIGHERS

- F796 Production Inspectors, Checkers, and Examiners
- F797 Production Testers
- F798 Production Samplers and Weighers
- F799 Graders and Sorters, Except Agricultural
- F800 Hand Inspectors, n.e.c.

Major group G:

TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS

MOTOR VEHICLE OPERATORS

- G803 Supervisors, Motor Vehicle Operators
- G804 Truck Drivers
- G806 Driver-Sales Workers
- G808 Bus Drivers
- G809 Taxicab Drivers and Chauffeurs
- G813 Parking Lot Attendants
- G814 Motor Transportation Occupations, n.e.c.

RAILROAD TRANSPORTATION OCCUPATIONS

- G823 Railroad Conductors and Yardmasters
- G824 Locomotive Operating Occupations
- G825 Railroad Brake, Signal, and Switch Operators
- G826 Rail Vehicle Operators, n.e.c.

WATER TRANSPORTATION OCCUPATIONS

- G828 Ship Captains and Mates, Except Fishing Boats
- G829 Sailors and Deckhands
- G833 Marine Engineers
- G834 Bridge, Lock, and Lighthouse Tenders

MATERIAL MOVING EQUIPMENT OPERATORS

- G843 Supervisors, Material Moving Equipment Operators
- G844 Operating Engineers
- G845 Longshore Equipment Operators
- G848 Hoist and Winch Operators
- G849 Crane and Tower Operators
- G853 Excavating and Loading Machine Operators
- G855 Grader, Dozer, and Scraper Operators
- G856 Industrial Truck and Tractor Equipment Operators
- G859 Miscellaneous Material Moving Equipment Operators, n.e.c.

Major group H:

HANDLERS, EQUIPMENT CLEANERS, HELPERS, AND LABORERS

FARM, FISHING AND FORESTRY OCCUPATIONS - NONFARM SECTOR

- H483 Marine Life Cultivation Workers
- H484 Nursery Workers
- H485 Supervisors, Agriculture-Related Workers
- H486 Groundskeepers and Gardeners, Except Farm
- H487 Animal Caretakers, Except Farm
- H489 Inspectors, Agricultural Products
- H494 Supervisors, Forestry and Logging Workers
- H495 Forestry Workers, Except Logging
- H496 Timber Cutting and Logging Occupations
- H497 Captains and Other Officers, Fishing Vessels
- H498 Fishers, Hunters, and Trappers

HELPERS, HANDLERS, AND LABORERS

- H864 Supervisors; Handlers, Equipment Cleaners, and Laborers, n.e.c.
- H865 Helpers, Mechanics and Repairers
- H866 Helpers, Construction Trades
- H867 Helpers, Surveyor
- H868 Helpers, Extractive Occupations
- H869 Construction Laborers
- H874 Production Helpers
- H875 Garbage Collectors
- H876 Stevedores
- H877 Stock Handlers and Baggers
- H878 Machine Feeders and Offbearers
- H883 Freight, Stock, and Material Handlers, n.e.c.
- H885 Garage and Service Station Related Occupations
- H887 Vehicle Washers and Equipment Cleaners
- H888 Hand Packers and Packagers
- H889 Laborers, Except Construction, n.e.c.

Major group K:

**SERVICE OCCUPATIONS, EXCEPT PRIVATE
HOUSEHOLD**

PROTECTIVE SERVICE OCCUPATIONS

- K413 Supervisors, Firefighting and Fire Prevention Occupations
- K414 Supervisors, Police and Detectives
- K415 Supervisors, Guards
- K416 Fire Inspection and Fire Prevention Occupations
- K417 Firefighting Occupations
- K418 Police and Detectives, Public Service
- K423 Sheriffs, Bailiffs, and Other Law Enforcement Officers
- K424 Correctional Institution Officers
- K425 Crossing Guards
- K426 Guards and Police, Except Public Service
- K427 Protective Service Occupations, n.e.c.

FOOD SERVICE OCCUPATIONS

- K433 Supervisors; Food Preparation and Service Occupations
- K434 Bartenders
- K435 Waiters and Waitresses
- K436 Cooks
- K438 Food Counter, Fountain, and Related Occupations
- K439 Kitchen Workers, Food Preparation
- K443 Waiters'/Waitresses' Assistants
- K444 Food Preparation Occupations, n.e.c.

HEALTH SERVICE OCCUPATIONS

- K445 Dental Assistants
- K446 Health Aides, Except Nursing
- K447 Nursing Aides, Orderlies and Attendants

**CLEANING AND BUILDING SERVICE
OCCUPATIONS**

- K448 Supervisors, Cleaning and Building Service Workers
- K449 Maids and Housemen
- K453 Janitors and Cleaners
- K454 Elevator Operators
- K455 Pest Control Occupations

PERSONAL SERVICE OCCUPATIONS

- K456 Supervisors, Personal Service Occupations
- K457 Barbers
- K458 Hairdressers and Cosmetologists
- K459 Attendants, Amusement and Recreation Facilities
- K461 Guides
- K462 Ushers
- K463 Public Transportation Attendants
- K464 Baggage Porters and Bellhops
- K465 Welfare Service Aides
- K467 Early Childhood Teacher's Assistants
- K468 Child Care Workers, n.e.c.
- K469 Service Occupations, n.e.c.

Appendix C. Generic Leveling Criteria

Below are the 10 criteria for generic leveling occupations. The description of each level within a factor is followed in parentheses by the point value assigned that level. An example using these criteria for leveling a job follows in appendix D.

Knowledge measures the nature and extent of information or facts that the workers must understand to do acceptable work. This knowledge is attained through education, training, and experience.

1. Skill to perform simple, repetitive tasks, or operate simple tools or equipment, requiring little or no previous training or experience. (50)

2. Basic knowledge of common procedures, goods or services, tools, or equipment, requiring some previous training or experience. (200)

3. Knowledge of standard rules, procedures, goods or services, tools, or equipment, requiring considerable training or experience. (350)

4. Knowledge of extensive rules, products, or services in a broad field needed to perform a wide variety of interrelated or nonstandard procedures. (550)

or

Practical knowledge of standard procedures, products or services, and operations in a technical field, requiring extended training or experience. (550)

or

Comprehensive knowledge of a blue collar skill, usually acquired through a formal apprenticeship or equivalent training and experience. (550)

5. Knowledge of specialized, complicated products, services, or techniques, acquired through a pertinent baccalaureate program, or equivalent experience and training (750)

or

Practical knowledge of standard technical procedures and methods to carry out limited projects involving specialized, complicated techniques. (T, PR, SR) (750)

or

Advanced knowledge of blue collar skill to solve unusually complex problems. (750)

6. Practical knowledge of a wide range of professional or administrative methods, principles, and practices, gained through job experience or relevant graduate study. (950)

or

Practical knowledge of a wide range of technical products, services, or methods similar to a narrow area of a professional field, and skill in applying this knowledge to difficult, but well-documented projects. (950)

7. Knowledge of a wide range of concepts, principles, and practices gained through extended graduate study or professional or administrative experience. (1250)

or

Comprehensive knowledge of a technical field and skill in applying this knowledge to the development of new methods, approaches, or procedures. (1250)

or

Knowledge of new, unique, or custom developed technical products requiring extensive graduate study or equivalent experience. (1250)

8. Mastery of a professional or administrative field to apply experimental theories or new developments. (1550)

9. Mastery of a professional field to generate and develop new hypotheses and theories. (1850)

Supervision Received covers the nature and extent of direct or indirect control of workers exercised by the supervisor, the responsibility of the position, and the review of the completed work of the position.

1. Supervisor makes detailed assignments. Employee works as instructed, and the work is closely controlled and reviewed. (25)

2. Supervisor makes assignments, indicating generally what is to be done. The employee independently carries out recurring assignments but refers problems to supervisor. Review of work depends on complexity and novelty of assignment. (125)

3. Supervisor provides objectives, priorities, and deadlines. Employee plans and carries out steps in accordance with

instructions, and completed work is reviewed for conformity to policy. (275)

4. Supervisor establishes overall objectives, employee and supervisor develop deadlines. Employee is responsible for planning and carrying out assignment, completed work is reviewed in terms of meeting requirements. (450)

5. Supervisor broadly defines overall objective. Employee is responsible for all aspects of planning. Work results are normally accepted as technically authoritative and reviewed in terms of fulfillment of program objectives. (650)

Guidelines describes verbal or written instructions and the judgment needed to apply them.

1. Guidelines are specific and detailed. Employee is expected to strictly adhere to them. (25)

2. Guidelines are specific and procedures have been established. Employee uses judgment in selecting most appropriate guideline, and refers problems to the supervisor where guidelines do not exist. (125)

3. Guidelines are available but not always applicable, employee uses judgment in interpreting and adapting guidelines. Employee analyzes results and recommends changes. (275)

4. Guidelines are scarce, but administrative policies stated in general terms are available. Employee uses initiative in deviating from traditional methods in order to develop new methods. (450)

5. Guidelines are broadly stated and nonspecific. The employee is recognized as a technical authority in the development and interpretation of guidelines. (650)

Complexity covers the variety of tasks, identifying what needs to be done, and the difficulty involved in performing the work.

1. Tasks are clear-cut, readily discernible, and easily understood. The sequence of tasks is clearly defined, with each task directly related to the next. Tasks are repetitive and limited in number. There is little or no choice required in determining what to do or how to do it. (25)

2. Tasks are easily recognized and related to one another, but vary depending upon the circumstances of the assignment. The employee is required to determine what needs to be done, acquire needed information, and identify and select from a few work methods. (75)

3. Tasks involve different and unrelated problems. Assignments may involve a complete project of moderate scope or a defined segment of a large project. The employee is required to analyze issues and facts to discern interrelationships and to choose a course of action from many different and unrelated alternatives. Minor adaptation or modification of established procedures may be required. (150)

4. Tasks involve a wide range of diverse, unusual, and complex problems, requiring the employee to analyze and interpret incomplete or inconclusive information. Tasks involve independently planning the work to be done, selecting appropriate methods, frequently adjusting, modifying, or refining conventional practices and methods. (225)

5. Tasks involve many different and unrelated methods applied to a broad range of activities or intensive analysis and problem solving. Tasks require innovativeness in exploring new areas, selecting and using a variety of work techniques, modifying existing techniques, originating new techniques, and developing new information. (325)

6. Tasks involve broad functions and processes of an administrative or professional field, where theories and practices are largely undefined. Tasks require extensive probing and analysis to determine the issues.

Work is accomplished through the development of new - or modification of standard - theories and approaches, and resolution of previously intractable issues. (450)

Scope and Effect refers to the purpose of the work, whether the job covers a narrow or broad range of topics, and the impact of the work, if properly performed. Scope and Effect is not to be confused with Complexity, which deals with the difficulty of the work.

1. Performs specific routine tasks that have little impact beyond the operations performed. (25)

2. Follows specific rules or procedures in carrying out an assignment. The work affects the acceptability of further processes or services. (75)

3. Treats a variety of conventional problems using established criteria. The outcome affects the adequacy, design, or operations of the complete system. (150)

4. Establishes procedures, formulates projects, and analyzes a variety of unusual problems. The work affects a wide range of activities. (225)

5. Resolves critical problems or develops new theories that affect the work of other experts or major aspects of programs. (325)

6. Plans, and carries out vital programs that are essential to the overall organization or to large numbers of people on a continuing basis. (450)

Personal Contacts covers contacts with persons not in the supervisory chain. Levels are based on what is required to make the initial contact, the difficulty of communicating with those contacted, and the setting in which the contacts take place.

1. Contacts are with employees within the immediate work unit, and/or with the general public in highly structured situations. (10)

2. Contacts are with employees in the same establishment but outside the immediate work unit, and/or with the general public in moderately structured settings. (25)

3. Contacts are with individuals or groups from outside the establishment in a moderately unstructured setting. Contacts are not established on a routine basis, each contact is different, and the roles of each party are established during the contact. (60)

4. Personal contacts are with high-ranking officials from outside the establishment at national or international levels in highly unstructured settings. (110)

Purpose of Contacts measures the range of personal contacts from factual exchanges of information to situations involving significant or controversial issues and differing viewpoints, goals, or objectives.

1. The purpose is to obtain, clarify, or give facts or information ranging from easily understood to highly technical. (20)

2. The purpose is to plan, coordinate, or advise on work efforts, or to resolve operating problems by influencing or motivating individuals or groups who are working toward mutual goals and who have cooperative attitudes. (50)

3. The purpose is to influence, motivate, convince, or question persons or group. Those contacted may be hesitant or skeptical, so the employee must be skillful in approaching the individual or group in order to obtain the desired response. (120)

or

The purpose is to interrogate or control persons or groups who may be fearful, uncooperative, or dangerous. The employee must be skillful in order to bring about the necessary conduct or information. (120) (PR)

4. The purpose is to justify, defend, negotiate, or settle matters involving significant or controversial issues. The persons contacted typically have diverse viewpoints, goals, or objectives requiring the employee to achieve a common understanding of the problem and a satisfactory solution by convincing them, arriving at a compromise, or developing suitable alternatives. (220)

Physical Demands covers the physical characteristics and abilities placed on the employee by the work assignment.

1. The work is sedentary. Typically, the employee may sit comfortably to do the work. However, there may be some walking,; standing, or bending; carrying of light items such as papers, books, small parts; driving an automobile; etc. No special physical demands are required to perform the work. (5)

2. The work requires some physical exertion such as long periods of standing, walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stopping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as laptop computers or record boxes. The work may require specific, but common, physical characteristics and abilities such as above average agility and dexterity. (20)

3. The work requires considerable and strenuous physical exertion such as climbing of tall ladders, lifting heavy objects over 50 pounds, crouching or crawling in restricted areas, and defending oneself or others against physical attack. (50)

Work Environment considers the risks and discomforts in the employee's physical surroundings, or the nature of the work assigned and the safety regulations required.

1. The work environment involves everyday risks or discomforts that require normal safety precautions typical of such places as offices, meeting and training rooms, libraries, and residences or commercial vehicles (e.g., use of safe work practices with office equipment, avoidance of trips and falls, observance of fire regulations and traffic signals, etc.). The work is adequately lighted, heated, and ventilated. (5)

2. The work involves moderate risks or discomforts which require special safety precautions, e.g., working around moving parts, carts, or machines; with contagious diseases or irritant chemicals; etc. Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields. (20)

3. The work involves high risk with exposure to potentially dangerous situations or unusual environmental stress which require a range of safety and other precautions (e.g., working at great heights under extreme outdoor weather conditions; subject to possible physical attack or mob conditions, or similar situations where conditions cannot be controlled). (50)

Supervisory Duties describes the level of supervisory responsibility for a position.

1. No supervisory responsibility. (0)

2. A nonsupervisory position. Incumbent sets the pace of work for the group and shows other workers in the group how to perform assigned tasks. Commonly performs the same work as the group, in addition to lead duties. May also be called group leader, team leader, or lead

worker. (251)

3. Directs staff through face to face meetings. Organizational structure is not complex and internal and administrative procedures are simple. Performing the same work as subordinates is not the principal duty. Typically, this is the first supervisory level. (502)

4. Directs staff through intermediate supervisors. Internal procedures and administrative controls are formal. Organizational structure is complex and is divided into subordinate groups that may differ from each other as to subject matter and function. (1003)

5. Directs staff through two or more subordinate supervisory levels with several subdivisions at each level. Programs are usually inter-locked on a direct and continuing basis with other organizational segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls. (1504)

Appendix D. Evaluating Your Firm's Jobs

In order to best compare data on their firm's jobs to statistics contained in this bulletin, data user's need to be able to determine their jobs' work levels. Using the example of a dental hygienist, this appendix will go through the procedure for determining the work level of a particular job.

To determine the work level of a job, it must be evaluated using the generic leveling factors. With the information available, such as a written position description and other knowledge of the job, each factor must be reviewed. Comparing that information to the descriptions of each level within a factor as shown in Appendix C, the level best matching the job should be chosen and recorded. (Note that the number of levels varies by factor.)

Generic leveling: an example

Knowledge

Hygienist must have a dental hygienist license which requires 2 years of schooling and passage of a technical exam. This is a mid-level hygienist job, which means a worker must have at least 3 years of experience. The procedures are essentially the same every day, such as cleaning teeth, checking gums, and giving x-rays.

Level 4.

Supervision received

Most of the tasks are performed without supervision. For more complicated procedures, such as tooth filling, the dental hygienist assists the dentist.

Level 2.

Guidelines

An hygienist knows which procedure to use for different dental problems. Unusual situations are handled after checking with the supervisor.

Level 2.

Complexity

Each procedure performed leads to the next, for example, examining gums, scraping plaque, then cleaning teeth.

Level 2.

Scope and effect

In terms of process, the dentist's work follows the hygienist's. In terms of effect, the hygienist could give a harmful x-ray or miss plaque on the teeth.

Level 2.

Personal contacts

Patients come to the clinic or occasionally the hygienist will travel to perform work or give a talk at a school.

Level 2.

Purpose of contacts

Most of hygienist's interaction is with patients; no planning or coordination work is involved.

Level 1.

Physical demands

The work is sedentary.

Level 1.

Work environment

Hygienist must take precautions not to be exposed to x-rays, punctures, etc.

Level 2.

Supervisory duties

A dental hygienist at this level does not supervise anyone.

Level 1.

Assigning points

Once the correct level has been identified within each factor, the points associated with each level are recorded. Summing the points for all factors gives the total points for the job. Using the factors above and the table at the end of this section showing the points associated with each

level within a factor, a sample worksheet was filled out for the dental hygienist position.

by a point range. The 1,020 total points for the dental hygienist job puts it in level 5.

Generic leveling worksheet

Company job title: Dental Hygienist

Factor	Level	Points
Knowledge	4	550
Supervision received	2	125
Guidelines	2	125
Complexity	2	75
Scope and effect	2	75
Personal contacts	2	25
Purpose of contacts	2	20
Physical demands	1	5
Work environment	2	20
Total	5	1020

Point ranges by work level

Range of Generic Level Points

Level	Low	High
1	190	254
2	255	454
3	455	654
4	655	854
5	855	1104
6	1105	1354
7	1355	1604
8	1605	1854
9	1855	2104
10	2105	2354
11	2355	2754
12	2755	3154
13	3155	3604
14	3605	4054
15	4055	
	and up	

Comparing wages

Determining the work level

The following chart takes the point total determined via the worksheet and converts to an overall work level for the job. There are 15 work levels, based on those used to rank federal civil service white-collar jobs, each identified

Once the work level has been identified for a job, wages for that job can be compared to wages for similar jobs at the same work level. BLS publishes hourly wage rates by work level within nine major occupational groups, which are combinations of similar individual occupations. The groups and work levels available vary by area. Employers can also use the data on work levels to compare different jobs in their establishment.

Points associated with each factor level

Factor	1	2	3	4	5	6	7	8	9
Knowledge	50	200	35	550	750	950	1250	1550	1850
Supervision required	25	125	275	450	650	X	X	X	X
Guidelines	25	125	275	450	650	X	X	X	X
Complexity	25	75	150	225	325	450	X	X	X
Scope and effect	25	75	150	225	325	450	X	X	X
Personal contacts	10	25	60	110	X	X	X	X	X
Purpose of contacts	20	50	120	220	X	X	X	X	X
Physical demands	5	20	50	X	X	X	X	X	X
Work environment	5	20	50	X	X	X	X	X	X
Supervisory duties	0	251	502	1003	1504	X	X	X	X