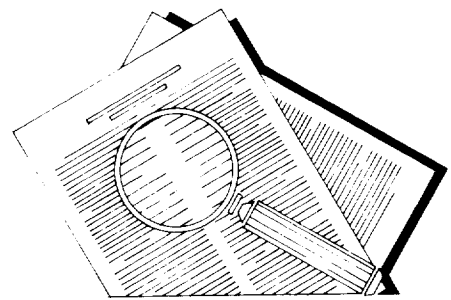


Research Summaries



White-collar pay in nonservice industries, March 1988

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White-collar workers employed in mining and utilities typically earn more, on average, than their counterparts in such industry sectors as construction, manufacturing, trade, and finance. This is one of many findings from the Bureau of Labor Statistics' March 1988 survey of white-collar pay in private nonservice industries.¹ (See table 1 for examples of pay relationships in selected occupations and industry divisions covered.) The study, commonly referred to as the PATC survey, yielded average salary information for workers in 28 occupations (112 work levels) spanning a broad range of duties and responsibilities. The results, however, cannot be compared with those from last year's survey, which was limited to private service industries.²

The March 1988 survey also reflects changes introduced in 1986 to broaden coverage of the white-collar pay survey to more industries and to smaller establishments by conducting the survey in two segments: The private service industries in 1987 and the private nonservice industries in 1988.³ The 1988 survey findings will be combined with updated information from the services establishments studied in 1987 to permit annual pay comparisons between Federal white-collar workers and their counterparts in private industry. Rotating industry coverage in alternate years allows

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BLS to obtain a broader scope of pay data within current budgetary limits.

While the type of business that a firm performs influences salaries to a large extent, skill and experience continue to be primary determinants of white-collar pay levels, as can be seen in table 2. Engineers, the survey's most populous occupational group, demonstrate the effect of rising skill levels on pay: recent engineering graduates (level I) averaged \$29,592 annually in March 1988, while engineers responsible for highly complex engineering programs (level VIII) averaged \$87,914.⁴ Likewise, salaries for accountants ranged from \$22,198 for beginners (level I) to \$68,270 for those responsible for developing complex accounting systems (level VI).

In clerical and technical jobs, differing skill levels also contributed to wide variations in pay. Salaries for four levels of general clerks ranged from \$11,150 a year for clerks who follow detailed procedures in performing simple and repetitive tasks (level I) to \$20,642 for those who use knowledge and judgment to complete various nonroutine assignments (level IV). Pay for five levels of secretaries ranged from \$17,577 to \$30,823.

Computer operators are classified on the basis of responsibility for problem solving, variability of assignments, and scope of authority for corrective actions. Level I operators, whose work assignments consist of on-the-job training, averaged \$15,039 a year. The largest group surveyed, level II, averaged \$18,452; the highest publishable level (V) recorded \$30,900.

Drafters averaged between \$16,676 at level II (those who prepare simple, easily visualized drawings from sketches or marked-up prints) and \$32,567 at level V

Table 1. Relative pay levels by type of nonservice industry and selected occupations, March 1988

[All industries=100]

Selected occupations	Mining	Construction	Manufacturing	Public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate
Accountants III	110	103	101	104	98	95	94
Buyers II	120	104	99	110	104	102	98
Computer programmers III	111	97	101	103	100	99	97
Systems analysts II	109	90	100	105	96	99	98
Drafters III	123	86	98	116	95	92	99
Computer operators II	103	95	102	115	96	90	96
Accounting clerks II	114	97	101	120	100	93	95
Key entry operators I	113	125	103	124	98	93	95
Secretaries III	106	93	102	109	100	90	92
General clerks III	112	93	101	115	96	88	91

Table 2. Average salaries in selected occupations, national survey of professional, administrative, technical, and clerical pay in the private nonservice industries, March 1988

Occupation and class	Number of employees ¹	Average annual salaries ²	Occupation and class	Number of employees ¹	Average annual salaries ²
Professional and administrative			Continued—Professional and administrative		
Accountants I	15,209	\$22,198	Registered nurses I	1,601	\$23,443
Accountants II	33,353	27,093	Registered nurses II	4,220	28,545
Accountants III	45,508	33,293	Registered nurses III	184	35,059
Accountants IV	23,190	42,140	Technical support		
Accountants V	7,506	53,453	Licensed practical nurses II	352	19,640
Accountants VI	1,448	68,270	Engineering technicians I	3,930	17,879
Auditors I	1,423	23,473	Engineering technicians II	13,496	21,317
Auditors II	2,452	28,359	Engineering technicians III	28,498	25,028
Auditors III	3,418	34,753	Engineering technicians IV	31,375	30,043
Auditors IV	1,869	42,434	Engineering technicians V	17,341	34,742
Chief accountants I	940	40,691	Drafters II	9,375	16,676
Chief accountants II	1,028	53,316	Drafters III	16,971	21,345
Chief accountants III	500	69,316	Drafters IV	15,097	26,535
Chief accountants IV	110	88,608	Drafters V	8,749	32,567
Attorneys I	1,310	34,073	Computer operators I	6,635	15,039
Attorneys II	3,432	42,539	Computer operators II	30,874	18,452
Attorneys III	4,625	55,362	Computer operators III	23,538	22,846
Attorneys IV	4,407	70,231	Computer operators IV	6,480	27,040
Attorneys V	2,116	87,595	Computer operators V	1,001	30,900
Attorneys VI	676	110,162	Photographers II	671	24,620
Buyers I	8,421	22,170	Photographers III	664	29,164
Buyers II	23,555	27,999	Photographers IV	358	33,844
Buyers III	17,656	36,088	Clerical		
Buyers IV	5,125	43,620	Accounting clerks I	34,867	13,505
Computer programmers I	8,770	22,531	Accounting clerks II	136,952	15,544
Computer programmers II	29,726	26,422	Accounting clerks III	77,406	18,865
Computer programmers III	37,369	31,440	Accounting clerks IV	25,149	22,906
Computer programmers IV	17,593	37,396	File clerks I	15,068	11,082
Computer programmers V	6,986	45,536	File clerks II	9,695	13,113
Systems analysts I	20,895	31,380	File clerks III	2,278	16,452
Systems analysts II	42,898	37,848	Key entry operators I	59,276	13,817
Systems analysts III	26,377	44,214	Key entry operators II	29,675	18,434
Systems analysts IV	8,021	52,054	Messengers	8,068	12,952
Systems analysts V	827	65,388	Personnel clerks/assistants I	3,165	14,399
Systems analyst managers I	6,131	49,164	Personnel clerks/assistants II	4,936	17,761
Systems analyst managers II	4,931	55,735	Personnel clerks/assistants III	3,599	21,178
Systems analyst managers III	1,882	65,056	Personnel clerks/assistants IV	1,559	24,713
Systems analyst managers IV	228	75,579	Purchasing clerks/assistants I	4,524	14,518
Job analysts II	418	25,957	Purchasing clerks/assistants II	7,178	18,245
Job analysts III	755	32,958	Purchasing clerks/assistants III	4,047	23,398
Job analysts IV	495	41,904	Purchasing clerks/assistants IV	1,033	31,292
Directors of personnel I	1,717	42,091	Secretaries I	47,787	17,577
Directors of personnel II	2,421	50,589	Secretaries II	55,333	19,640
Directors of personnel III	1,042	70,900	Secretaries III	105,161	22,530
Directors of personnel IV	301	87,696	Secretaries IV	41,150	25,858
Chemists I	2,304	26,616	Secretaries V	11,788	30,823
Chemists II	5,526	31,013	Stenographers I	4,354	21,345
Chemists III	7,775	38,113	Stenographers II	2,901	22,691
Chemists IV	8,033	45,812	Typists I	15,880	13,538
Chemists V	4,292	54,971	Typists II	7,520	17,702
Chemists VI	1,469	66,011	General clerks I	16,138	11,150
Chemists VII	370	79,759	General clerks II	70,787	13,543
Engineers I	29,607	29,592	General clerks III	74,803	16,723
Engineers II	65,445	33,278	General clerks IV	37,957	20,642
Engineers III	121,166	38,353			
Engineers IV	134,682	45,777			
Engineers V	89,649	55,194			
Engineers VI	36,607	65,710			
Engineers VII	9,360	75,594			
Engineers VIII	1,542	87,914			

¹Occupational employment estimates relate to the total in all establishments within scope of the survey and not to the number actually surveyed.

²Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Also excluded are performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses. Cost-of-living allowances and incentive payments,

however, are included.

NOTE: The following occupational levels were surveyed but insufficient data were obtained to warrant publication: chief accountant V; job analyst I; director of personnel V; chemist VIII; registered nurse IV; licensed practical nurse I and III; nursing assistant I-IV; civil engineering technician I-V; drafter I; computer operator VI; photographer I and V; and personnel clerk/assistant V.

(work closely with designers preparing unusual, complex, or original designs).

In contrast to contributing to wide variations in pay within a single profession, skill levels can also act as a source of pay uniformity for the same level of work among different occupations. The following tabulation shows a relatively narrow (8-percent) spread separated the highest and lowest paid of six equivalent work levels in the survey:

<i>Work level</i>	<i>Annual salary level</i>
Director of personnel III	\$70,900
Attorney IV	70,231
Chief accountant III	69,316
Accountant VI	68,270
Chemist VI	66,011
Engineer VI	65,710

Unequal market demands, however, can nullify equivalent skill level pay consistency, especially in entry level professional positions. Average pay for beginning engineers in the survey, for example, was well above that of entry level accountants.

A DETAILED ANALYSIS of white-collar salaries and complete results of this year's survey are forthcoming in the bulletin, *National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1988*. It will include salary distributions by occupational work level, tabulations by establishment size, and relative employment and salary levels by nonservice industry division, such as manufacturing, utilities, and trade. □

—FOOTNOTES—

¹The white-collar survey (National Survey of Professional, Administrative, Technical, and Clerical Pay—PATC) is conducted by the Bureau of Labor Statistics, but survey occupations and coverage such as establishment size and the private industries to be included are determined by the President's Pay Agent—the Secretary of Labor and the Directors of the Office of Management and Budget and the Office of Personnel Management. This arrangement reflects the use of PATC findings in the pay setting process for Federal employees. The role of the PATC survey is described in George L. Stelluto's, "Federal pay comparability: facts to temper the debate," *Monthly Labor Review*, June 1979, pp. 18–28.

The 1988 survey covered establishments employing 50 or more workers and primarily engaged in the following activities: Mining; construction; manufacturing; public utilities (transportation, communications, electric, gas, and sanitary services); wholesale trade; retail trade; and finance, insurance, and real estate.

²See C. Joseph Cooper, Jr., "White collar salaries vary widely in the service industries," *Monthly Labor Review*, November 1987, pp. 21–23.

³See John D. Morton, "BLS prepares to broaden scope of its white-collar pay survey," *Monthly Labor Review*, March 1987, pp. 3–7.

⁴In the survey coding structure, the level designations among various occupations are not synonymous: for example, the first level of attorneys is comparable to the third level of engineers, accountants, and most other professional and administrative occupations. Classification of employees in the occupations and work levels surveyed is based on factors detailed in definitions which are available upon request.

BLS sizes up pay and benefits in men's shirt factories

Individual earnings of production and related workers in men's and boys' shirt and nightwear manufacturing plants varied substantially in June 1987, ranging from \$3.35 an hour to more than \$8 an hour. The index of wage dispersion, a statistical measure of such variation, was 43—among the highest recorded in the Bureau of Labor Statistics' industry wage program.¹ Contributing to this factor were the low incidence of single-rate pay systems (about 5 percent of the workers) and the relatively high incidence of incentive systems (80 percent).

Production workers averaged \$4.91 an hour in June 1987, according to a study by the Bureau of Labor Statistics.² This represents a 5-percent increase in earnings since a similar survey was conducted in May 1984.³ By comparison, the wage and salary component of the Bureau's Employment Cost Index for nondurable goods manufacturing industries rose 12 percent between the second quarters of 1984 and 1987.

Wages for a substantial portion of the industry's work force also reflect a continued attachment to the Federal minimum wage. One-fourth of the workers earned \$3.75 per hour or less in June 1987, within 40 cents of the Federal minimum hourly wage of \$3.35.

Average hourly earnings for the seven regions studied separately were between \$5.83 in New England and \$4.58 in the Pacific States, a spread of 27 percent. In the Southeast, where nearly three-fourths of the production workers were employed, hourly earnings averaged \$4.79.

Twenty-three jobs representing the production process, from the cutting of the fabric to the pressing and boxing of the finished garment, were selected for separate study. Plantwide, hourly averages ranged from \$8.02 for sewing-machine repairers to \$4.04 for thread trimmers. (See table 1.)

The shirtmaking process begins in the cutting room where workers mark, spread out, or cut fabric using a power-cutting machine. Assemblers, who gather bundles of garment parts for distribution to sewing units, were the most numerous of the five jobs studied in this department. They averaged \$4.93 an hour. Machine cutters were the highest paid workers in the department, averaging \$6.36 an hour.

Sewing department operations involve joining various garment sections, attaching buttons, or sewing button-holes (sewing-machine operator); loading machines that automatically sew garment parts (machine loader); and inspecting the quality of work during shirt assembly (intermediate inspector). Sewing-machine operators were the largest occupational group, constituting nearly three-fifths of the industry's production work force. They

averaged \$4.83 an hour. Occupational averages for other jobs in this department were between \$4.86 (underpressers) and \$5.28 (collar-top trimmers).

Finishing operations include inspection, repair, and preparation of completed garments for sale. Averages for the seven jobs studied in the finishing department ranged from \$4.04 for thread trimmers to \$5.01 for garment folders.

Nationwide, four-fifths of the workers were employed under incentive pay systems, typically individual piece rates. Among the one-fifth usually paid time rates were janitors, sewing-machine repairers, work distributors, and workers in cutting room occupations.

Virtually all workers were in establishments with weekly work schedules of 40 hours. One-third of the work-

ers were in plants reporting provisions for late-shift work; however, less than 5 percent actually were employed on late shifts at the time of the survey.

Almost all production workers were in establishments providing paid holidays and vacations. Two-thirds of the workers received 5 to 8 holidays annually, while nearly one-fifth—mostly workers covered by Amalgamated Clothing and Textile Workers Union (ACTWU) contracts—were entitled to 11 paid holidays. Typical vacation provisions included 1 week of pay after 1 year of service and 2 or more weeks' pay after 3 years; a third week after 10 years covered about two-fifths of the workers. The most liberal vacation plans were reported for workers in plants covered by ACTWU agreements. They consist of a two-tier system that provides 3 to 4 weeks' vacation pay to workers hired prior to September 1, 1985, and 1 to 3 weeks for workers hired on or after that date. Under the latter arrangement, employees received 1 week of vacation pay after 1 year of service, 2 weeks after 2 years, and 3 weeks after 3 years.

About nine-tenths of the workers were in establishments providing at least part of the cost of life insurance and a variety of basic health benefits. Shirt factories providing insurance protection against large annual medical expenses (major medical insurance) and accidental death or dismemberment employed about seven-tenths of the workers. Slightly over two-fifths were protected, in part, against temporary income loss attributable to illness or an accident. Dental plans, however, covered about one-fifth of the workers. Retirement plans, usually financed wholly by employers, applied to three-fifths of the workers.

Other common employer-provided benefits included pay adjustments for incentive workers whose production is halted because of a machine breakdown or other factors beyond a worker's control (nine-tenths of the workers); minimum daily reporting pay (for example, 4 hours' pay) for employees who report to work as scheduled, but have no work available (two-thirds of the workers); and automatic adjustment of all job pay rates when there is a change in the Federal minimum wage (just over three-fifths of the workers).

A comprehensive report on the survey, *Industry Wage Survey: Men's and Boys' Shirts and Nightwear, June 1987* (Bulletin 2304), may be purchased from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, or from the Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690. The bulletin provides additional information on occupational pay, and on the incidence of employee benefits. □

Table 1. Number of workers and average straight-time hourly earnings, men's and boys' shirt and nightwear manufacturing plants, selected occupations, United States and Southeast region, June 1987

Department and occupation	United States ¹		Southeast ²	
	Number of workers	Average hourly earnings ³	Number of workers	Average hourly earnings ³
All production workers ⁴	59,383	\$4.91	43,312	\$4.79
Men	5,327	5.50	3,474	5.59
Women	54,056	4.86	39,838	4.72
Cutting room				
Assemblers	786	4.93	611	4.95
Clicker-machine operators	177	5.93	110	5.73
Cutters, machine	655	6.36	478	6.19
Markers	212	5.50	175	5.25
Spreaders	758	5.24	571	5.01
Sewing department				
Collar pointers	284	5.16	205	4.90
Collar top trimmers	105	5.28	66	4.97
Inspectors, intermediate	570	5.04	394	4.94
Loaders, machine	1,600	5.10	1,390	5.13
Sewing-machine operators ⁵	33,397	4.83	25,141	4.69
Dress and sport shirts	30,683	4.80	23,323	4.68
Underpressers	270	4.86	150	4.39
Finishing department				
Baggers and boxers	1,261	4.78	891	4.75
Folders, garment ⁵	2,012	5.01	1,594	4.97
Hand	1,224	5.02	1,021	4.97
Garment repairers	392	4.99	259	4.88
Inspectors, final (inspect only)	443	4.90	343	4.91
Inspectors, final (and thread trimmers)	2,179	4.80	1,530	4.51
Pressers, finish ⁵	1,348	4.78	836	4.53
Hand	867	4.70	541	4.45
Thread trimmers	170	4.04	124	3.83
Miscellaneous				
Janitors	566	4.43	437	4.36
Repairers, sewing machine	607	8.02	486	8.05
Shipping clerks	340	5.22	233	5.13
Stock clerks	203	5.22	146	5.04
Work distributors	1,463	4.78	1,051	4.78

¹Includes data for regions in addition to the Southeast region shown separately.

²The Southeast region, as defined for this study, includes Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

³Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

⁴Includes data for workers in occupations in addition to those shown separately.

⁵Overall occupation includes data for subclassifications not shown separately.

FOOTNOTES

¹The index of dispersion is computed by dividing the interquartile range (the difference between the third and first quartiles) by the median (the second quartile) and multiplying by 100. For a detailed analysis by industry of wage dispersion, see Carl B. Barsky and Martin E. Personick, "Meas-