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# National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1979

U.S. Department of Labor  
Bureau of Labor Statistics  
1979

Bulletin 2045



# National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1979

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U.S. Department of Labor  
Ray Marshall, Secretary  
Bureau of Labor Statistics  
Janet L. Norwood, Commissioner  
October 1979

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# Preface

This bulletin summarizes the results of the Bureau's annual salary survey of selected professional, administrative, technical, and clerical occupations in private industry. The nationwide salary information, relating to March 1979, represents establishments in a broad spectrum of industries throughout the United States, except Alaska and Hawaii.

The results of this survey are used for a number of purposes, including general economic analysis and wage and salary administration by private and public employers. One important use is to provide the basis for setting Federal white-collar salaries under the provisions of the Federal Pay Comparability Act of 1970. Under this act, the President has designated the Secretary of Labor, Director of the Office of Management and Budget, and Director of the Office of Personnel Management (formerly the U.S. Civil Service Commission) to serve jointly as his agent for the purpose of setting pay for Federal white-collar employees. The agent is responsible for translating the survey findings into recommendations to the President as to the appropriate adjustments needed to make Federal pay rates comparable with private enterprise pay rates for the same levels of work. The President's agent also determines the industrial, geographic, establishment-size, and occupational coverage of the survey. The role of the Bureau of Labor Statistics in the pay-setting process is limited to conducting the survey and advising on the feasibility of proposed survey changes. It should be emphasized that this survey, like any other salary survey, does not provide mechanical answers to pay policy questions.

The occupations studied span a wide range of duties and responsibilities. The occupations selected were judged to be (a) surveyable in industry within the framework of a broad

survey design, (b) representative of occupational groups which are numerically important in industry as well as in the Federal service, and (c) essentially of the same nature in both the Federal and private sectors.

Occupational definitions used to collect salary data (appendix C) reflect duties and responsibilities in private industry; however, they are also designed to be translatable to specific General Schedule grades applying to Federal employees. Thus, definitions of some occupations and work levels were limited to specific elements that could be classified uniformly among establishments. The Bureau of Labor Statistics and the Office of Personnel Management worked jointly to prepare the definitions.

The survey could not have been conducted without the cooperation of the many firms whose salary data provide the basis for the statistical information presented in this bulletin. The Bureau, on its own behalf and on behalf of the other Federal agencies that were involved in planning the survey, wishes to express appreciation for the cooperation it has received.

This study was conducted in the Bureau's Office of Wages and Industrial Relations by the Division of Occupational Wage Structures. The analysis in this bulletin was prepared by Philip M. Doyle and Robin Zoltek. Field work for the survey was directed by the Bureau's Assistant Regional Commissioners for Operations. Material in this publication is in the public domain and may be reproduced without permission of the Federal Government. Please credit the Bureau of Labor Statistics and cite *National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1979*, Bulletin 2045.



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# Professional, Administrative, Technical, and Clerical Pay, March 1979

## Summary

Average salaries of workers in occupations covered by this survey rose 7.8 percent from March 1978 to March 1979, the third largest annual increase recorded since the survey was begun in 1960. Increases for the 11 professional, administrative, and technical support occupations surveyed ranged from 6.5 percent for auditors to 8.6 percent for job analysts; the average increase was 7.7 percent. Increases for clerical occupations surveyed averaged 7.8 percent; increases ranged from 5.5 percent for file clerks to 12.1 percent for stenographers.<sup>1</sup> The unusually large gain for stenographers can be attributed partly to the decreasing incidence of the job and its concentration in higher paying industries.

Average monthly salaries for the 89 occupational levels varied from \$589 for clerks engaged in routine filing to \$4,747 for the highest level in the attorney series. For most of the occupations, salary levels in metropolitan areas and in large establishments were higher than the average for all establishments within the full scope of the survey. Salary levels and reported standard weekly hours in finance industries were generally lower than those in other major industry divisions represented in the survey.

## Characteristics of the survey

This survey, the 20th in an annual series, provides nationwide salary averages and distributions for 89 work level categories covering 21 occupations. It relates to establishments in all areas of the United States, except Alaska and Hawaii, engaged in the following industries: Mining; construction; manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; and selected services. The minimum size of establishments surveyed is either 50, 100, or 250 employees, depending on the industry.<sup>2</sup>

Occupational definitions in this study permit employees to be classified by duties and responsibilities into appropriate work levels—designated by Roman numerals, with

level I as the lowest. Specific job factors determining classification, however, vary from occupation to occupation.

The number of work levels in each occupation ranges from one for messengers to eight each for chemists and engineers. Most occupations have more than one work level; some occupations are purposely defined, however, to cover specific bands of levels which are not intended to represent all workers in those occupations.

The survey is designed to present separate data for all metropolitan areas combined. These include the 276 Standard Metropolitan Statistical Areas in the United States, except Alaska and Hawaii, as revised through June 1977 by the U.S. Office of Management and Budget. Establishments in metropolitan areas employed over five-sixths of all workers and nine-tenths of professional, administrative, technical and clerical employees within the scope of the survey. Similarly, metropolitan areas accounted for nine-tenths of the employees in occupations for which salary data were developed.

These occupations included more than 1,708,000 employees, or almost one-fifth of the professional, administrative, technical, and clerical personnel in establishments covered by the survey. Employment in occupations varied widely, reflecting not only actual differences among occupations, but also differences in the range of duties and responsibilities covered by the occupational definitions. Among professional and administrative occupations, the eight levels of engineers included 431,100 employees, whereas two other occupational categories (chief accountants and job analysts) each included fewer than 2,500 employees. Accounting clerks and secretaries made up just over one-half of the 791,100 employees in the clerical occupations studied. Selected drafting occupations had aggregate employment of 92,600; five engineering technician levels together had 100,900; and the five computer operator levels for which salary data could be published, 58,700.

About one-half of the workers in the selected occupations were women.<sup>3</sup> The proportion of women varied significantly, however, among the 21 survey occupations. For example, women accounted for more than 90 percent of the clerical employees but for less than 5 percent of the

<sup>1</sup>Results of the March 1978 survey were presented in *National Survey of Professional, Administrative, Technical and Clerical Pay, March 1978*, Bulletin 2004 (Bureau of Labor Statistics, 1978).

<sup>2</sup>For a full description of the scope of the 1979 survey, see appendix A.

<sup>3</sup>Whenever possible, data were collected for men and women separately. Bureau field representatives were unable to obtain data by sex for about 6 percent of the workers.

chief accountants and engineers. Salary levels for women were typically below those for men in the same occupation and level—generally by 5 percent or less; in 11 occupational work levels average salaries for women exceeded those of men. Occupations and work levels in which women accounted for 5 percent or more of the employment identified by sex were distributed as follows:<sup>4</sup>

| <i>Women<br/>(percent)</i> | <i>Occupation and level</i>                                                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 95 or more . . . . .       | Accounting clerks I, file clerks I and II, key entry operators I and II, personnel clerks I, II, and III, secretaries I, II, III, IV, and V, general stenographers, senior stenographers, and typists I and II |
| 90-94 . . . . .            | Accounting clerks II, file clerks III, and personnel clerks IV and V                                                                                                                                           |
| 85-89 . . . . .            | Accounting clerks III                                                                                                                                                                                          |
| 80-84 . . . . .            | Accounting clerks IV                                                                                                                                                                                           |
| 70-74 . . . . .            | Job analysts II                                                                                                                                                                                                |
| 45-49 . . . . .            | Messengers, buyers I, and computer operators II                                                                                                                                                                |
| 40-44 . . . . .            | Job analysts III                                                                                                                                                                                               |
| 35-39 . . . . .            | Accountants I, chemists I, and drafters I                                                                                                                                                                      |
| 30-34 . . . . .            | Job analysts IV, and computer operators I and III                                                                                                                                                              |
| 25-29 . . . . .            | Accountants II, auditors I, public accountants I, and engineering technicians I                                                                                                                                |
| 20-24 . . . . .            | Auditors II, public accountants II, attorneys I, directors of personnel I, chemists II, and drafters II                                                                                                        |
| 15-19 . . . . .            | Accountants III, public accountants III, attorneys II, buyers II, directors of personnel II, engineering technicians II, and computer operators IV                                                             |
| 10-14 . . . . .            | Auditors III, attorneys III, chemists III, drafters III, and computer operators V                                                                                                                              |
| 5-9 . . . . .              | Accountants IV, auditors IV, public accountants IV, buyers III, chemists IV, engineers I and II, engineering technicians III, and drafters IV.                                                                 |

<sup>4</sup>Unlike earlier surveys, this distribution is limited to workers for which data by sex could be obtained. This change resulted in a somewhat higher proportion of women being reported in most occupational levels. In 78 occupational levels, these changes amounted to 5 percent or less. In the remaining 11 levels the differences were: Buyers I (6 percent); accounting clerks II, III, and IV (8, 6, and 8 percent, respectively); key entry operators (6 percent); personnel clerks IV and V (11 and 22 percent, respectively); secretaries V (7 percent); general stenographers (8 percent), senior stenographers (8 percent); and typists I and II (6 and 8 percent, respectively).

## Changes in salary levels

Text table 1 presents increases in average salaries between annual survey periods since 1961 for the occupations studied.<sup>5</sup> Also shown are average percent changes for the two broad occupational groups covered by the survey (the professional, administrative, and technical support group; and the clerical group) and the average percent change for the two groups combined.

The 7.8-percent increase in white-collar salaries in the year ended March 1979 was the third largest recorded since the series was begun. It was exceeded only by the increases in 1975 and 1978. Clerical salaries rose 7.8 percent in the March 1978-79 period; salaries of professional, administrative, and technical support occupations were up 7.7 percent.

Among the 17 occupations for which comparable data were available from the previous year, the smallest increases were for file clerks at 5.5 percent, and auditors at 6.5 percent. Largest increases were recorded for stenographers, at 12.1 percent, and attorneys at 8.9 percent.

To show changes in salaries since 1961 for different levels of work, occupational classifications were grouped into the three broad categories described in text table 2. Group A contains survey classifications which equate to grades 1-4 of the General Schedule for Federal white-collar employees; group B covers GS grades 5-10; and group C, grades 11-15. (See appendix D, table D-1, for a listing of survey classifications that equate to each GS grade.)

In general, average salaries increased more for higher occupational levels (group C) than for the two lower groups from 1976 to 1979. Between 1966 and 1971, however, the middle occupational levels (group B) typically showed larger annual increases than did the lower or higher levels. From 1971 to 1976 the largest gains were usually reported by the lower occupational group (group A). Salaries of occupational levels in group C show the largest cumulative increase over the entire 1961-79 period—173.4 percent, compared with 156.7 and 159.1 percent for groups A and B, respectively.

Another method of examining salary trends is to combine the data into the four occupational groups shown in chart I. Increases from 1978 to 1979 amounted to 8.1 percent for the experienced professional and administrative group; 6.7 percent for the entry and developmental professional and administrative group; 7.2 percent for the

<sup>5</sup>Beginning in 1965, data are for establishments in metropolitan areas and nonmetropolitan counties; before 1965, data are for metropolitan areas only. Establishments employing fewer than 250 workers were excluded before 1966.

Text table 1. Percent increases in average salaries, 1961-79, by occupation and group

| Occupation and group                                                   | 1961<br>to<br>1962 | 1962<br>to<br>1963              | 1963<br>to<br>1964 | 1964<br>to<br>1965 | 1965<br>to<br>1966 | 1966<br>to<br>1967 <sup>1</sup> | 1967<br>to<br>1968 | 1968<br>to<br>1969 | 1969<br>to<br>1970 |
|------------------------------------------------------------------------|--------------------|---------------------------------|--------------------|--------------------|--------------------|---------------------------------|--------------------|--------------------|--------------------|
| All survey occupations <sup>2</sup> .....                              | 2.9                | 3.0                             | 3.1                | 3.1                | 3.3                | 4.5                             | 5.4                | 5.7                | 6.2                |
| Professional, administrative, and technical support <sup>2</sup> ..... | 3.0                | 3.3                             | 3.4                | 3.7                | 3.6                | 4.2                             | 5.5                | 5.8                | 6.2                |
| Accountants .....                                                      | 2.8                | 3.3                             | 2.8                | 3.5                | 3.8                | 4.6                             | 5.7                | 7.0                | 6.7                |
| Auditors .....                                                         | 2.9                | 3.6                             | 3.1                | 3.9                | 3.8                | 4.8                             | 5.5                | 7.2                | 7.0                |
| Chief accountants .....                                                | 2.6                | 2.8                             | 4.8                | 3.9                | 3.3                | 5.1                             | 5.5                | 5.8                | 7.1                |
| Attorneys .....                                                        | 3.2                | 4.6                             | 3.3                | 4.2                | 4.0                | 3.2                             | 5.3                | ( <sup>3</sup> )   | 7.1                |
| Buyers .....                                                           | ( <sup>4</sup> )   | ( <sup>4</sup> )                | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>3</sup> )   | 4.2                             | 4.9                | 6.6                | 6.1                |
| Job analysts .....                                                     | 1.4                | 2.6                             | 3.5                | 4.3                | 5.4                | 3.4                             | 7.0                | 2.1                | 4.1                |
| Directors of personnel .....                                           | 3.7                | 3.0                             | 4.6                | 3.5                | 3.6                | 3.8                             | 5.4                | 5.4                | 7.4                |
| Chemists .....                                                         | 3.9                | 3.8                             | 3.3                | 3.9                | 4.8                | 4.4                             | 5.1                | 6.5                | 5.9                |
| Engineers .....                                                        | 2.6                | 4.4                             | 2.9                | 3.2                | 3.7                | 4.3                             | 5.4                | 6.2                | 5.5                |
| Engineering technicians .....                                          | ( <sup>4</sup> )   | 2.9                             | 3.6                | 2.3                | 2.8                | 3.7                             | 5.1                | 5.8                | 6.3                |
| Drafters <sup>5</sup> .....                                            | 3.2                | 3.6                             | 2.6                | ( <sup>3</sup> )   | 1.5                | 3.5                             | 5.3                | 5.8                | 4.9                |
| Computer operators .....                                               | ( <sup>4</sup> )   | ( <sup>4</sup> )                | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>4</sup> )                | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>4</sup> )   |
| Clerical <sup>2</sup> .....                                            | 2.8                | 2.6                             | 2.7                | 2.4                | 3.0                | 4.8                             | 5.3                | 5.5                | 6.2                |
| Accounting clerks .....                                                | 3.0                | 2.5                             | 2.8                | 2.2                | 3.0                | 3.3                             | 4.7                | 4.7                | 6.2                |
| File clerks .....                                                      | ( <sup>3</sup> )   | 2.6                             | 3.1                | 2.2                | 2.9                | 5.1                             | 6.8                | 5.5                | 5.5                |
| Key entry operators .....                                              | ( <sup>3</sup> )   | 2.5                             | 2.7                | 2.3                | 3.7                | 5.2                             | 4.9                | 5.3                | 6.4                |
| Messengers .....                                                       | 2.6                | 2.8                             | 2.3                | 3.0                | 2.8                | 5.4                             | 6.2                | 6.7                | 6.3                |
| Secretaries .....                                                      | ( <sup>4</sup> )   | ( <sup>4</sup> )                | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>4</sup> )   | ( <sup>3</sup> )                | 4.6                | 5.3                | 6.4                |
| Stenographers .....                                                    | ( <sup>3</sup> )   | 2.5                             | 2.4                | 2.3                | 2.9                | 4.6                             | 4.9                | 5.9                | 5.8                |
| Typists .....                                                          | 2.5                | 2.6                             | 2.6                | 2.5                | 2.6                | 5.4                             | 5.8                | 5.7                | 6.0                |
|                                                                        | 1970<br>to<br>1971 | 1971<br>to<br>1972 <sup>1</sup> | 1972<br>to<br>1973 | 1973<br>to<br>1974 | 1974<br>to<br>1975 | 1975<br>to<br>1976              | 1976<br>to<br>1977 | 1977<br>to<br>1978 | 1978<br>to<br>1979 |
| All survey occupations <sup>2</sup> .....                              | 6.6                | 5.8                             | 5.4                | 6.4                | 9.0                | 7.0                             | 6.9                | 7.9                | 7.8                |
| Professional, administrative, and technical support <sup>2</sup> ..... | 6.7                | 5.5                             | 5.4                | 6.3                | 8.3                | 6.7                             | 7.1                | 8.3                | 7.7                |
| Accountants .....                                                      | 6.7                | 5.6                             | 4.9                | 6.1                | 9.8                | 6.4                             | 7.8                | 8.3                | 8.0                |
| Auditors .....                                                         | 7.0                | 5.5                             | 5.2                | 5.2                | 6.8                | 5.5                             | 6.8                | 8.2                | 6.5                |
| Chief accountants .....                                                | 9.1                | 3.9                             | 5.8                | 7.2                | 8.6                | 6.6                             | 10.5               | 8.0                | 7.7                |
| Attorneys .....                                                        | 5.0                | 6.1                             | 6.3                | 5.8                | 7.6                | 6.1                             | 5.4                | 9.1                | 8.9                |
| Buyers .....                                                           | 7.0                | 6.3                             | 5.0                | 6.0                | 9.2                | 6.7                             | 7.0                | 7.8                | 7.0                |
| Job analysts .....                                                     | 7.7                | 6.8                             | 5.2                | 6.1                | 7.5                | 6.0                             | 6.5                | 7.2                | 8.6                |
| Directors of personnel .....                                           | 8.0                | 3.9                             | 7.5                | 7.2                | 6.1                | 7.8                             | 9.1                | 10.0               | 7.5                |
| Chemists .....                                                         | 5.5                | 5.1                             | 3.7                | 7.1                | 10.1               | 6.6                             | 7.0                | 9.0                | 7.6                |
| Engineers .....                                                        | 5.7                | 5.2                             | 5.1                | 5.4                | 8.4                | 6.8                             | 6.4                | 9.0                | 8.4                |
| Engineering technicians .....                                          | 6.5                | 5.1                             | 4.7                | 6.0                | 9.0                | 8.1                             | 7.2                | 7.1                | 7.6                |
| Drafters <sup>5</sup> .....                                            | 5.6                | 7.2                             | 6.2                | 6.7                | 8.0                | 7.4                             | 6.0                | 7.1                | ( <sup>3</sup> )   |
| Computer operators .....                                               | ( <sup>4</sup> )   | ( <sup>4</sup> )                | ( <sup>4</sup> )   | ( <sup>3</sup> )   | ( <sup>4</sup> )   | ( <sup>3</sup> )                | 5.4                | 8.5                | 7.2                |
| Clerical <sup>2</sup> .....                                            | 6.5                | 6.1                             | 5.4                | 6.4                | 9.6                | 7.3                             | 6.6                | 7.4                | 7.8                |
| Accounting clerks .....                                                | 6.0                | 6.0                             | 4.6                | 6.9                | 7.7                | 7.2                             | 6.9                | 6.2                | ( <sup>3</sup> )   |
| File clerks .....                                                      | 6.1                | 5.5                             | 5.9                | 5.4                | 9.6                | 6.4                             | 5.5                | 9.7                | 5.5                |
| Key entry operators .....                                              | 7.0                | 6.8                             | 5.4                | 7.3                | 9.9                | 7.6                             | 5.9                | 7.1                | 6.8                |
| Messengers .....                                                       | 6.7                | 6.3                             | 5.1                | 5.6                | 10.1               | 7.4                             | 7.5                | 6.0                | 6.8                |
| Secretaries .....                                                      | 6.6                | 6.1                             | 5.1                | ( <sup>3</sup> )   | ( <sup>4</sup> )   | ( <sup>3</sup> )                | 6.4                | 6.5                | 7.3                |
| Stenographers .....                                                    | 7.5                | 6.4                             | 5.2                | 6.5                | 11.6               | 8.0                             | 7.9                | 8.2                | 12.1               |
| Typists .....                                                          | 6.1                | 5.7                             | 4.0                | 6.7                | 9.9                | 7.1                             | 6.2                | 8.0                | 8.5                |

<sup>1</sup> Survey data did not represent a 12-month period due to change in survey timing. Data have been prorated to represent a 12-month interval.

<sup>2</sup> Data for 1 administrative occupation (managers of office services, last surveyed in 1968), 1 clerical supervisory occupation (keypunch supervisors, surveyed from 1970 to 1976), and 3 clerical occupations (bookkeeping machine operators last surveyed in 1964, and switchboard operators and tabulating-machine operators, last

surveyed in 1970), not shown above, are included in the all survey and the broad occupational group averages for the periods during which they were surveyed.

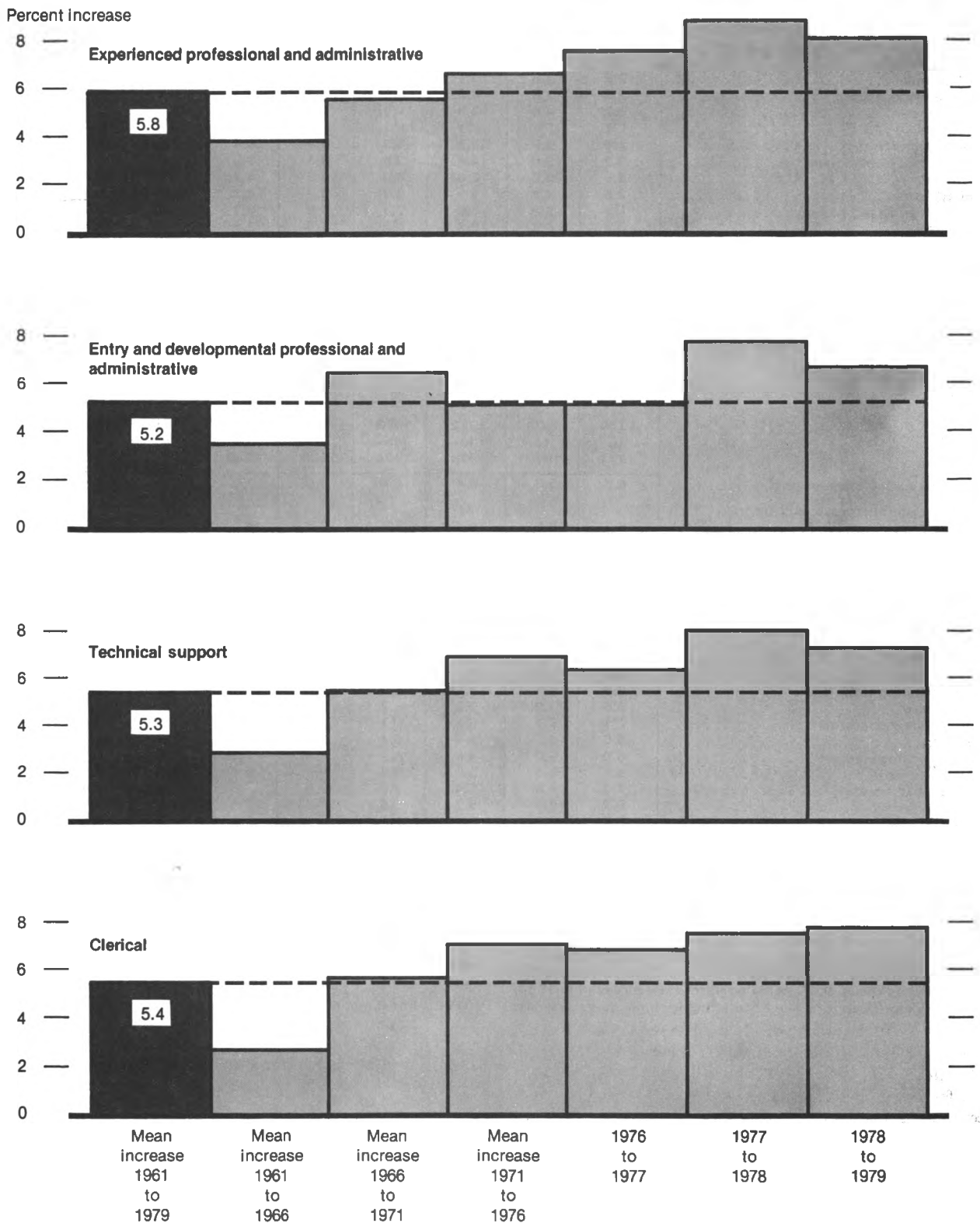
<sup>3</sup> Comparable data not available for both years.

<sup>4</sup> Not surveyed.

<sup>5</sup> Includes drafter-tracers.

NOTE: For method of computation, see appendix A.

**Chart 1. Increases in average salaries for selected occupational groups, 1961 to 1979**



technical support group; and 7.7 percent for the clerical group.<sup>6</sup>

Salary increases for the entry and developmental professional and administrative group averaged 5.2 percent over the 18 year period—less than the increases for the technical support (5.3 percent), clerical (5.4 percent), and the experienced professional and administrative groups (5.8 percent).<sup>7</sup>

#### Average salaries, March 1979

Average monthly salaries for occupations studied (table 1) ranged from \$589 for file clerks I to \$4,747 for the top level of attorneys surveyed. These extremes reflect the wide range of duties and responsibilities represented by the work levels surveyed. Average salaries for workers in various occupational levels and a brief indication of duties and responsibilities these levels represent are summarized in the following paragraphs.<sup>8</sup>

Among the five levels of *accountants* surveyed, average monthly salaries ranged from \$1,149 for accountants I to \$2,479 for accountants V. *Auditors* in the four levels defined for the survey had average salaries ranging from \$1,124 a month for auditors I to \$2,058 for auditors IV. Level I in both the accounting and auditing series included trainees who had bachelor's degrees in accounting or the equivalent in education and experience combined. For level III, the most heavily populated group in both series, monthly salaries averaged \$1,622 for accountants and \$1,692 for auditors. Sixty-four percent of the accountants and 38 percent of the auditors were employed in manufacturing industries. Large numbers of auditors were also employed in the finance, insurance, and real estate industries (37 percent); and in public utilities (14 percent).

*Chief accountants*—surveyed separately from accountants—include those who develop or adapt and direct the accounting program for a company or an establishment (plant) of a company. Levels are classified by the extent of delegated authority and responsibility, the technical com-

plexity of the accounting system, and, to a lesser degree, the size of the professional staff directed. Chief accountants at level I, who have authority to adapt the accounting system established at higher levels to meet the needs of an establishment with relatively few and stable functions and work processes (directing one or two accountants), averaged \$2,121 a month. Chief accountants IV,<sup>9</sup> who have authority to establish and maintain the accounting program, subject to general policy guidelines, for a company with numerous and varied functions and work processes (directing as many as 40 accountants), averaged \$3,773 a month. Almost two-thirds of the chief accountants who met the requirements of the definitions for these four levels were employed in manufacturing industries.

*Public accountants* were studied for the first time this year. Among the four levels surveyed, average monthly salaries ranged from \$1,162 for entry level employees who are receiving practical experience in applying the principles, theories, and concepts of accounting and auditing to specific situations (level I) to \$2,015 for public accountants who direct the fieldwork for large or complex audits (level IV). This occupation was found only in public accounting firms in the selected service industry group.

*Attorneys* are classified into survey levels based upon the difficulty of their assignments and their responsibilities. Attorneys I, who include new law graduates with bar membership and those performing work that is relatively uncomplicated due to clearly applicable precedents and well-established facts, averaged \$1,562 a month. Attorneys in the top level surveyed, level VI, averaged \$4,747 a month. These attorneys deal with legal matters of major importance to their organization, and are usually subordinate only to the general counsel or an immediate deputy in very large firms. Finance, insurance, and real estate industries employed almost one-half of the attorneys, and manufacturing industries employed about one-fourth.<sup>10</sup>

*Buyers* averaged \$1,155 a month at level I, which includes those who purchase "off-the-shelf" and readily available items and services from local sources. Buyers IV, who purchase large amounts of highly complex and technical items, materials, or services, averaged \$2,126 a month. Manufacturing industries employed 81 percent of the buyers in the four levels.

In the personnel management field, four work levels of *job analysts* and five levels of *directors of personnel* were studied.<sup>11</sup> Job analysts II, the lowest level for which data could be presented, averaged \$1,278 compared with \$2,019 for job analysts IV, who, under general supervision, analyze

<sup>6</sup>Work levels used to compute 1978-79 increases were: Clerical—All clerical levels except accounting clerks and personnel clerks. Technical support—All levels of engineering technicians, and computer operators I, II, III, IV, and V. Entry and developmental professional and administrative—Accountants I and II; auditors I and II; attorneys I; job analysts II; chemists I and II; and engineers I and II. Experienced professional and administrative—Accountants III, IV, and V; auditors III and IV; chief accountants I, II, III, and IV; attorneys II, III, IV, V, and VI; job analysts III and IV; directors of personnel I, II, III, and IV; chemists III, IV, V, VI, VII, and VIII; and engineers III, IV, V, VI, VII, and VIII.

A few survey levels, not readily identifiable with any of the four occupational categories, were not used.

<sup>7</sup>1966-67 and 1971-72 did not represent 12-month periods due to changes in survey timing. Increases for these periods have been prorated to represent a 12-month period.

<sup>8</sup>Classification of employees in the occupations and work levels surveyed is based on factors detailed in the definitions in appendix C.

<sup>9</sup>Although chief accountants V, directors of personnel V, and job analysts I were surveyed, as defined in appendix C, too few employees in each occupational level met requirements for the level to warrant presentation of salary figures.

<sup>10</sup>The survey excludes establishments primarily offering legal advice or legal services.

<sup>11</sup>See footnote 9.

and evaluate a variety of the more difficult jobs and who may participate in the development and installation of evaluation or compensation systems. Directors of personnel are limited by definition to those who have programs that include, at a minimum, responsibility for administering a job evaluation system, employment and placement functions, and employee relations and services functions. Those with significant responsibility for actual contract negotiation with labor unions as the principal company representative are excluded. Provisions in the definition weight various combinations of duties and responsibilities to determine the level. Among personnel directors, average monthly salaries ranged from \$1,916 for level I to \$3,661 for level IV.<sup>12</sup> Manufacturing industries employed 57 percent of the job analysts and 68 percent of the directors of personnel included in the study; the finance, insurance, and real estate industries ranked next with 26 percent of the job analysts and 13 percent of the directors of personnel.

*Chemists and engineers* each are surveyed in eight levels. Both series start with a professional trainee level, typically requiring a B.S. degree. The highest level surveyed involves either full responsibility over a very broad and highly complex and diversified engineering or chemical program, with several subordinates each directing large and important segments of the program; or individual research and consultation in difficult problem areas where the chemist or engineer is a recognized authority and where solutions would represent a major scientific or technological advance.<sup>13</sup> Average monthly salaries ranged from \$1,205 for chemists I to \$4,080 for chemists VIII, and from \$1,445 for engineers I to \$3,768 for engineers VIII. Although at level I the average salaries of engineers exceeded those of chemists by 20 percent, the salary advantage of engineers over chemists decreased steadily with each level, until at levels IV, V, and VI, the average salaries for both occupations were nearly equal, and at level VIII the average salaries for chemists exceeded those for engineers by 8 percent.

Level IV represents the largest group in both the chemist and engineer series; it includes professional employees who are fully competent in all technical aspects of their assignments, work with considerable independence, and in some cases, supervise a few professional and technical workers. Manufacturing industries accounted for 90 percent of all chemists and 73 percent of all engineers; the selected services accounted for 7 and 16 percent, respectively.

By definition, the five-level series for *engineering technicians* is limited to employees providing semiprofessional technical support to engineers engaged in areas such as research, design, development, testing, or manufacturing process improvement, and whose work pertains to electrical, electronic, or mechanical components or equipment.

<sup>12</sup> See footnote 9.

<sup>13</sup> It is recognized in the definition that top positions of some companies with unusually extensive and complex engineering or chemical programs are above that level.

Technicians engaged primarily in production or maintenance work are excluded. Engineering technicians I, who perform simple routine tasks under close supervision, or from detailed procedures, averaged \$902 a month. Engineering technicians V, the highest level surveyed, averaged \$1,685 a month. That level includes fully experienced technicians performing more complex assignments involving responsibility for planning and conducting a complete project of relatively limited scope, or a portion of a larger and more diverse project in accordance with objectives, requirements, and design approaches as outlined by the supervisor or a professional engineer. Salaries for intermediate levels III and IV, at which a majority of the technicians surveyed are classified, averaged \$1,258 and \$1,469, respectively. As might be expected, most technicians defined were employed in manufacturing (81 percent) and in the selected services studied (12 percent), with public utilities employing nearly all the rest (5 percent). Although the ratio of such technicians to engineers studied was about 1 to 4 in all manufacturing industries, a ratio of approximately 1 to 3 was found in establishments manufacturing mechanical and electrical equipment, and in research, development, and testing laboratories, and 1 to 5 in public utilities.

The drafting series was revised this year and a new entry level position, drafter I, was added. Among the five levels currently surveyed, monthly salaries ranged from \$783 for drafters I, who trace or copy finished drawings, to \$1,606 for drafters V, who work closely with design originators in preparing unusual, complex, or original drawings. Drafters were distributed by industry in about the same proportion as engineers, with 69 percent in manufacturing, 8 percent in public utilities, and 18 percent in the selected services.

*Computer operators* are classified on the basis of responsibility for solving problems and equipment malfunctions, the degree of variability of their assignments, and the relative level of sophistication of the equipment they operate. Computer operators I whose work assignments consist of on-the-job training averaged \$766 a month. Computer operators III, the largest of this group surveyed, averaged \$1,001. At the highest publishable level, computer operator V, the average monthly salary was \$1,415.<sup>14</sup>

Among the survey's eight *clerical jobs*, secretary was the most heavily populated. Average monthly salaries for secretaries ranged from \$863 at level I to \$1,308 at level V. Average salaries of \$911 and \$1,038 were reported for general and senior stenographers; and \$700 and \$844 for the two levels of typists. Generally, average salaries for clerical workers were highest in the public utilities, manufacturing, and mining industries and lowest in the finance, insurance, and real estate, and retail trade divisions.

The *accounting clerk* definition was revised for the 1979 survey, incorporating two additional work levels. Average

<sup>14</sup> Although a sixth level of computer operator was surveyed, too few establishments reported employees meeting requirements for this level to warrant presentation of salary figures.

monthly salaries ranged from \$687 for those performing very simple and routine clerical accounting operations (level I) to \$1,134 for employees who maintain journals or subsidiary ledgers of an accounting system (level IV). Three-fourths of the accounting clerks were classified in levels II and III, for which average salaries were \$796 and \$947 a month, respectively. Levels II and III are most comparable to the two levels previously surveyed.

Surveyed for the first time this year were *personnel clerks* (employment), who provide clerical and technical support to personnel professionals. Salaries for the five levels surveyed ranged from \$748 a month for clerks performing routine tasks while receiving training and gaining experience (level I) to \$1,376 a month for clerks providing technical support in processing a variety of complicated personnel actions (level V). Nearly two-fifths of the classified personnel clerks were at level II, in which employees process a variety of personnel documents, by selecting the most appropriate precedent, rule, or procedure. They averaged \$890 a month.

In 19 of the 24 clerical work levels, employment in manufacturing exceeded that in any of the nonmanufacturing divisions within the scope of the survey; highest employment totals in the other 5 levels (file clerks I, II, III, messenger, and typist I) were in the finance, insurance, and real estate division. Women constituted 90 percent or more of the employees in 14 of the clerical work levels; men constituted more than one-half in only one (messengers).

#### Salary levels in metropolitan areas

For most occupational levels, average salaries in metropolitan areas (table 2) were slightly higher than the national averages (table 1). In only two instances (computer operators II and personnel clerks II), however, did these differences exceed 1.0 percent.

About nine-tenths of the employment in the survey occupations was in metropolitan areas. The proportions varied, however, among occupations and work levels. Nearly all attorneys, for example, but only about four-fifths of the directors of personnel and chief accountants, were employed in metropolitan areas. In 65 of the 89 work levels, 90 percent or more of the employment was in metropolitan areas. It is apparent, therefore, that for most work levels, salaries in nonmetropolitan counties could have little effect upon the averages for all establishments combined.

#### Salary levels in large establishments

Table 3 presents separate data for 78 occupational work levels in large establishments. Included are the proportions of employees working in large establishments and their salary levels relative to all employees covered by the survey.

Large establishments accounted for 34 percent of all employees in the 78 occupational levels—ranging from 10 percent for file clerks I to 71 percent for the highest levels of engineers and engineering technicians studied. The proportion was near 33 percent for most professional,

**Text table 2. Percent increases in average salaries, 1961-79, by work level category.**

| Period                       | Group A<br>(GS grades<br>1-4) | Group B<br>(GS grades<br>5-10) | Group C<br>(GS grades<br>11-15) |
|------------------------------|-------------------------------|--------------------------------|---------------------------------|
| 1961-1962 .....              | 2.8                           | 2.6                            | 3.5                             |
| 1962-1963 .....              | 2.7                           | 4.0                            | 3.7                             |
| 1963-1964 .....              | 2.7                           | 2.6                            | 3.5                             |
| 1964-1965 .....              | 2.2                           | 3.3                            | 4.2                             |
| 1965-1966 .....              | 2.9                           | 3.7                            | 4.2                             |
| 1966-1967 <sup>1</sup> ..... | 4.5                           | 4.8                            | 4.1                             |
| 1967-1968 .....              | 5.1                           | 5.8                            | 4.7                             |
| 1968-1969 .....              | 5.5                           | 6.5                            | 5.9                             |
| 1969-1970 .....              | 6.2                           | 6.3                            | 6.4                             |
| 1970-1971 .....              | 6.2                           | 6.3                            | 6.2                             |
| 1971-1972 <sup>1</sup> ..... | 6.3                           | 5.2                            | 5.6                             |
| 1972-1973 .....              | 5.5                           | 4.4                            | 5.7                             |
| 1973-1974 .....              | 6.2                           | 5.7                            | 6.2                             |
| 1974-1975 .....              | 9.1                           | 8.6                            | 8.8                             |
| 1975-1976 .....              | 7.6                           | 6.4                            | 6.5                             |
| 1976-1977 .....              | 6.9                           | 6.3                            | 7.7                             |
| 1977-1978 .....              | 7.5                           | 8.0                            | 8.8                             |
| 1978-1979 .....              | 7.2                           | 7.5                            | 8.0                             |
| 1961-1979 .....              | 156.7                         | 159.1                          | 173.4                           |

<sup>1</sup> Actual survey-to-survey increases have been prorated to a 12-month period.

NOTE: For method of computation, see appendix A. For detail on GS grades, see appendix D.

administrative, and technical support occupations although for the numerically important engineer and engineering technician occupations the proportion was 49 percent. The proportion was 27 percent for employees in the clerical occupations.

Salary levels in large establishments expressed as a percent of those in all establishments combined ranged from 99 to 125 and averaged 108 for the 78 occupational levels. Salary levels in large establishments exceeded all-establishment averages by 5 percent or more in all but two of the clerical levels (general and senior stenographers), but in only 33 of 56 nonclerical levels, as shown by the following tabulation (all-establishment average for each occupational level = 100 percent):

|                              | Professional,<br>administrative,<br>and technical | Clerical |
|------------------------------|---------------------------------------------------|----------|
| Total number of levels . . . | 56                                                | 22       |
| 95-99 percent .....          | 1                                                 | 2        |
| 100-104 percent .....        | 22                                                | 2        |
| 105-109 percent .....        | 20                                                | 8        |
| 110-114 percent .....        | 11                                                | 8        |
| 115 percent and over .....   | 2                                                 | 4        |

As expected, the pay relatives were close to 100 for those work levels where large establishments contributed heavily to total employment and, consequently, to the all-establishment average.

#### Salary distributions

Median monthly salaries (the amount below and above which 50 percent of the employees are found) for most work levels presented in table 1 were slightly lower than the

Text table 3. Distribution of work levels by degree of salary dispersion

| Occupation                        | Number of work levels | Number of levels having degree of dispersion <sup>1</sup> of— |                         |                         |                         |                     |
|-----------------------------------|-----------------------|---------------------------------------------------------------|-------------------------|-------------------------|-------------------------|---------------------|
|                                   |                       | Under 15 percent                                              | 15 and under 20 percent | 20 and under 25 percent | 25 and under 30 percent | 30 percent and over |
| All occupations . . . . .         | 89                    | 5                                                             | 24                      | 32                      | 19                      | 9                   |
| Accountants . . . . .             | 5                     | —                                                             | 2                       | 3                       | —                       | —                   |
| Public accountants . . . . .      | 4                     | 3                                                             | —                       | —                       | 1                       | —                   |
| Auditors . . . . .                | 4                     | —                                                             | 2                       | 2                       | —                       | —                   |
| Chief accountants . . . . .       | 4                     | 1                                                             | 2                       | 1                       | —                       | —                   |
| Attorneys . . . . .               | 6                     | —                                                             | 1                       | 4                       | —                       | 1                   |
| Buyers . . . . .                  | 4                     | —                                                             | —                       | 4                       | —                       | —                   |
| Job analysts . . . . .            | 3                     | —                                                             | 1                       | 2                       | —                       | —                   |
| Directors of personnel . . . . .  | 4                     | —                                                             | 1                       | 2                       | 1                       | —                   |
| Chemists . . . . .                | 8                     | —                                                             | 4                       | 3                       | 1                       | —                   |
| Engineers . . . . .               | 8                     | 1                                                             | 7                       | —                       | —                       | —                   |
| Engineering technicians . . . . . | 5                     | —                                                             | 2                       | 3                       | —                       | —                   |
| Drafters . . . . .                | 5                     | —                                                             | —                       | 2                       | 3                       | —                   |
| Computer operators . . . . .      | 5                     | —                                                             | 1                       | —                       | 4                       | —                   |
| Clerical workers . . . . .        | 24                    | —                                                             | 1                       | 6                       | 9                       | 8                   |

<sup>1</sup> Degree of dispersion equals the salary range of the middle 50 percent of employees in a work level expressed as a percent of the median salary for that level.

weighted averages (means) cited earlier (i.e., salaries in the upper halves of the arrays affected averages more than salaries in the lower halves). The relative difference between the mean and the median was less than 2 percent for 36 of the 89 work levels, from 2 to 4 percent in 31 work levels, and from 4 to 7.8 percent in the other 22 levels.

Percent distributions of employees by monthly salary are presented for professional and administrative occupations in table 4, for technical support occupations in table 5, and for clerical occupations in table 6. Within all 89 work levels, salary rates for the highest paid employees were more than twice those of the lowest paid employees. The absolute spread between highest and lowest paid workers within a given work level tended to widen with each rise in work level for most occupations. Individual salaries between work levels overlapped substantially in all occupations. Ranges in salary rates of employees in established pay grades or work levels within salary structures of individual firms also often overlapped substantially.

The middle 50 and 80 percent of the salary range, and the median salary for each occupational work level, are shown in charts 2 and 3. The charts point up occupational pay relationships as well as the typically greater degree of salary dispersion associated with the higher work levels in each occupational series.

Expressing the salary range of the middle 50 percent of employees in each work level as a percent of the median salary permits comparison of salary ranges and eliminates extremely low and high salaries from each comparison. As shown in text table 3, the degree of dispersion ranged from 15 to 30 percent of the median salary in 75 of the 89 work levels. The degree of dispersion tended to be greatest among clerical occupations.

Differences in salaries within work levels reflect a variety of factors other than duties and responsibilities. These

include salary structures within establishments which provide for a range of rates for each grade level; variations in occupational employment among industries, as illustrated in table 7 and chart 4; and salary variations among regions, particularly for clerical occupations.<sup>15</sup> Clerical employees usually are recruited locally while professional and administrative positions tend to be recruited on a broader regional or national basis.

#### Pay differences by industry

By combining data for all levels of work studied in each occupation, relative salary levels in major industry divisions may be compared to each other and to salary levels in all industries combined (table 8).

Relative salary levels for the 13 professional, administrative, and technical support occupations in manufacturing industries tended to be closest to the average for all industry divisions. However, manufacturing contributed more to total employment than any other industry division for all but two (attorneys and public accountants) of the 13 occupations. Relative salary levels in the mining and public utilities industry divisions were generally the highest.

For most occupations studied, relative salary levels were lower in retail trade and in finance, insurance, and real estate than in other industry divisions. Where retail trade and the finance industries contributed a substantial proportion of total employment in an occupation, the average salary for all industries combined was lowered, and relative levels in industries such as manufacturing and public utilities tended to be above the all-industry level. For

<sup>15</sup> For analysis of interarea pay differentials in clerical salaries, see *Area Wage Surveys: Metropolitan Areas, United States and Regional Summaries, 1976*, Bulletin 1900-82 (Bureau of Labor Statistics, 1979), and *Wage Differences Among Metropolitan Areas, 1977*, Summary 78-11 (Bureau of Labor Statistics, 1978).

**Chart 2. Salaries in professional and technical occupations, March 1979**

Median monthly salaries and ranges within which fell 50 percent and 80 percent of employees

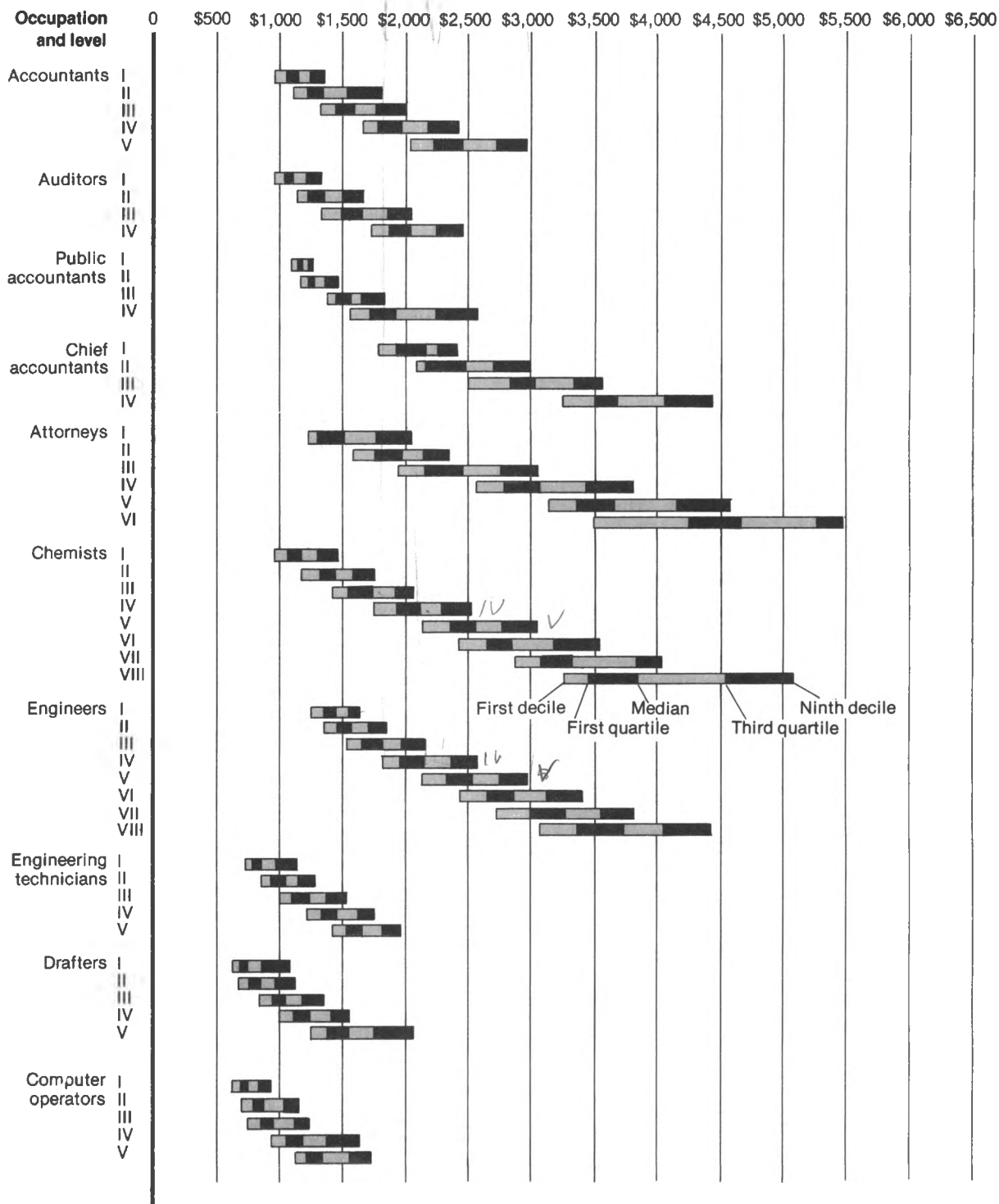


**Chart 3. Salaries in administrative and clerical occupations, March 1979**

**Median monthly salaries and ranges within which fell 50 percent and 80 percent of employees**

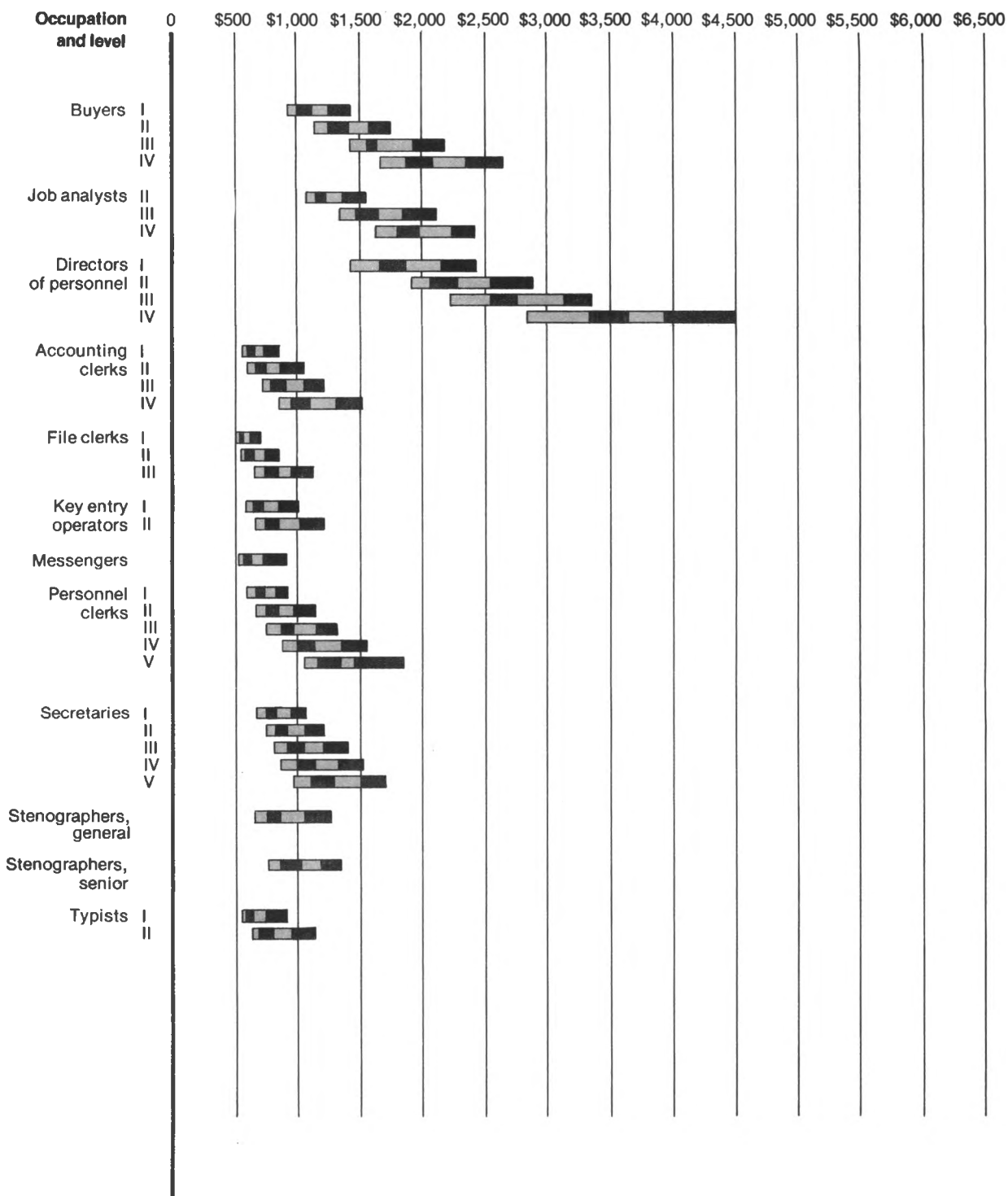
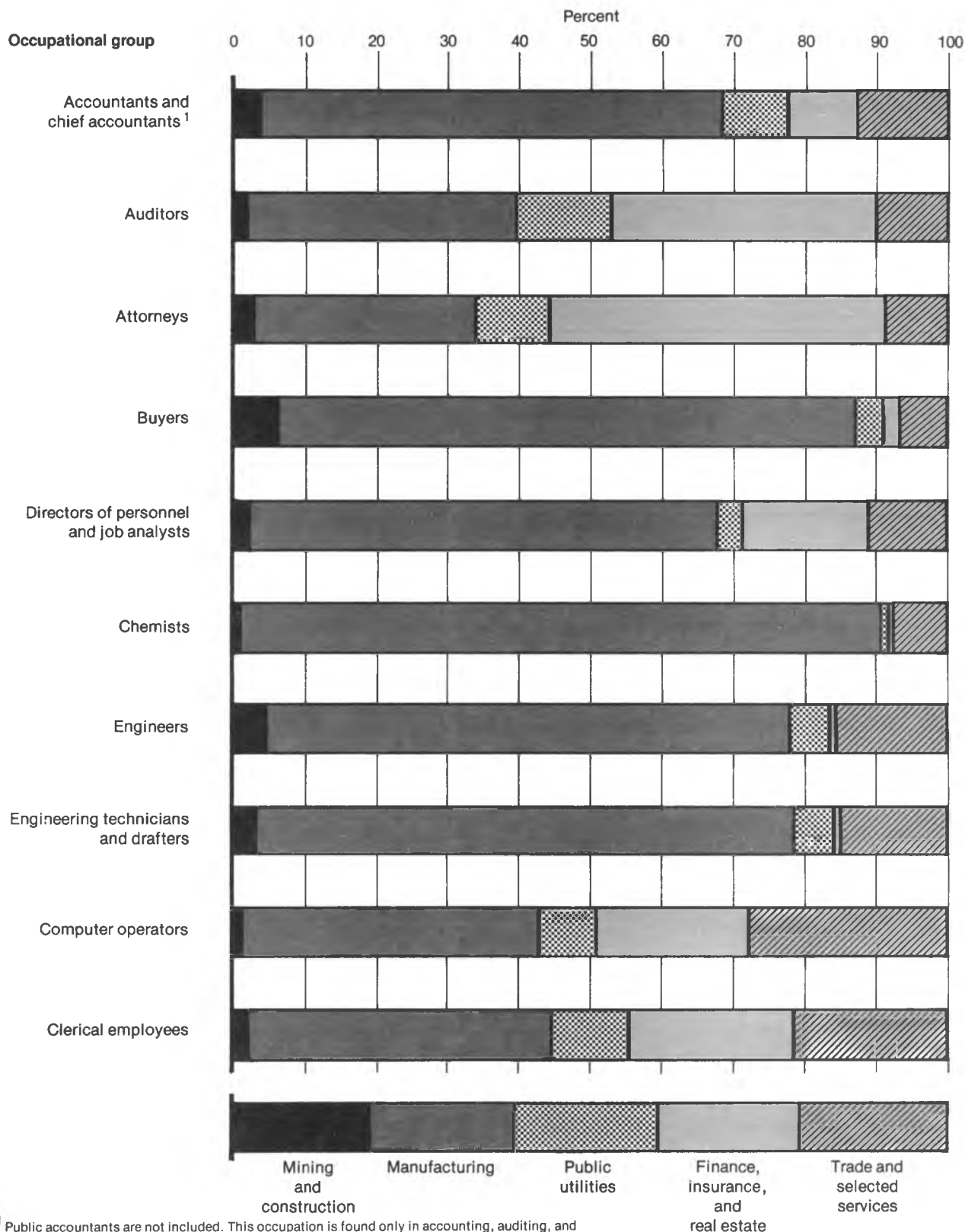


**Chart 4. Relative employment in selected occupational groups by industry division, March 1979**



example, relative pay levels for file clerks (109 percent of the all-industry level in manufacturing and 120 percent in public utilities) reflected the influence of lower salaries for the large proportion (58 percent) of these workers employed in the finance industries. The finance industries, however, also reported lower average standard weekly hours than other industries surveyed, as shown in table 9.

#### **Average standard weekly hours**

The length of the standard workweek, on which the regular straight-time salary is based, was obtained for individual employees in occupations studied. When individual weekly hours were not available, particularly for some higher level professional and administrative positions,

the predominant workweek of the office work force was used as the standard workweek. The distribution of average weekly hours (rounded to the nearest half hour) is presented in table 9 for each occupation by major industry division surveyed. Average weekly hours were lower in finance, insurance, and real estate (38 hours in most occupations) than in the other industry divisions (39 or 40 hours). Average weekly hours have been stable over the past decade.<sup>16</sup>

<sup>16</sup>For information on scheduled weekly hours of office workers employed in metropolitan areas, see *Area Wage Surveys, Selected Metropolitan Areas, 1977*, Bulletin 1950-76 (Bureau of Labor Statistics, 1979).

Although only nationwide salary data are presented in this bulletin, salary data for clerical, drafting, and computer operator occupations are available for each of the metropolitan areas in which the Bureau conducts area wage surveys. These area reports also include information on supplementary benefits such as paid vacations, holidays, and health, insurance, and pension plans relating to nonsupervisory office workers. A directory of occupational wage surveys by State and area is available at the Bureau's regional offices listed on the inside back cover of this bulletin.

**Table 1. Average salaries: United States**

 (Employment and average salaries for selected professional, administrative, technical, and clerical occupations in private industry,<sup>1</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>2</sup> | Number of employees <sup>3</sup> | Monthly salaries <sup>4</sup> |         |                           |                | Annual salaries <sup>4</sup> |          |                           |                |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|------------------------------|----------|---------------------------|----------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>5</sup> |                | Mean                         | Median   | Middle range <sup>5</sup> |                |
|                                   |                                  |                               |         | First quartile            | Third quartile |                              |          | First quartile            | Third quartile |
| ACCOUNTANTS AND AUDITORS          |                                  |                               |         |                           |                |                              |          |                           |                |
| ACCOUNTANTS I .....               | 10,279                           | \$1,149                       | \$1,133 | \$1,032                   | \$1,238        | \$13,790                     | \$13,595 | \$12,383                  | \$14,860       |
| ACCOUNTANTS II .....              | 18,202                           | 1,392                         | 1,335   | 1,208                     | 1,537          | 16,706                       | 16,020   | 14,495                    | 18,444         |
| ACCOUNTANTS III .....             | 31,749                           | 1,622                         | 1,594   | 1,430                     | 1,781          | 19,468                       | 19,127   | 17,160                    | 21,368         |
| ACCOUNTANTS IV .....              | 19,512                           | 2,004                         | 1,975   | 1,797                     | 2,180          | 24,045                       | 23,700   | 21,561                    | 26,160         |
| ACCOUNTANTS V .....               | 6,594                            | 2,479                         | 2,450   | 2,207                     | 2,707          | 29,744                       | 29,400   | 26,489                    | 32,487         |
| AUDITORS I .....                  | 2,179                            | 1,124                         | 1,100   | 1,007                     | 1,201          | 13,482                       | 13,200   | 12,085                    | 14,411         |
| AUDITORS II .....                 | 2,966                            | 1,374                         | 1,350   | 1,208                     | 1,500          | 16,493                       | 16,200   | 14,494                    | 18,000         |
| AUDITORS III .....                | 4,757                            | 1,692                         | 1,673   | 1,499                     | 1,885          | 20,303                       | 20,074   | 17,993                    | 22,620         |
| AUDITORS IV .....                 | 3,356                            | 2,058                         | 2,042   | 1,874                     | 2,235          | 24,700                       | 24,506   | 22,491                    | 26,820         |
| PUBLIC ACCOUNTANTS I .....        | 7,177                            | 1,162                         | 1,166   | 1,125                     | 1,208          | 13,939                       | 13,994   | 13,495                    | 14,494         |
| PUBLIC ACCOUNTANTS II .....       | 6,862                            | 1,318                         | 1,292   | 1,233                     | 1,375          | 15,817                       | 15,504   | 14,794                    | 16,505         |
| PUBLIC ACCOUNTANTS III .....      | 5,397                            | 1,598                         | 1,566   | 1,450                     | 1,667          | 19,174                       | 18,792   | 17,400                    | 20,004         |
| PUBLIC ACCOUNTANTS IV .....       | 2,721                            | 2,015                         | 1,916   | 1,708                     | 2,249          | 24,183                       | 22,991   | 20,496                    | 26,989         |
| CHIEF ACCOUNTANTS I .....         | 728                              | 2,121                         | 2,167   | 1,916                     | 2,252          | 25,457                       | 26,004   | 22,991                    | 27,024         |
| CHIEF ACCOUNTANTS II .....        | 1,052                            | 2,467                         | 2,499   | 2,166                     | 2,700          | 29,604                       | 29,988   | 25,990                    | 32,400         |
| CHIEF ACCOUNTANTS III .....       | 498                              | 3,047                         | 3,020   | 2,807                     | 3,332          | 36,561                       | 36,236   | 33,687                    | 39,984         |
| CHIEF ACCOUNTANTS IV .....        | 165                              | 3,773                         | 3,693   | 3,499                     | 4,048          | 45,274                       | 44,319   | 41,983                    | 48,581         |
| ATTORNEYS                         |                                  |                               |         |                           |                |                              |          |                           |                |
| ATTORNEYS I .....                 | 1,305                            | 1,562                         | 1,504   | 1,299                     | 1,770          | 18,740                       | 18,048   | 15,594                    | 21,240         |
| ATTORNEYS II .....                | 2,609                            | 1,956                         | 1,958   | 1,750                     | 2,129          | 23,468                       | 23,496   | 21,000                    | 25,549         |
| ATTORNEYS III .....               | 3,440                            | 2,470                         | 2,458   | 2,140                     | 2,749          | 29,644                       | 29,496   | 25,680                    | 32,987         |
| ATTORNEYS IV .....                | 2,750                            | 3,151                         | 3,077   | 2,799                     | 3,448          | 37,807                       | 36,924   | 33,587                    | 41,376         |
| ATTORNEYS V .....                 | 1,875                            | 3,800                         | 3,667   | 3,382                     | 4,165          | 45,599                       | 44,000   | 40,584                    | 49,980         |
| ATTORNEYS VI .....                | 742                              | 4,747                         | 4,666   | 4,250                     | 5,269          | 56,964                       | 55,992   | 51,000                    | 63,225         |
| BUYERS                            |                                  |                               |         |                           |                |                              |          |                           |                |
| BUYERS I .....                    | 6,959                            | 1,155                         | 1,105   | 1,000                     | 1,266          | 13,859                       | 13,260   | 12,000                    | 15,194         |
| BUYERS II .....                   | 17,392                           | 1,426                         | 1,404   | 1,255                     | 1,575          | 17,107                       | 16,848   | 15,060                    | 18,900         |
| BUYERS III .....                  | 15,964                           | 1,767                         | 1,723   | 1,563                     | 1,938          | 21,200                       | 20,674   | 18,760                    | 23,256         |
| BUYERS IV .....                   | 5,163                            | 2,126                         | 2,091   | 1,870                     | 2,355          | 25,508                       | 25,092   | 22,440                    | 28,260         |
| PERSONNEL MANAGEMENT              |                                  |                               |         |                           |                |                              |          |                           |                |
| JOB ANALYSTS II .....             | 395                              | 1,278                         | 1,238   | 1,150                     | 1,384          | 15,333                       | 14,494   | 13,800                    | 16,607         |
| JOB ANALYSTS III .....            | 667                              | 1,675                         | 1,649   | 1,478                     | 1,850          | 20,106                       | 19,792   | 17,736                    | 22,200         |
| JOB ANALYSTS IV .....             | 484                              | 2,019                         | 1,980   | 1,800                     | 2,216          | 24,231                       | 23,760   | 21,600                    | 26,592         |
| DIRECTORS OF PERSONNEL I .....    | 1,160                            | 1,916                         | 1,870   | 1,658                     | 2,171          | 22,996                       | 22,439   | 19,897                    | 26,052         |
| DIRECTORS OF PERSONNEL II .....   | 1,656                            | 2,332                         | 2,291   | 2,083                     | 2,541          | 27,981                       | 27,489   | 24,990                    | 30,488         |
| DIRECTORS OF PERSONNEL III .....  | 893                              | 2,857                         | 2,750   | 2,542                     | 3,149          | 34,285                       | 32,997   | 30,502                    | 37,785         |
| DIRECTORS OF PERSONNEL IV .....   | 292                              | 3,661                         | 3,650   | 3,350                     | 3,940          | 43,933                       | 43,798   | 40,200                    | 47,280         |
| CHEMISTS AND ENGINEERS            |                                  |                               |         |                           |                |                              |          |                           |                |
| CHEMISTS I .....                  | 3,168                            | 1,205                         | 1,185   | 1,067                     | 1,300          | 14,455                       | 14,225   | 12,799                    | 15,600         |
| CHEMISTS II .....                 | 5,588                            | 1,447                         | 1,431   | 1,304                     | 1,597          | 17,365                       | 17,176   | 15,642                    | 19,161         |
| CHEMISTS III .....                | 11,437                           | 1,752                         | 1,747   | 1,566                     | 1,915          | 21,025                       | 20,968   | 18,792                    | 22,980         |
| CHEMISTS IV .....                 | 10,858                           | 2,122                         | 2,110   | 1,925                     | 2,291          | 25,459                       | 25,320   | 23,100                    | 27,489         |
| CHEMISTS V .....                  | 8,419                            | 2,569                         | 2,565   | 2,347                     | 2,785          | 30,828                       | 30,780   | 28,165                    | 33,420         |
| CHEMISTS VI .....                 | 4,661                            | 2,936                         | 2,857   | 2,640                     | 3,190          | 35,232                       | 34,286   | 31,680                    | 38,280         |
| CHEMISTS VII .....                | 1,391                            | 3,501                         | 3,313   | 3,090                     | 3,832          | 42,016                       | 39,759   | 37,080                    | 45,982         |
| CHEMISTS VIII .....               | 330                              | 4,080                         | 3,860   | 3,450                     | 4,523          | 48,961                       | 46,320   | 41,400                    | 54,278         |

See footnotes at end of table.

**Table 1. Average salaries: United States—Continued**

(Employment and average salaries for selected professional, administrative, technical, and clerical occupations in private industry.<sup>1</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>2</sup> | Number of employees <sup>3</sup> | Monthly salaries <sup>4</sup> |         |                           |                | Annual salaries <sup>4</sup> |          |                           |                |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|------------------------------|----------|---------------------------|----------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>5</sup> |                | Mean                         | Median   | Middle range <sup>5</sup> |                |
|                                   |                                  |                               |         | First quartile            | Third quartile |                              |          | First quartile            | Third quartile |
| ENGINEERS I .....                 | 21,203                           | \$1,445                       | \$1,450 | \$1,350                   | \$1,547        | \$17,345                     | \$17,100 | \$16,200                  | \$18,562       |
| ENGINEERS II .....                | 39,636                           | 1,586                         | 1,570   | 1,460                     | 1,700          | 19,026                       | 18,840   | 17,520                    | 20,400         |
| ENGINEERS III .....               | 94,991                           | 1,828                         | 1,808   | 1,656                     | 1,980          | 21,931                       | 21,691   | 19,872                    | 23,765         |
| ENGINEERS IV .....                | 125,302                          | 2,166                         | 2,150   | 1,958                     | 2,362          | 25,989                       | 25,800   | 23,496                    | 28,339         |
| ENGINEERS V .....                 | 92,602                           | 2,539                         | 2,511   | 2,313                     | 2,750          | 30,472                       | 30,137   | 27,757                    | 33,000         |
| ENGINEERS VI .....                | 39,388                           | 2,900                         | 2,876   | 2,635                     | 3,132          | 34,801                       | 34,517   | 31,620                    | 37,585         |
| ENGINEERS VII .....               | 14,628                           | 3,278                         | 3,280   | 2,999                     | 3,541          | 39,340                       | 39,366   | 35,986                    | 42,494         |
| ENGINEERS VIII .....              | 3,328                            | 3,768                         | 3,750   | 3,393                     | 4,050          | 45,221                       | 45,000   | 40,721                    | 48,594         |
| <b>TECHNICAL SUPPORT</b>          |                                  |                               |         |                           |                |                              |          |                           |                |
| ENGINEERING TECHNICIANS I .....   | 4,555                            | 902                           | 869     | 782                       | 978            | 10,825                       | 10,428   | 9,385                     | 11,732         |
| ENGINEERING TECHNICIANS II .....  | 16,784                           | 1,057                         | 1,034   | 925                       | 1,147          | 12,690                       | 12,409   | 11,100                    | 13,765         |
| ENGINEERING TECHNICIANS III ..... | 28,225                           | 1,258                         | 1,238   | 1,100                     | 1,390          | 15,094                       | 14,860   | 13,200                    | 16,680         |
| ENGINEERING TECHNICIANS IV .....  | 32,545                           | 1,469                         | 1,454   | 1,320                     | 1,603          | 17,624                       | 17,446   | 15,840                    | 19,240         |
| ENGINEERING TECHNICIANS V .....   | 18,745                           | 1,685                         | 1,679   | 1,521                     | 1,822          | 20,222                       | 20,148   | 18,249                    | 21,864         |
| DRAFTERS I .....                  | 3,211                            | 783                           | 735     | 660                       | 865            | 9,395                        | 8,820    | 7,925                     | 10,382         |
| DRAFTERS II .....                 | 10,008                           | 893                           | 869     | 782                       | 975            | 10,715                       | 10,428   | 9,385                     | 11,703         |
| DRAFTERS III .....                | 21,766                           | 1,070                         | 1,043   | 916                       | 1,191          | 12,835                       | 12,514   | 10,992                    | 14,236         |
| DRAFTERS IV .....                 | 30,842                           | 1,276                         | 1,250   | 1,104                     | 1,416          | 15,307                       | 14,994   | 13,244                    | 16,998         |
| DRAFTERS V .....                  | 26,780                           | 1,606                         | 1,556   | 1,390                     | 1,767          | 19,269                       | 18,666   | 16,685                    | 21,204         |
| COMPUTER OPERATORS I .....        | 5,713                            | 766                           | 740     | 691                       | 827            | 9,198                        | 8,880    | 8,290                     | 9,927          |
| COMPUTER OPERATORS II .....       | 7,370                            | 906                           | 875     | 791                       | 1,033          | 10,875                       | 10,500   | 9,496                     | 12,393         |
| COMPUTER OPERATORS III .....      | 26,299                           | 1,001                         | 969     | 857                       | 1,121          | 12,013                       | 11,627   | 10,285                    | 13,452         |
| COMPUTER OPERATORS IV .....       | 15,616                           | 1,243                         | 1,195   | 1,059                     | 1,390          | 14,921                       | 14,340   | 12,708                    | 15,685         |
| COMPUTER OPERATORS V .....        | 3,712                            | 1,415                         | 1,369   | 1,208                     | 1,580          | 16,975                       | 16,424   | 14,495                    | 18,960         |
| <b>CLERICAL</b>                   |                                  |                               |         |                           |                |                              |          |                           |                |
| ACCOUNTING CLERKS I .....         | 23,963                           | 687                           | 652     | 595                       | 730            | 8,248                        | 7,821    | 7,140                     | 8,760          |
| ACCOUNTING CLERKS II .....        | 83,137                           | 796                           | 756     | 669                       | 869            | 9,555                        | 9,072    | 8,030                     | 10,428         |
| ACCOUNTING CLERKS III .....       | 60,838                           | 947                           | 906     | 792                       | 1,069          | 11,367                       | 10,871   | 9,506                     | 12,826         |
| ACCOUNTING CLERKS IV .....        | 24,304                           | 1,134                         | 1,100   | 950                       | 1,308          | 13,606                       | 13,200   | 11,400                    | 15,694         |
| FILE CLERKS I .....               | 25,362                           | 589                           | 564     | 520                       | 625            | 7,063                        | 6,772    | 6,238                     | 7,500          |
| FILE CLERKS II .....              | 16,187                           | 689                           | 651     | 583                       | 743            | 8,265                        | 7,818    | 6,993                     | 8,919          |
| FILE CLERKS III .....             | 4,358                            | 874                           | 835     | 733                       | 969            | 10,483                       | 10,020   | 8,794                     | 11,627         |
| KEY ENTRY OPERATORS I .....       | 74,572                           | 758                           | 704     | 630                       | 837            | 9,094                        | 8,447    | 7,560                     | 10,044         |
| KEY ENTRY OPERATORS II .....      | 47,037                           | 903                           | 855     | 743                       | 1,024          | 10,833                       | 10,261   | 8,916                     | 12,283         |
| MESSENGERS .....                  | 18,869                           | 676                           | 624     | 556                       | 721            | 8,112                        | 7,487    | 6,674                     | 8,655          |
| PERSONNEL CLERKS I .....          | 2,290                            | 748                           | 721     | 652                       | 804            | 8,979                        | 8,655    | 7,821                     | 9,646          |
| PERSONNEL CLERKS II .....         | 5,446                            | 890                           | 852     | 745                       | 985            | 10,683                       | 10,219   | 8,940                     | 11,820         |
| PERSONNEL CLERKS III .....        | 3,373                            | 1,035                         | 982     | 869                       | 1,143          | 12,060                       | 11,784   | 10,428                    | 13,713         |
| PERSONNEL CLERKS IV .....         | 1,994                            | 1,192                         | 1,130   | 1,000                     | 1,365          | 14,298                       | 13,556   | 12,000                    | 16,378         |
| PERSONNEL CLERKS V .....          | 754                              | 1,376                         | 1,350   | 1,161                     | 1,465          | 16,518                       | 16,200   | 13,932                    | 17,580         |
| SECRETARIES I .....               | 38,628                           | 863                           | 834     | 750                       | 950            | 10,354                       | 10,011   | 8,996                     | 11,400         |
| SECRETARIES II .....              | 79,328                           | 948                           | 915     | 804                       | 1,055          | 11,375                       | 10,980   | 9,646                     | 12,660         |
| SECRETARIES III .....             | 92,373                           | 1,072                         | 1,040   | 905                       | 1,201          | 12,861                       | 12,480   | 10,860                    | 14,411         |
| SECRETARIES IV .....              | 49,983                           | 1,173                         | 1,147   | 998                       | 1,325          | 14,075                       | 13,765   | 11,971                    | 15,903         |
| SECRETARIES V .....               | 17,187                           | 1,308                         | 1,290   | 1,100                     | 1,500          | 15,693                       | 15,475   | 13,200                    | 18,000         |
| STENOGRAPHERS, GENERAL .....      | 24,495                           | 911                           | 865     | 735                       | 1,051          | 10,931                       | 10,380   | 8,820                     | 12,618         |
| STENOGRAPHERS, SENIOR .....       | 22,316                           | 1,038                         | 1,026   | 869                       | 1,187          | 12,458                       | 12,313   | 10,428                    | 14,244         |
| TYPISTS I .....                   | 45,988                           | 700                           | 652     | 596                       | 758            | 8,398                        | 7,821    | 7,147                     | 9,096          |
| TYPISTS II .....                  | 28,346                           | 844                           | 799     | 695                       | 944            | 10,125                       | 9,594    | 8,342                     | 11,327         |

<sup>1</sup> For scope of study, see table A-1 in appendix A.

<sup>2</sup> Occupational definitions appear in appendix C.

<sup>3</sup> Occupational employment estimates relate to the total in all establishments within the scope of the survey and not to the number actually surveyed. For further explanation, see appendix A.

<sup>4</sup> Salaries reported are standard salaries paid for standard work schedules; i.e., the

straight-time salary corresponding to the employee's normal work schedule excluding overtime hours. Nonproduction bonuses are excluded, but cost-of-living payments and incentive earnings are included.

<sup>5</sup> The middle range (interquartile) is the central part of the array excluding the upper and lower fourths of the employee distribution.

**Table 2. Average salaries: Metropolitan areas**

(Employment and average salaries for selected professional, administrative, technical, and clerical occupations in private industry, metropolitan areas,<sup>1</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>2</sup> | Number of employees <sup>3</sup> | Monthly salaries <sup>4</sup> |         |                           |                | Annual salaries <sup>4</sup> |          |                           |                |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|------------------------------|----------|---------------------------|----------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>5</sup> |                | Mean                         | Median   | Middle range <sup>5</sup> |                |
|                                   |                                  |                               |         | First quartile            | Third quartile |                              |          | First quartile            | Third quartile |
| ACCOUNTANTS AND AUDITORS          |                                  |                               |         |                           |                |                              |          |                           |                |
| ACCOUNTANTS I .....               | 9,359                            | \$1,153                       | \$1,137 | \$1,033                   | \$1,243        | \$13,831                     | \$13,644 | \$12,400                  | \$14,916       |
| ACCOUNTANTS II .....              | 16,484                           | 1,400                         | 1,340   | 1,214                     | 1,558          | 16,796                       | 16,080   | 14,568                    | 18,693         |
| ACCOUNTANTS III .....             | 27,881                           | 1,632                         | 1,600   | 1,437                     | 1,799          | 19,580                       | 19,200   | 17,243                    | 21,586         |
| ACCOUNTANTS IV .....              | 17,594                           | 2,009                         | 1,981   | 1,800                     | 2,189          | 24,109                       | 23,774   | 21,600                    | 26,268         |
| ACCOUNTANTS V .....               | 6,054                            | 2,481                         | 2,450   | 2,207                     | 2,718          | 29,767                       | 29,400   | 26,489                    | 32,616         |
| AUDITORS I .....                  | 2,169                            | 1,122                         | 1,100   | 1,007                     | 1,201          | 13,470                       | 13,200   | 12,085                    | 14,411         |
| AUDITORS II .....                 | 2,911                            | 1,374                         | 1,350   | 1,207                     | 1,500          | 16,487                       | 16,200   | 14,489                    | 18,000         |
| AUDITORS III .....                | 4,536                            | 1,696                         | 1,683   | 1,500                     | 1,894          | 20,356                       | 20,196   | 18,000                    | 22,728         |
| AUDITORS IV .....                 | 3,260                            | 2,061                         | 2,050   | 1,874                     | 2,236          | 24,730                       | 24,595   | 22,491                    | 26,834         |
| PUBLIC ACCOUNTANTS I .....        | 7,177                            | 1,162                         | 1,166   | 1,125                     | 1,208          | 13,939                       | 13,994   | 13,495                    | 14,494         |
| PUBLIC ACCOUNTANTS II .....       | 6,862                            | 1,318                         | 1,292   | 1,233                     | 1,375          | 15,817                       | 15,504   | 14,794                    | 16,505         |
| PUBLIC ACCOUNTANTS III .....      | 5,397                            | 1,598                         | 1,566   | 1,450                     | 1,667          | 19,174                       | 18,792   | 17,400                    | 20,004         |
| PUBLIC ACCOUNTANTS IV .....       | 2,721                            | 2,015                         | 1,916   | 1,708                     | 2,249          | 24,183                       | 22,991   | 20,496                    | 26,989         |
| CHIEF ACCOUNTANTS I .....         | 593                              | 2,143                         | 2,167   | 1,876                     | 2,291          | 25,720                       | 26,004   | 22,515                    | 27,489         |
| CHIEF ACCOUNTANTS II .....        | 894                              | 2,446                         | 2,499   | 2,119                     | 2,720          | 29,351                       | 29,988   | 25,427                    | 32,638         |
| CHIEF ACCOUNTANTS III .....       | 456                              | 3,032                         | 3,020   | 2,791                     | 3,332          | 36,378                       | 36,236   | 33,487                    | 39,984         |
| CHIEF ACCOUNTANTS IV .....        | 161                              | 3,792                         | 3,693   | 3,499                     | 4,111          | 45,510                       | 44,319   | 41,983                    | 49,328         |
| ATTORNEYS                         |                                  |                               |         |                           |                |                              |          |                           |                |
| ATTORNEYS I .....                 | 1,244                            | 1,577                         | 1,545   | 1,333                     | 1,825          | 18,925                       | 18,541   | 15,994                    | 21,900         |
| ATTORNEYS II .....                | 2,565                            | 1,957                         | 1,959   | 1,750                     | 2,129          | 23,486                       | 23,511   | 21,000                    | 25,549         |
| ATTORNEYS III .....               | 3,380                            | 2,470                         | 2,458   | 2,138                     | 2,749          | 29,646                       | 29,496   | 25,652                    | 32,987         |
| ATTORNEYS IV .....                | 2,694                            | 3,158                         | 3,082   | 2,801                     | 3,458          | 37,895                       | 36,985   | 33,617                    | 41,496         |
| ATTORNEYS V .....                 | 1,825                            | 3,809                         | 3,679   | 3,415                     | 4,165          | 45,704                       | 44,148   | 40,984                    | 49,980         |
| ATTORNEYS VI .....                | 742                              | 4,747                         | 4,666   | 4,250                     | 5,269          | 56,964                       | 55,992   | 51,000                    | 63,225         |
| BUYERS                            |                                  |                               |         |                           |                |                              |          |                           |                |
| BUYERS I .....                    | 6,121                            | 1,159                         | 1,105   | 1,005                     | 1,273          | 13,908                       | 13,260   | 12,059                    | 15,277         |
| BUYERS II .....                   | 14,747                           | 1,435                         | 1,407   | 1,259                     | 1,582          | 17,217                       | 16,882   | 15,114                    | 18,982         |
| BUYERS III .....                  | 14,134                           | 1,777                         | 1,733   | 1,571                     | 1,949          | 21,327                       | 20,793   | 18,854                    | 23,391         |
| BUYERS IV .....                   | 4,927                            | 2,130                         | 2,100   | 1,868                     | 2,366          | 25,563                       | 25,200   | 22,420                    | 28,389         |
| PERSONNEL MANAGEMENT              |                                  |                               |         |                           |                |                              |          |                           |                |
| JOB ANALYSTS II .....             | 389                              | 1,277                         | 1,208   | 1,150                     | 1,384          | 15,325                       | 14,494   | 13,800                    | 16,607         |
| JOB ANALYSTS III .....            | 655                              | 1,679                         | 1,649   | 1,495                     | 1,850          | 20,145                       | 19,792   | 17,936                    | 22,200         |
| JOB ANALYSTS IV .....             | 473                              | 2,022                         | 1,980   | 1,803                     | 2,249          | 24,266                       | 23,760   | 21,638                    | 26,982         |
| DIRECTORS OF PERSONNEL I .....    | 810                              | 1,935                         | 1,952   | 1,665                     | 2,200          | 23,226                       | 23,428   | 19,980                    | 26,400         |
| DIRECTORS OF PERSONNEL II .....   | 1,429                            | 2,315                         | 2,291   | 2,050                     | 2,520          | 27,785                       | 27,489   | 24,600                    | 30,240         |
| DIRECTORS OF PERSONNEL III .....  | 845                              | 2,853                         | 2,749   | 2,542                     | 3,152          | 34,231                       | 32,987   | 30,502                    | 37,828         |
| DIRECTORS OF PERSONNEL IV .....   | 269                              | 3,641                         | 3,650   | 3,350                     | 3,875          | 43,687                       | 43,798   | 40,200                    | 46,500         |
| CHEMISTS AND ENGINEERS            |                                  |                               |         |                           |                |                              |          |                           |                |
| CHEMISTS I .....                  | 2,961                            | 1,206                         | 1,190   | 1,069                     | 1,300          | 14,478                       | 14,277   | 12,829                    | 15,600         |
| CHEMISTS II .....                 | 5,158                            | 1,449                         | 1,431   | 1,307                     | 1,597          | 17,388                       | 17,175   | 15,684                    | 19,161         |
| CHEMISTS III .....                | 10,335                           | 1,762                         | 1,755   | 1,575                     | 1,925          | 21,143                       | 21,060   | 18,900                    | 23,100         |
| CHEMISTS IV .....                 | 9,355                            | 2,126                         | 2,116   | 1,940                     | 2,291          | 25,510                       | 25,390   | 23,280                    | 27,493         |
| CHEMISTS V .....                  | 7,179                            | 2,555                         | 2,557   | 2,332                     | 2,760          | 30,654                       | 30,688   | 27,989                    | 33,120         |
| CHEMISTS VI .....                 | 4,011                            | 2,940                         | 2,875   | 2,640                     | 3,178          | 35,275                       | 34,500   | 31,680                    | 38,136         |
| CHEMISTS VII .....                | 1,288                            | 3,481                         | 3,274   | 3,079                     | 3,815          | 41,770                       | 39,284   | 36,949                    | 45,782         |

See footnotes at end of table.

**Table 2. Average salaries: Metropolitan areas—Continued**

(Employment and average salaries for selected professional, administrative, technical, and clerical occupations in private industry, metropolitan areas,<sup>1</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>2</sup> | Number of employees <sup>3</sup> | Monthly salaries <sup>4</sup> |         |                           |                | Annual salaries <sup>4</sup> |          |                           |                |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|------------------------------|----------|---------------------------|----------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>5</sup> |                | Mean                         | Median   | Middle range <sup>5</sup> |                |
|                                   |                                  |                               |         | First quartile            | Third quartile |                              |          | First quartile            | Third quartile |
| ENGINEERS I .....                 | 19,381                           | \$1,442                       | \$1,450 | \$1,349                   | \$1,541        | \$17,305                     | \$17,400 | \$16,194                  | \$18,493       |
| ENGINEERS II .....                | 36,020                           | 1,588                         | 1,574   | 1,464                     | 1,703          | 19,059                       | 18,892   | 17,571                    | 20,439         |
| ENGINEERS III .....               | 86,984                           | 1,833                         | 1,815   | 1,660                     | 1,991          | 21,994                       | 21,780   | 19,920                    | 23,892         |
| ENGINEERS IV .....                | 116,970                          | 2,171                         | 2,159   | 1,964                     | 2,367          | 26,052                       | 25,914   | 23,567                    | 28,405         |
| ENGINEERS V .....                 | 87,203                           | 2,543                         | 2,517   | 2,320                     | 2,751          | 30,518                       | 30,200   | 27,840                    | 33,012         |
| ENGINEERS VI .....                | 37,769                           | 2,903                         | 2,882   | 2,639                     | 3,134          | 34,838                       | 34,584   | 31,667                    | 37,603         |
| ENGINEERS VII .....               | 14,217                           | 3,279                         | 3,280   | 2,999                     | 3,541          | 39,346                       | 39,366   | 35,986                    | 42,494         |
| ENGINEERS VIII .....              | 3,214                            | 3,762                         | 3,749   | 3,375                     | 4,035          | 45,144                       | 44,982   | 40,500                    | 48,420         |
| <b>TECHNICAL SUPPORT</b>          |                                  |                               |         |                           |                |                              |          |                           |                |
| ENGINEERING TECHNICIANS I .....   | 3,932                            | 903                           | 869     | 775                       | 1,000          | 10,840                       | 10,428   | 9,302                     | 12,000         |
| ENGINEERING TECHNICIANS II .....  | 14,884                           | 1,058                         | 1,032   | 919                       | 1,151          | 12,698                       | 12,388   | 11,030                    | 13,809         |
| ENGINEERING TECHNICIANS III ..... | 24,964                           | 1,260                         | 1,243   | 1,100                     | 1,390          | 15,120                       | 14,912   | 13,200                    | 16,685         |
| ENGINEERING TECHNICIANS IV .....  | 29,930                           | 1,472                         | 1,454   | 1,321                     | 1,608          | 17,662                       | 17,446   | 15,851                    | 19,292         |
| ENGINEERING TECHNICIANS V .....   | 18,004                           | 1,688                         | 1,682   | 1,524                     | 1,826          | 20,260                       | 20,178   | 18,291                    | 21,912         |
| DRAFTERS I .....                  | 2,764                            | 783                           | 730     | 660                       | 855            | 9,395                        | 8,761    | 7,925                     | 10,382         |
| DRAFTERS II .....                 | 8,960                            | 898                           | 869     | 782                       | 978            | 10,777                       | 10,428   | 9,385                     | 11,732         |
| DRAFTERS III .....                | 19,353                           | 1,072                         | 1,043   | 918                       | 1,191          | 12,868                       | 12,514   | 11,016                    | 14,286         |
| DRAFTERS IV .....                 | 27,995                           | 1,280                         | 1,250   | 1,100                     | 1,427          | 15,359                       | 15,000   | 13,200                    | 17,123         |
| DRAFTERS V .....                  | 25,179                           | 1,614                         | 1,564   | 1,390                     | 1,775          | 19,366                       | 18,770   | 16,685                    | 21,300         |
| COMPUTER OPERATORS I .....        | 5,246                            | 768                           | 743     | 687                       | 827            | 9,217                        | 8,916    | 8,238                     | 9,928          |
| COMPUTER OPERATORS II .....       | 8,470                            | 918                           | 886     | 795                       | 1,067          | 11,021                       | 10,637   | 9,542                     | 12,806         |
| COMPUTER OPERATORS III .....      | 24,256                           | 1,005                         | 972     | 860                       | 1,121          | 12,061                       | 11,669   | 10,324                    | 13,452         |
| COMPUTER OPERATORS IV .....       | 14,575                           | 1,244                         | 1,195   | 1,060                     | 1,390          | 14,932                       | 14,340   | 12,722                    | 16,685         |
| COMPUTER OPERATORS V .....        | 3,447                            | 1,410                         | 1,347   | 1,194                     | 1,570          | 16,918                       | 16,163   | 14,328                    | 18,840         |
| <b>CLERICAL</b>                   |                                  |                               |         |                           |                |                              |          |                           |                |
| ACCOUNTING CLERKS I .....         | 22,375                           | 689                           | 652     | 595                       | 734            | 8,265                        | 7,821    | 7,140                     | 8,810          |
| ACCOUNTING CLERKS II .....        | 73,914                           | 801                           | 760     | 674                       | 874            | 9,612                        | 9,120    | 8,092                     | 10,486         |
| ACCOUNTING CLERKS III .....       | 59,399                           | 953                           | 912     | 800                       | 1,073          | 11,431                       | 10,949   | 9,600                     | 12,879         |
| ACCOUNTING CLERKS IV .....        | 22,643                           | 1,135                         | 1,104   | 949                       | 1,311          | 13,618                       | 13,244   | 11,388                    | 15,732         |
| FILE CLERKS I .....               | 23,473                           | 587                           | 562     | 517                       | 624            | 7,048                        | 6,748    | 6,203                     | 7,489          |
| FILE CLERKS II .....              | 15,051                           | 689                           | 651     | 586                       | 743            | 8,268                        | 7,818    | 7,032                     | 8,919          |
| FILE CLERKS III .....             | 3,913                            | 868                           | 823     | 724                       | 965            | 10,413                       | 9,876    | 8,688                     | 11,575         |
| KEY ENTRY OPERATORS I .....       | 68,023                           | 763                           | 713     | 634                       | 847            | 9,156                        | 8,551    | 7,612                     | 10,167         |
| KEY ENTRY OPERATORS II .....      | 43,391                           | 908                           | 859     | 747                       | 1,036          | 10,891                       | 10,313   | 8,968                     | 12,430         |
| MESSENGERS .....                  | 18,196                           | 675                           | 621     | 556                       | 717            | 8,102                        | 7,456    | 6,674                     | 8,603          |
| PERSONNEL CLERKS I .....          | 1,935                            | 751                           | 721     | 652                       | 810            | 9,009                        | 8,655    | 7,821                     | 9,717          |
| PERSONNEL CLERKS II .....         | 4,532                            | 900                           | 850     | 750                       | 999            | 10,802                       | 10,324   | 9,000                     | 11,983         |
| PERSONNEL CLERKS III .....        | 2,737                            | 1,003                         | 980     | 869                       | 1,143          | 12,035                       | 11,763   | 10,428                    | 13,713         |
| PERSONNEL CLERKS IV .....         | 1,897                            | 1,199                         | 1,133   | 1,000                     | 1,377          | 14,383                       | 13,595   | 12,000                    | 16,529         |
| PERSONNEL CLERKS V .....          | 733                              | 1,385                         | 1,358   | 1,166                     | 1,474          | 16,623                       | 16,293   | 13,994                    | 17,693         |
| SECRETARIES I .....               | 35,629                           | 864                           | 835     | 750                       | 950            | 10,367                       | 10,020   | 8,996                     | 11,400         |
| SECRETARIES II .....              | 72,338                           | 946                           | 912     | 802                       | 1,053          | 11,350                       | 10,949   | 9,624                     | 12,631         |
| SECRETARIES III .....             | 87,764                           | 1,074                         | 1,040   | 906                       | 1,205          | 12,887                       | 12,480   | 10,868                    | 14,460         |
| SECRETARIES IV .....              | 47,826                           | 1,179                         | 1,151   | 1,000                     | 1,332          | 14,147                       | 13,817   | 12,000                    | 15,984         |
| SECRETARIES V .....               | 16,524                           | 1,313                         | 1,291   | 1,100                     | 1,501          | 15,761                       | 15,490   | 13,200                    | 18,012         |
| STENOGRAPHERS, GENERAL .....      | 22,276                           | 914                           | 869     | 733                       | 1,058          | 10,963                       | 10,428   | 8,796                     | 12,696         |
| STENOGRAPHERS, SENIOR .....       | 21,080                           | 1,041                         | 1,026   | 869                       | 1,187          | 12,486                       | 12,313   | 10,428                    | 14,244         |
| TYPISTS I .....                   | 43,174                           | 697                           | 652     | 595                       | 752            | 8,369                        | 7,821    | 7,140                     | 9,020          |
| TYPISTS II .....                  | 27,278                           | 844                           | 797     | 695                       | 944            | 10,125                       | 9,564    | 8,342                     | 11,331         |

<sup>1</sup> For scope of study, see table A-1 in appendix A.

<sup>2</sup> Occupational definitions appear in appendix C.

<sup>3</sup> Occupational employment estimates relate to the total in all establishments within the scope of the survey and not to the number actually surveyed. For further explanation, see appendix A.

<sup>4</sup> Salaries reported are standard salaries paid for standard work schedules; i.e., the

straight-time salary corresponding to the employee's normal work schedule excluding overtime hours. Nonproduction bonuses are excluded, but cost-of-living payments and incentive earnings are included.

<sup>5</sup> The middle range (interquartile) is the central part of the array excluding the upper and lower fourths of the employee distribution.

**Table 3. Average salaries: Establishments employing 2,500 workers or more**

(Employment and average monthly salaries for selected professional, administrative, technical, and clerical occupations in private industry,<sup>1</sup> in establishments employing 2,500 workers or more,<sup>2</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>3</sup> | Number of employees <sup>4</sup> | Monthly salaries <sup>5</sup> |         |                           |                | Levels in establishments employing 2,500 workers or more expressed as percent of those in all establishments combined |               |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------|---------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>6</sup> |                | Employment                                                                                                            | Mean salaries |
|                                   |                                  |                               |         | First quartile            | Third quartile |                                                                                                                       |               |
|                                   |                                  |                               |         |                           |                |                                                                                                                       |               |
| <b>ACCOUNTANTS AND AUDITORS</b>   |                                  |                               |         |                           |                |                                                                                                                       |               |
| ACCOUNTANTS I .....               | 2,413                            | \$1,241                       | \$1,212 | \$1,110                   | \$1,358        | 23                                                                                                                    | 108           |
| ACCOUNTANTS II .....              | 6,467                            | 1,563                         | 1,552   | 1,347                     | 1,796          | 36                                                                                                                    | 112           |
| ACCOUNTANTS III .....             | 8,567                            | 1,747                         | 1,718   | 1,516                     | 1,979          | 27                                                                                                                    | 108           |
| ACCOUNTANTS IV .....              | 5,782                            | 2,070                         | 2,040   | 1,833                     | 2,290          | 30                                                                                                                    | 103           |
| ACCOUNTANTS V .....               | 2,828                            | 2,526                         | 2,500   | 2,257                     | 2,766          | 43                                                                                                                    | 102           |
| AUDITORS I .....                  | 469                              | 1,175                         | 1,148   | 1,043                     | 1,285          | 22                                                                                                                    | 105           |
| AUDITORS II .....                 | 1,086                            | 1,442                         | 1,410   | 1,251                     | 1,608          | 37                                                                                                                    | 105           |
| AUDITORS III .....                | 1,674                            | 1,761                         | 1,741   | 1,529                     | 2,010          | 35                                                                                                                    | 104           |
| AUDITORS IV .....                 | 1,155                            | 2,090                         | 2,060   | 1,824                     | 2,350          | 34                                                                                                                    | 102           |
| CHIEF ACCOUNTANTS III .....       | 129                              | 3,153                         | 3,005   | 2,820                     | 3,547          | 25                                                                                                                    | 103           |
| CHIEF ACCOUNTANTS IV .....        | 65                               | 3,766                         | 3,739   | 3,417                     | 4,151          | 32                                                                                                                    | 100           |
| <b>ATTORNEYS</b>                  |                                  |                               |         |                           |                |                                                                                                                       |               |
| ATTORNEYS I .....                 | 237                              | 1,808                         | 1,791   | 1,604                     | 2,000          | 18                                                                                                                    | 116           |
| ATTORNEYS II .....                | 511                              | 2,097                         | 2,107   | 1,899                     | 2,299          | 29                                                                                                                    | 107           |
| ATTORNEYS III .....               | 805                              | 2,620                         | 2,590   | 2,332                     | 2,875          | 23                                                                                                                    | 106           |
| ATTORNEYS IV .....                | 724                              | 3,216                         | 3,111   | 2,838                     | 3,524          | 26                                                                                                                    | 102           |
| ATTORNEYS V .....                 | 603                              | 3,901                         | 3,750   | 3,420                     | 4,265          | 32                                                                                                                    | 103           |
| ATTORNEYS VI .....                | 268                              | 4,679                         | 4,451   | 4,123                     | 5,040          | 36                                                                                                                    | 99            |
| <b>BUYERS</b>                     |                                  |                               |         |                           |                |                                                                                                                       |               |
| BUYERS I .....                    | 848                              | 1,316                         | 1,240   | 1,100                     | 1,499          | 12                                                                                                                    | 114           |
| BUYERS II .....                   | 4,059                            | 1,553                         | 1,509   | 1,373                     | 1,700          | 23                                                                                                                    | 109           |
| BUYERS III .....                  | 5,439                            | 1,859                         | 1,825   | 1,629                     | 2,040          | 34                                                                                                                    | 105           |
| BUYERS IV .....                   | 3,029                            | 2,162                         | 2,107   | 1,864                     | 2,457          | 59                                                                                                                    | 102           |
| <b>PERSONNEL MANAGEMENT</b>       |                                  |                               |         |                           |                |                                                                                                                       |               |
| JOB ANALYSTS II .....             | 115                              | 1,345                         | 1,320   | 1,165                     | 1,507          | 29                                                                                                                    | 105           |
| JOB ANALYSTS III .....            | 429                              | 1,755                         | 1,708   | 1,540                     | 2,000          | 64                                                                                                                    | 105           |
| JOB ANALYSTS IV .....             | 330                              | 2,043                         | 2,020   | 1,833                     | 2,244          | 68                                                                                                                    | 101           |
| DIRECTORS OF PERSONNEL III .....  | 124                              | 3,105                         | 3,115   | 2,727                     | 3,367          | 14                                                                                                                    | 109           |
| DIRECTORS OF PERSONNEL IV .....   | 135                              | 4,067                         | 3,958   | 3,749                     | 4,450          | 45                                                                                                                    | 111           |
| <b>CHEMISTS AND ENGINEERS</b>     |                                  |                               |         |                           |                |                                                                                                                       |               |
| CHEMISTS I .....                  | 507                              | 1,374                         | 1,342   | 1,234                     | 1,474          | 16                                                                                                                    | 114           |
| CHEMISTS II .....                 | 1,763                            | 1,591                         | 1,563   | 1,416                     | 1,750          | 32                                                                                                                    | 110           |
| CHEMISTS III .....                | 2,879                            | 1,892                         | 1,847   | 1,685                     | 2,083          | 25                                                                                                                    | 108           |
| CHEMISTS IV .....                 | 3,755                            | 2,235                         | 2,200   | 2,019                     | 2,425          | 35                                                                                                                    | 105           |
| CHEMISTS V .....                  | 3,389                            | 2,662                         | 2,625   | 2,370                     | 2,930          | 43                                                                                                                    | 104           |
| CHEMISTS VI .....                 | 1,972                            | 3,084                         | 2,975   | 2,739                     | 3,390          | 42                                                                                                                    | 105           |
| CHEMISTS VII .....                | 663                              | 3,711                         | 3,542   | 3,260                     | 4,082          | 48                                                                                                                    | 106           |

See footnotes at end of table.

**Table 3. Average salaries: Establishments employing 2,500 workers or more—Continued**

(Employment and average monthly salaries for selected professional, administrative, technical, and clerical occupations in private industry,<sup>1</sup> in establishments employing 2,500 workers or more,<sup>2</sup> United States except Alaska and Hawaii, March 1979)

| Occupation and level <sup>3</sup> | Number of employees <sup>4</sup> | Monthly salaries <sup>5</sup> |         |                           |                | Levels in establishments employing 2,500 workers or more expressed as percent of those in all establishments combined |               |
|-----------------------------------|----------------------------------|-------------------------------|---------|---------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------|---------------|
|                                   |                                  | Mean                          | Median  | Middle range <sup>6</sup> |                |                                                                                                                       |               |
|                                   |                                  |                               |         | First quartile            | Third quartile |                                                                                                                       |               |
|                                   |                                  |                               |         |                           |                | Employment                                                                                                            | Mean salaries |
| ENGINEERS I .....                 | 8,196                            | \$1,494                       | \$1,483 | \$1,399                   | \$1,586        | 39                                                                                                                    | 103           |
| ENGINEERS II .....                | 16,710                           | 1,637                         | 1,603   | 1,500                     | 1,747          | 42                                                                                                                    | 103           |
| ENGINEERS III .....               | 40,002                           | 1,892                         | 1,861   | 1,708                     | 2,052          | 42                                                                                                                    | 104           |
| ENGINEERS IV .....                | 61,887                           | 2,221                         | 2,203   | 2,012                     | 2,425          | 49                                                                                                                    | 103           |
| ENGINEERS V .....                 | 48,895                           | 2,578                         | 2,564   | 2,352                     | 2,796          | 53                                                                                                                    | 102           |
| ENGINEERS VI .....                | 22,674                           | 2,966                         | 2,942   | 2,710                     | 3,183          | 58                                                                                                                    | 102           |
| ENGINEERS VII .....               | 9,252                            | 3,314                         | 3,299   | 3,050                     | 3,564          | 63                                                                                                                    | 101           |
| ENGINEERS VIII .....              | 2,368                            | 3,866                         | 3,815   | 3,524                     | 4,130          | 71                                                                                                                    | 103           |
| TECHNICAL SUPPORT                 |                                  |                               |         |                           |                |                                                                                                                       |               |
| ENGINEERING TECHNICIANS I .....   | 1,501                            | 971                           | 934     | 829                       | 1,091          | 33                                                                                                                    | 108           |
| ENGINEERING TECHNICIANS II .....  | 5,823                            | 1,135                         | 1,100   | 1,003                     | 1,230          | 35                                                                                                                    | 107           |
| ENGINEERING TECHNICIANS III ..... | 11,409                           | 1,297                         | 1,286   | 1,137                     | 1,445          | 40                                                                                                                    | 103           |
| ENGINEERING TECHNICIANS IV .....  | 17,233                           | 1,500                         | 1,490   | 1,350                     | 1,639          | 53                                                                                                                    | 102           |
| ENGINEERING TECHNICIANS V .....   | 13,237                           | 1,697                         | 1,695   | 1,535                     | 1,846          | 71                                                                                                                    | 101           |
| DRAFTERS I .....                  | 738                              | 939                           | 899     | 761                       | 1,149          | 23                                                                                                                    | 120           |
| DRAFTERS II .....                 | 2,404                            | 1,010                         | 980     | 865                       | 1,133          | 24                                                                                                                    | 113           |
| DRAFTERS III .....                | 6,379                            | 1,196                         | 1,170   | 1,024                     | 1,358          | 29                                                                                                                    | 112           |
| DRAFTERS IV .....                 | 8,989                            | 1,405                         | 1,385   | 1,222                     | 1,559          | 29                                                                                                                    | 110           |
| DRAFTERS V .....                  | 10,208                           | 1,728                         | 1,667   | 1,474                     | 1,908          | 33                                                                                                                    | 108           |
| COMPUTER OPERATORS I .....        | 1,492                            | 851                           | 818     | 711                       | 945            | 26                                                                                                                    | 111           |
| COMPUTER OPERATORS II .....       | 2,114                            | 1,029                         | 1,107   | 890                       | 1,143          | 29                                                                                                                    | 114           |
| COMPUTER OPERATORS III .....      | 6,490                            | 1,141                         | 1,114   | 960                       | 1,252          | 25                                                                                                                    | 114           |
| COMPUTER OPERATORS IV .....       | 5,751                            | 1,359                         | 1,317   | 1,164                     | 1,518          | 37                                                                                                                    | 109           |
| COMPUTER OPERATORS V .....        | 1,884                            | 1,493                         | 1,462   | 1,304                     | 1,597          | 51                                                                                                                    | 106           |
| CLERICAL                          |                                  |                               |         |                           |                |                                                                                                                       |               |
| ACCOUNTING CLERKS II .....        | 14,036                           | 932                           | 897     | 754                       | 1,096          | 17                                                                                                                    | 117           |
| ACCOUNTING CLERKS III .....       | 14,208                           | 1,052                         | 1,055   | 869                       | 1,169          | 23                                                                                                                    | 111           |
| ACCOUNTING CLERKS IV .....        | 7,467                            | 1,283                         | 1,253   | 1,110                     | 1,482          | 31                                                                                                                    | 113           |
| FILE CLERKS I .....               | 2,649                            | 655                           | 587     | 543                       | 692            | 10                                                                                                                    | 111           |
| FILE CLERKS II .....              | 2,827                            | 788                           | 695     | 597                       | 951            | 17                                                                                                                    | 114           |
| FILE CLERKS III .....             | 1,509                            | 936                           | 915     | 756                       | 1,054          | 35                                                                                                                    | 107           |
| KEY ENTRY OPERATORS I .....       | 12,611                           | 936                           | 900     | 730                       | 1,093          | 17                                                                                                                    | 123           |
| KEY ENTRY OPERATORS II .....      | 11,683                           | 1,003                         | 947     | 804                       | 1,164          | 25                                                                                                                    | 111           |
| MESSENGERS .....                  | 5,000                            | 729                           | 673     | 593                       | 816            | 26                                                                                                                    | 108           |
| PERSONNEL CLERKS I .....          | 367                              | 839                           | 800     | 669                       | 1,004          | 16                                                                                                                    | 112           |
| PERSONNEL CLERKS II .....         | 1,004                            | 1,035                         | 1,020   | 827                       | 1,258          | 18                                                                                                                    | 116           |
| PERSONNEL CLERKS III .....        | 665                              | 1,097                         | 1,082   | 965                       | 1,255          | 20                                                                                                                    | 109           |
| PERSONNEL CLERKS IV .....         | 434                              | 1,484                         | 1,503   | 1,260                     | 1,745          | 22                                                                                                                    | 125           |
| SECRETARIES I .....               | 9,401                            | 916                           | 891     | 789                       | 1,008          | 24                                                                                                                    | 106           |
| SECRETARIES II .....              | 25,885                           | 1,024                         | 1,000   | 870                       | 1,152          | 33                                                                                                                    | 108           |
| SECRETARIES III .....             | 33,683                           | 1,169                         | 1,138   | 986                       | 1,325          | 36                                                                                                                    | 109           |
| SECRETARIES IV .....              | 16,135                           | 1,308                         | 1,289   | 1,112                     | 1,477          | 32                                                                                                                    | 111           |
| SECRETARIES V .....               | 5,583                            | 1,432                         | 1,412   | 1,238                     | 1,595          | 32                                                                                                                    | 110           |
| STENOGRAPHERS, GENERAL .....      | 10,846                           | 934                           | 900     | 759                       | 1,074          | 44                                                                                                                    | 103           |
| STENOGRAPHERS, SENIOR .....       | 11,224                           | 1,056                         | 1,040   | 872                       | 1,198          | 50                                                                                                                    | 102           |
| TYPISTS I .....                   | 10,990                           | 765                           | 710     | 621                       | 845            | 24                                                                                                                    | 109           |
| TYPISTS II .....                  | 9,750                            | 902                           | 860     | 705                       | 1,064          | 34                                                                                                                    | 107           |

<sup>1</sup> For scope of study, see table A-1 in appendix A.

<sup>2</sup> Includes data from 6 large companies that provide companywide data not identified by size of establishment.

<sup>3</sup> Occupational definitions appear in appendix C.

<sup>4</sup> Occupational employment estimates relate to the total in all establishments within the scope of the survey and not to the number actually surveyed. For further explanation, see appendix A.

<sup>5</sup> Salaries reported are standard salaries paid for standard work schedules; i.e., the straight-time salary corresponding to the employee's normal work schedule excluding overtime hours. Nonproduction bonuses are excluded, but cost-of-living payments and incentive earnings are included.

<sup>6</sup> The middle range (interquartile) is the central part of the array excluding the upper and lower fourths of the employee distribution.

**Table 4. Employment distribution by salary: Professional and administrative occupations**

 (Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii, <sup>1</sup> March 1979)

| Monthly salary                  | Accountants |         |         |         |         | Auditors |         |         |         |
|---------------------------------|-------------|---------|---------|---------|---------|----------|---------|---------|---------|
|                                 | I           | II      | III     | IV      | V       | I        | II      | III     | IV      |
| \$800 AND UNDER \$825 .....     | -           | -       | -       | -       | -       | 0.5      | -       | -       | -       |
| \$825 AND UNDER \$850 .....     | (1.3)       | -       | -       | -       | -       | 1.0      | -       | -       | -       |
| \$850 AND UNDER \$875 .....     | 1.4         | -       | -       | -       | -       | .8       | -       | -       | -       |
| \$875 AND UNDER \$900 .....     | .7          | -       | -       | -       | -       | .5       | -       | -       | -       |
| \$900 AND UNDER \$925 .....     | 3.5         | -       | -       | -       | -       | 1.9      | -       | -       | -       |
| \$925 AND UNDER \$950 .....     | 1.9         | -       | -       | -       | -       | 1.9      | -       | -       | -       |
| \$950 AND UNDER \$975 .....     | 2.3         | (2.5)   | -       | -       | -       | 8.4      | -       | -       | -       |
| \$975 AND UNDER \$1,000 .....   | 3.4         | 1.3     | -       | -       | -       | 5.4      | (1.6)   | -       | -       |
| \$1,000 AND UNDER \$1,050 ..... | 13.8        | 1.5     | -       | -       | -       | 14.5     | 2.4     | -       | -       |
| \$1,050 AND UNDER \$1,100 ..... | 11.3        | 3.8     | -       | -       | -       | 13.9     | 2.2     | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 14.0        | 5.2     | (0.9)   | -       | -       | 9.6      | 5.4     | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 12.9        | 8.9     | 1.9     | -       | -       | 15.1     | 11.7    | (1.7)   | -       |
| \$1,200 AND UNDER \$1,250 ..... | 11.0        | 9.6     | 2.5     | -       | -       | 12.5     | 7.7     | 2.3     | -       |
| \$1,250 AND UNDER \$1,300 ..... | 7.3         | 9.4     | 4.0     | -       | -       | 2.9      | 10.7    | 2.3     | -       |
| \$1,300 AND UNDER \$1,350 ..... | 5.2         | 9.9     | 5.4     | -       | -       | 4.1      | 7.8     | 4.6     | -       |
| \$1,350 AND UNDER \$1,400 ..... | 2.3         | 7.6     | 6.6     | (0.7)   | -       | 1.0      | 12.2    | 4.4     | -       |
| \$1,400 AND UNDER \$1,450 ..... | 1.9         | 5.9     | 6.1     | 1.0     | -       | 1.6      | 6.5     | 4.9     | -       |
| \$1,450 AND UNDER \$1,500 ..... | 2.2         | 5.3     | 8.1     | 1.1     | -       | 2.5      | 6.6     | 5.2     | (2.5)   |
| \$1,500 AND UNDER \$1,550 ..... | 1.6         | 4.8     | 8.3     | 1.2     | -       | (1.9)    | 5.8     | 6.0     | 1.1     |
| \$1,550 AND UNDER \$1,600 ..... | (2.1)       | 3.9     | 7.1     | 2.4     | -       | -        | 4.5     | 7.4     | 1.5     |
| \$1,600 AND UNDER \$1,650 ..... | -           | 3.0     | 7.6     | 3.3     | -       | -        | 2.9     | 7.0     | 2.3     |
| \$1,650 AND UNDER \$1,700 ..... | -           | 2.5     | 7.3     | 5.2     | -       | -        | 3.3     | 7.8     | 2.2     |
| \$1,700 AND UNDER \$1,750 ..... | -           | 2.5     | 6.0     | 5.8     | -       | -        | 2.7     | 6.9     | 4.0     |
| \$1,750 AND UNDER \$1,800 ..... | -           | 2.2     | 5.0     | 4.8     | (1.3)   | -        | 1.0     | 5.6     | 3.3     |
| \$1,800 AND UNDER \$1,850 ..... | -           | 2.6     | 3.9     | 7.5     | 1.1     | -        | 1.0     | 5.9     | 6.3     |
| \$1,850 AND UNDER \$1,900 ..... | -           | 4.4     | 3.4     | 6.0     | 1.0     | -        | 2.0     | 4.5     | 8.6     |
| \$1,900 AND UNDER \$1,950 ..... | -           | (3.2)   | 3.1     | 7.8     | 3.0     | -        | (2.1)   | 6.1     | 5.9     |
| \$1,950 AND UNDER \$2,000 ..... | -           | -       | 2.7     | 6.6     | 2.3     | -        | -       | 3.1     | 6.0     |
| \$2,000 AND UNDER \$2,050 ..... | -           | -       | 2.5     | 6.4     | 3.2     | -        | -       | 4.0     | 7.5     |
| \$2,050 AND UNDER \$2,100 ..... | -           | -       | 1.9     | 6.6     | 4.7     | -        | -       | 3.6     | 7.4     |
| \$2,100 AND UNDER \$2,150 ..... | -           | -       | 2.6     | 4.7     | 3.7     | -        | -       | 2.6     | 6.4     |
| \$2,150 AND UNDER \$2,200 ..... | -           | -       | (3.0)   | 5.4     | 3.7     | -        | -       | 1.3     | 7.4     |
| \$2,200 AND UNDER \$2,250 ..... | -           | -       | -       | 4.0     | 5.0     | -        | -       | (2.8)   | 4.4     |
| \$2,250 AND UNDER \$2,300 ..... | -           | -       | -       | 3.8     | 4.6     | -        | -       | -       | 3.6     |
| \$2,300 AND UNDER \$2,350 ..... | -           | -       | -       | 2.8     | 5.6     | -        | -       | -       | 3.8     |
| \$2,350 AND UNDER \$2,400 ..... | -           | -       | -       | 2.3     | 4.1     | -        | -       | -       | 3.2     |
| \$2,400 AND UNDER \$2,450 ..... | -           | -       | -       | 3.1     | 6.3     | -        | -       | -       | 2.3     |
| \$2,450 AND UNDER \$2,500 ..... | -           | -       | -       | 1.6     | 5.7     | -        | -       | -       | 2.3     |
| \$2,500 AND UNDER \$2,600 ..... | -           | -       | -       | 2.2     | 9.6     | -        | -       | -       | 3.3     |
| \$2,600 AND UNDER \$2,700 ..... | -           | -       | -       | 1.8     | 9.3     | -        | -       | -       | 2.3     |
| \$2,700 AND UNDER \$2,800 ..... | -           | -       | -       | 1.0     | 7.6     | -        | -       | -       | (2.3)   |
| \$2,800 AND UNDER \$2,900 ..... | -           | -       | -       | (1.0)   | 4.9     | -        | -       | -       | -       |
| \$2,900 AND UNDER \$3,000 ..... | -           | -       | -       | -       | 4.6     | -        | -       | -       | -       |
| \$3,000 AND UNDER \$3,100 ..... | -           | -       | -       | -       | 3.5     | -        | -       | -       | -       |
| \$3,100 AND UNDER \$3,200 ..... | -           | -       | -       | -       | 1.8     | -        | -       | -       | -       |
| \$3,200 AND UNDER \$3,300 ..... | -           | -       | -       | -       | 1.1     | -        | -       | -       | -       |
| \$3,300 AND OVER .....          | -           | -       | -       | -       | (2.2)   | -        | -       | -       | -       |
| TOTAL .....                     | 100.0       | 100.0   | 100.0   | 100.0   | 100.0   | 100.0    | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 10,279      | 18,202  | 31,749  | 13,512  | 6,594   | 2,179    | 2,966   | 4,757   | 3,356   |
| AVERAGE MONTHLY SALARY .....    | \$1,149     | \$1,392 | \$1,622 | \$2,004 | \$2,479 | \$1,124  | \$1,374 | \$1,692 | \$2,058 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

(Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Public accountants |         |         |         | Chief accountants |         |         |         |
|---------------------------------|--------------------|---------|---------|---------|-------------------|---------|---------|---------|
|                                 | I                  | II      | III     | IV      | I                 | II      | III     | IV      |
| UNDER \$950 .....               | (1.2)              | -       | -       | -       | -                 | -       | -       | -       |
| \$950 AND UNDER \$975 .....     | 1.0                | -       | -       | -       | -                 | -       | -       | -       |
| \$975 AND UNDER \$1,000 .....   | 2.8                | -       | -       | -       | -                 | -       | -       | -       |
| \$1,000 AND UNDER \$1,050 ..... | 2.2                | -       | -       | -       | -                 | -       | -       | -       |
| \$1,050 AND UNDER \$1,100 ..... | 9.3                | (0.6)   | -       | -       | -                 | -       | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 25.5               | 1.0     | -       | -       | -                 | -       | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 30.4               | 13.1    | -       | -       | -                 | -       | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 17.1               | 18.9    | -       | -       | -                 | -       | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 6.4                | 18.8    | (1.2)   | -       | -                 | -       | -       | -       |
| \$1,300 AND UNDER \$1,350 ..... | 2.2                | 15.0    | 3.9     | -       | -                 | -       | -       | -       |
| \$1,350 AND UNDER \$1,400 ..... | 1.0                | 10.9    | 8.9     | 0.6     | -                 | -       | -       | -       |
| \$1,400 AND UNDER \$1,450 ..... | (1.1)              | 7.7     | 10.4    | 2.9     | -                 | -       | -       | -       |
| \$1,450 AND UNDER \$1,500 ..... | -                  | 6.2     | 12.7    | 2.8     | -                 | -       | -       | -       |
| \$1,500 AND UNDER \$1,550 ..... | -                  | 3.4     | 8.9     | 3.6     | -                 | -       | -       | -       |
| \$1,550 AND UNDER \$1,600 ..... | -                  | 1.9     | 14.9    | 5.6     | -                 | -       | -       | -       |
| \$1,600 AND UNDER \$1,650 ..... | -                  | (2.5)   | 10.1    | 3.1     | (1.1)             | -       | -       | -       |
| \$1,650 AND UNDER \$1,700 ..... | -                  | -       | 7.2     | 4.9     | 2.5               | -       | -       | -       |
| \$1,700 AND UNDER \$1,750 ..... | -                  | -       | 6.4     | 7.9     | 3.6               | -       | -       | -       |
| \$1,750 AND UNDER \$1,800 ..... | -                  | -       | 3.3     | 6.2     | 8.0               | 2.9     | -       | -       |
| \$1,800 AND UNDER \$1,850 ..... | -                  | -       | 3.6     | 5.0     | 1.1               | .9      | -       | -       |
| \$1,850 AND UNDER \$1,900 ..... | -                  | -       | 1.4     | 5.4     | 4.5               | -       | -       | -       |
| \$1,900 AND UNDER \$1,950 ..... | -                  | -       | 1.1     | 6.2     | 7.6               | .8      | -       | -       |
| \$1,950 AND UNDER \$2,000 ..... | -                  | -       | 1.4     | 7.1     | 3.3               | .1      | -       | -       |
| \$2,000 AND UNDER \$2,050 ..... | -                  | -       | .8      | 3.4     | 4.0               | 4.7     | -       | -       |
| \$2,050 AND UNDER \$2,100 ..... | -                  | -       | .8      | 3.3     | 1.6               | 10.7    | -       | -       |
| \$2,100 AND UNDER \$2,150 ..... | -                  | -       | -       | 2.2     | 9.9               | .9      | -       | -       |
| \$2,150 AND UNDER \$2,200 ..... | -                  | -       | 1.5     | 3.0     | 9.8               | 5.0     | -       | -       |
| \$2,200 AND UNDER \$2,250 ..... | -                  | -       | .5      | 3.0     | 12.6              | 3.2     | (0.4)   | -       |
| \$2,250 AND UNDER \$2,300 ..... | -                  | -       | .3      | 1.5     | 11.3              | 3.8     | 1.4     | -       |
| \$2,300 AND UNDER \$2,350 ..... | -                  | -       | 1.5     | 1.9     | .7                | 6.0     | -       | -       |
| \$2,350 AND UNDER \$2,400 ..... | -                  | -       | -       | 1.0     | -                 | 5.2     | 1.0     | -       |
| \$2,400 AND UNDER \$2,450 ..... | -                  | -       | -       | 2.9     | 14.4              | 2.0     | 4.5     | -       |
| \$2,450 AND UNDER \$2,500 ..... | -                  | -       | -       | 4.4     | .5                | 11.2    | 2.4     | -       |
| \$2,500 AND UNDER \$2,600 ..... | -                  | -       | -       | 2.8     | .8                | 12.5    | 6.0     | -       |
| \$2,600 AND UNDER \$2,700 ..... | -                  | -       | -       | .7      | 2.7               | 3.6     | 2.4     | 1.2     |
| \$2,700 AND UNDER \$2,800 ..... | -                  | -       | -       | 1.5     | -                 | 7.8     | 5.6     | 3.6     |
| \$2,800 AND UNDER \$2,900 ..... | -                  | -       | -       | 1.6     | -                 | 7.3     | 12.9    | 1.2     |
| \$2,900 AND UNDER \$3,000 ..... | -                  | -       | -       | 2.4     | -                 | .7      | 10.8    | -       |
| \$3,000 AND UNDER \$3,100 ..... | -                  | -       | -       | (3.1)   | -                 | 6.2     | 7.8     | -       |
| \$3,100 AND UNDER \$3,200 ..... | -                  | -       | -       | -       | -                 | 2.1     | 11.8    | 2.4     |
| \$3,200 AND UNDER \$3,300 ..... | -                  | -       | -       | -       | -                 | 1.3     | 3.6     | 2.4     |
| \$3,300 AND UNDER \$3,400 ..... | -                  | -       | -       | -       | -                 | (1.0)   | 8.0     | 3.6     |
| \$3,400 AND UNDER \$3,500 ..... | -                  | -       | -       | -       | -                 | -       | 6.6     | 20.6    |
| \$3,500 AND UNDER \$3,600 ..... | -                  | -       | -       | -       | -                 | -       | 3.6     | 4.8     |
| \$3,600 AND UNDER \$3,700 ..... | -                  | -       | -       | -       | -                 | -       | 3.2     | 13.9    |
| \$3,700 AND UNDER \$3,800 ..... | -                  | -       | -       | -       | -                 | -       | 2.8     | 5.5     |
| \$3,800 AND UNDER \$3,900 ..... | -                  | -       | -       | -       | -                 | -       | 1.4     | 7.9     |
| \$3,900 AND UNDER \$4,000 ..... | -                  | -       | -       | -       | -                 | -       | (2.4)   | 1.2     |
| \$4,000 AND UNDER \$4,100 ..... | -                  | -       | -       | -       | -                 | -       | -       | 6.7     |
| \$4,100 AND UNDER \$4,200 ..... | -                  | -       | -       | -       | -                 | -       | -       | 3.6     |
| \$4,200 AND UNDER \$4,300 ..... | -                  | -       | -       | -       | -                 | -       | -       | 3.6     |
| \$4,300 AND UNDER \$4,400 ..... | -                  | -       | -       | -       | -                 | -       | -       | 2.4     |
| \$4,400 AND UNDER \$4,500 ..... | -                  | -       | -       | -       | -                 | -       | -       | 4.8     |
| \$4,500 AND UNDER \$4,600 ..... | -                  | -       | -       | -       | -                 | -       | -       | 6.7     |
| \$4,600 AND UNDER \$4,700 ..... | -                  | -       | -       | -       | -                 | -       | -       | -       |
| \$4,700 AND UNDER \$4,800 ..... | -                  | -       | -       | -       | -                 | -       | -       | 1.8     |
| \$4,800 AND UNDER \$4,900 ..... | -                  | -       | -       | -       | -                 | -       | -       | -       |
| \$4,900 AND UNDER \$5,000 ..... | -                  | -       | -       | -       | -                 | -       | -       | 1.8     |
| TOTAL .....                     | 100.0              | 100.0   | 100.0   | 100.0   | 100.0             | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 7,177              | 6,862   | 5,397   | 2,721   | 728               | 1,052   | 498     | 165     |
| AVERAGE MONTHLY SALARY .....    | \$1,162            | \$1,318 | \$1,598 | \$2,015 | \$2,121           | \$2,467 | \$3,047 | \$3,773 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

(Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii, 1 March 1979)

| Monthly salary                  | Attorneys |         |         |         |         |         |
|---------------------------------|-----------|---------|---------|---------|---------|---------|
|                                 | I         | II      | III     | IV      | V       | VI      |
| \$1,050 AND UNDER \$1,100 ..... | 4.9       | -       | -       | -       | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | .6        | -       | -       | -       | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | .6        | -       | -       | -       | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 13.6      | -       | -       | -       | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 5.5       | -       | -       | -       | -       | -       |
| \$1,300 AND UNDER \$1,350 ..... | 7.3       | -       | -       | -       | -       | -       |
| \$1,350 AND UNDER \$1,400 ..... | 5.1       | (0.9)   | -       | -       | -       | -       |
| \$1,400 AND UNDER \$1,450 ..... | 8.1       | 2.8     | -       | -       | -       | -       |
| \$1,450 AND UNDER \$1,500 ..... | 3.4       | 1.6     | -       | -       | -       | -       |
| \$1,500 AND UNDER \$1,550 ..... | 3.8       | 2.4     | -       | -       | -       | -       |
| \$1,550 AND UNDER \$1,600 ..... | 4.7       | 3.9     | -       | -       | -       | -       |
| \$1,600 AND UNDER \$1,650 ..... | 1.7       | 2.5     | 1.2     | -       | -       | -       |
| \$1,650 AND UNDER \$1,700 ..... | 8.8       | 8.5     | 1.2     | -       | -       | -       |
| \$1,700 AND UNDER \$1,750 ..... | 2.6       | 1.8     | .4      | -       | -       | -       |
| \$1,750 AND UNDER \$1,800 ..... | 5.3       | 5.7     | 1.0     | -       | -       | -       |
| \$1,800 AND UNDER \$1,850 ..... | .7        | 4.1     | .5      | -       | -       | -       |
| \$1,850 AND UNDER \$1,900 ..... | 1.7       | 5.1     | 3.8     | -       | -       | -       |
| \$1,900 AND UNDER \$1,950 ..... | 8.3       | 8.1     | 2.2     | -       | -       | -       |
| \$1,950 AND UNDER \$2,000 ..... | .8        | 6.7     | 1.2     | -       | -       | -       |
| \$2,000 AND UNDER \$2,050 ..... | 8.4       | 5.6     | 5.6     | -       | -       | -       |
| \$2,050 AND UNDER \$2,100 ..... | .8        | 10.1    | 5.0     | -       | -       | -       |
| \$2,100 AND UNDER \$2,150 ..... | 1.1       | 5.2     | 3.7     | -       | -       | -       |
| \$2,150 AND UNDER \$2,200 ..... | 1.4       | 5.1     | 4.8     | -       | -       | -       |
| \$2,200 AND UNDER \$2,250 ..... | (0.9)     | 4.2     | 5.0     | -       | -       | -       |
| \$2,250 AND UNDER \$2,300 ..... | -         | 2.8     | 3.0     | -       | -       | -       |
| \$2,300 AND UNDER \$2,350 ..... | -         | 4.3     | 3.6     | (2.6)   | -       | -       |
| \$2,350 AND UNDER \$2,400 ..... | -         | 1.3     | 2.1     | 1.6     | -       | -       |
| \$2,400 AND UNDER \$2,450 ..... | -         | 1.7     | 4.7     | 1.2     | -       | -       |
| \$2,450 AND UNDER \$2,500 ..... | -         | .6      | 5.7     | 2.5     | -       | -       |
| \$2,500 AND UNDER \$2,600 ..... | -         | 1.9     | 8.2     | 3.3     | (0.3)   | -       |
| \$2,600 AND UNDER \$2,700 ..... | -         | 1.1     | 8.8     | 4.5     | 1.3     | -       |
| \$2,700 AND UNDER \$2,800 ..... | -         | (0.8)   | 7.4     | 8.8     | .3      | -       |
| \$2,800 AND UNDER \$2,900 ..... | -         | -       | 4.6     | 9.0     | 1.0     | -       |
| \$2,900 AND UNDER \$3,000 ..... | -         | -       | 4.2     | 11.5    | 3.7     | -       |
| \$3,000 AND UNDER \$3,100 ..... | -         | -       | 3.0     | 6.8     | 2.4     | -       |
| \$3,100 AND UNDER \$3,200 ..... | -         | -       | 3.4     | 7.5     | 6.1     | -       |
| \$3,200 AND UNDER \$3,300 ..... | -         | -       | 2.4     | 5.2     | 4.2     | (2.2)   |
| \$3,300 AND UNDER \$3,400 ..... | -         | -       | 1.7     | 6.2     | 6.7     | 5.8     |
| \$3,400 AND UNDER \$3,500 ..... | -         | -       | (1.9)   | 5.7     | 8.2     | 1.5     |
| \$3,500 AND UNDER \$3,600 ..... | -         | -       | -       | 4.4     | 9.3     | 1.6     |
| \$3,600 AND UNDER \$3,700 ..... | -         | -       | -       | 3.8     | 7.6     | .5      |
| \$3,700 AND UNDER \$3,800 ..... | -         | -       | -       | 4.8     | 4.9     | 1.5     |
| \$3,800 AND UNDER \$3,900 ..... | -         | -       | -       | 1.7     | 4.8     | 1.1     |
| \$3,900 AND UNDER \$4,000 ..... | -         | -       | -       | 2.1     | 5.8     | 1.6     |
| \$4,000 AND UNDER \$4,100 ..... | -         | -       | -       | .8      | 4.7     | 3.5     |
| \$4,100 AND UNDER \$4,200 ..... | -         | -       | -       | 1.5     | 5.7     | 3.1     |
| \$4,200 AND UNDER \$4,300 ..... | -         | -       | -       | .7      | 3.9     | 8.2     |
| \$4,300 AND UNDER \$4,400 ..... | -         | -       | -       | .6      | 2.4     | 6.6     |
| \$4,400 AND UNDER \$4,500 ..... | -         | -       | -       | 1.1     | 3.6     | 4.4     |
| \$4,500 AND UNDER \$4,600 ..... | -         | -       | -       | (1.6)   | 3.8     | 3.6     |
| \$4,600 AND UNDER \$4,700 ..... | -         | -       | -       | -       | 2.5     | 9.6     |
| \$4,700 AND UNDER \$4,800 ..... | -         | -       | -       | -       | 1.1     | 3.1     |
| \$4,800 AND UNDER \$4,900 ..... | -         | -       | -       | -       | 1.7     | 3.0     |
| \$4,900 AND UNDER \$5,000 ..... | -         | -       | -       | -       | .4      | 3.8     |
| \$5,000 AND UNDER \$5,100 ..... | -         | -       | -       | -       | 1.3     | 5.1     |
| \$5,100 AND UNDER \$5,200 ..... | -         | -       | -       | -       | (2.6)   | 1.8     |
| \$5,200 AND UNDER \$5,300 ..... | -         | -       | -       | -       | -       | 3.5     |
| \$5,300 AND UNDER \$5,400 ..... | -         | -       | -       | -       | -       | 5.1     |
| \$5,400 AND UNDER \$5,500 ..... | -         | -       | -       | -       | -       | 2.3     |
| \$5,500 AND UNDER \$5,600 ..... | -         | -       | -       | -       | -       | 3.6     |
| \$5,600 AND UNDER \$5,700 ..... | -         | -       | -       | -       | -       | 1.9     |
| \$5,700 AND UNDER \$5,800 ..... | -         | -       | -       | -       | -       | .8      |
| \$5,800 AND UNDER \$5,900 ..... | -         | -       | -       | -       | -       | .1      |
| \$5,900 AND UNDER \$6,000 ..... | -         | -       | -       | -       | -       | 1.1     |
| \$6,000 AND UNDER \$6,100 ..... | -         | -       | -       | -       | -       | 1.6     |
| \$6,100 AND UNDER \$6,200 ..... | -         | -       | -       | -       | -       | 1.8     |
| \$6,200 AND UNDER \$6,300 ..... | -         | -       | -       | -       | -       | .3      |
| \$6,300 AND UNDER \$6,400 ..... | -         | -       | -       | -       | -       | .7      |
| \$6,400 AND UNDER \$6,500 ..... | -         | -       | -       | -       | -       | 2.0     |
| \$6,500 AND OVER .....          | -         | -       | -       | -       | -       | 3.6     |
| TOTAL .....                     | 100.0     | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       |           |         |         |         |         |         |
| AVERAGE MONTHLY SALARY .....    | \$1,562   | \$1,956 | \$2,470 | \$3,151 | \$3,800 | \$4,747 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

(Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii, 1 March 1979)

| Monthly salary                  | Buyers  |         |         |         |
|---------------------------------|---------|---------|---------|---------|
|                                 | I       | II      | III     | IV      |
| UNDER \$850 .....               | (2.6)   | -       | -       | -       |
| \$850 AND UNDER \$875 .....     | 2.5     | -       | -       | -       |
| \$875 AND UNDER \$900 .....     | 2.2     | -       | -       | -       |
| \$900 AND UNDER \$925 .....     | 2.1     | -       | -       | -       |
| \$925 AND UNDER \$950 .....     | 2.5     | -       | -       | -       |
| \$950 AND UNDER \$975 .....     | 7.1     | -       | -       | -       |
| \$975 AND UNDER \$1,000 .....   | 4.1     | -       | -       | -       |
| \$1,000 AND UNDER \$1,050 ..... | 11.0    | (3.2)   | -       | -       |
| \$1,050 AND UNDER \$1,100 ..... | 12.2    | 4.1     | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 9.4     | 4.4     | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 9.7     | 5.2     | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 6.7     | 7.1     | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 6.7     | 8.2     | (2.4)   | -       |
| \$1,300 AND UNDER \$1,350 ..... | 4.4     | 8.6     | 2.7     | -       |
| \$1,350 AND UNDER \$1,400 ..... | 4.4     | 8.2     | 2.8     | (3.8)   |
| \$1,400 AND UNDER \$1,450 ..... | 3.5     | 7.5     | 3.6     | 1.2     |
| \$1,450 AND UNDER \$1,500 ..... | 1.8     | 8.7     | 5.0     | 1.0     |
| \$1,500 AND UNDER \$1,550 ..... | 2.4     | 6.7     | 6.8     | 2.1     |
| \$1,550 AND UNDER \$1,600 ..... | .7      | 6.0     | 8.4     | 2.0     |
| \$1,600 AND UNDER \$1,650 ..... | .7      | 5.5     | 6.4     | 2.6     |
| \$1,650 AND UNDER \$1,700 ..... | 1.3     | 4.0     | 9.3     | 2.8     |
| \$1,700 AND UNDER \$1,750 ..... | (2.2)   | 2.9     | 7.1     | 3.2     |
| \$1,750 AND UNDER \$1,800 ..... | -       | 2.5     | 5.3     | 3.4     |
| \$1,800 AND UNDER \$1,850 ..... | -       | 1.8     | 6.4     | 4.4     |
| \$1,850 AND UNDER \$1,900 ..... | -       | 1.0     | 5.0     | 4.6     |
| \$1,900 AND UNDER \$1,950 ..... | -       | 1.2     | 5.2     | 6.1     |
| \$1,950 AND UNDER \$2,000 ..... | -       | (3.1)   | 5.2     | 5.8     |
| \$2,000 AND UNDER \$2,050 ..... | -       | -       | 2.9     | 6.4     |
| \$2,050 AND UNDER \$2,100 ..... | -       | -       | 2.3     | 4.0     |
| \$2,100 AND UNDER \$2,150 ..... | -       | -       | 1.8     | 5.7     |
| \$2,150 AND UNDER \$2,200 ..... | -       | -       | 2.0     | 4.8     |
| \$2,200 AND UNDER \$2,250 ..... | -       | -       | 1.4     | 4.5     |
| \$2,250 AND UNDER \$2,300 ..... | -       | -       | 1.9     | 3.8     |
| \$2,300 AND UNDER \$2,350 ..... | -       | -       | 1.2     | 5.5     |
| \$2,350 AND UNDER \$2,400 ..... | -       | -       | .8      | 2.7     |
| \$2,400 AND UNDER \$2,450 ..... | -       | -       | 1.1     | 3.1     |
| \$2,450 AND UNDER \$2,500 ..... | -       | -       | (2.9)   | 2.4     |
| \$2,500 AND UNDER \$2,600 ..... | -       | -       | -       | 2.7     |
| \$2,600 AND UNDER \$2,700 ..... | -       | -       | -       | 2.9     |
| \$2,700 AND UNDER \$2,800 ..... | -       | -       | -       | 2.0     |
| \$2,800 AND UNDER \$2,900 ..... | -       | -       | -       | 2.0     |
| \$2,900 AND UNDER \$3,000 ..... | -       | -       | -       | 1.2     |
| \$3,000 AND UNDER \$3,100 ..... | -       | -       | -       | 1.0     |
| \$3,100 AND UNDER \$3,200 ..... | -       | -       | -       | 1.0     |
| \$3,200 AND UNDER \$3,300 ..... | -       | -       | -       | .4      |
| \$3,300 AND UNDER \$3,400 ..... | -       | -       | -       | 1.3     |
| \$3,400 AND OVER .....          | -       | -       | -       | 2.5     |
| TOTAL .....                     | 100.0   | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 6,959   | 17,392  | 15,964  | 5,163   |
| AVERAGE MONTHLY SALARY .....    | \$1,155 | \$1,426 | \$1,767 | \$2,126 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

 (Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii, <sup>1</sup> March 1979)

| Monthly salary                  | Job analysts |         |         | Directors of personnel |         |         |         |
|---------------------------------|--------------|---------|---------|------------------------|---------|---------|---------|
|                                 | II           | III     | IV      | I                      | II      | III     | IV      |
| UNDER \$950 .....               | (0.8)        | -       | -       | -                      | -       | -       | -       |
| \$950 AND UNDER \$975 .....     | 1.5          | -       | -       | -                      | -       | -       | -       |
| \$975 AND UNDER \$1,000 .....   | 1.3          | (0.6)   | -       | -                      | -       | -       | -       |
| \$1,000 AND UNDER \$1,050 ..... | 3.3          | 3.3     | -       | -                      | -       | -       | -       |
| \$1,050 AND UNDER \$1,100 ..... | 4.3          | 3       | -       | -                      | -       | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 12.4         | .7      | -       | -                      | -       | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 18.0         | -       | -       | -                      | -       | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 14.7         | .4      | -       | 1.3                    | -       | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 11.6         | .3      | -       | -                      | -       | -       | -       |
| \$1,300 AND UNDER \$1,350 ..... | 5.6          | 5.4     | -       | 4.7                    | -       | -       | -       |
| \$1,350 AND UNDER \$1,400 ..... | 3.3          | 2.5     | (1.2)   | 1.5                    | -       | -       | -       |
| \$1,400 AND UNDER \$1,450 ..... | 4.6          | 7.9     | 1.0     | 3.0                    | (0.5)   | -       | -       |
| \$1,450 AND UNDER \$1,500 ..... | 3.3          | 6.1     | .8      | 6.6                    | 1.5     | -       | -       |
| \$1,500 AND UNDER \$1,550 ..... | 1.3          | 9.0     | 3.3     | 3.2                    | -       | -       | -       |
| \$1,550 AND UNDER \$1,600 ..... | 5.1          | 4.6     | .6      | 1.0                    | .5      | -       | -       |
| \$1,600 AND UNDER \$1,650 ..... | 4.3          | 9.6     | 3.7     | 1.6                    | .3      | -       | -       |
| \$1,650 AND UNDER \$1,700 ..... | 1.0          | 8.4     | 5.6     | 11.5                   | .7      | -       | -       |
| \$1,700 AND UNDER \$1,750 ..... | .3           | 6.7     | 5.6     | 4.8                    | 3.9     | -       | -       |
| \$1,750 AND UNDER \$1,800 ..... | 2.3          | 4.6     | .8      | 2.7                    | 1.7     | -       | -       |
| \$1,800 AND UNDER \$1,850 ..... | (1.3)        | 3.9     | 9.5     | 4.2                    | .7      | -       | -       |
| \$1,850 AND UNDER \$1,900 ..... | -            | 2.8     | 2.7     | 7.1                    | .1      | -       | -       |
| \$1,900 AND UNDER \$1,950 ..... | -            | 3.9     | 6.0     | 6.5                    | 1.8     | -       | -       |
| \$1,950 AND UNDER \$2,000 ..... | -            | 1.8     | 10.5    | 3.8                    | 4.2     | (0.3)   | -       |
| \$2,000 AND UNDER \$2,050 ..... | -            | 3.9     | 6.8     | 4.9                    | 7.6     | 1.9     | -       |
| \$2,050 AND UNDER \$2,100 ..... | -            | 1.9     | 5.8     | 1.1                    | 9.2     | 1.2     | -       |
| \$2,100 AND UNDER \$2,150 ..... | -            | 3.3     | 4.8     | 2.8                    | 1.2     | .2      | -       |
| \$2,150 AND UNDER \$2,200 ..... | -            | 3.0     | 2.5     | 3.5                    | 6.8     | 6.0     | -       |
| \$2,200 AND UNDER \$2,250 ..... | -            | (4.6)   | 4.8     | 3.2                    | 4.0     | 2.2     | -       |
| \$2,250 AND UNDER \$2,300 ..... | -            | -       | 5.8     | .2                     | 8.7     | .2      | -       |
| \$2,300 AND UNDER \$2,350 ..... | -            | -       | 5.6     | 2.4                    | 5.3     | 1.5     | -       |
| \$2,350 AND UNDER \$2,400 ..... | -            | -       | 1.7     | 2.9                    | 5.4     | .2      | -       |
| \$2,400 AND UNDER \$2,450 ..... | -            | -       | 2.3     | 6.0                    | 2.2     | 3.4     | 1.0     |
| \$2,450 AND UNDER \$2,500 ..... | -            | -       | 1.0     | .9                     | 6.5     | 3.6     | 2.1     |
| \$2,500 AND UNDER \$2,600 ..... | -            | -       | 2.3     | 6.2                    | 6.2     | 5.2     | 2.7     |
| \$2,600 AND UNDER \$2,700 ..... | -            | -       | 1.2     | (2.6)                  | 5.3     | 19.6    | 2.1     |
| \$2,700 AND UNDER \$2,800 ..... | -            | -       | 1.7     | -                      | 1.9     | 5.9     | 1.4     |
| \$2,800 AND UNDER \$2,900 ..... | -            | -       | .8      | -                      | 4.0     | 8.0     | 1.0     |
| \$2,900 AND UNDER \$3,000 ..... | -            | -       | 1.7     | -                      | 4.5     | 4.7     | 4.5     |
| \$3,000 AND UNDER \$3,100 ..... | -            | -       | -       | -                      | 1.1     | 7.6     | 6.2     |
| \$3,100 AND UNDER \$3,200 ..... | -            | -       | -       | -                      | (4.2)   | 4.9     | 1.4     |
| \$3,200 AND UNDER \$3,300 ..... | -            | -       | -       | -                      | -       | 6.3     | -       |
| \$3,300 AND UNDER \$3,400 ..... | -            | -       | -       | -                      | -       | 6.9     | 5.8     |
| \$3,400 AND UNDER \$3,500 ..... | -            | -       | -       | -                      | -       | 2.4     | 9.6     |
| \$3,500 AND UNDER \$3,600 ..... | -            | -       | -       | -                      | -       | .3      | 7.9     |
| \$3,600 AND UNDER \$3,700 ..... | -            | -       | -       | -                      | -       | 1.1     | 7.9     |
| \$3,700 AND UNDER \$3,800 ..... | -            | -       | -       | -                      | -       | 1.0     | 10.6    |
| \$3,800 AND UNDER \$3,900 ..... | -            | -       | -       | -                      | -       | 2.2     | 8.2     |
| \$3,900 AND UNDER \$4,000 ..... | -            | -       | -       | -                      | -       | .7      | 3.4     |
| \$4,000 AND UNDER \$4,100 ..... | -            | -       | -       | -                      | -       | .7      | 2.4     |
| \$4,100 AND UNDER \$4,200 ..... | -            | -       | -       | -                      | -       | .1      | 3.1     |
| \$4,200 AND UNDER \$4,300 ..... | -            | -       | -       | -                      | -       | -       | 3.4     |
| \$4,300 AND UNDER \$4,400 ..... | -            | -       | -       | -                      | -       | .1      | 2.1     |
| \$4,400 AND UNDER \$4,500 ..... | -            | -       | -       | -                      | -       | 1.0     | 2.7     |
| \$4,500 AND UNDER \$4,600 ..... | -            | -       | -       | -                      | -       | (0.4)   | 3.4     |
| \$4,600 AND UNDER \$4,700 ..... | -            | -       | -       | -                      | -       | -       | .7      |
| \$4,700 AND UNDER \$4,800 ..... | -            | -       | -       | -                      | -       | -       | 1.7     |
| \$4,800 AND UNDER \$4,900 ..... | -            | -       | -       | -                      | -       | -       | 2.1     |
| \$4,900 AND UNDER \$5,000 ..... | -            | -       | -       | -                      | -       | -       | .7      |
| \$5,000 AND UNDER \$5,100 ..... | -            | -       | -       | -                      | -       | -       | .7      |
| \$5,100 AND UNDER \$5,200 ..... | -            | -       | -       | -                      | -       | -       | 1.0     |
| \$5,200 AND UNDER \$5,300 ..... | -            | -       | -       | -                      | -       | -       | 0.3     |
| TOTAL .....                     | 100.0        | 100.0   | 100.0   | 100.0                  | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 395          | 667     | 484     | 1,160                  | 1,656   | 893     | 292     |
| AVERAGE MONTHLY SALARY .....    | \$1,278      | \$1,675 | \$2,319 | \$1,916                | \$2,332 | \$2,857 | \$3,661 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

(Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Chemists |         |         |         |         |         |         |         |
|---------------------------------|----------|---------|---------|---------|---------|---------|---------|---------|
|                                 | I        | II      | III     | IV      | V       | VI      | VII     | VIII    |
| UNDER \$950 .....               | (3.9)    | -       | -       | -       | -       | -       | -       | -       |
| \$950 AND UNDER \$975 .....     | 3.1      | (1.3)   | -       | -       | -       | -       | -       | -       |
| \$975 AND UNDER \$1,000 .....   | 6.9      | 2.5     | -       | -       | -       | -       | -       | -       |
| \$1,000 AND UNDER \$1,050 ..... | 6.7      | 1.4     | -       | -       | -       | -       | -       | -       |
| \$1,050 AND UNDER \$1,100 ..... | 11.5     | 2.5     | -       | -       | -       | -       | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 8.3      | 1.7     | -       | -       | -       | -       | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 12.4     | 2.9     | (0.4)   | -       | -       | -       | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 14.4     | 6.4     | 1.0     | -       | -       | -       | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 7.3      | 4.9     | 1.1     | -       | -       | -       | -       | -       |
| \$1,300 AND UNDER \$1,350 ..... | 6.2      | 10.7    | 2.0     | -       | -       | -       | -       | -       |
| \$1,350 AND UNDER \$1,400 ..... | 3.5      | 10.4    | 2.9     | -       | -       | -       | -       | -       |
| \$1,400 AND UNDER \$1,450 ..... | 3.6      | 8.9     | 4.1     | -       | -       | -       | -       | -       |
| \$1,450 AND UNDER \$1,500 ..... | 3.3      | 10.5    | 5.8     | -       | -       | -       | -       | -       |
| \$1,500 AND UNDER \$1,550 ..... | 2.5      | 6.0     | 4.9     | (1.6)   | -       | -       | -       | -       |
| \$1,550 AND UNDER \$1,600 ..... | 1.8      | 5.7     | 5.6     | 1.1     | -       | -       | -       | -       |
| \$1,600 AND UNDER \$1,650 ..... | 2.3      | 6.1     | 8.0     | 1.9     | -       | -       | -       | -       |
| \$1,650 AND UNDER \$1,700 ..... | 1.1      | 3.3     | 5.8     | 2.1     | -       | -       | -       | -       |
| \$1,700 AND UNDER \$1,750 ..... | (1.2)    | 4.8     | 8.2     | 2.8     | -       | -       | -       | -       |
| \$1,750 AND UNDER \$1,800 ..... | -        | 2.4     | 6.7     | 2.9     | -       | -       | -       | -       |
| \$1,800 AND UNDER \$1,850 ..... | -        | 2.1     | 7.8     | 4.0     | (2.7)   | -       | -       | -       |
| \$1,850 AND UNDER \$1,900 ..... | -        | 1.4     | 7.5     | 3.3     | 1.1     | -       | -       | -       |
| \$1,900 AND UNDER \$1,950 ..... | -        | 1.6     | 5.8     | 7.9     | .7      | -       | -       | -       |
| \$1,950 AND UNDER \$2,000 ..... | -        | 1.0     | 5.4     | 6.6     | 1.4     | -       | -       | -       |
| \$2,000 AND UNDER \$2,050 ..... | -        | 1.0     | 4.4     | 6.0     | 1.4     | (1.4)   | -       | -       |
| \$2,050 AND UNDER \$2,100 ..... | -        | (0.6)   | 2.8     | 8.3     | 1.4     | 1.2     | -       | -       |
| \$2,100 AND UNDER \$2,150 ..... | -        | -       | 2.2     | 7.3     | 1.7     | .4      | -       | -       |
| \$2,150 AND UNDER \$2,200 ..... | -        | -       | 1.7     | 8.8     | 3.2     | .7      | -       | -       |
| \$2,200 AND UNDER \$2,250 ..... | -        | -       | 1.2     | 6.0     | 4.1     | 1.6     | -       | -       |
| \$2,250 AND UNDER \$2,300 ..... | -        | -       | 1.3     | 5.8     | 3.7     | 1.2     | -       | -       |
| \$2,300 AND UNDER \$2,350 ..... | -        | -       | (2.2)   | 5.5     | 3.7     | .7      | -       | -       |
| \$2,350 AND UNDER \$2,400 ..... | -        | -       | -       | 3.1     | 4.5     | 2.4     | -       | -       |
| \$2,400 AND UNDER \$2,450 ..... | -        | -       | -       | 1.9     | 8.2     | 2.3     | -       | -       |
| \$2,450 AND UNDER \$2,500 ..... | -        | -       | -       | 2.6     | 4.9     | 2.7     | -       | -       |
| \$2,500 AND UNDER \$2,600 ..... | -        | -       | -       | 3.9     | 13.6    | 6.4     | -       | -       |
| \$2,600 AND UNDER \$2,700 ..... | -        | -       | -       | 2.8     | 11.1    | 9.3     | (1.9)   | -       |
| \$2,700 AND UNDER \$2,800 ..... | -        | -       | -       | 1.7     | 9.1     | 11.2    | 1.5     | -       |
| \$2,800 AND UNDER \$2,900 ..... | -        | -       | -       | (2.0)   | 6.5     | 11.3    | 8.2     | -       |
| \$2,900 AND UNDER \$3,000 ..... | -        | -       | -       | -       | 5.2     | 7.6     | 7.2     | -       |
| \$3,000 AND UNDER \$3,100 ..... | -        | -       | -       | -       | 3.5     | 8.8     | 11.1    | -       |
| \$3,100 AND UNDER \$3,200 ..... | -        | -       | -       | -       | 2.6     | 6.7     | 4.7     | (0.3)   |
| \$3,200 AND UNDER \$3,300 ..... | -        | -       | -       | -       | 2.3     | 4.3     | 14.2    | 13.6    |
| \$3,300 AND UNDER \$3,400 ..... | -        | -       | -       | -       | 1.0     | 4.2     | 8.7     | .3      |
| \$3,400 AND UNDER \$3,500 ..... | -        | -       | -       | -       | 1.2     | 3.5     | 2.9     | 15.2    |
| \$3,500 AND UNDER \$3,600 ..... | -        | -       | -       | -       | (1.2)   | 3.6     | 3.2     | 1.8     |
| \$3,600 AND UNDER \$3,700 ..... | -        | -       | -       | -       | -       | 3.0     | 4.2     | 3.0     |
| \$3,700 AND UNDER \$3,800 ..... | -        | -       | -       | -       | -       | 2.3     | 4.5     | 12.7    |
| \$3,800 AND UNDER \$3,900 ..... | -        | -       | -       | -       | -       | (3.5)   | 6.3     | 5.8     |
| \$3,900 AND UNDER \$4,000 ..... | -        | -       | -       | -       | -       | -       | 1.9     | 3.6     |
| \$4,000 AND UNDER \$4,100 ..... | -        | -       | -       | -       | -       | -       | 2.3     | 8.8     |
| \$4,100 AND UNDER \$4,200 ..... | -        | -       | -       | -       | -       | -       | 4.3     | 1.2     |
| \$4,200 AND UNDER \$4,300 ..... | -        | -       | -       | -       | -       | -       | 1.9     | .9      |
| \$4,300 AND UNDER \$4,400 ..... | -        | -       | -       | -       | -       | -       | 2.0     | 1.8     |
| \$4,400 AND UNDER \$4,500 ..... | -        | -       | -       | -       | -       | -       | 1.1     | 4.5     |
| \$4,500 AND UNDER \$4,600 ..... | -        | -       | -       | -       | -       | -       | 2.4     | 4.8     |
| \$4,600 AND UNDER \$4,700 ..... | -        | -       | -       | -       | -       | -       | (5.3)   | 1.5     |
| \$4,700 AND UNDER \$4,800 ..... | -        | -       | -       | -       | -       | -       | -       | 3.3     |
| \$4,800 AND UNDER \$4,900 ..... | -        | -       | -       | -       | -       | -       | -       | 2.1     |
| \$4,900 AND UNDER \$5,000 ..... | -        | -       | -       | -       | -       | -       | -       | 2.4     |
| \$5,000 AND UNDER \$5,100 ..... | -        | -       | -       | -       | -       | -       | -       | 2.1     |
| \$5,100 AND UNDER \$5,200 ..... | -        | -       | -       | -       | -       | -       | -       | .9      |
| \$5,200 AND UNDER \$5,300 ..... | -        | -       | -       | -       | -       | -       | -       | 1.8     |
| \$5,300 AND UNDER \$5,400 ..... | -        | -       | -       | -       | -       | -       | -       | 1.2     |
| \$5,400 AND UNDER \$5,500 ..... | -        | -       | -       | -       | -       | -       | -       | .6      |
| \$5,500 AND UNDER \$5,600 ..... | -        | -       | -       | -       | -       | -       | -       | 1.2     |
| \$5,600 AND OVER .....          | -        | -       | -       | -       | -       | -       | -       | (4.2)   |
| TOTAL .....                     | 100.0    | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 3,168    | 5,588   | 11,437  | 10,858  | 8,419   | 4,861   | 1,391   | 330     |
| AVERAGE MONTHLY SALARY .....    | \$1,205  | \$1,447 | \$1,752 | \$2,122 | \$2,569 | \$2,936 | \$3,501 | \$4,080 |

See footnotes at end of table.

**Table 4. Employment distribution by salary: Professional and administrative occupations—Continued**

(Percent distribution of employees in selected professional and administrative occupations by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Engineers |         |         |         |         |         |         |         |
|---------------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|
|                                 | I         | II      | III     | IV      | V       | VI      | VII     | VIII    |
| UNDER \$1,100 .....             | (2.1)     | -       | -       | -       | -       | -       | -       | -       |
| \$1,100 AND UNDER \$1,150 ..... | 1.6       | (0.9)   | -       | -       | -       | -       | -       | -       |
| \$1,150 AND UNDER \$1,200 ..... | 2.1       | 1.3     | -       | -       | -       | -       | -       | -       |
| \$1,200 AND UNDER \$1,250 ..... | 3.5       | 1.8     | -       | -       | -       | -       | -       | -       |
| \$1,250 AND UNDER \$1,300 ..... | 7.0       | 2.4     | -       | -       | -       | -       | -       | -       |
| \$1,300 AND UNDER \$1,350 ..... | 8.3       | 3.5     | (1.3)   | -       | -       | -       | -       | -       |
| \$1,350 AND UNDER \$1,400 ..... | 11.5      | 4.9     | 1.2     | -       | -       | -       | -       | -       |
| \$1,400 AND UNDER \$1,450 ..... | 13.3      | 7.1     | 1.9     | -       | -       | -       | -       | -       |
| \$1,450 AND UNDER \$1,500 ..... | 14.0      | 10.4    | 3.4     | -       | -       | -       | -       | -       |
| \$1,500 AND UNDER \$1,550 ..... | 12.2      | 12.5    | 4.1     | -       | -       | -       | -       | -       |
| \$1,550 AND UNDER \$1,600 ..... | 9.3       | 11.4    | 5.8     | (1.9)   | -       | -       | -       | -       |
| \$1,600 AND UNDER \$1,650 ..... | 6.6       | 9.5     | 6.1     | 1.0     | -       | -       | -       | -       |
| \$1,650 AND UNDER \$1,700 ..... | 4.0       | 8.5     | 7.7     | 1.8     | -       | -       | -       | -       |
| \$1,700 AND UNDER \$1,750 ..... | 1.9       | 7.1     | 8.8     | 2.2     | -       | -       | -       | -       |
| \$1,750 AND UNDER \$1,800 ..... | 1.2       | 4.9     | 7.6     | 3.0     | -       | -       | -       | -       |
| \$1,800 AND UNDER \$1,850 ..... | (1.5)     | 4.1     | 8.9     | 3.9     | -       | -       | -       | -       |
| \$1,850 AND UNDER \$1,900 ..... | -         | 3.2     | 6.9     | 4.1     | -       | -       | -       | -       |
| \$1,900 AND UNDER \$1,950 ..... | -         | 1.8     | 7.0     | 5.6     | (3.2)   | -       | -       | -       |
| \$1,950 AND UNDER \$2,000 ..... | -         | 1.3     | 6.3     | 6.6     | 1.6     | -       | -       | -       |
| \$2,000 AND UNDER \$2,050 ..... | -         | .9      | 4.8     | 6.5     | 1.7     | -       | -       | -       |
| \$2,050 AND UNDER \$2,100 ..... | -         | 1.0     | 3.9     | 6.4     | 2.3     | -       | -       | -       |
| \$2,100 AND UNDER \$2,150 ..... | -         | (1.3)   | 3.4     | 6.5     | 2.8     | -       | -       | -       |
| \$2,150 AND UNDER \$2,200 ..... | -         | -       | 3.4     | 6.9     | 3.5     | (2.6)   | -       | -       |
| \$2,200 AND UNDER \$2,250 ..... | -         | -       | 2.4     | 6.4     | 3.9     | 1.2     | -       | -       |
| \$2,250 AND UNDER \$2,300 ..... | -         | -       | 1.4     | 5.8     | 4.5     | 1.4     | -       | -       |
| \$2,300 AND UNDER \$2,350 ..... | -         | -       | 1.0     | 5.4     | 6.3     | 1.7     | -       | -       |
| \$2,350 AND UNDER \$2,400 ..... | -         | -       | (2.6)   | 4.4     | 6.0     | 1.9     | -       | -       |
| \$2,400 AND UNDER \$2,450 ..... | -         | -       | -       | 4.2     | 6.3     | 2.2     | (2.7)   | -       |
| \$2,450 AND UNDER \$2,500 ..... | -         | -       | -       | 3.5     | 6.0     | 3.4     | 1.0     | -       |
| \$2,500 AND UNDER \$2,600 ..... | -         | -       | -       | 5.8     | 11.9    | 6.9     | 2.6     | (0.4)   |
| \$2,600 AND UNDER \$2,700 ..... | -         | -       | -       | 4.8     | 10.1    | 9.9     | 3.1     | 1.0     |
| \$2,700 AND UNDER \$2,800 ..... | -         | -       | -       | 1.6     | 9.0     | 10.8    | 3.6     | 1.2     |
| \$2,800 AND UNDER \$2,900 ..... | -         | -       | -       | (1.7)   | 6.7     | 10.0    | 5.1     | 2.5     |
| \$2,900 AND UNDER \$3,000 ..... | -         | -       | -       | -       | 5.0     | 10.3    | 7.2     | 3.8     |
| \$3,000 AND UNDER \$3,100 ..... | -         | -       | -       | -       | 3.6     | 9.9     | 8.3     | 2.4     |
| \$3,100 AND UNDER \$3,200 ..... | -         | -       | -       | -       | 2.2     | 7.6     | 8.7     | 4.1     |
| \$3,200 AND UNDER \$3,300 ..... | -         | -       | -       | -       | 1.3     | 5.6     | 11.4    | 4.1     |
| \$3,300 AND UNDER \$3,400 ..... | -         | -       | -       | -       | (2.3)   | 4.2     | 10.4    | 5.8     |
| \$3,400 AND UNDER \$3,500 ..... | -         | -       | -       | -       | -       | 3.2     | 7.4     | 5.5     |
| \$3,500 AND UNDER \$3,600 ..... | -         | -       | -       | -       | -       | 2.3     | 7.0     | 7.0     |
| \$3,600 AND UNDER \$3,700 ..... | -         | -       | -       | -       | -       | 1.6     | 6.3     | 8.4     |
| \$3,700 AND UNDER \$3,800 ..... | -         | -       | -       | -       | -       | 1.2     | 4.3     | 7.8     |
| \$3,800 AND UNDER \$3,900 ..... | -         | -       | -       | -       | -       | (2.1)   | 3.2     | 7.7     |
| \$3,900 AND UNDER \$4,000 ..... | -         | -       | -       | -       | -       | -       | 1.9     | 7.9     |
| \$4,000 AND UNDER \$4,100 ..... | -         | -       | -       | -       | -       | -       | 2.1     | 7.0     |
| \$4,100 AND UNDER \$4,200 ..... | -         | -       | -       | -       | -       | -       | (3.7)   | 4.8     |
| \$4,200 AND UNDER \$4,300 ..... | -         | -       | -       | -       | -       | -       | -       | 3.6     |
| \$4,300 AND UNDER \$4,400 ..... | -         | -       | -       | -       | -       | -       | -       | 2.8     |
| \$4,400 AND UNDER \$4,500 ..... | -         | -       | -       | -       | -       | -       | -       | 3.7     |
| \$4,500 AND UNDER \$4,600 ..... | -         | -       | -       | -       | -       | -       | -       | 1.8     |
| \$4,600 AND UNDER \$4,700 ..... | -         | -       | -       | -       | -       | -       | -       | 1.1     |
| \$4,700 AND UNDER \$4,800 ..... | -         | -       | -       | -       | -       | -       | -       | .7      |
| \$4,800 AND UNDER \$4,900 ..... | -         | -       | -       | -       | -       | -       | -       | .8      |
| \$4,900 AND UNDER \$5,000 ..... | -         | -       | -       | -       | -       | -       | -       | 1.1     |
| \$5,000 AND UNDER \$5,100 ..... | -         | -       | -       | -       | -       | -       | -       | .4      |
| \$5,100 AND UNDER \$5,200 ..... | -         | -       | -       | -       | -       | -       | -       | .3      |
| \$5,200 AND UNDER \$5,300 ..... | -         | -       | -       | -       | -       | -       | -       | .2      |
| \$5,300 AND UNDER \$5,400 ..... | -         | -       | -       | -       | -       | -       | -       | .2      |
| \$5,400 AND UNDER \$5,500 ..... | -         | -       | -       | -       | -       | -       | -       | .2      |
| \$5,500 AND UNDER \$5,600 ..... | -         | -       | -       | -       | -       | -       | -       | 1.4     |
| TOTAL .....                     | 100.0     | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 21,203    | 39,636  | 94,991  | 125,302 | 92,602  | 39,388  | 14,628  | 3,328   |
| AVERAGE MONTHLY SALARY .....    | \$1,445   | \$1,586 | \$1,823 | \$2,166 | \$2,539 | \$2,900 | \$3,278 | \$3,768 |

<sup>1</sup> For scope of study, see table A-1 in appendix A.

NOTE: To avoid showing small proportions of employees scattered at or near the extremes of the distributions for some occupations, the percentages of employees in these

intervals have been accumulated and are shown in the interval above or below the extreme interval containing at least 1 percent. The percentages representing these employees are shown in parentheses. Because of rounding, sums of individual items may not equal 100.

**Table 5. Employment distribution by salary: Technical support occupations**

 (Percent distribution of employees in selected technical support occupations by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Engineering technician |         |         |         |         | Drafters |        |         |         |         |
|---------------------------------|------------------------|---------|---------|---------|---------|----------|--------|---------|---------|---------|
|                                 | I                      | II      | III     | IV      | V       | I        | II     | III     | IV      | V       |
| \$500 AND UNDER \$525 .....     | -                      | -       | -       | -       | -       | 4.3      | -      | -       | -       | -       |
| \$525 AND UNDER \$550 .....     | -                      | -       | -       | -       | -       | .5       | -      | -       | -       | -       |
| \$550 AND UNDER \$575 .....     | -                      | -       | -       | -       | -       | 1.8      | -      | -       | -       | -       |
| \$575 AND UNDER \$600 .....     | -                      | -       | -       | -       | -       | 2.5      | (0.9)  | -       | -       | -       |
| \$600 AND UNDER \$625 .....     | (0.3)                  | -       | -       | -       | -       | 7.6      | 1.9    | -       | -       | -       |
| \$625 AND UNDER \$650 .....     | 1.0                    | -       | -       | -       | -       | 2.0      | .6     | -       | -       | -       |
| \$650 AND UNDER \$675 .....     | 4.2                    | -       | -       | -       | -       | 11.1     | 2.1    | (0.2)   | -       | -       |
| \$675 AND UNDER \$700 .....     | 4.3                    | -       | -       | -       | -       | 7.2      | 4.8    | 1.0     | -       | -       |
| \$700 AND UNDER \$725 .....     | 2.6                    | -       | -       | -       | -       | 11.4     | 2.9    | .9      | -       | -       |
| \$725 AND UNDER \$750 .....     | 4.0                    | -       | -       | -       | -       | 6.5      | 5.1    | 1.0     | -       | -       |
| \$750 AND UNDER \$775 .....     | 5.1                    | (1.4)   | -       | -       | -       | 6.0      | 3.7    | 1.2     | -       | -       |
| \$775 AND UNDER \$800 .....     | 7.3                    | 1.7     | -       | -       | -       | 7.1      | 11.3   | 2.4     | -       | -       |
| \$800 AND UNDER \$825 .....     | 5.9                    | 2.7     | -       | -       | -       | 2.4      | 4.9    | 2.5     | -       | -       |
| \$825 AND UNDER \$850 .....     | 8.8                    | 3.4     | -       | -       | -       | 2.1      | 7.7    | 2.9     | -       | -       |
| \$850 AND UNDER \$875 .....     | 3.0                    | 4.7     | -       | -       | -       | 5.8      | 6.6    | 5.0     | -       | -       |
| \$875 AND UNDER \$900 .....     | 4.1                    | 4.1     | (0.8)   | -       | -       | 1.5      | 7.2    | 3.1     | (2.3)   | -       |
| \$900 AND UNDER \$925 .....     | 7.7                    | 6.6     | 1.1     | -       | -       | 1.8      | 5.3    | 6.4     | 1.4     | -       |
| \$925 AND UNDER \$950 .....     | 5.4                    | 5.6     | 2.3     | -       | -       | 1.2      | 3.1    | 4.0     | 1.6     | -       |
| \$950 AND UNDER \$975 .....     | 4.6                    | 5.7     | 2.7     | -       | -       | 1.1      | 6.7    | 6.0     | 1.7     | -       |
| \$975 AND UNDER \$1,000 .....   | 2.6                    | 5.0     | 2.7     | (0.2)   | -       | 1.8      | 5.0    | 5.3     | 2.1     | -       |
| \$1,000 AND UNDER \$1,050 ..... | 4.9                    | 14.2    | 7.7     | 1.4     | -       | 1.9      | 3.9    | 10.5    | 7.0     | (0.6)   |
| \$1,050 AND UNDER \$1,100 ..... | 4.7                    | 10.3    | 7.3     | 1.8     | -       | 3.1      | 4.5    | 9.3     | 7.9     | 1.2     |
| \$1,100 AND UNDER \$1,150 ..... | 4.5                    | 9.9     | 8.1     | 2.4     | -       | 6.4      | 2.9    | 7.9     | 7.9     | 1.5     |
| \$1,150 AND UNDER \$1,200 ..... | 2.1                    | 6.9     | 9.0     | 3.6     | -       | .4       | 2.3    | 7.4     | 8.9     | 2.3     |
| \$1,200 AND UNDER \$1,250 ..... | 2.1                    | 5.2     | 10.1    | 6.1     | (1.2)   | 1.0      | 2.4    | 4.3     | 9.3     | 3.9     |
| \$1,250 AND UNDER \$1,300 ..... | .8                     | 2.8     | 9.3     | 5.7     | 2.0     | -        | 1.6    | 4.4     | 8.5     | 4.1     |
| \$1,300 AND UNDER \$1,350 ..... | .8                     | 2.0     | 8.6     | 9.0     | 2.6     | .3       | (2.6)  | 3.8     | 7.8     | 6.4     |
| \$1,350 AND UNDER \$1,400 ..... | 1.2                    | 1.5     | 6.7     | 8.5     | 3.8     | 1.2      | -      | 2.2     | 6.0     | 6.7     |
| \$1,400 AND UNDER \$1,450 ..... | 1.1                    | 1.7     | 6.0     | 10.1    | 4.3     | .1       | -      | 2.5     | 5.8     | 7.4     |
| \$1,450 AND UNDER \$1,500 ..... | (0.8)                  | 1.2     | 6.2     | 10.1    | 8.0     | -        | -      | 1.3     | 3.6     | 8.5     |
| \$1,500 AND UNDER \$1,550 ..... | -                      | 1.3     | 3.7     | 8.0     | 7.6     | -        | -      | 2.6     | 6.6     | 5.6     |
| \$1,550 AND UNDER \$1,600 ..... | -                      | 1.2     | 2.2     | 7.4     | 7.5     | -        | -      | (2.0)   | 2.5     | 7.6     |
| \$1,600 AND UNDER \$1,650 ..... | -                      | (1.0)   | 1.9     | 6.1     | 7.9     | -        | -      | -       | 2.8     | 6.5     |
| \$1,650 AND UNDER \$1,700 ..... | -                      | -       | 1.2     | 5.7     | 9.1     | -        | -      | -       | 1.8     | 5.9     |
| \$1,700 AND UNDER \$1,750 ..... | -                      | -       | (2.4)   | 4.6     | 9.3     | -        | -      | -       | 1.1     | 5.5     |
| \$1,750 AND UNDER \$1,800 ..... | -                      | -       | -       | 2.9     | 8.9     | -        | -      | -       | (3.3)   | 4.5     |
| \$1,800 AND UNDER \$1,850 ..... | -                      | -       | -       | 1.4     | 6.2     | -        | -      | -       | -       | 3.3     |
| \$1,850 AND UNDER \$1,900 ..... | -                      | -       | -       | 1.4     | 5.8     | -        | -      | -       | -       | 2.3     |
| \$1,900 AND UNDER \$1,950 ..... | -                      | -       | -       | 1.0     | 3.9     | -        | -      | -       | -       | 2.1     |
| \$1,950 AND UNDER \$2,000 ..... | -                      | -       | -       | 1.0     | 2.7     | -        | -      | -       | -       | 2.2     |
| \$2,000 AND UNDER \$2,050 ..... | -                      | -       | -       | (1.6)   | 2.3     | -        | -      | -       | -       | 2.0     |
| \$2,050 AND UNDER \$2,100 ..... | -                      | -       | -       | -       | 2.1     | -        | -      | -       | -       | 1.2     |
| \$2,100 AND UNDER \$2,150 ..... | -                      | -       | -       | -       | 2.1     | -        | -      | -       | -       | 1.7     |
| \$2,150 AND UNDER \$2,200 ..... | -                      | -       | -       | -       | (2.5)   | -        | -      | -       | -       | 1.4     |
| \$2,200 AND UNDER \$2,250 ..... | -                      | -       | -       | -       | -       | -        | -      | -       | -       | 1.0     |
| \$2,250 AND UNDER \$2,300 ..... | -                      | -       | -       | -       | -       | -        | -      | -       | -       | 1.2     |
| \$2,350 AND OVER .....          | -                      | -       | -       | -       | -       | -        | -      | -       | -       | (3.6)   |
| TOTAL .....                     | 100.0                  | 100.0   | 100.0   | 100.0   | 100.0   | 100.0    | 100.0  | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 4,555                  | 16,784  | 28,225  | 32,545  | 18,745  | 3,211    | 10,008 | 21,766  | 30,842  | 26,780  |
| AVERAGE MONTHLY SALARY .....    | \$902                  | \$1,057 | \$1,258 | \$1,469 | \$1,685 | \$783    | \$893  | \$1,070 | \$1,276 | \$1,606 |

See footnotes at end of table.

**Table 5. Employment distribution by salary: Technical support occupations—Continued**

(Percent distribution of employees in selected technical support occupations by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Computer operators |       |         |         |         |
|---------------------------------|--------------------|-------|---------|---------|---------|
|                                 | I                  | II    | III     | IV      | V       |
| UNDER \$550 .....               | 0.8                | -     | -       | -       | -       |
| \$550 AND UNDER \$575 .....     | 2.5                | 1.3   | -       | -       | -       |
| \$575 AND UNDER \$600 .....     | 1.6                | .5    | -       | -       | -       |
| \$600 AND UNDER \$625 .....     | 4.5                | .7    | (0.6)   | -       | -       |
| \$625 AND UNDER \$650 .....     | 4.3                | 2.3   | 1.2     | -       | -       |
| \$650 AND UNDER \$675 .....     | 8.4                | 3.2   | .9      | -       | -       |
| \$675 AND UNDER \$700 .....     | 7.2                | 2.3   | 1.0     | -       | -       |
| \$700 AND UNDER \$725 .....     | 12.7               | 2.5   | 2.4     | -       | -       |
| \$725 AND UNDER \$750 .....     | 14.5               | 3.7   | 2.6     | -       | -       |
| \$750 AND UNDER \$775 .....     | 8.1                | 6.0   | 3.8     | -       | -       |
| \$775 AND UNDER \$800 .....     | 4.9                | 5.6   | 3.0     | -       | -       |
| \$800 AND UNDER \$825 .....     | 3.6                | 8.5   | 3.3     | -       | -       |
| \$825 AND UNDER \$850 .....     | 6.0                | 8.6   | 4.5     | (1.9)   | -       |
| \$850 AND UNDER \$875 .....     | 4.8                | 4.5   | 7.1     | 1.5     | -       |
| \$875 AND UNDER \$900 .....     | 1.9                | 7.0   | 4.5     | 1.5     | -       |
| \$900 AND UNDER \$925 .....     | 3.2                | 4.9   | 5.2     | 2.6     | -       |
| \$925 AND UNDER \$950 .....     | 2.3                | 3.9   | 4.9     | 2.4     | -       |
| \$950 AND UNDER \$975 .....     | 1.9                | 4.7   | 6.4     | 2.8     | -       |
| \$975 AND UNDER \$1,000 .....   | 1.3                | 2.9   | 4.4     | 3.0     | (0.9)   |
| \$1,000 AND UNDER \$1,050 ..... | 1.6                | 3.9   | 7.9     | 8.1     | 1.8     |
| \$1,050 AND UNDER \$1,100 ..... | 1.3                | 2.7   | 8.5     | 8.6     | 4.8     |
| \$1,100 AND UNDER \$1,150 ..... | (2.6)              | 11.5  | 7.4     | 9.5     | 10.4    |
| \$1,150 AND UNDER \$1,200 ..... | -                  | 5.9   | 5.5     | 8.5     | 6.2     |
| \$1,200 AND UNDER \$1,250 ..... | -                  | 1.1   | 3.9     | 6.8     | 6.8     |
| \$1,250 AND UNDER \$1,300 ..... | -                  | (1.9) | 2.9     | 6.6     | 6.3     |
| \$1,300 AND UNDER \$1,350 ..... | -                  | -     | 1.6     | 7.0     | 11.5    |
| \$1,350 AND UNDER \$1,400 ..... | -                  | -     | 1.6     | 5.2     | 5.3     |
| \$1,400 AND UNDER \$1,450 ..... | -                  | -     | 1.0     | 4.6     | 5.8     |
| \$1,450 AND UNDER \$1,500 ..... | -                  | -     | (3.8)   | 3.1     | 5.9     |
| \$1,500 AND UNDER \$1,550 ..... | -                  | -     | -       | 2.7     | 6.0     |
| \$1,550 AND UNDER \$1,600 ..... | -                  | -     | -       | 2.7     | 8.4     |
| \$1,600 AND UNDER \$1,650 ..... | -                  | -     | -       | 1.8     | 4.3     |
| \$1,650 AND UNDER \$1,700 ..... | -                  | -     | -       | 2.1     | 3.5     |
| \$1,700 AND UNDER \$1,750 ..... | -                  | -     | -       | 1.1     | 2.9     |
| \$1,750 AND UNDER \$1,800 ..... | -                  | -     | -       | 1.1     | .9      |
| \$1,800 AND UNDER \$1,850 ..... | -                  | -     | -       | 1.4     | .9      |
| \$1,850 AND UNDER \$1,900 ..... | -                  | -     | -       | 1.4     | 1.0     |
| \$1,900 AND UNDER \$1,950 ..... | -                  | -     | -       | .6      | .9      |
| \$1,950 AND UNDER \$2,000 ..... | -                  | -     | -       | 1.0     | .9      |
| \$2,000 AND UNDER \$2,050 ..... | -                  | -     | -       | (0.1)   | .9      |
| \$2,050 AND UNDER \$2,100 ..... | -                  | -     | -       | -       | 1.4     |
| \$2,100 AND UNDER \$2,150 ..... | -                  | -     | -       | -       | 1.1     |
| \$2,150 AND UNDER \$2,200 ..... | -                  | -     | -       | -       | 1.3     |
| \$2,200 AND UNDER \$2,250 ..... | -                  | -     | -       | -       | .1      |
| TOTAL .....                     | 100.0              | 100.0 | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 5,713              | 7,370 | 26,299  | 15,616  | 3,712   |
| AVERAGE MONTHLY SALARY .....    | \$766              | \$906 | \$1,001 | \$1,243 | \$1,415 |

<sup>1</sup> For scope of study, see table A-1 in appendix A.  
NOTE: To avoid showing small proportions of employees scattered at or near the extremes of the distributions for some occupations, the percentages of employees in these intervals have been accumulated and

are shown in the interval above or below the extreme interval containing at least 1 percent. The percentages representing these employees are shown in parentheses. Because of rounding, sums of individual items may not equal 100.

**Table 6. Employment distribution by salary: Clerical occupations**

 (Percent distribution of employees in selected clerical occupations, by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Accounting clerks |        |        |         | File clerks |        |       | Key entry operators |        |
|---------------------------------|-------------------|--------|--------|---------|-------------|--------|-------|---------------------|--------|
|                                 | I                 | II     | III    | IV      | I           | II     | III   | I                   | II     |
| \$425 AND UNDER \$450 .....     | -                 | -      | -      | -       | 1.7         | -      | -     | -                   | -      |
| \$450 AND UNDER \$475 .....     | -                 | -      | -      | -       | 2.0         | 0.1    | -     | -                   | -      |
| \$475 AND UNDER \$500 .....     | (1.8)             | -      | -      | -       | 6.6         | 1.0    | -     | (0.1)               | -      |
| \$500 AND UNDER \$525 .....     | 3.4               | 1.4    | -      | -       | 18.2        | 7.1    | -     | 2.5                 | -      |
| \$525 AND UNDER \$550 .....     | 4.9               | 1.6    | -      | -       | 14.3        | 6.4    | -     | 3.2                 | -      |
| \$550 AND UNDER \$575 .....     | 9.9               | 3.6    | -      | -       | 12.4        | 8.3    | (1.7) | 4.7                 | -      |
| \$575 AND UNDER \$600 .....     | 8.5               | 3.7    | (1.0)  | -       | 11.3        | 6.7    | 1.3   | 5.4                 | (2.2)  |
| \$600 AND UNDER \$625 .....     | 10.4              | 4.5    | 1.2    | -       | 8.0         | 11.0   | 2.2   | 7.2                 | 1.6    |
| \$625 AND UNDER \$650 .....     | 8.6               | 5.1    | .9     | -       | 6.6         | 8.3    | 2.0   | 8.8                 | 2.6    |
| \$650 AND UNDER \$675 .....     | 10.2              | 6.4    | 2.1    | -       | 5.3         | 11.2   | 5.4   | 8.7                 | 4.0    |
| \$675 AND UNDER \$700 .....     | 9.4               | 8.4    | 3.3    | -       | 3.6         | 6.7    | 4.7   | 8.4                 | 4.9    |
| \$700 AND UNDER \$725 .....     | 6.8               | 7.0    | 3.0    | -       | 2.1         | 4.5    | 6.9   | 5.1                 | 5.1    |
| \$725 AND UNDER \$750 .....     | 5.2               | 6.5    | 4.0    | -       | 2.0         | 7.3    | 5.3   | 6.3                 | 6.4    |
| \$750 AND UNDER \$775 .....     | 4.0               | 6.6    | 4.8    | (4.5)   | 1.2         | 3.1    | 4.3   | 4.5                 | 5.0    |
| \$775 AND UNDER \$800 .....     | 3.1               | 6.7    | 5.6    | 1.9     | (4.8)       | 2.8    | 8.2   | 4.2                 | 5.2    |
| \$800 AND UNDER \$825 .....     | 1.8               | 5.2    | 4.8    | 1.9     | -           | 1.9    | 5.2   | 3.7                 | 5.4    |
| \$825 AND UNDER \$850 .....     | 1.7               | 5.0    | 6.1    | 2.6     | -           | 1.4    | 5.8   | 3.7                 | 6.3    |
| \$850 AND UNDER \$875 .....     | .9                | 3.9    | 6.0    | 3.0     | -           | 2.8    | 5.3   | 3.2                 | 5.0    |
| \$875 AND UNDER \$900 .....     | .8                | 3.0    | 5.5    | 3.1     | -           | .6     | 5.7   | 2.1                 | 5.8    |
| \$900 AND UNDER \$925 .....     | .8                | 2.7    | 5.5    | 4.8     | -           | .7     | 3.5   | 2.5                 | 3.8    |
| \$925 AND UNDER \$950 .....     | .7                | 2.0    | 4.5    | 3.0     | -           | .6     | 1.9   | 1.6                 | 3.4    |
| \$950 AND UNDER \$975 .....     | .8                | 1.3    | 4.2    | 4.9     | -           | .8     | 6.3   | 2.1                 | 2.5    |
| \$975 AND UNDER \$1,000 .....   | .4                | 1.8    | 4.7    | 3.6     | -           | .6     | 3.9   | 1.9                 | 3.4    |
| \$1,000 AND UNDER \$1,050 ..... | 1.1               | 2.8    | 5.8    | 8.5     | -           | 1.3    | 5.0   | 2.4                 | 6.6    |
| \$1,050 AND UNDER \$1,100 ..... | 2.8               | 2.2    | 5.1    | 7.8     | -           | 1.2    | 3.9   | 1.6                 | 3.9    |
| \$1,100 AND UNDER \$1,150 ..... | (2.3)             | 2.7    | 5.7    | 8.3     | -           | (3.6)  | 2.4   | 1.1                 | 2.9    |
| \$1,150 AND UNDER \$1,200 ..... | -                 | 1.6    | 4.5    | 8.1     | -           | -      | 1.6   | 1.0                 | 2.6    |
| \$1,200 AND UNDER \$1,250 ..... | -                 | (4.3)  | 2.7    | 4.7     | -           | -      | 1.4   | (4.1)               | 2.6    |
| \$1,250 AND UNDER \$1,300 ..... | -                 | -      | 1.8    | 3.8     | -           | -      | 1.0   | -                   | 1.5    |
| \$1,300 AND UNDER \$1,350 ..... | -                 | -      | 1.7    | 4.6     | -           | -      | 1.3   | -                   | 3.5    |
| \$1,350 AND UNDER \$1,400 ..... | -                 | -      | 1.5    | 3.7     | -           | -      | 1.6   | -                   | 1.2    |
| \$1,400 AND UNDER \$1,450 ..... | -                 | -      | 1.0    | 3.5     | -           | -      | 1.1   | -                   | (2.7)  |
| \$1,450 AND UNDER \$1,500 ..... | -                 | -      | (2.9)  | 3.4     | -           | -      | (1.1) | -                   | -      |
| \$1,500 AND UNDER \$1,550 ..... | -                 | -      | -      | 3.4     | -           | -      | -     | -                   | -      |
| \$1,550 AND UNDER \$1,600 ..... | -                 | -      | -      | 1.8     | -           | -      | -     | -                   | -      |
| \$1,600 AND UNDER \$1,650 ..... | -                 | -      | -      | 1.7     | -           | -      | -     | -                   | -      |
| \$1,650 AND UNDER \$1,700 ..... | -                 | -      | -      | 1.3     | -           | -      | -     | -                   | -      |
| \$1,700 AND UNDER \$1,750 ..... | -                 | -      | -      | 1.0     | -           | -      | -     | -                   | -      |
| \$1,800 AND OVER .....          | -                 | -      | -      | (1.0)   | -           | -      | -     | -                   | -      |
| TOTAL .....                     | 100.0             | 100.0  | 100.0  | 100.0   | 100.0       | 100.0  | 100.0 | 100.0               | 100.0  |
| NUMBER OF EMPLOYEES .....       | 23,963            | 83,137 | 60,838 | 24,304  | 25,362      | 16,187 | 4,358 | 74,572              | 47,037 |
| AVERAGE MONTHLY SALARY .....    | \$687             | \$796  | \$947  | \$1,134 | \$589       | \$689  | \$874 | \$758               | \$903  |

See footnotes at end of table.

**Table 6. Employment distribution by salary: Clerical occupations—Continued**

 (Percent distribution of employees in selected clerical occupations, by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Messengers | Personnel clerks |       |         |         |         |
|---------------------------------|------------|------------------|-------|---------|---------|---------|
|                                 |            | I                | II    | III     | IV      | V       |
| \$450 AND UNDER \$475 .....     | (0.3)      | -                | -     | -       | -       | -       |
| \$475 AND UNDER \$500 .....     | 2.9        | -                | -     | -       | -       | -       |
| \$500 AND UNDER \$525 .....     | 8.9        | 0.5              | -     | -       | -       | -       |
| \$525 AND UNDER \$550 .....     | 9.7        | 2.1              | -     | -       | -       | -       |
| \$550 AND UNDER \$575 .....     | 10.7       | 3.7              | -     | -       | -       | -       |
| \$575 AND UNDER \$600 .....     | 8.8        | 5.2              | (1.3) | (0.4)   | -       | -       |
| \$600 AND UNDER \$625 .....     | 8.8        | 4.6              | 1.5   | 1.2     | -       | -       |
| \$625 AND UNDER \$650 .....     | 7.1        | 5.4              | 3.5   | 1.2     | -       | -       |
| \$650 AND UNDER \$675 .....     | 7.5        | 11.8             | 3.8   | .3      | -       | -       |
| \$675 AND UNDER \$700 .....     | 5.8        | 7.0              | 4.5   | 1.3     | -       | -       |
| \$700 AND UNDER \$725 .....     | 5.1        | 10.5             | 5.2   | 3.4     | -       | -       |
| \$725 AND UNDER \$750 .....     | 3.9        | 7.7              | 6.0   | 3.0     | (0.8)   | -       |
| \$750 AND UNDER \$775 .....     | 2.4        | 8.3              | 4.3   | 3.2     | 1.1     | -       |
| \$775 AND UNDER \$800 .....     | 1.8        | 7.3              | 6.6   | 3.9     | 1.2     | -       |
| \$800 AND UNDER \$825 .....     | 1.4        | 4.1              | 4.3   | 2.0     | 2.0     | -       |
| \$825 AND UNDER \$850 .....     | 1.8        | 2.1              | 8.2   | 1.9     | 2.6     | -       |
| \$850 AND UNDER \$875 .....     | 1.0        | 3.1              | 7.1   | 7.1     | 1.9     | -       |
| \$875 AND UNDER \$900 .....     | 1.1        | 5.7              | 6.8   | 2.4     | 1.0     | -       |
| \$900 AND UNDER \$925 .....     | 1.0        | .7               | 4.7   | 7.7     | 2.8     | -       |
| \$925 AND UNDER \$950 .....     | .9         | .6               | 3.6   | 4.5     | 1.2     | -       |
| \$950 AND UNDER \$975 .....     | 1.3        | 2.1              | 2.8   | 3.9     | 7.2     | 3.8     |
| \$975 AND UNDER \$1,000 .....   | .5         | .9               | 3.1   | 5.8     | 2.8     | 1.1     |
| \$1,000 AND UNDER \$1,050 ..... | 1.6        | 2.1              | 4.2   | 8.8     | 5.8     | 3.6     |
| \$1,050 AND UNDER \$1,100 ..... | 1.4        | 2.4              | 3.4   | 9.0     | 15.7    | 9.5     |
| \$1,100 AND UNDER \$1,150 ..... | (4.3)      | (2.0)            | 3.8   | 4.8     | 6.9     | 4.1     |
| \$1,150 AND UNDER \$1,200 ..... | -          | -                | 2.6   | 7.1     | 7.7     | 6.4     |
| \$1,200 AND UNDER \$1,250 ..... | -          | -                | 1.1   | 5.3     | 8.8     | 14.2    |
| \$1,250 AND UNDER \$1,300 ..... | -          | -                | 1.3   | 1.5     | 2.7     | 1.7     |
| \$1,300 AND UNDER \$1,350 ..... | -          | -                | .7    | 3.4     | 2.4     | 4.6     |
| \$1,350 AND UNDER \$1,400 ..... | -          | -                | 3.8   | 2.3     | 7.2     | 17.1    |
| \$1,400 AND UNDER \$1,450 ..... | -          | -                | (1.5) | 2.2     | 2.2     | 7.4     |
| \$1,450 AND UNDER \$1,500 ..... | -          | -                | -     | .8      | 1.0     | 5.4     |
| \$1,500 AND UNDER \$1,550 ..... | -          | -                | -     | 1.4     | 5.0     | .8      |
| \$1,550 AND UNDER \$1,600 ..... | -          | -                | -     | (0.3)   | 1.1     | 1.3     |
| \$1,600 AND UNDER \$1,650 ..... | -          | -                | -     | -       | 1.3     | 3.1     |
| \$1,650 AND UNDER \$1,700 ..... | -          | -                | -     | -       | .8      | 1.5     |
| \$1,700 AND UNDER \$1,750 ..... | -          | -                | -     | -       | 1.1     | 1.3     |
| \$1,750 AND UNDER \$1,800 ..... | -          | -                | -     | -       | 1.2     | .8      |
| \$1,800 AND UNDER \$1,850 ..... | -          | -                | -     | -       | 1.0     | 1.2     |
| \$1,850 AND UNDER \$1,900 ..... | -          | -                | -     | -       | 2.4     | 1.3     |
| \$1,900 AND UNDER \$1,950 ..... | -          | -                | -     | -       | (1.6)   | .7      |
| \$1,950 AND UNDER \$2,000 ..... | -          | -                | -     | -       | -       | 1.6     |
| \$2,000 AND UNDER \$2,050 ..... | -          | -                | -     | -       | -       | 1.5     |
| \$2,050 AND UNDER \$2,100 ..... | -          | -                | -     | -       | -       | 1.3     |
| \$2,100 AND UNDER \$2,150 ..... | -          | -                | -     | -       | -       | 1.6     |
| \$2,150 AND UNDER \$2,200 ..... | -          | -                | -     | -       | -       | 2.8     |
| \$2,200 AND UNDER \$2,250 ..... | -          | -                | -     | -       | -       | 0.3     |
| TOTAL .....                     | 100.0      | 100.0            | 100.0 | 100.0   | 100.0   | 100.0   |
| NUMBER OF EMPLOYEES .....       | 18,869     | 2,290            | 5,446 | 3,373   | 1,994   | 754     |
| AVERAGE MONTHLY SALARY .....    | \$676      | \$748            | \$890 | \$1,005 | \$1,192 | \$1,376 |

See footnotes at end of table.

**Table 6. Employment distribution by salary: Clerical occupations—Continued**

 (Percent distribution of employees in selected clerical occupations, by monthly salary, United States except Alaska and Hawaii,<sup>1</sup> March 1979)

| Monthly salary                  | Secretaries |        |         |         |         | Stenographers,<br>general | Stenographers,<br>senior | Typists |        |
|---------------------------------|-------------|--------|---------|---------|---------|---------------------------|--------------------------|---------|--------|
|                                 | I           | II     | III     | IV      | V       |                           |                          | I       | II     |
| UNDER \$500 .....               | -           | -      | -       | -       | -       | -                         | -                        | (0.6)   | -      |
| \$500 AND UNDER \$525 .....     | -           | -      | -       | -       | -       | -                         | -                        | 3.8     | (0.4)  |
| \$525 AND UNDER \$550 .....     | -           | -      | -       | -       | -       | (0.4)                     | -                        | 5.1     | 1.0    |
| \$550 AND UNDER \$575 .....     | -           | -      | -       | -       | -       | 1.1                       | -                        | 8.1     | 1.6    |
| \$575 AND UNDER \$600 .....     | (1.8)       | -      | -       | -       | -       | 1.7                       | -                        | 8.6     | 1.9    |
| \$600 AND UNDER \$625 .....     | 1.8         | (1.6)  | -       | -       | -       | 3.1                       | -                        | 10.6    | 3.4    |
| \$625 AND UNDER \$650 .....     | 2.3         | 1.0    | -       | -       | -       | 3.5                       | (1.4)                    | 9.5     | 5.4    |
| \$650 AND UNDER \$675 .....     | 3.7         | 1.6    | -       | -       | -       | 4.4                       | 1.0                      | 10.7    | 6.5    |
| \$675 AND UNDER \$700 .....     | 4.7         | 2.1    | (1.8)   | -       | -       | 4.8                       | 1.7                      | 6.3     | 5.6    |
| \$700 AND UNDER \$725 .....     | 4.0         | 3.0    | 1.0     | -       | -       | 4.4                       | 2.0                      | 5.0     | 7.8    |
| \$725 AND UNDER \$750 .....     | 6.8         | 4.0    | 2.1     | -       | -       | 4.3                       | 3.1                      | 4.9     | 5.5    |
| \$750 AND UNDER \$775 .....     | 5.9         | 4.9    | 2.0     | -       | -       | 4.7                       | 3.1                      | 4.7     | 6.0    |
| \$775 AND UNDER \$800 .....     | 8.0         | 4.7    | 2.8     | (4.1)   | -       | 4.2                       | 3.3                      | 3.6     | 5.4    |
| \$800 AND UNDER \$825 .....     | 7.6         | 5.3    | 2.7     | 1.7     | -       | 5.2                       | 3.3                      | 2.9     | 6.0    |
| \$825 AND UNDER \$850 .....     | 6.9         | 5.9    | 3.4     | 2.4     | (2.6)   | 5.0                       | 2.8                      | 2.5     | 5.1    |
| \$850 AND UNDER \$875 .....     | 6.3         | 6.6    | 3.9     | 2.4     | 1.1     | 4.8                       | 3.9                      | 1.2     | 4.7    |
| \$875 AND UNDER \$900 .....     | 4.4         | 4.8    | 3.6     | 2.1     | .6      | 3.4                       | 3.4                      | 1.4     | 3.7    |
| \$900 AND UNDER \$925 .....     | 5.3         | 5.9    | 5.1     | 2.9     | 2.1     | 3.5                       | 5.2                      | 1.2     | 3.0    |
| \$925 AND UNDER \$950 .....     | 5.3         | 4.6    | 4.0     | 2.4     | 1.4     | 2.9                       | 3.6                      | .8      | 2.4    |
| \$950 AND UNDER \$975 .....     | 4.4         | 4.5    | 5.1     | 3.8     | 1.8     | 2.9                       | 3.6                      | .9      | 2.6    |
| \$975 AND UNDER \$1,000 .....   | 3.7         | 5.4    | 4.7     | 4.0     | 4.2     | 4.0                       | 3.7                      | .8      | 2.2    |
| \$1,000 AND UNDER \$1,050 ..... | 4.9         | 8.0    | 9.7     | 8.4     | 5.8     | 6.0                       | 10.4                     | 2.0     | 3.5    |
| \$1,050 AND UNDER \$1,100 ..... | 3.7         | 6.4    | 8.0     | 8.9     | 5.2     | 6.5                       | 5.9                      | 1.3     | 3.8    |
| \$1,100 AND UNDER \$1,150 ..... | 2.0         | 4.8    | 8.0     | 7.1     | 6.7     | 4.2                       | 9.1                      | (3.1)   | 3.0    |
| \$1,150 AND UNDER \$1,200 ..... | 1.7         | 4.0    | 6.6     | 7.7     | 7.1     | 2.0                       | 7.2                      | -       | 1.8    |
| \$1,200 AND UNDER \$1,250 ..... | 2.0         | 2.5    | 5.2     | 6.6     | 7.0     | 1.5                       | 5.0                      | -       | 1.6    |
| \$1,250 AND UNDER \$1,300 ..... | 1.1         | 2.5    | 4.5     | 6.6     | 6.1     | 2.3                       | 4.0                      | -       | 1.1    |
| \$1,300 AND UNDER \$1,350 ..... | 1.0         | 1.7    | 3.2     | 6.2     | 6.6     | 3.0                       | 2.5                      | -       | 1.6    |
| \$1,350 AND UNDER \$1,400 ..... | (0.8)       | 1.3    | 2.4     | 4.5     | 5.6     | 3.6                       | 4.4                      | -       | 1.0    |
| \$1,400 AND UNDER \$1,450 ..... | -           | 1.3    | 2.2     | 3.9     | 5.8     | 1.4                       | 2.9                      | -       | 1.4    |
| \$1,450 AND UNDER \$1,500 ..... | -           | (1.6)  | 1.9     | 3.1     | 5.0     | (1.0)                     | 1.7                      | -       | (0.8)  |
| \$1,500 AND UNDER \$1,550 ..... | -           | -      | 1.3     | 2.9     | 5.6     | -                         | (1.9)                    | -       | -      |
| \$1,550 AND UNDER \$1,600 ..... | -           | -      | 1.8     | 2.0     | 3.7     | -                         | -                        | -       | -      |
| \$1,600 AND UNDER \$1,650 ..... | -           | -      | 1.0     | 1.6     | 2.9     | -                         | -                        | -       | -      |
| \$1,650 AND UNDER \$1,700 ..... | -           | -      | 1.2     | 1.4     | 2.9     | -                         | -                        | -       | -      |
| \$1,700 AND UNDER \$1,750 ..... | -           | -      | (0.6)   | (3.2)   | 4.3     | -                         | -                        | -       | -      |
| \$1,750 AND UNDER \$1,800 ..... | -           | -      | -       | -       | 1.3     | -                         | -                        | -       | -      |
| \$1,800 AND UNDER \$1,850 ..... | -           | -      | -       | -       | 1.3     | -                         | -                        | -       | -      |
| \$1,850 AND OVER .....          | -           | -      | -       | -       | (3.2)   | -                         | -                        | -       | -      |
| TOTAL .....                     | 100.0       | 100.0  | 100.0   | 100.0   | 100.0   | 100.0                     | 100.0                    | 100.0   | 100.0  |
| NUMBER OF EMPLOYEES .....       | 38,628      | 79,328 | 92,373  | 49,983  | 17,187  | 24,495                    | 22,316                   | 45,988  | 28,346 |
| AVERAGE MONTHLY SALARY .....    | \$863       | \$948  | \$1,072 | \$1,173 | \$1,308 | \$911                     | \$1,038                  | \$700   | \$844  |

<sup>1</sup> For scope of study, see table A-1 in appendix A.

NOTE: To avoid showing small proportions of employees scattered at or near the extremes of the distributions for some occupations the percentages of employees in these

intervals have been accumulated and are shown in the interval above or below the extreme interval containing at least 1 percent. The percentages representing these employees are shown in parentheses. Because of rounding, sums of individual items may not equal 100.

**Table 7. Occupational employment distribution: By industry division, United States, March 1979**

(Percent distribution of employees in selected professional, administrative, technical, and clerical occupations<sup>1</sup> by industry division,<sup>2</sup> United States except Alaska and Hawaii)

| Occupation and level                   | Mining | Construction | Manufacturing | Public utilities <sup>3</sup> | Wholesale trade | Retail trade | Finance, insurance, and real estate | Selected services <sup>4</sup> |
|----------------------------------------|--------|--------------|---------------|-------------------------------|-----------------|--------------|-------------------------------------|--------------------------------|
| <b>PROFESSIONAL AND ADMINISTRATIVE</b> |        |              |               |                               |                 |              |                                     |                                |
| ACCOUNTANTS .....                      | (5)    | (5)          | 64            | 9                             | 5               | 4            | 10                                  | (5)                            |
| AUDITORS .....                         | (5)    | (5)          | 38            | 14                            | (5)             | 5            | 37                                  | (5)                            |
| PUBLIC ACCOUNTANTS .....               | -      | -            | -             | -                             | -               | -            | -                                   | 100                            |
| CHIEF ACCOUNTANTS .....                | (5)    | (5)          | 68            | 4                             | 8               | 4            | 9                                   | (5)                            |
| ATTORNEYS .....                        | (5)    | (5)          | 27            | 14                            | (5)             | 4            | 47                                  | (5)                            |
| BUYERS .....                           | (5)    | (5)          | 81            | 4                             | (5)             | (5)          | (5)                                 | 5                              |
| JOB ANALYSTS .....                     | (5)    | (5)          | 57            | 8                             | (5)             | (5)          | 26                                  | (5)                            |
| DIRECTORS OF PERSONNEL .....           | (5)    | (5)          | 68            | (5)                           | (5)             | (5)          | 13                                  | (5)                            |
| CHEMISTS .....                         | (5)    | (5)          | 90            | (5)                           | (5)             | (5)          | (5)                                 | 7                              |
| ENGINEERS .....                        | (5)    | (5)          | 73            | 6                             | (5)             | (5)          | (5)                                 | 16                             |
| <b>TECHNICAL SUPPORT</b>               |        |              |               |                               |                 |              |                                     |                                |
| ENGINEERING TECHNICIANS .....          | (5)    | (5)          | 81            | 5                             | (5)             | (5)          | (5)                                 | 12                             |
| DRAFTERS .....                         | (5)    | (5)          | 69            | 8                             | (5)             | (5)          | (5)                                 | 18                             |
| COMPUTER OPERATORS .....               | (5)    | (5)          | 39            | 10                            | 8               | 7            | 22                                  | 13                             |
| <b>CLERICAL</b>                        |        |              |               |                               |                 |              |                                     |                                |
| ACCOUNTING CLERKS .....                | (5)    | (5)          | 42            | 13                            | 10              | 14           | 15                                  | (5)                            |
| FILE CLERKS .....                      | (5)    | (5)          | 21            | 7                             | 4               | (5)          | 58                                  | 6                              |
| KEY ENTRY OPERATORS .....              | (5)    | (5)          | 35            | 7                             | 9               | 8            | 19                                  | 20                             |
| MESSENGERS .....                       | (5)    | (5)          | 32            | 9                             | (5)             | 7            | 39                                  | 8                              |
| PERSONNEL CLERKS .....                 | (5)    | (5)          | 62            | 9                             | (5)             | 6            | 14                                  | 5                              |
| SECRETARIES .....                      | (5)    | (5)          | 49            | 10                            | 6               | 4            | 23                                  | 6                              |
| STENOGRAPHERS .....                    | (5)    | (5)          | 49            | 23                            | 7               | (5)          | 10                                  | 5                              |
| TYPISTS .....                          | (5)    | (5)          | 40            | 8                             | (5)             | 4            | 35                                  | 7                              |

<sup>1</sup> Each occupation includes the work levels shown in table 1.

<sup>2</sup> For scope of study, see table A-1 in appendix A.

<sup>3</sup> Transportation (except U.S. Postal Service), communications, electric, gas, and sanitary services.

<sup>4</sup> Limited to engineering, architectural, and surveying services; commercially operated

research, development, and testing laboratories; credit reporting and collection agencies; computer and data processing services; management, consulting, and public relations services; noncommercial educational, scientific, and research organizations; and accounting, auditing, and bookkeeping services.

<sup>5</sup> Less than 4 percent.

**Table 8. Relative salary levels: Occupation by industry division, United States, March 1979**

(Relative salary levels for selected professional, administrative, technical, and clerical occupations<sup>1</sup> by industry division,<sup>2</sup> United States except Alaska and Hawaii)

(Average salary for each occupation in all industries = 100)

| Occupation and level                   | Mining | Construction | Manufacturing | Public utilities <sup>3</sup> | Wholesale trade | Retail trade | Finance, insurance, and real estate | Selected services <sup>4</sup> |
|----------------------------------------|--------|--------------|---------------|-------------------------------|-----------------|--------------|-------------------------------------|--------------------------------|
| <b>PROFESSIONAL AND ADMINISTRATIVE</b> |        |              |               |                               |                 |              |                                     |                                |
| ACCOUNTANTS .....                      | 101    | 100          | 101           | 105                           | 95              | 99           | 92                                  | 99                             |
| AUDITORS .....                         | 104    | 108          | 105           | 107                           | 90              | 102          | 92                                  | 106                            |
| PUBLIC ACCOUNTANTS .....               | -      | -            | -             | -                             | -               | -            | -                                   | 100                            |
| CHIEF ACCOUNTANTS .....                | (5)    | (5)          | 100           | 110                           | (5)             | 102          | 92                                  | (5)                            |
| ATTORNEYS .....                        | 111    | (5)          | 107           | 96                            | 95              | 102          | 96                                  | 96                             |
| BUYERS .....                           | 102    | 103          | 100           | 109                           | 100             | 102          | 99                                  | 98                             |
| JOB ANALYSTS .....                     | 112    | 90           | 105           | 108                           | 103             | (5)          | 86                                  | 102                            |
| DIRECTORS OF PERSONNEL .....           | 121    | (5)          | 101           | 109                           | (5)             | 96           | 100                                 | 86                             |
| CHEMISTS .....                         | 108    | (5)          | 100           | (5)                           | (5)             | (5)          | (5)                                 | 96                             |
| ENGINEERS .....                        | 109    | 101          | 100           | 102                           | 95              | (5)          | (5)                                 | 97                             |
| <b>TECHNICAL SUPPORT</b>               |        |              |               |                               |                 |              |                                     |                                |
| ENGINEERING TECHNICIANS .....          | 116    | (5)          | 99            | 112                           | (5)             | (5)          | 88                                  | 102                            |
| DRAFTERS .....                         | (5)    | 105          | 100           | 105                           | (5)             | (5)          | 92                                  | 97                             |
| COMPUTER OPERATORS .....               | 113    | 90           | 106           | 112                           | 104             | 98           | 91                                  | 87                             |
| <b>CLERICAL</b>                        |        |              |               |                               |                 |              |                                     |                                |
| ACCOUNTING CLERKS .....                | 117    | 100          | 100           | 120                           | 99              | 94           | 88                                  | 95                             |
| FILE CLERKS .....                      | 111    | 113          | 109           | 120                           | 104             | 101          | 92                                  | 102                            |
| KEY ENTRY OPERATORS .....              | 110    | 97           | 105           | 126                           | 103             | 99           | 91                                  | 90                             |
| MESSENGERS .....                       | 98     | 95           | 107           | 124                           | 115             | 97           | 89                                  | 96                             |
| PERSONNEL CLERKS .....                 | 122    | (5)          | 102           | 110                           | (5)             | 83           | 91                                  | 97                             |
| SECRETARIES .....                      | 110    | 93           | 103           | 112                           | 97              | 89           | 90                                  | 102                            |
| STENOGRAPHERS .....                    | 95     | 93           | 102           | 106                           | 108             | 84           | 81                                  | 88                             |
| TYPISTS .....                          | 106    | 103          | 105           | 121                           | 111             | 98           | 88                                  | 101                            |

<sup>1</sup> Each occupation includes the work levels shown in table 1. In computing relative salary levels for each occupation by industry division, the total employment in each work level in all industries surveyed was used as a constant employment weight to eliminate the effect of differences in the proportion of employment in various work levels within each occupation.

<sup>2</sup> For scope of study, see table A-1 in appendix A.

<sup>3</sup> Transportation (except U.S. Postal Service), communications, electric, gas, and sanitary services.

<sup>4</sup> Limited to engineering, architectural, and surveying services; commercially operated research, development, and testing laboratories; advertising; credit reporting and collection agencies; computer and data processing services; management, consulting, and public relations services; noncommercial educational, scientific, and research organizations; and accounting, auditing, and bookkeeping services.

<sup>5</sup> Insufficient employment in 1 work level or more to warrant separate presentation of data.

**Table 9. Average weekly hours: Occupation by industry division, United States, March 1979**

(Average standard weekly hours<sup>1</sup> for employees in selected professional, administrative, technical, and clerical occupations<sup>2</sup> by industry division,<sup>3</sup> United States except Alaska and Hawaii)

| Occupation and level                   | Mining | Con-<br>struction | Manu-<br>facturing | Public<br>utilities <sup>4</sup> | Wholesale<br>trade | Retail<br>trade | Finance,<br>insurance,<br>and real<br>estate | Selected<br>services <sup>5</sup> |
|----------------------------------------|--------|-------------------|--------------------|----------------------------------|--------------------|-----------------|----------------------------------------------|-----------------------------------|
| <b>PROFESSIONAL AND ADMINISTRATIVE</b> |        |                   |                    |                                  |                    |                 |                                              |                                   |
| ACCOUNTANTS .....                      | 40.0   | 39.5              | 39.5               | 39.5                             | 39.0               | 39.5            | 38.0                                         | 39.5                              |
| AUDITORS .....                         | 40.0   | 40.0              | 39.0               | 39.0                             | 39.5               | 39.5            | 38.0                                         | 39.0                              |
| PUBLIC ACCOUNTANTS .....               | -      | -                 | -                  | -                                | -                  | -               | -                                            | 39.5                              |
| CHIEF ACCOUNTANTS .....                | (6)    | (6)               | 39.5               | 39.0                             | 39.5               | (6)             | 38.5                                         | (6)                               |
| ATTORNEYS .....                        | 39.5   | (6)               | 38.5               | 39.0                             | 39.5               | 38.5            | 38.0                                         | 39.0                              |
| BUYERS .....                           | 40.0   | 40.0              | 40.0               | 39.0                             | 38.0               | 39.0            | 38.5                                         | 40.0                              |
| JOB ANALYSTS .....                     | 40.0   | 40.0              | 39.5               | 38.5                             | 36.5               | (6)             | 38.0                                         | 39.5                              |
| DIRECTORS OF PERSONNEL .....           | 40.0   | (6)               | 40.0               | 40.0                             | (6)                | 39.5            | 38.5                                         | 39.5                              |
| CHEMISTS .....                         | 40.0   | (6)               | 40.0               | (6)                              | (6)                | (6)             | (6)                                          | 39.5                              |
| ENGINEERS .....                        | 40.0   | 40.0              | 40.0               | 39.5                             | 38.5               | (6)             | (6)                                          | 40.0                              |
| <b>TECHNICAL SUPPORT</b>               |        |                   |                    |                                  |                    |                 |                                              |                                   |
| ENGINEERING TECHNICIANS .....          | 40.0   | (6)               | 40.0               | 40.0                             | (6)                | (6)             | 36.5                                         | 39.5                              |
| DRAFTERS .....                         | (6)    | 40.0              | 40.0               | 39.0                             | (6)                | (6)             | 38.0                                         | 40.0                              |
| COMPUTER OPERATORS .....               | 40.0   | 40.0              | 39.5               | 38.5                             | 39.5               | 39.5            | 38.5                                         | 39.5                              |
| <b>CLERICAL</b>                        |        |                   |                    |                                  |                    |                 |                                              |                                   |
| ACCOUNTING CLERKS .....                | 40.0   | 39.5              | 39.5               | 39.0                             | 39.5               | 39.5            | 38.0                                         | 39.5                              |
| FILE CLERKS .....                      | 40.0   | 40.0              | 39.5               | 38.0                             | 39.5               | 39.5            | 38.0                                         | 39.5                              |
| KEY ENTRY OPERATORS .....              | 40.0   | 40.0              | 39.5               | 39.5                             | 39.5               | 39.5            | 38.0                                         | 40.0                              |
| MESSENGERS .....                       | 40.0   | 39.5              | 39.0               | 38.5                             | 39.0               | 39.5            | 37.5                                         | 38.0                              |
| PERSONNEL CLERKS .....                 | 40.0   | (6)               | 40.0               | 39.5                             | (6)                | 39.0            | 38.0                                         | 39.0                              |
| SECRETARIES .....                      | 40.0   | 40.0              | 39.5               | 38.5                             | 39.5               | 39.0            | 38.0                                         | 39.5                              |
| STENOGRAPHERS .....                    | 39.0   | 39.5              | 39.5               | 39.0                             | 39.0               | 40.0            | 38.0                                         | 39.0                              |
| TYPISTS .....                          | 40.0   | 40.0              | 39.5               | 39.5                             | 39.0               | 39.5            | 37.5                                         | 39.0                              |

<sup>1</sup> Based on the standard workweek for which employees receive their regular straight-time salary. If standard hours were not available, the standard hours applicable for a majority of the office work force in the establishment were used. The average for each job category was rounded to the nearest half hour.

<sup>2</sup> Each occupation includes the work levels shown in table 1.

<sup>3</sup> For scope of study, see table A-1 in appendix A.

<sup>4</sup> Transportation (except U.S. Postal Service), communications, electric, gas, and sanitary services.

<sup>5</sup> Limited to engineering, architectural, and surveying services; commercially operated research, development, and testing laboratories; advertising; credit reporting and collection agencies; computer and data processing services; management, consulting, and public relations services; and noncommercial educational, scientific, and research organizations; and accounting, auditing, and bookkeeping services.

<sup>6</sup> Insufficient employment in 1 or more work levels to warrant separate presentation of data.

# Appendix A. Scope and Method of Survey

## Scope

The survey relates to establishments<sup>1</sup> in the United States, except Alaska and Hawaii, employing at least a specified minimum number of workers, and engaged in the following industries: Mining; construction; manufacturing; transportation, communications, electric, gas, and sanitary services (except the U.S. Postal Service); wholesale trade; retail trade; finance, insurance, and real estate; and selected services (table A-1). Establishments which employed fewer than the minimum number of employees specified for each industry division were excluded. Establishments which met the minimum size criteria during the reference period of the information used in compiling the survey universe were included, even if they employed fewer than the specified minimum number of workers at the time of the survey. Establishments outside of the industrial scope of the survey at the time of data collection were excluded.

Table A-1 shows the estimated number of establishments and employees within scope of the survey and the number within the sample actually studied for each major industry division. Separate estimates are presented for establishments employing 2,500 workers or more and for those located in Standard Metropolitan Statistical Areas (SMSA's).<sup>2</sup> Similar estimates of the number of full-time white-collar employees are also provided.

## Sampling frame

The list of establishments (called the sampling frame) from which the sample was selected was developed by updating the 1978 survey sampling frame using data from the most recently available (usually March 1977) unemployment insurance reports for 48 States and the District of Columbia. During the update process, some establishments were added, some were removed, while others changed

address, employment, type of industry, or other information.

## Survey design

The design for a survey consists of the method by which the individual establishments are classified into homogeneous groups or strata, how the sample sizes were chosen for the individual strata, and the method by which the sample of establishments was selected from each stratum.

Establishments within scope of the 1979 survey were stratified by industry group and by total employment. Establishments were also stratified on a limited scale geographically to allow BLS to publish estimates for New York State and the New York area in a separate report.

The sample size in a stratum was approximately proportional to the total employment of all establishments within the stratum. Thus, a stratum which contained 1 percent of total employment within the scope of the survey received approximately 1 percent of total sample. Within each stratum, a random sample was selected systematically to maximize the probability of retaining establishments which were selected for the 1978 sample.<sup>3</sup> This method of selection would reduce collection costs by decreasing the number of new establishments in the sample.

## Data collection

Data for the survey were obtained by personal visits of the Bureau's field representatives to a nationwide sample of establishments. Collection was scheduled during the months of January through April to reflect an average reference period of March 1979.<sup>4</sup>

Employees were classified by occupation and level using job descriptions (see appendix C) prepared jointly by the Bureau of Labor Statistics and the Office of Personnel

<sup>1</sup> For this survey, an establishment is an economic unit which produces goods or services, a central administrative office, or an auxiliary unit providing support services to a company. In manufacturing industries the establishment is usually a single physical location. In nonmanufacturing industries, all locations of an individual company within a Standard Metropolitan Statistical Area (SMSA) or within a nonmetropolitan county are usually considered an establishment.

<sup>2</sup> The metropolitan area data relate to all 276 SMSA's within the 48 States as revised through June 1977 by the U.S. Office of Management and Budget.

<sup>3</sup> This method modifies the method introduced by Nathan Keyfitz in 1951 in his paper titled "Sampling with Probabilities Proportional to Size-Adjusting for Changes in the Probabilities", *Journal of the American Statistical Association*, 1951, No. 46, pp. 105-109.

<sup>4</sup> The March payroll period has been used since the 1972 survey. The 1967 through 1971 surveys had a June reference period for all occupations. Before the 1967 study, the average reference period was February for clerical and drafting jobs, and March for all other occupations. Until 1963, reports listed "Winter" as the reference period. From 1963 through 1966, the designation "February-March" was used.

**Table A-1. Number of establishments and workers within scope of survey and number studied, by industry division, United States, March 1979**

| Industry division <sup>1</sup>                                  | Minimum employment in establishments within scope of survey | Within scope of survey   |                           |                                 |                                | Studied                  |                           |                                 |                                |
|-----------------------------------------------------------------|-------------------------------------------------------------|--------------------------|---------------------------|---------------------------------|--------------------------------|--------------------------|---------------------------|---------------------------------|--------------------------------|
|                                                                 |                                                             | Number of establishments | Workers in establishments |                                 |                                | Number of establishments | Workers in establishments |                                 |                                |
|                                                                 |                                                             |                          | Total                     | Professional and administrative | Clerical and technical support |                          | Total                     | Professional and administrative | Clerical and technical support |
| UNITED STATES - ALL INDUSTRIES <sup>2</sup>                     | -                                                           | 40,251                   | 22,923,125                | 4,662,279                       | 4,608,534                      | 3,529                    | 7,008,645                 | 1,456,781                       | 1,647,996                      |
| MANUFACTURING <sup>3</sup>                                      | 100-250                                                     | 19,845                   | 12,971,780                | 1,625,948                       | 2,345,947                      | 1,787                    | 4,105,803                 | 551,715                         | 940,092                        |
| NONMANUFACTURING:                                               |                                                             |                          |                           |                                 |                                |                          |                           |                                 |                                |
| MINING                                                          | 250                                                         | 547                      | 343,776                   | 40,117                          | 56,257                         | 57                       | 71,722                    | 9,910                           | 15,673                         |
| CONSTRUCTION                                                    | 250                                                         | 454                      | 193,130                   | 33,655                          | 52,255                         | 41                       | 39,971                    | 8,770                           | 16,912                         |
| TRANSPORTATION, COMMUNICATION, ELECTRIC, GAS, AND SANITARY      |                                                             |                          |                           |                                 |                                |                          |                           |                                 |                                |
| SERVICES                                                        | 100-250                                                     | 3,712                    | 2,692,631                 | 609,498                         | 598,895                        | 429                      | 1,263,858                 | 318,844                         | 307,817                        |
| WHOLESALE TRADE                                                 | 100                                                         | 4,606                    | 963,142                   | 270,081                         | 251,397                        | 239                      | 64,926                    | 21,714                          | 23,315                         |
| RETAIL TRADE                                                    | 250                                                         | 3,517                    | 2,999,477                 | 580,121                         | 369,672                        | 382                      | 750,838                   | 162,125                         | 98,363                         |
| FINANCE, INSURANCE, AND REAL ESTATE                             | 100                                                         | 5,476                    | 2,099,906                 | 1,264,275                       | 609,034                        | 401                      | 533,665                   | 330,453                         | 149,154                        |
| SELECTED SERVICES <sup>5</sup>                                  | 50-100                                                      | 2,094                    | 659,283                   | 238,584                         | 325,077                        | 193                      | 177,862                   | 53,250                          | 96,670                         |
| METROPOLITAN AREAS - ALL INDUSTRIES <sup>7</sup>                | -                                                           | 32,619                   | 19,162,682                | 4,308,335                       | 4,205,122                      | 2,944                    | 6,452,244                 | 1,398,704                       | 1,568,566                      |
| MANUFACTURING <sup>3</sup>                                      | 100-250                                                     | 14,395                   | 9,982,015                 | 1,405,696                       | 2,053,376                      | 1,351                    | 3,670,163                 | 510,765                         | 880,907                        |
| NONMANUFACTURING:                                               |                                                             |                          |                           |                                 |                                |                          |                           |                                 |                                |
| MINING                                                          | 250                                                         | 261                      | 161,759                   | 28,010                          | 37,011                         | 26                       | 39,365                    | 5,809                           | 9,442                          |
| CONSTRUCTION                                                    | 250                                                         | 367                      | 165,659                   | 31,733                          | 49,610                         | 35                       | 33,977                    | 8,511                           | 16,504                         |
| TRANSPORTATION, COMMUNICATION, ELECTRIC, GAS, AND SANITARY      |                                                             |                          |                           |                                 |                                |                          |                           |                                 |                                |
| SERVICES                                                        | 100-250                                                     | 2,780                    | 2,365,189                 | 561,561                         | 552,067                        | 364                      | 1,204,162                 | 311,985                         | 298,175                        |
| WHOLESALE TRADE                                                 | 100                                                         | 4,239                    | 900,328                   | 259,012                         | 245,522                        | 225                      | 63,144                    | 21,389                          | 23,196                         |
| RETAIL TRADE                                                    | 250                                                         | 3,301                    | 2,904,355                 | 562,043                         | 359,590                        | 368                      | 737,460                   | 160,492                         | 97,276                         |
| FINANCE, INSURANCE, AND REAL ESTATE                             | 100                                                         | 5,228                    | 2,037,701                 | 1,227,302                       | 588,539                        | 387                      | 528,205                   | 327,131                         | 147,351                        |
| SELECTED SERVICES <sup>5</sup>                                  | 50-100                                                      | 2,048                    | 645,676                   | 232,978                         | 319,407                        | 188                      | 175,768                   | 52,622                          | 95,715                         |
| ESTABLISHMENTS EMPLOYING 2,500 WORKERS OR MORE - ALL INDUSTRIES | -                                                           | 1,026                    | 6,803,581                 | 1,380,889                       | 1,609,433                      | 745                      | 5,217,427                 | 1,073,919                       | 1,278,451                      |
| MANUFACTURING <sup>3</sup>                                      | 100-250                                                     | 526                      | 3,983,010                 | 538,533                         | 960,407                        | 442                      | 3,177,296                 | 428,566                         | 785,579                        |

<sup>1</sup> As defined in the 1972 edition of the Standard Industrial Classification Manual, U.S. Office of Management and Budget.

<sup>2</sup> Establishments with total employment at or above the minimum limitation indicated in the first column; excludes Alaska and Hawaii.

<sup>3</sup> Minimum employment size was 100 for chemical and allied products; petroleum refining and related industries; machinery except electrical; electrical machinery, equipment, and supplies; transportation equipment; and instruments and related products. Minimum size was 250 in all other manufacturing industries.

<sup>4</sup> Minimum employment size was 100 for railroad transportation; local and suburban transit; deep sea foreign and domestic transportation; air transportation; communications, electric, gas,

and sanitary services; and pipelines; and 250 for all other transportation industries. U.S. Postal Service is excluded from the survey.

<sup>5</sup> Limited to advertising; credit reporting and collection agencies; computer and data processing services; research and development laboratories; commercial testing laboratories; management and public relations services; engineering and architectural services; noncommercial research organizations; and accounting, auditing, and bookkeeping services.

<sup>6</sup> Minimum employment size was 50 for accounting, auditing, and bookkeeping services; and 100 in all other selected services.

<sup>7</sup> Standard metropolitan statistical areas in the United States, except Alaska and Hawaii, as revised through June 1977 by the U.S. Office of Management and Budget.

Management (formerly the U.S. Civil Service Commission). The descriptions are designed to reflect duties and responsibilities of employees in private industry and to be translatable to specific General Schedule grades applying to Federal employees (see appendix D). Thus, definitions of some occupations and work levels were limited to specific elements which could be classified uniformly among establishments.

In comparing the actual duties and responsibilities of employees with those enumerated in the job descriptions, the Bureau's field representatives, with the assistance of company officials, extensively used company position descriptions, organization charts, and other personnel records.

The salaries reported for survey occupations are the standard salaries paid to full-time employees for standard work schedules, i.e., the straight-time salary corresponding to the employee's normal work schedule excluding overtime hours. Nonproduction bonuses are excluded, but cost-of-living payments and incentive earnings are included.

#### Survey nonresponse

In the March 1979 survey, salary data were not available from about 15 percent of the sample members (representing 2,720,000 employees in the total universe). An additional 5 percent of the sampled establishments (representing 745,000 employees) were either out of business or outside the scope of the survey.

If data were not provided by a sample member, the weights of responding establishments randomly selected from the same stratum were increased to adjust for the missing data. No adjustment was made for establishments which were out of business or out of the scope of the survey at the time of data collection.

Some sampled companies had an established policy of not disclosing salary data for certain employees. No adjustments were made to the salary estimates for the survey as a result of these missing data. In all but 8 of the 65 professional, administrative, and technical levels surveyed, the proportion of employees for whom salary data were not available was less than 5 percent.<sup>5</sup>

#### Survey estimation methods

**Data conversion.** Salary data were collected from company records in the most readily available form, i.e., weekly, biweekly, semimonthly, monthly, or annually. Before initial tabulations, all salary data were converted to a monthly basis. The factors used to convert the salary data are as follows:

| <i>Payroll basis</i> | <i>Conversion factor</i> |
|----------------------|--------------------------|
| Weekly               | 4.3450                   |
| Biweekly             | 2.1725                   |
| Semimonthly          | 2.0000                   |
| Monthly              | 1.0000                   |
| Annual               | .0833                    |

Factors which reflect the normal work schedules for the month were used to convert hourly rates to a monthly basis.

**Employment.** Occupational employment counts, generated by the survey, are estimates of the total for all establishments within the scope of the survey and are not limited to establishments actually studied. An occupational employment estimate was derived by multiplying the full-time employment in the occupation in each sample establishment by the establishment weight and then summing these results.

**Salary averages.** The mean salary (average wage rate) for a specific occupational level was obtained by dividing total wages for that level by the corresponding total employment. Median and quartile values were derived from distributions of employees by salary using 10-cent class intervals. All salary averages in the tables were rounded to the nearest dollar. For all annual salary calculations, individual monthly salaries (to the nearest one-tenth cent) were multiplied by 12 before performing the necessary data aggregation.

**Salary trends.** Percent increases for each occupation in text table 1 were obtained by adding the aggregate salaries for each level in each of 2 successive years and dividing the later sum by the earlier sum. To eliminate the effects of year-to-year employment shifts in this computation, average salaries in each year were multiplied by employment in the most recent year. Increases for each of the two broad occupational groups (the professional, administrative, and technical support group; and the clerical group) were obtained by calculating a simple mean of the increases reported for the occupations within the group. Increases for all survey occupations combined were determined by averaging the increases for the two broad occupational groups. Annual percentage increases were then linked to compute average annual rates of increase for each occupation and group and for all occupations combined.

Year-to-year percent increases for each group specified in text table 2 and chart 1 were determined by adding average salaries for all occupational levels in the group for 2 consecutive years and, dividing the later sum by the earlier sum. The trends in chart 1 and text table 2 were obtained by linking changes for the individual periods.

<sup>5</sup>Those with 5 percent or more were: Chief accountants I and III—12 and 13 percent, respectively; Attorneys VI—5 percent; Job analysts III—7 percent; and Directors of personnel I, II, III, and IV—6, 5, 14, and 23 percent, respectively.

Changes in the scope of the survey and in occupational definitions were incorporated into the various trend series as soon as two consecutive periods with comparable data were available.

### Limitations

Survey occupations were limited to employees meeting the specific criteria in each survey definition and were not intended to include all employees in each field of work.<sup>6</sup> Employees whose salary data were not available, as well as those for whom there was no satisfactory basis for classification by work level, were not taken into account in the estimates. For these reasons, and because of differences in occupational structure among establishments, estimates of occupational employment obtained from the sample of establishments studied indicate only the relative importance of occupations and levels as defined for the survey. These qualifications of employment estimates do not materially affect the accuracy of the earnings data.

Data on year-to-year changes in average salaries are subject to limitations which reflect the nature of the data collected. Changes in average salaries reflect not only general salary increases and merit or other increases in the same work level category, but also other factors such as employee turnover, expansions or contractions in the work force, and changes in staffing patterns within establishments with different salary levels. For example, an expansion in force may increase the proportion of employees at the minimum of the salary range established for a work level, which would tend to lower the average, whereas a reduction or a low turnover in the work force may have the

opposite effect. Similarly, promotions of employees to higher work levels of professional and administrative occupations may affect the average of each level. Established salary ranges for such occupations are relatively wide, and employees who may have been paid the maximum of the salary scale for the lower level are likely to be replaced by less experienced employees who may be paid the minimum. Occupations most likely to reflect such changes are higher levels of professional and administrative occupations and single-incumbent positions such as chief accountant and director of personnel.

### Reliability of the estimates

The relative standard error of an average salary estimate is a measure of the reliability of that estimate: The smaller the relative standard error, the greater the reliability of the estimate.<sup>7</sup> Estimates of relative standard errors for the 1979 survey vary widely among various occupational work levels depending on a number of factors, which include: The frequency with which the job occurs, the dispersion of salaries for the job, and the survey design. For the 89 published occupational work levels, estimated relative standard errors for the average salary estimates were distributed as follows: 59 were under 1 percent; 17 were between 1 and 2 percent; 5 were between 2 and 3 percent; 5 were between 3 and 4 percent; and 3 were over 4 percent.<sup>8</sup> The current method of estimating standard errors for this survey indicates there is a 70-percent chance that the true value of a salary average lies within a band of values defined by the reported average plus and minus two standard errors.

<sup>7</sup>A replication technique with one replicate was used to obtain estimates of relative standard errors for the 1979 survey. Standardized survey wage rate estimates are, thus, approximately distributed as a student's *t* random variable with one degree of freedom. Although no estimates of the effects of nonresponse are available, the reduction in the reliability of wage rate estimates should be small because of the nature of the data collected, the survey method, and the high response rate.

<sup>8</sup>Chief accountants II at 4.15 percent; Directors of personnel IV at 4.46 percent; and Attorneys I at 5.49 percent.

<sup>6</sup>Engineers, for example, include employees engaged in engineering work within a band of eight levels, starting with inexperienced engineering graduates and excluding only those within certain fields of specialization or in positions above those covered by level VIII. In contrast, occupations such as chief accountants and directors of personnel include only those with responsibility for a specified program and with duties and responsibilities as indicated for each of the more limited number of work levels selected for study.

## Appendix B. Survey Changes in 1979

### **Changes in occupational definitions**

The definitions of accounting clerks and drafters were revised and levels were added to both occupations to facilitate classification and better relate the definitions to duties and responsibilities as they exist in private industry. Data for these occupations are not comparable to those previously published and thus are not used in any trend comparisons.

### **Occupations added**

Four levels of public accountants and five levels of

personnel clerks, as defined in Appendix C, have been added to the survey. Three levels of purchasing clerks were also surveyed but the definitions will require additional refinement and testing before they yield reliable results.

### **Industries added**

Firms in accounting, auditing, and bookkeeping services (SIC 8931) with a minimum employment of 50 workers have been added to the industries surveyed.

## Appendix C. Occupational Definitions

The primary purpose of preparing job definitions for the Bureau's wage surveys is to assist its field staff in classifying into appropriate occupations, or levels within occupations, workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This permits the grouping of occupational wage rates representing comparable job content. To secure comparability of job content, some occupations and work levels are defined to include only those workers meeting specific criteria as to training, job functions, and responsibilities. Because of this emphasis on interestablishment and interarea comparability of occupational content, the Bureau's occupational definitions may differ significantly from those in use in individual establishments or those prepared for other purposes. Also see note referring to the definitions for the drafting and clerical occupations at the end of this appendix.

### Accountants and Auditors

#### ACCOUNTANT

Performs professional accounting work requiring knowledge of the theory and practice of recording, classifying, examining, *and* analyzing the data and records of financial transactions. The work generally requires a bachelor's degree in accounting or, in rare instances, equivalent experience and education combined. Positions covered by this definition are characterized by the inclusion of work that is analytical, creative, evaluative, and advisory in nature. The work *draws upon* and *requires* a thorough knowledge of the fundamental doctrines, theories, principles, and terminology of accountancy, and often entails some understanding of such related fields as business law, statistics, and general management. (See also chief accountant.)

Professional responsibilities in accountant positions above the entry and developmental levels include several such duties as:

- Analyzing the effects of transactions upon account relationships;
- Evaluating alternative means of treating transactions;
- Planning the manner in which account structures should be developed or modified;
- Assuring the adequacy of the accounting system as the basis for reporting to management;
- Considering the need for new or changed controls;
- Projecting accounting data to show the effects of proposed plans on capital investments, income, cash position, and overall financial condition;
- Interpreting the meaning of accounting records, reports, and statements;

Advising operating officials on accounting matters; and

Recommending improvements, adaptations, or revisions in the accounting system and procedures.

(Entry and developmental level positions provide opportunity to develop ability to perform professional duties such as those enumerated above.)

*In addition* to such professional work, most accountants are also responsible for assuring the proper recording and documentation of transactions in the accounts. They, therefore, frequently direct nonprofessional personnel in the actual day-to-day maintenance of books of accounts, the accumulation of cost or other comparable data, the preparation of standard reports and statements, and similar work. (Positions involving such supervisory work but not including professional duties as described above are not included in this description.)

*Excluded* are accountants whose *principal or sole* duties consist of designing or improving accounting systems or other nonoperating staff work, e.g., financial analysis, financial forecasting, tax advising, etc. (The criteria that follow for distinguishing among the several levels of work are inappropriate for such jobs.) Note, however, that professional accountant positions with responsibility for recording or reporting accounting data relative to taxes are included, as are operating or cost accountants whose work includes, but is not limited to, improvement of the accounting system.

Some accountants use electronic data processing equipment to process, record, and report accounting data. In

some such cases the machine unit is a subordinate segment of the accounting system; in others it is a separate entity or is attached to some other organization. In either instance, provided that the primary responsibility of the position is professional accounting work of the type otherwise included, the use of data processing equipment of any type does not of itself exclude a position from the accountant description nor does it change its level.

### Accountant I

*General characteristics.* At this beginning professional level, the accountant learns to apply the principles, theories, and concepts of accounting to a specific system. The position is distinguishable from nonprofessional positions by the variety of assignments; rate and scope of development expected of the incumbent; and the existence, implicit or explicit, of a planned training program designed to give the entering accountant practical experience. (Terminal positions are excluded.)

*Direction received.* Works under close supervision of an experienced accountant whose guidance is directed primarily to the development of the trainee's professional ability and to the evaluation of advancement potential. Limits of assignments are clearly defined, methods of procedure are specified, and kinds of items to be noted and referred to supervisor are identified.

*Typical duties and responsibilities.* Performs a variety of accounting tasks such as: Examining a variety of financial statements for completeness, internal accuracy, and conformance with uniform accounting classifications or other specific accounting requirements; reconciling reports and financial data with financial statements already on file, and pointing out apparent inconsistencies or errors; carrying out assigned steps in an accounting analysis, such as computing standard ratios; assembling and summarizing accounting literature on a given subject; preparing relatively simple financial statements not involving problems of analysis or presentation; and preparing charts, tables, and other exhibits to be used in reports. In addition to such work, may also perform some nonprofessional tasks for training purposes.

*Responsibility for direction of others.* Usually none.

### Accountant II

*General characteristics.* At this continuing developmental level the professional accountant makes practical applications of technical accounting practices and concepts beyond the mere application of detailed rules and instructions. Assignments are designed to expand practical experience and to develop professional judgment in the application of basic accounting techniques to simple professional

problems. Is expected to be competent in the application of standard procedures and requirements to routine transactions, to raise questions about unusual or questionable items, and to suggest solutions. (Terminal positions are excluded.)

*Direction received.* Work is reviewed closely to verify its general accuracy and coverage of unusual problems, to insure conformance with required procedures and special instructions, and to assure professional growth. Progress is evaluated in terms of ability to apply professional knowledge to basic accounting problems in the day-to-day operations of an established accounting system.

*Typical duties and responsibilities.* Performs a variety of accounting tasks, e.g., prepares routine working papers, schedules, exhibits, and summaries indicating the extent of the examination and presenting and supporting findings and recommendations. Examines a variety of accounting documents to verify accuracy of computations and to ascertain that all transactions are properly supported, are in accordance with pertinent policies and procedures, and are classified and recorded according to acceptable accounting standards.

*Responsibility for the direction of others.* Usually none, although sometimes responsible for supervision of a few clerks.

### Accountant III

*General characteristics.* Performs professional operating or cost accounting work requiring the standardized application of well-established accounting principles, theories, concepts, and practices. Receives detailed instructions concerning the overall accounting system and its objectives, the policies and procedures under which it is operated, and the nature of changes in the system or its operation. Characteristically, the accounting system or assigned segment is stable and well established (i.e., the basic chart of accounts, classifications, the nature of the cost accounting system, the report requirements, and the procedures are changed infrequently).

Depending upon the workload involved, the accountant may have such assignments as supervision of the *day-to-day operation* of: (a) The entire system of a subordinate establishment, or (b) a major segment (e.g., general accounting; cost accounting; or financial statements and reports) of a somewhat larger system, or (c) in a very large and complex system, may be assigned to a relatively narrow and specialized segment dealing with some problem, function, or portion of work which is itself of the level of difficulty characteristic of this level.

*Direction received.* A higher level professional accountant normally is available to furnish advice and assistance as

needed. Work is reviewed for technical accuracy, adequacy of professional judgment, and compliance with instructions through spot checks, appraisal of results, subsequent processing, analysis of reports and statements, and other appropriate means.

*Typical duties and responsibilities.* The primary responsibility of most positions at this level is to assure that the assigned day-to-day operations are carried out in accordance with established accounting principles, policies, and objectives. The accountant performs such professional work as: Developing nonstandard reports and statements (e.g., those containing cash forecasts reflecting the interrelations of accounting, cost budgeting, or comparable information); interpreting and pointing out trends or deviations from standards; projecting data into the future; predicting the effects of changes in operating programs; or identifying management informational needs, and refining account structures or reports accordingly.

Within the limits of delegated responsibility, makes day-to-day decisions concerning the accounting treatment of financial transactions. Is expected to recommend solutions to complex problems and propose changes in the accounting system for approval at higher levels. Such recommendations are derived from personal knowledge of the application of well-established principles and practices.

*Responsibility for the direction of others.* In most instances is responsible for supervision of a subordinate nonprofessional staff.

#### Accountant IV

*General characteristics.* Performs professional operating or cost accounting work which requires the application of well-established accounting principles, theories, concepts, and practices to a wide variety of difficult problems. Receives instructions concerning the objectives and operation of the overall accounting system. At this level, compared with level III, the accounting system or assigned segment is more complex, i.e., (a) is relatively unstable, (b) must adjust to new or changing company operations, (c) serves organizations of unusually large size, or (d) is complicated by the need to provide and coordinate separate or specialized accounting treatment and reporting (e.g., cost accounting using standard cost, process cost, and job order techniques) for different operations or divisions of the company.

Depending upon the workload and degree of coordination involved, the accountant IV may have such assignments as the supervision of the *day-to-day operation* of: (a) The entire accounting system of a subordinate establishment, or (b) a major segment (e.g., general accounting; cost accounting; or financial statements and reports) of an accounting system serving a larger and more complex establishment, or (c) the entire accounting system of a large

(e.g., employing several thousand persons) subordinate establishment which in other respects has an accounting system of the complexity that characterizes level III.

*Direction received.* A higher level accountant normally is available to furnish advice and assistance as needed. Work is reviewed by spot checks and appraisal of results for adequacy of professional judgment, compliance with instructions, and overall accuracy and quality.

*Typical duties and responsibilities.* As at level III, a primary characteristic of most positions at this level is the responsibility of operating an accounting system or major segment of a system in the intended manner.

The accountant IV exercises professional judgment in making frequent appropriate recommendations for: New accounts; revisions in the account structure; new types of ledgers; revisions in reporting system or subsidiary records; changes in instructions regarding the use of accounts; new or refined account classifications or definitions; etc. Also makes day-to-day decisions concerning the accounting treatment of financial transactions and is expected to recommend solutions to complex problems beyond incumbent's scope of responsibility.

*Responsibility for direction of others.* Accounting staff supervised, if any, may include professional accountants.

#### Accountant V

*General characteristics.* Performs professional operating or cost accounting work which is of greater than average professional difficulty and responsibility because of the presence of unusual and novel problems or the unusual magnitude or impact of the accounting program. Typically this level of difficulty arises from (a) the large size of the accounting and operating organization, (b) the atypical nature of the accounting problems encountered, or (c) the unusually great involvement in accounting systems design and development.

Examples of assignments characteristic of this level are the supervision of the *day-to-day operation* of: (a) The entire accounting system of a subordinate establishment having an unusually novel and complex accounting system, or (b) the entire accounting system of a large (e.g., employing several thousand persons) subordinate establishment which in other respects has an accounting system of the complexity that characterizes level IV, or (c) the entire accounting system of a company or corporation that has a relatively stable and conventional accounting system and employs several thousand persons and has a few subordinate establishments which include accounting units, or (d) a major segment of an accounting system that substantially exceeds the characteristics described in any one of the preceding examples.

*Direction received.* An accountant of higher level normally is available to furnish advice and assistance as needed. Work is reviewed for adequacy of professional judgment, compliance with instructions, and overall quality.

*Typical duties and responsibilities.* The work is characterized by its unusual difficulty or responsibility. Accountants V typically are directly concerned on a relatively continuous basis with what the nature of the accounting system should be, with the devising or revising of the operating accounting policies and procedures that are necessary, and with the managerial as well as the accounting meaning of the reports and statements for which they are responsible. Accountants V are necessarily deeply involved in fundamental and complex accounting matters and in the managerial problems that are affected.

*Responsibility for the direction of others.* Accounting staff supervised generally includes professional accountants.

## AUDITOR

Performs professional auditing work requiring a bachelor's degree in accounting or, in rare instances, equivalent experience and education combined. Audits the financial records and practices of a company, or of divisions or components of the company, to appraise systematically and verify the accounting accuracy of records and reports and to assure the consistent application of accepted accounting principles. Evaluates the adequacy of the accounting system and internal financial controls. Makes appropriate recommendations for improvement as necessary. To the extent determined necessary, examines the transactions entering into the balance sheet and the transactions entering into income, expense, and cost accounts. Determines:

The existence of recorded assets (including the observation of the taking of physical inventories) and the all-inclusiveness of recorded liabilities;

The accuracy of financial statements or reports and the fairness of presentation of facts therein;

The propriety or legality of transactions;

The degree of compliance with established policies and procedures concerning financial transactions.

*Excluded* are positions which do not require full professional accounting training because the work is confined on a relatively permanent basis to repetitive examinations of a limited area of company operations and accounting processes, e.g., only accounts payable and receivable; demurrage records and related functions, or station operations only of a railroad company; branch offices which do not engage in the full range of banking and accounting activities of the main bank; warehouse operations only of a mail order company; checking transactions to determine whether or not they conform to prescribed routines or procedures. (Examinations of such a repetitive or limited nature

normally do not require or permit professional audit work to be performed.)

### Auditor I

*General characteristics.* As a trainee auditor at the entering professional level, performs a variety of routine assignments. Typically, the trainee is rotated through a variety of tasks under a planned training program designed to provide practical experience in applying the principles, theories, and concepts of accounting and auditing to specific situations. (Terminal positions are excluded.)

*Direction received.* Works under close supervision of an experienced auditor whose guidance is directed primarily to the development of the trainee's professional ability and to the evaluation of advancement potential. Limits of assignments are clearly defined, methods of procedure are specified, and kinds of items to be noted and referred to supervisor are identified.

*Typical duties and responsibilities.* Assists in making audits by performing such tasks as: Verification of the accuracy of the balances in various records; examination of a variety of types of documents and vouchers for accuracy of computations; checking transactions to assure they are properly documented and have been recorded in accordance with correct accounting classifications; verifying the count of inventories; preparing detailed statements, schedules, and standard audit working papers; counting cash and other assets; preparing simple reconciliations; and similar functions.

### Auditor II

*General characteristics.* At this continuing developmental level the professional auditor serves as a junior member of an audit team, independently performing selected portions of the audit which are limited in scope and complexity. Auditors at this level typically have acquired knowledge of company operations, policies, and procedures. (Terminal positions are excluded.)

*Direction received.* Detailed instructions are furnished and the work is reviewed to the extent necessary to verify its general accuracy and coverage of unusual problems, to insure conformance with required procedures and special instructions, and to assure the auditor's professional growth. Any technical problems not covered by instructions are brought to the attention of a superior. Progress is evaluated in terms of ability to apply professional knowledge to basic auditing situations.

*Typical duties and responsibilities.* Applies knowledge of *accounting theory* and audit practices to a variety of relatively simple professional problems in audit assignments,

including such tasks as: The verification of reports against source accounts and records to determine their reliability; reconciliation of bank and other accounts and verifying the detail of recorded transactions; detailed examinations of cash receipts and disbursement vouchers, payroll records, requisitions, work orders, receiving reports, and other accounting documents to ascertain that transactions are properly supported and are recorded correctly from an accounting or regulatory standpoint; or preparing working papers, schedules, and summaries.

### Auditor III

*General characteristics.* Work at this level consists of the audit of operations and accounting processes that are relatively stable, well-established, and typical of the industry. The audits primarily involve the collection and analysis of readily available findings; there is previous audit experience that is directly applicable; the audit reports are normally prepared in a prescribed format using a standard method of presentation; and few if any major problems are anticipated. The work performed requires the *application* of substantial knowledge of accounting principles and practices, e.g., bases for distinguishing among capital maintenance and operating expenses; accruing reserves for taxes; and other accounting considerations of an equivalent nature.

*Typical duties and responsibilities.* The auditor examines transactions and verifies accounts; observes and evaluates accounting procedures and internal controls; prepares audit working papers and submits an audit report in the required pattern containing recommendations for needed changes or improvements. Usually is responsible for selecting the detailed audit methods to follow, choosing the audit sample and its size, determining the extent to which discrepancies need to be investigated, and deciding the depth of the analyses required to support reported findings and conclusions.

Examples of assignments involving work at this level:

As a team leader or working alone, independently conducts audits of the complete accounts and related operations of smaller or less complex companies (e.g., involving a centralized accounting system with few or no subordinate, subsidiary, or branch accounting records) or of comparable segments of larger companies.

As a member of an audit team, independently accomplishes varied audit assignments of the above described characteristics, typically major segments of complete audits, or assignments otherwise limited in scope of larger and more complex companies (e.g., complex in that the accounting system entails cost, inventory, and comparable specialized *systems* integrated with the general accounting system).

Illustrative of such assignments are the audit and initial review of the accounting treatment and validity of reporting of overhead expenses in a large manufacturing or maintenance organization (e.g., major repair yard of a railroad); or, the checking, verification, and balancing of all

accounts receivable and accounts payable; or, the analysis and verification of assets and reserves; or, the inspection and evaluation of accounting controls and procedures.

### Auditor IV

*General characteristics.* Auditors at this level are experienced professionals who apply a thorough knowledge of accounting principles and theory in connection with a *variety* of audits. Work at this level is characterized by the audit of organizations and accounting processes which are complex and difficult because of such factors as: Presence of new or changed programs and accounting systems; existence of major specialized accounting functions (e.g., cost accounting, inventory accounting, sales accounting), in addition to general accounting; need to consider extensive and complicated regulatory requirements; lack of or difficulty in obtaining information; and other similar factors. Typically, a variety of different assignments are encountered over a period of time, e.g., 1 year. The audit reports prepared are comprehensive, explain irregularities, cite rules or regulations violated, recommend remedial actions, and contain analyses of items of special importance or interest to company management.

*Direction received.* Within an established audit program, has responsibility for independently planning and executing audits. Unusually difficult problems are discussed with the supervisor who also reviews completed assignments for adherence to principles and standards and the soundness of conclusions.

*Typical duties and responsibilities.* Auditors at this level have full responsibility for planning the audit, including determination of the aspects to emphasize, methods to be used, development of nonstandard or specialized audit aids such as questionnaires, etc., *where previous audit experience and plans are of limited applicability.*

Included in the scope of work that characterizes this level are such functions as: Evaluation of methods used for determining depreciation rates of equipment; evaluation of assets where original costs are unknown; evaluation of the reliability of accounting and reporting systems; analysis of cost accounting systems and cost reports to evaluate the basis for cost and price setting; evaluation of accounting procurement and supply management records, controls, and procedures; and many others.

Examples of assignments involving work at this level:

As a team leader or working alone, independently plans and conducts audits of the complete accounts and related operations of relatively large and complex companies (e.g., complex in that the accounting system entails cost, inventory, and comparable specialized *systems* integrated with the general accounting system) or of company branch, subsidiary, or affiliated organizations which are individually of comparable size and complexity.

As a member of an audit team, independently plans and accomplishes audit assignments that constitute major segments of audits of very large and complex organizations, for example, those with financial responsibilities so great as to involve specialized subordinate, subsidiary, or affiliate accounting systems that are complete in themselves.

*NOTE: Excluded* from level IV are auditors who, as team leaders or working alone, conduct *complete* audits of very large and complex organizations, for example, those with financial responsibilities so great as to involve specialized subordinate, subsidiary, or affiliate accounting systems that are complete in themselves; or are team members assigned to major segments of audits of even larger or more complex organizations.

## **PUBLIC ACCOUNTANT**

Performs professional auditing work in a public accounting firm. Work requires at least a bachelor's degree in accounting. Participates in or conducts audits to ascertain the fairness of financial representations made by client companies. May also assist the client in improving accounting procedures and operations.

Examines financial reports, accounting records, and related documents and practices of clients. Determines whether all important matters have been disclosed and whether procedures are consistent and conform to acceptable practices. Samples and tests transactions, internal controls, and other elements of the accounting system(s) as needed to render the accounting firm's final written opinion.

*Excluded* are positions which do not require full professional accounting training. Also excluded are specialist positions in tax or management advisory services.

### **Public Accountant I**

*General characteristics.* As an entry level public accountant, serves as a junior member of an audit team. Receives classroom and on-the-job training to provide practical experience in applying the principles, theories, and concepts of accounting and auditing to specific situations. (Positions held by trainee public accountants with advanced degrees, such as MBA's, are excluded at this level.)

*Direction received.* Complete instructions are furnished and work is reviewed to verify its accuracy, conformance with required procedures and instructions, and usefulness in facilitating the accountant's professional growth. Any technical problems not covered by instructions are brought to the attention of a superior.

*Typical duties and responsibilities.* Carries out basic audit tests and procedures, such as: verifying reports against source accounts and records; reconciling bank and other

accounts; and examining cash receipts and disbursements, payroll records, requisitions, receiving reports, and other accounting documents in detail to ascertain that transactions are properly supported and recorded. Prepares selected portions of audit working papers.

### **Public Accountant II**

*General characteristics.* At this level, the public accountant carries out routine audit functions and detail work with relative independence. Serves as a member of an audit team on assignments planned to provide exposure to a variety of client organizations and audit situations. Specific assignments depend upon the difficulty and complexity of the audit and whether the client has been previously audited by the firm. On moderately complex audits where there is previous audit experience by the firm, accomplishes complete segments of the audit (i.e., functional work areas such as cash, receivables, etc.). When assigned to more complicated audits, carries out activities similar to Public Accountant I.

*Direction received.* Works under the supervision of a higher level public accountant who provides instructions and continuing direction as necessary. Work is spot checked in progress and reviewed upon completion to determine the adequacy of procedures, soundness of judgment, compliance with professional standards, and adherence to clearly established methods and techniques. All interpretations are subject to close professional review.

*Typical duties and responsibilities.* Carries out a variety of sampling and testing procedures in accordance with the prescribed audit program, including the examination of transactions and verification of accounts, the analysis and evaluation of accounting practices and internal controls, and other detail work. Prepares a share of the audit working papers and participates in drafting reports. In moderately complex audits, may assist in selecting appropriate tests, samples, and methods commonly applied by the firm and may serve as primary assistant to the accountant in charge. In more complicated audits concentrates on detail work. Occasionally may be in charge of small, uncomplicated audits which require only one or two other subordinate accountants. Personal contacts usually involve only the exchange of factual technical information and are usually limited to the client's operating accounting staff and department heads.

### **Public Accountant III**

*General characteristics.* At this level the public accountant is in charge of a complete audit and may lead a team of several subordinates. Audits are usually accomplished one-at-a-time and are typically carried out at a single location. The firms audited are typically moderately complex and

there is usually previous audit experience by the firm. The audit conforms to standard procedural guidelines, but is often tailored to fit the client's business activities. Routine procedures and techniques are sometimes inadequate and require adaptation. Necessary data are not always readily available. When assigned to more difficult and complex audits (see level IV), the accountant may run the audit of a major component or serve as a primary assistant to the accountant in charge.

*Direction received.* Works under the general supervision of a higher level public accountant who oversees the operation of the audit. Work is performed independently, applying generally accepted accounting principles and auditing standards, but assistance on difficult technical matters is available. Work may be checked occasionally during progress for appropriateness and adherence to time requirements, but routine analysis, methods, techniques, and procedures applied at the work site are expected to be correct.

*Typical duties and responsibilities.* Is responsible for carrying out the technical features of the audit, leading team members and personally performing the most difficult work. Carries out field work in accordance with the general format prescribed in the audit program, but selects specific methods and types and sizes of samples and tests. Assigns work to team members, furnishes guidance, and adjusts workloads to accommodate daily priorities. Thoroughly reviews work performed for technical accuracy and adequacy. Resolves anticipated problems within established guidelines and priorities but refers problems of unusual difficulty to superiors for discussion and advice. Drafts financial statements, final reports, management letters, and other closing memoranda. Discusses significant recommendations with superiors and may serve as technical resource at "closing" meetings with clients. Personal contacts are usually with chief accountants and assistant controllers of medium size companies and divisions of large corporations to explain and interpret policies and procedures governing the audit process.

#### **Public Accountant IV**

*General characteristics.* At this level the public accountant directs field work including difficult audits, e.g., those involving initial audits of new clients, acquisitions, or stock registrations — and may oversee a large audit team split between several locations. The audit team usually includes one or more Level III public accountants who handle major components of the audit. The audits are complex and clients typically include those engaged in projects which span accounting periods; highly regulated industries which have various external reporting requirements; publicly held corporations; or businesses with very high dollar or

transaction volume. Clients are frequently large with a variety of operations which may have different accounting systems. Guidelines may be general or lacking and audit programs are intricate, often requiring extensive tailoring to meet atypical or novel situations.

*Direction received.* Works under general supervision. The supervisor sets overall objectives and resource limits but relies on the accountant to fully plan and direct all technical phases of the audit. Issues not covered by guidelines or known precedents are discussed with the supervisor, but the accountant's recommended approaches and courses of action are normally approved. Work is reviewed for soundness of approach, completeness, and conformance with established policies of the firm.

*Typical duties and responsibilities.* Is responsible for carrying out the operational and technical features of the audit, directing the work of team members, and personally performing the most difficult work. Often participates in the development of the audit scope, and drafts complicated audit programs with a large number of concurrently executed phases. Independently develops audit steps and detailed procedures, deviating from traditional methods to the extent required. Makes program adjustments as necessary once an audit has begun; selects specific methods, types and sizes of samples, the extent to which discrepancies need to be investigated, and the depth of required analyses. Resolves most operational difficulties and unanticipated problems.

Assigns work to team members; reviews work for appropriateness, conformance to time requirements, and adherence to generally accepted accounting principles and auditing standards. Consolidates working papers, draft reports, and findings; and prepares financial statements, management letters, and other closing memoranda for management approval. Participates in "closing" meetings as a technical resource and may be called upon to sell or defend controversial and critical observations and recommendations. Personal contacts are extensive and typically include top executives of smaller clients and mid-to-upper-level financial and management officers of large corporations, e.g., assistant controllers or controllers. Such contacts involve coordinating and advising on work efforts and resolving operating problems.

*NOTE:* Excluded from this level are public accountants who direct field work associated with the complete range of audits undertaken by the firm, lead the largest and most difficult audits, and who frequently oversee teams performing concurrent audits. This type of work requires extensive knowledge of one or more industries to make subjective determinations on questions of tax, law, accounting, and business practices. Audits may be complicated by such

factors as: the size and diversity of the client organizations (e.g., multi-national corporations and conglomerates with a large number of separate and distinct subsidiaries); accounting issues where precedents are lacking or in conflict; and, in some cases, clients who are encountering substantial financial difficulties. They perform most work without technical supervision and completed audits are reviewed mainly for propriety of recommendations and conformance with general policies of the firm. Also excluded are public accountants whose principal function is to manage, rather than perform accounting work, and the equity owners of the firm who have final approval authority.

## CHIEF ACCOUNTANT

As the top technical expert in accounting, is responsible for directing the accounting program for a company or for an establishment of a company. The minimum accounting program includes: (1) General accounting (assets, liabilities, income, expense, and capital accounts, including responsibility for profit and loss and balance sheet statements); and (2) at least one other *major* accounting activity, typically tax accounting, cost accounting, property accounting, or sales accounting. It may also include such other activities as payroll and timekeeping, and mechanical or electronic data processing operations which are an adjunct of the accounting system. (Responsibility for an internal audit program is typically *not* included.)

The responsibilities of the chief accountant include *all* of the following:

1. On own responsibility, developing or adapting or revising an accounting system to meet the needs of the organization;

2. Supervising, either directly or through subordinate supervisors, the operation of the system with full management responsibility for the quality and quantity of work performed, training and development of subordinates, work scheduling and review, coordination with other parts of the organization served, etc.;

3. Providing, directly or through an official such as a comptroller, advisory services to the top management officials of the organization served as to:

- a. The status of financial resources and the financial trends or results of operations as revealed by accounting data, and selecting a manner of presentation that is meaningful to management;

- b. Methods for improving operations as suggested by an expert knowledge of accounting, e.g., proposals for improving cost control, property management, credit and collection, tax reduction, or similar programs.

*Excluded* are positions with responsibility for the accounting program *if* they also include (as a major part of the job) responsibility for budgeting; work measurement; organization, methods, and procedures studies; or similar nonaccounting functions. (Positions of such breadth are

sometimes titled comptroller, budget and accounting manager, financial manager, etc.)

Some positions responsible for supervising general accounting and one or more other major accounting activities but which do *not* fully meet *all* of the responsibilities of a chief accountant specified above may be covered by the descriptions for accountant.

Chief accountant jobs which meet the characteristics described are classified by level of work<sup>1</sup> according to (a) authority and responsibility and (b) technical complexity, using the table accompanying the definitions which follow.

## Authority and responsibility

*AR-1.* The accounting system (i.e., accounts, procedures, and reports to be used) has been prescribed in considerable detail by higher levels in the company or organization. The chief accountant has final, unreviewed authority within the prescribed system, to expand it to fit the particular needs of the organization served, e.g., in the following or comparable ways:

- Provides greater detail in accounts and reports or financial statements;

- Establishes additional accounting controls, accounts, subaccounts, and subsidiary records; and

- Provides special or interim reports and statements needed by the manager responsible for the day-to-day operations of the organization served.

This degree of authority is typically found at a plant or similar subordinate establishment.

*AR-2.* The basic accounting system is prescribed in broad outline rather than in specific detail. While certain major financial reports, overall accounts, and general policies are required by the basic system, the chief accountant has broad latitude and *authority* to decide the specific methods, procedures, accounts, reports, etc., to be used within the organizational segment served. Approval must be secured from higher levels only for those changes which would basically affect the broad requirements prescribed by such higher levels. Typical responsibilities include:

- Evaluating and taking final action on recommendations proposed by subordinate establishments for changes in aspects of the accounting system or activities not prescribed by higher authority;

- Extending cost accounting operations to areas not previously covered;

- Changing from one cost accounting method to another;

- Expanding the utilization of computers within the accounting process; and

- Preparing accounting reports and statements reflecting the events and progress of the entire organization for

<sup>1</sup> Insufficient data were obtained for level V to warrant presentation of average salaries.

**Table C-1. Criteria for matching chief accountants by level**

| Level | Authority and responsibility <sup>1</sup> | Technical complexity <sup>1</sup> | Subordinate professional accounting staff                                                                                                                                   |
|-------|-------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I     | AR-1                                      | TC-1                              | Only one or two professional accountants, who do not exceed the accountant III job definition.                                                                              |
| II    | AR-1                                      | TC-2                              | About 5 to 10 professional accountants, with at least one or two matching the accountant IV job definition.                                                                 |
|       | or                                        |                                   |                                                                                                                                                                             |
|       | AR-2                                      | TC-1                              | About 5 to 10 professional accountants. Most of these match the accountant III job definition, but one or two may match the accountant IV job definition.                   |
| III   | or                                        |                                   |                                                                                                                                                                             |
|       | AR-3                                      | TC-1                              | Only one or two professional accountants, who do not exceed the accountant IV job definition.                                                                               |
|       | or                                        |                                   |                                                                                                                                                                             |
| IV    | AR-1                                      | TC-3                              | About 15 to 20 professional accountants. At least one or two match the accountant V job definition.                                                                         |
|       | or                                        |                                   |                                                                                                                                                                             |
|       | AR-2                                      | TC-2                              | About 15 to 20 professional accountants. Many of these match the accountant IV job definition, but some may match the accountant V job definition.                          |
| V     | or                                        |                                   |                                                                                                                                                                             |
|       | AR-3                                      | TC-1                              | About 5 to 10 professional accountants. Most of these match the accountant III job definition, but one or two may match as high as accountant V.                            |
|       | or                                        |                                   |                                                                                                                                                                             |
| IV    | AR-2                                      | TC-3                              | About 25 to 40 professional accountants. Many of these match the accountant V job definition, but several may exceed that level.                                            |
|       | or                                        |                                   |                                                                                                                                                                             |
|       | AR-3                                      | TC-2                              | About 15 to 20 professional accountants. Most of these match the accountant IV job definition, but several may match the accountant V and one or two may exceed that level. |
| V     | AR-3                                      | TC-3                              | About 25 to 40 professional accountants. Many of these match the accountant V job definition, but several may exceed that level.                                            |

<sup>1</sup> AR-1, -2, and -3 and TC-1, -2, and -3 are explained in the accompanying text.

which incumbent is responsible; often consolidating data submitted by subordinate segments.

This degree of authority is most typically found at intermediate organizational levels such as regional offices, or division or subsidiary headquarters. It is also found in some company level situations where the authority of the chief accountant is less extensive than is described in *AR-3*. More rarely it is found in plant level chief accountants who have been delegated more authority than usual for such positions as described in *AR-1*.

*AR-3*. Has complete responsibility for establishing and maintaining the framework for the basic accounting system used in the company, subject only to general policy guidance and control from a higher level company official responsible for general financial management. Typical responsibilities include:

Determining the basic characteristics of the company's accounting system and the specific accounts to be used;

Devising and preparing accounting reports and statements required to meet management's needs for data;

Establishing basic accounting policies, interpretations, and procedures;

Reviewing and taking action on proposed revisions to

the company's accounting system suggested by subordinate units; and

Taking final action on all technical accounting matters.

Characteristically, participates extensively in broad company management processes by providing accounting advice, interpretations, or recommendations based on data accumulated in the accounting system and on professional judgment and experience.

### Technical complexity

*TC-1*. The organization which the accounting program serves has relatively few functions, products, work processes, etc., and these tend to be stable and unchanging. The accounting system operates in accordance with well-established principles and practices or those of equivalent difficulty which are typical of that industry.

*TC-2*. The organization which the accounting program serves has a relatively large number of functions, products, work processes, etc., which require substantial and frequent adaptations of the basic system to meet management needs (e.g., adoption of new accounts, subaccounts, and subsidi-

any records; revision of instructions for the use of accounts; improvement or expansion of methods for accumulating and reporting cost data in connection with new or changed work processes).

TC-3. The organization which the accounting program serves puts a *heavy demand on the accounting organization for specialized and extensive adaptations* of the basic system to meet management needs. Such demands arise because the functions, products, work processes, etc., of the organization are very numerous, diverse, unique, or specialized, or there are other comparable complexities. Consequently, the accounting system, to a considerable degree, is developed well beyond established principles and accounting practices in order to:

Provide for the solution of problems for which no clear precedents exist; or

Provide for the development or extension of accounting theories and practices to deal with problems to which these theories and practices have not previously been applied.

### Subordinate staff

In table C-1 the number of professional accountants supervised is recognized to be a relatively crude criterion for distinguishing between various levels. It is to be considered less important in the matching process than the other criteria. In addition to the staff of professional accountants in the system for which the chief accountant is responsible, there are clerical, machine operation, bookkeeping, and related personnel.

## Attorneys

### ATTORNEY

Performs consultation and advisory work and carries out the legal processes necessary to effect the rights, privileges, and obligations of the company. The work performed requires completion of law school with an LL.B. degree (or the equivalent) and admission to the bar. *Responsibilities or functions include one or more of the following or comparable duties:*

- Preparing and reviewing various legal instruments and documents, such as contracts, leases, licenses, purchases, sales, real estate, etc.;

- Acting as agent of the company in its transactions;

- Examining material (e.g., advertisements, publications, etc.) for legal implications; advising officials of proposed legislation which might affect the company;

- Applying for patents, copyrights, or registration of company's products, processes, devices, and trademarks;

- Advising whether to initiate or defend lawsuits;

- Conducting pre-trial preparations; defending the company in lawsuits; and

- Advising officials on tax matters, government regulations, and/or corporate rights.

*Excluded* from this definition are:

- Patent work which requires professional training in addition to legal training (typically a degree in engineering or in a science);

- Claims examining, claims investigating, or similar work for which professional legal training and bar membership is not essential;

Attorneys, frequently titled "general counsel" (and their immediate full associates or deputies), who serve as company officers or the equivalent and are responsible for participating in the overall management and formulation of policy for the company in addition to directing its legal work. (The duties and responsibilities of such positions exceed level VI as described below.)

Attorney jobs which meet the above definition are to be classified in accordance with table C-2 and the definitions which follow.

### Difficulty

D-1. Legal questions are characterized by: Facts that are well established; clearly applicable legal precedents; *and* matters not of substantial importance to the organization. (Usually relatively limited sums of money, e.g., a few thousand dollars, are involved.)

#### *Examples of D-1 work:*

Legal investigation, negotiation, and research preparatory to defending the organization in potential or actual lawsuits involving alleged negligence where the facts can be firmly established and there are precedent cases directly applicable to the situation.

Searching case reports, legal documents, periodicals, textbooks, and other legal references, and preparing draft opinions on employee compensation or benefit questions when there is a substantial amount of clearly applicable statutory, regulatory, and case material.

Drawing up contracts and other legal documents in connection with real property transactions requiring the development of detailed information but *not* involving serious questions regarding titles to property or other major factual or legal issues.

D-2. Legal work is regularly difficult by reason of one or more of the following: The absence of clear and directly applicable legal precedents; the different possible interpretations that can be placed on the facts, the laws, or the precedents involved; the substantial importance of the legal matters to the organization (e.g., sums as large as \$100,000 are generally directly or indirectly involved); the matter is being strongly pressed or contested in formal proceedings

**Table C-2. Criteria for matching attorneys by level**

| Level | Difficulty of legal work <sup>1</sup>                                                                                               | Responsibility of job <sup>1</sup> | Experience required                                                                                                        |
|-------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| I     | This is the entry level. The duties and responsibilities after initial orientation and training are those described in D-1 and R-1. |                                    | Completion of law school with an LL.B. or J.D. degree plus admission to the bar.                                           |
| II    | D-1                                                                                                                                 | R-2                                | Sufficient professional experience (at least 1 year, usually more) at the "D-1" level to assure competence as an attorney. |
| or    | D-2                                                                                                                                 | R-1                                |                                                                                                                            |
| III   | D-2                                                                                                                                 | R-2                                | At least 1 year, usually more, of professional experience at the "D-2" level.                                              |
| or    | D-3                                                                                                                                 | R-1                                |                                                                                                                            |
| IV    | D-2                                                                                                                                 | R-3                                | Extensive professional experience at the "D-2" or a higher level.                                                          |
| or    | D-3                                                                                                                                 | R-2                                |                                                                                                                            |
| V     | D-3                                                                                                                                 | R-3                                | Extensive professional experience at the "D-3" level.                                                                      |
| VI    | D-3                                                                                                                                 | R-4                                | Extensive professional experience at the "D-3" and "R-3" levels.                                                           |

<sup>1</sup> D-1, -2, -3 and R-1, -2, -3, and -4 are explained in the accompanying text.

or in negotiations by the individuals, corporations, or government agencies involved.

*Examples of D-2 work:*

Advising on the legal implications of advertising representations when the facts supporting the representations and the applicable precedent cases are subject to different interpretations.

Reviewing and advising on the implications of new or revised laws affecting the organization.

Presenting the organization's defense in court in a negligence lawsuit which is strongly pressed by counsel for an organized group.

Providing legal counsel on tax questions complicated by the absence of precedent decisions that are directly applicable to the organization's situation.

**D-3.** Legal work is typically complex and difficult because of one or more of the following: The questions are unique and require a high order of original and creative legal endeavor for their solution; the questions require extensive research and analysis and the obtaining and evaluation of expert testimony regarding controversial issues in a scientific, financial, corporate organization, engineering, or other highly technical area; the legal matter is of critical importance to the organization and is being vigorously pressed or contested (e.g., sums such as \$1 million or more are generally directly or indirectly involved).

*Examples of D-3 work:*

Advising on the legal aspects and implications of Federal antitrust laws to projected greatly expanded marketing operations involving joint ventures with several other organizations.

Planning legal strategy and representing a utility company in rate or government franchise cases involving a geographic area including parts or all of several States.

Preparing and presenting a case before an appellate court where the case is highly important to the future operation of the organization and is vigorously contested by very distinguished (e.g., having a broad regional or national reputation) legal talent.

Serving as the principal counsel to the officers and staff of an insurance company on the legal problems in the sale, underwriting, and administration of group contracts involving nationwide or multistate coverages and laws.

Performing the principal legal work in a nonroutine major revision of the company's charter or in effectuating new major financing steps.

**Responsibility**

**R-1.** Responsibility for final action is usually limited to matters covered by legal precedents and in which little deviation from standard practice is involved. Any decisions or actions having a significant bearing on the organization's business are reviewed. (Is given guidance in the initial stages of assignment, e.g., in planning and organizing legal research and studies. Assignments are then carried out with moderate independence although guidance is generally available and is sought from time to time on problem points.)

**R-2.** Usually works independently in investigating the facts, searching legal precedents, defining the legal and factual issues, drafting necessary legal documents, and developing conclusions and recommendations. Decisions having an important bearing on the organization's business are reviewed. (Receives information from supervisor regarding unusual circumstances or important policy considerations pertaining to a legal problem. If trials are involved, may receive guid-

ance from a supervisor regarding presentation, line of approach, possible line of opposition to be encountered, etc. In the case of nonroutine written presentations the final product is reviewed carefully, but primarily for overall soundness of legal reasoning and consistency with organization policy. Some (but not all) attorneys make assignments to one or more lower level attorneys, aids, or clerks.)

*R-3.* Carries out assignments independently and makes final legal determinations in matters of substantial importance to the organization. Such determinations are subject to review only for consistency with company policy, possible precedent effect, and overall effectiveness. To carry out assignments, deals regularly with company officers and top level management officials and confers or negotiates regularly with senior attorneys and officials in other companies or in government agencies on various aspects of assigned work. (Receives little or no preliminary instruction on legal problems and a minimum of technical legal supervision. May assign and review work of a few attorneys, but this is not a primary responsibility.)

*R-4.* Carries out assignments which entail independently planning investigations and negotiations on legal problems of the highest importance to the organization and develop-

ing completed briefs, opinions, contracts, or other legal products. To carry out assignments, represents the organization at conferences, hearings, or trials and personally confers and negotiates with top attorneys and top-ranking officials in private companies or in government agencies. On various aspects of assigned work may give advice directly and personally to corporation officers and top level managers, or may work through the general counsel of the company in advising officers. (Generally receives no preliminary instruction on legal problems. On matters requiring the concentrated efforts of several attorneys or other specialists, is responsible for directing, coordinating, and reviewing the work of the attorneys involved.)

*OR*

As a primary responsibility, directs the work of a staff of attorneys, one, but usually more, of whom regularly perform D-3 legal work. With respect to the work directed, gives advice directly to corporation officers and top managerial officers, or may give such advice through the general counsel. (Receives guidance as to organization policy but no technical supervision or assistance except when requesting advice from, or briefing by, the general counsel on the overall approach to the most difficult, novel, or important legal questions. Usually reports to the general counsel or deputy.)

## Buyers

### BUYER

Purchases materials, supplies, equipment, and services (e.g., utilities, maintenance, and repair). In some instances items are of types that must be specially designed, produced, or modified by the vendor in accordance with drawings or engineering specifications.

Solicits bids, analyzes quotations received, and selects or recommends supplier. May interview prospective vendors. Purchases items and services at the most favorable price consistent with quality, quantity, specification requirements, and other factors. Prepares or supervises preparation of purchase orders from requisitions. May expedite delivery and visit vendors' offices and plants.

Normally, purchases are unreviewed when they are consistent with past experience, and are in conformance with established rules and policies. Proposed purchase transactions that deviate from the usual or from past experience in terms of prices, quality of items, quantities, etc., or that may set precedents for future purchases, are reviewed by higher authority prior to final action.

In addition to the work described above, some (but not all) buyers direct the work of one or a few clerks who perform routine aspects of the work. As a secondary and subsidiary duty, some buyers may also sell or dispose of surplus, salvage, or used materials, equipment, or supplies.

*NOTE:* Some buyers are responsible for the purchasing of a variety of items and materials. When the variety includes items and work described at more than one of the following levels, the position should be considered to equal the highest level that characterizes at least a substantial portion of the buyer's time.

*Excluded are:*

- a. Buyers of items for direct sale, either wholesale or retail;
- b. Brokers and dealers buying for clients or for investment purposes;
- c. Positions that specifically require professional education and qualifications in a physical science or in engineering (e.g., chemist, mechanical engineer);
- d. Buyers who specialize in purchasing a single or a few related items of highly variable quality such as raw cotton or wool, tobacco, cattle, or leather for shoe uppers, etc. Expert personal knowledge of the item is required to judge the relative value of the goods offered and to decide the quantity, quality, and price of each purchase in terms of its probable effect on the organization's profit and competitive status;
- e. Buyers whose principal responsibility is the supervision of other buyers or the management, direction, or supervision of a purchasing program;
- f. Persons predominantly concerned with contract or subcontract administration;
- g. Persons whose major duties consist of ordering,

reordering, or requisitioning items under existing contracts; and

h. Positions restricted to clerical functions or to purchase expediting work.

#### **Buyer I**

Purchases "off-the-shelf" types of readily available, commonly used materials, supplies, tools, furniture, services, etc.

Transactions usually involve local retailers, wholesalers, jobbers, and manufacturers' sales representatives.

Quantities purchased are generally small amounts, e.g., those available from local sources.

*Examples* of items purchased include: Common stationery and office supplies; standard types of office furniture and fixtures; standard nuts, bolts, screws; janitorial and common building maintenance supplies; and common building maintenance or common utility services or office machine repair services.

#### **Buyer II**

Purchases "off-the-shelf" types of standard, generally available technical items, materials, and services. Transactions may involve occasional modification of standard and common usage items, materials, and services, and include a few stipulations about unusual packing, marking, shipping, etc.

Transactions usually involve dealing directly with manufacturers, distributors, jobbers, etc.

Quantities of items and materials purchased may be relatively large, particularly in the case of contracts for continuing supply over a period of time.

May be responsible for locating or promoting possible new sources of supply. Usually is expected to keep abreast of market trends, changes in business practices in the assigned markets, new or altered types of materials entering the market, etc.

*Examples* of items purchased include: Industrial types of handtools; standard electronic parts, components and component test instruments; electric motors; gasoline service station equipment; PBX or other specialized telephone services; special purpose printing services; and routine purchases of common raw materials such as standard grades and sizes of steel bars, rods, and angles.

Also included at this level are buyers of materials of the types described for buyer I when the quantities purchased are large so that local sources of supply are generally inadequate and the buyer must deal directly with manufacturers on a broader than local scale.

#### **Buyer III**

Purchases items, materials, or services of a technical and specialized nature. The items, while of a common general type, are usually made, altered, or customized to meet the user's specific needs and specifications.

Transactions usually require dealing with manufacturers. The number of potential vendors is likely to be small and price differentials often reflect important factors (quality, delivery dates and places, etc.) that are difficult to evaluate.

The quantities purchased of any item or service may be large.

Many of the purchases involve one or more of such complications as: Specifications that detail, in technical terms, the required physical, chemical, electrical, or other comparable properties; special testing prior to acceptance; grouping of items for lot bidding and awards; specialized processing, packing, or packaging requirements; export packs; overseas port differentials; etc.

Is expected to keep abreast of market and product developments. May be required to locate new sources of supply.

Some positions may involve *assisting* in the training or supervising of lower level buyers or clerks.

*Examples* of items purchased include: Castings; special extruded shapes of normal size and material; special formula paints; electric motors of special shape or speeds; production equipment; special packaging of items; and raw materials in substantial quantities or with special characteristics.

#### **Buyer IV**

Purchases highly complex and technical items, materials, or services, usually those specially designed and manufactured exclusively for the purchaser.

Transactions require dealing with manufacturers and often involve persuading potential vendors to undertake the manufacturing of custom-designed items according to complex and rigid specifications.

Quantities of items and materials purchased are often large in order to satisfy the requirements for an entire large organization for an extended period of time. Complex schedules of delivery are often involved. Buyer determines appropriate quantities to be contracted for at any given period of time.

Transactions are often complicated by the presence of one or more such matters as inclusion of: Requirements for spare parts, preproduction samples and testing, or technical literature; or patent and royalty provisions.

Keeps abreast of market and product developments. Develops new sources of supply.

In addition to the work described above, a few positions may also require supervision over a few lower level buyers or clerks. (No position is included in this level *solely* because supervisory duties are performed.)

*Examples* of items purchased include: Special purpose high cost machine tools and production facilities; specialized condensers, boilers, and turbines; raw materials of critically important characteristics or quality; parts, subassemblies, components, etc., specially designed and made to order (e.g., communications equipment for installation in aircraft being manufactured; component assemblies for missiles and rockets, and motor vehicle frames).

*NOTE: Excluded* are buying positions above level IV. Some buyers above level IV make purchases in such unusually large quantities that they can affect the market price of a commodity or produce other significant effects on the industry or trade concerned. Others may purchase items of either (1) extraordinary technical complexity, e.g., involving the outermost limits of science or engineering, or

(2) unusually high individual or unit value. Such buyers often persuade suppliers to expand their plants or convert facilities to the production of new items or services. These types of buying functions are often performed by program managers or company officials who have primary responsibilities other than buying.

## Personnel Management

### JOB ANALYST

Performs work involved in collecting, analyzing, and developing occupational data relative to jobs, job qualifications, and worker characteristics as a basis for compensating employees in a fair, equitable, and uniform manner. Performs such duties as studying and analyzing jobs and preparing descriptions of duties and responsibilities and of the physical and mental requirements needed by workers; evaluating jobs and determining appropriate wage or salary levels in accordance with their difficulty and responsibility; independently conducting or participating with representatives of other companies in conducting compensation surveys within a locality or labor market area; assisting in administering merit rating programs; reviewing changes in wages and salaries indicated by surveys and recommending changes in pay scales; and auditing individual jobs to check the propriety of evaluations and to apply current job classifications. (Positions also responsible for supplying management with a high technical level of advice regarding the solution of broad personnel management problems should be excluded.)

#### Job Analyst I

As a trainee, performs work in designated areas and of limited occupational scope. Receives immediate supervision in assignments designed to provide training in the application of established methods and techniques of job analysis. Studies the least difficult jobs and prepares reports for review by a job analyst of higher level.<sup>2</sup>

#### Job Analyst II

Studies, describes, and evaluates jobs in accordance with established procedures. Is usually assigned to the simpler kinds of both wage and salaried jobs in the establishment. Works independently on such assignments but is limited by defined area of assignment and instructions of superior.

#### Job Analyst III

Analyzes and evaluates a variety of wage and salaried jobs in accordance with established evaluation systems and procedures. May conduct wage surveys within the locality

or participate in conducting surveys of broad compensation areas. May assist in developing survey methods and plans. Receives general supervision but responsibility for final action is limited.

#### Job Analyst IV

Analyzes and evaluates a variety of jobs in accordance with established evaluation systems and procedures, and is given assignments which regularly include responsibility for the more difficult kinds of jobs. ("More difficult" means jobs which consist of hard-to-understand work processes; e.g., professional, scientific, administrative, or technical; *or* jobs in new or emerging occupational fields; *or* jobs which are being established as part of the creation of new organizations; *or* where other special considerations of these types apply.) Receives general supervision, but responsibility for final action is limited. May participate in the development and installation of evaluation or compensation systems, which may include those for merit rating programs. May plan survey methods and conduct or direct wage surveys within a broad compensation area.

### DIRECTOR OF PERSONNEL

Directs a personnel management program for a company or a segment of a company. Serves top management officials of the organization as the source of advice and assistance on personnel management matters and problems generally; is typically consulted on the personnel implications of planned changes in management policy or program, the effects on the organization of economic or market trends, product or production method changes, etc.; represents management in contacts with other companies, trade associations, government agencies, etc., dealing primarily with personnel management matters.

Typically the director of personnel for a company reports to a company officer in charge of industrial relations and personnel management activities or an officer of similar level. Below the company level the director of personnel typically reports to a company officer or a high management official who has responsibility for the operation of a plant, establishment, or other segment of the company.

<sup>2</sup> Insufficient data were obtained for level I to warrant presentation of average salaries.

For a job to be covered by this definition, the personnel management program *must include* responsibility for *all three* of the following functions:

1. *Administering a job evaluation system*: i.e., a system in which there are established procedures by which jobs are analyzed and evaluated on the basis of their duties, responsibilities, and qualification requirements in order to provide a foundation for equitable compensation. Typically, such a system includes the use of one or more sets of job evaluation factors and the preparation of formal job descriptions. It *may* also include such related functions as wage and salary surveys or merit rating system administration. The job evaluation system(s) does not necessarily cover all jobs in the organization, but does cover a substantial portion of the organization.

2. *Employment and placement function*: i.e., recruiting actively for at least some kinds of workers through a variety of sources (e.g., schools or colleges, employment agencies, professional societies, etc.); evaluating applicants against demands of particular jobs by use of such techniques as job analysis to determine requirements, interviews, written tests of aptitude, knowledge, or skill, reference checks, experience evaluations, etc.; recommending selections and job placements to management, etc.

3. *Employee relations and services function*: i.e., functions designed to maintain employees' morale and productivity at a high level (for example, administering a formal or informal grievance procedure; identifying and recommending solutions for personnel problems such as absenteeism, high turnover, low productivity, etc.; administration of beneficial suggestions system, retirement, pension, or insurance plans, merit rating system, etc.;

overseeing cafeteria operations, recreational programs, industrial health and safety programs, etc.).

In addition, positions covered by this definition may, but do not necessarily, include responsibilities in the following areas:

*Employee training and development;*

*Labor relations activities* which are confined mainly to the administration, interpretation, and application of those aspects of labor union contracts that are essentially of the type described under (3) above. May also participate in bargaining of a subordinate nature, e.g., to negotiate detailed settlement of such matters as specific rates, job classifications, work rules, hiring or layoff procedures, etc., within the broad terms of a general agreement reached at higher levels, or to supply advice and information on technical points to the company's principal representative.

*Equal employment opportunity (EEO);*

*Reporting under the Occupational Safety and Health Act (OSHA).*

*Excluded* are positions in which responsibility for actual contract negotiation with labor unions as the principal company representative is a significant aspect of the job, i.e., a responsibility which serves as a primary basis for qualification requirements and compensation.

Director of personnel jobs which meet the above definition are classified by level of work<sup>3</sup> in accordance with the criteria shown in table C-3.

<sup>3</sup>Insufficient data were obtained for level V to warrant presentation of average salaries.

**Table C-3. Criteria for matching directors of personnel by level**

| Number of employees in work force serviced | "Operations level" personnel program <sup>1</sup> |                                             | Number of employees in work force serviced | "Development level" personnel program <sup>2</sup> |                                             |
|--------------------------------------------|---------------------------------------------------|---------------------------------------------|--------------------------------------------|----------------------------------------------------|---------------------------------------------|
|                                            | "Type A" organization serviced <sup>3</sup>       | "Type B" organization serviced <sup>4</sup> |                                            | "Type A" organization serviced <sup>3</sup>        | "Type B" organization serviced <sup>4</sup> |
| 250-750 .....                              | I                                                 | II                                          | 250-750 .....                              | II                                                 | III                                         |
| 1,000-5,000 .....                          | II                                                | III                                         | 1,000-5,000 .....                          | III                                                | IV                                          |
| 6,000-12,000 .....                         | III                                               | IV                                          | 6,000-12,000 .....                         | IV                                                 | V                                           |
| 15,000-25,000 .....                        | IV                                                | V                                           | 15,000-25,000 .....                        | V                                                  | —                                           |

<sup>1</sup> *"Operations level" personnel program*—director of personnel servicing an organizational segment (e.g., a plant) of a company, where the basic personnel program policies, plans, objectives, etc., are established at company headquarters or at some other higher level between the plant and the company headquarters level. The personnel director's responsibility is to put these into operation at the local level, in such a manner as to most effectively serve the local management needs.

<sup>2</sup> *"Development level" personnel program*—either:

(a) Director of personnel servicing an entire company (with or without subordinate establishments) where the personnel director plays an important role in establishment of basic personnel policies, plans, objectives, etc., for the company subject to policy direction and control from company officers, or (b) director of personnel servicing an intermediate organization below the company level, e.g., a division or a subsidiary, to which a relatively complete delegation of personnel program planning and development responsibility is made. In this situation only basic policy direction is given by the parent company and local officers. The director of personnel has essentially the same degree of latitude and responsibility for establishment of basic personnel policies, plans, objectives, etc., as described above in (a).

<sup>3</sup> *"Type A" organization serviced*—most jobs serviced do not present particularly difficult or unusual recruitment, job evaluation,

or training problems because the jobs consist of relatively easy-to-understand work processes, and an adequate labor supply is available. These conditions are most likely to be found in organizations in which the work force and organizational structure are relatively stable.

<sup>4</sup> *"Type B" organization serviced*—a substantial proportion of the jobs present difficult recruitment, job evaluation, or training problems because the jobs: Consist of hard-to-understand work processes (e.g., professional, scientific, administrative, or technical); have hard-to-match skill requirements; are in new or emerging occupations; or are extremely hard to fill. These conditions are most likely to be found in organizations in which the work force, organizational structure, work processes or functions, etc., are complicated or unstable.

NOTE: There are gaps between different degrees of all three elements used to determine job level matches. These gaps have been provided purposely to allow room for judgment in getting the best overall job level match for each job. Thus, a job which services a work force of 850 employees should be matched with level II if it is a personnel program operations level job where the nature of the organization serviced seems to fall slightly below the definition for type B. However, the same job should be matched with level I if the nature of the organization serviced clearly falls well within the definition for type A.

# Chemists and Engineers

## CHEMIST

Performs professional work in research, development, interpretation, and analysis to determine the composition, molecular structure, and properties of substances; to develop or investigate new materials and processes; and to investigate the transformations which substances undergo. Work typically requires a B.S. degree in chemistry or the equivalent in appropriate and substantial college level study of chemistry plus experience.

### Chemist I

*General characteristics.* This is the entry level of professional work requiring a bachelor's degree in chemistry and no experience, or the equivalent of a degree in appropriate education and experience. Performs assignments designed to develop professional capabilities and to provide experience in the application of training in chemistry as it relates to the company's programs. May also receive formal classroom or seminar type training. (Terminal positions are excluded.)

*Direction received.* Works under close supervision. Receives specific and detailed instructions as to required tasks and results expected. Work is checked during progress, and is reviewed for accuracy upon completion.

*Typical duties and responsibilities.* Performs a variety of routine tasks that are planned to provide experience and familiarization with the chemistry staff, methods, practices, and programs of the company. The work includes a variety of routine qualitative and quantitative analyses; physical tests to determine properties such as viscosity, tensile strength, and melting point; and assisting more experienced chemists to gain additional knowledge through personal observation and discussion.

*Responsibility for the direction of others.* Usually none.

### Chemist II

*General characteristics.* At this continuing developmental level, performs routine chemical work requiring selection and application of general and specialized methods, techniques, and instruments commonly used in the laboratory, and the ability to carry out instructions when less common or proposed methods or procedures are necessary. Requires work experience acquired in an entry level position, or appropriate graduate level study. For training and developmental purposes, assignments may include some work that is typical of a higher level. (Terminal positions are excluded.)

*Direction received.* Supervisor establishes the nature and extent of analysis required, specifies methods and criteria on new types of assignments, and reviews work for thoroughness of application of methods and accuracy of results.

*Typical duties and responsibilities.* Carries out a wide variety of standardized methods, tests, and procedures. In accordance with specific instructions may carry out proposed and less common ones. Is expected to detect problems in using standardized procedures because of the condition of the sample, difficulties with the equipment, etc. Recommends modifications of procedures, e.g., extending or curtailing the analysis or using alternate procedures, based on knowledge of the problem and pertinent available literature. Conducts specified phases of research projects as an assistant to an experienced chemist.

*Responsibility for the direction of others.* May be assisted by a few aids or technicians.

### Chemist III

*General characteristics.* Performs a broad range of chemical tests and procedures utilized in the laboratory, using judgment in the independent evaluation, selection, and adaptation of standard methods and techniques. May carry through a complete series of tests on a product in its different process stages. Some assignments require a specialized knowledge of one or two common categories of related substances. Performance at this level requires developmental experience in a professional position, or equivalent graduate level education.

*Direction received.* On routine work, supervision is very general. Assistance is furnished on unusual problems and work is reviewed for application of sound professional judgment.

*Typical duties and responsibilities.* In accordance with instructions as to the nature of the problem, selects standard methods, tests or procedures; when necessary, develops or works out alternate or modified methods with supervisor's concurrence. Assists in research by analyzing samples or testing new procedures that require specialized training because (a) standard methods are inapplicable, (b) analytical findings must be interpreted in terms of compliance or non-compliance with standards, or (c) specialized and advanced equipment and techniques must be adapted.

*Responsibility for the direction of others.* May supervise or coordinate the work of a few technicians or aids, and be assisted by lower level chemists.

## Chemist IV

*General characteristics.* As a fully competent chemist in all conventional aspects of the subject matter or the functional area of the assignments, plans and conducts work requiring (a) mastery of specialized techniques or ingenuity in selecting and evaluating approaches to unforeseen or novel problems, and (b) ability to apply a research approach to the solution of a wide variety of problems and to assimilate the details and significance of chemical and physical analyses, procedures, and tests. Requires sufficient professional experience to assure competence as a fully trained worker; or, for positions primarily of a research nature, completion of all requirements for a doctoral degree may be substituted for experience.

*Direction received.* Independently performs most assignments with instructions as to the general results expected. Receives technical guidance on unusual or complex problems and supervisory approval on proposed plans for projects.

*Typical duties and responsibilities.* Conducts laboratory assignments requiring the determination and evaluation of alternative procedures and the sequence of performing them. Performs complex, exacting, unusual analytical assignments requiring specialized knowledge of techniques or products. Interprets results, prepares reports, and may provide technical advice in specialized area.

*Responsibility for the direction of others.* May supervise a small staff of chemists and technicians.

## Chemist V

*General characteristics.* Participates in planning laboratory programs on the basis of specialized knowledge of problems and methods and probable value of results. May serve as an expert in a narrow specialty (e.g., class of chemical compounds, or a class of products), making recommendations and conclusions which serve as the basis for undertaking or rejecting important projects. Development of the knowledge and expertise required for this level of work usually reflects progressive experience through chemist IV.

*Direction received.* Supervision and guidance relate largely to overall objectives, critical issues, new concepts, and policy matters. Consults with supervisor concerning unusual problems and developments.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity, plans, organizes, and directs assigned laboratory programs. Independently defines scope and critical elements of the projects and selects approaches to be taken. A substantial portion of the work

supervised is comparable to that described for chemist IV. (2) As individual researcher or worker, carries out projects requiring development of new or highly modified scientific techniques and procedures, extensive knowledge of specialty, and knowledge of related scientific fields.

*Responsibility for the direction of others.* Supervises, coordinates, and reviews the work of a small staff of chemists and technicians engaged in varied research and development projects, or a larger group performing routine analytical work. Estimates personnel needs and schedules and assigns work to meet completion date. Or, as individual researcher or worker, may be assisted on projects by other chemists or technicians.

## Chemist VI

*General characteristics.* Performs work requiring leadership and expert knowledge in a specialized field, product, or process. Formulates and conducts a systematic attack on a problem area of considerable scope and complexity which must be approached through a series of complete and conceptually related studies, or a number of projects of lesser scope. The problems are complex because they are difficult to define and require unconventional or novel approaches or have other difficult features. Maintains liaison with individuals and units within and outside the organization, with responsibility for acting independently on technical matters pertaining to the field. Work at this level usually requires extensive progressive experience including work comparable to chemist V.

*Direction received.* Supervision received is essentially administrative, with assignments given in terms of broad general objectives and limits.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity (a) plans, develops, coordinates, and directs a number of large and important projects or a project of major scope and importance, or (b) is responsible for the entire chemical program of a company, when the program is of limited complexity and scope. Activities supervised are of such a scope that they require a few (3 to 5) subordinate supervisors or team leaders with at least one in a position comparable to level V. (2) As individual researcher or worker determines, conceives, plans, and conducts projects of major importance to the company. Applies a high degree of originality and ingenuity in adapting, extending, and synthesizing existing theory, principles, and techniques into original combinations and configurations. May serve as a consultant to other chemists in specialty.

*Responsibility for the direction of others.* Plans, organizes, and supervises the work of a staff of chemists and technicians. Evaluates progress of the staff and results obtained,

and recommends major changes to achieve overall objectives. Or, as individual worker or researcher, may be assisted on individual projects by other chemists or technicians.

#### Chemist VII

*General characteristics.* Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive chemical activities. Initiates and maintains extensive contacts with key chemists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues. At this level individuals will have demonstrated creativity, foresight, and mature judgment in anticipating and solving unprecedented chemical problems, determining program objectives and requirements, organizing programs and projects, and developing standards and guides for diverse chemical activities.

*Direction received.* Receives general administrative direction.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity is responsible for (a) an important segment of a chemical program of a company with extensive and diversified scientific requirements, or (b) the entire chemical program of a company where the program is more limited in scope. The overall chemical program contains critical problems the solution of which requires major technological advances and opens the way for extensive related development. Makes authoritative technical recommendations concerning the scientific objectives and levels of work which will be most profitable in light of company requirements and scientific and industrial trends and developments. Recommends facilities, personnel, and funds required. (2) As individual researcher and consultant, selects problems for research to further the company's objectives. Conceives and plans investigations in which the phenomena and principles are not adequately understood, and where few or contradictory scientific precedents or results are available for reference. Outstanding creativity and mature judgment are required to devise hypotheses and techniques of experimentation and to interpret results. As a leader and authority in the company, in a broad area of specialization, or in a narrow but intensely specialized one, advises the head of a large laboratory or company officials on complex aspects of extremely broad and important programs. Has responsibility for exploring, evaluating, and justifying proposed and current programs and projects and furnishing advice on unusually complex and novel problems in the specialty field. Typically will have contributed innovations (e.g., techniques, products, procedures) which are regarded as significant advances in the field.

*Responsibility for the direction of others.* Directs several subordinate supervisors or team leaders, some of whom are

in positions comparable to chemist VI; or, as individual researcher and consultant, may be assisted on individual projects by other chemists and technicians.

#### Chemist VIII

*General characteristics.* Makes decisions and recommendations that are authoritative and have a far-reaching impact on extensive chemical and related activities of the company. Negotiates critical and controversial issues with top level chemists and officers of other organizations and companies. Individuals at this level have demonstrated a high degree of creativity, foresight, and mature judgment in planning, organizing, and guiding extensive chemical programs and activities of outstanding novelty and importance.

*Direction received.* Receives general administrative direction.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity is responsible for (a) the entire chemical program of a company which is of moderate scope, or (b) an important segment of a chemical program of a company with very extensive and highly diversified scientific requirements, where programs are of such complexity and scope that they are of critical importance to overall operations and include problems of extraordinary difficulty that have resisted solution. Decides the kind and extent of chemical programs needed to accomplish the objectives of the company, for choosing the scientific approaches, for planning and organizing facilities and programs, and for interpreting results. (2) As individual researcher and consultant formulates and guides the attack on problems of exceptional difficulty and marked importance to the company and/or industry. Problems are characterized by the lack of scientific precedents and source materials, or the lack of success of prior research and analysis so that their solution would represent an advance of great significance and importance. Performs advisory and consulting work for the company as a recognized authority for broad program areas of considerable novelty and importance. Has made contributions such as new products or techniques, development of processes, etc., which are regarded as major advances in the field.

*Responsibility for the direction of others.* Supervises several subordinate supervisors or team leaders some of whose positions are comparable to chemist VII, or individual researchers some of whose positions are comparable to chemist VII and sometimes chemist VIII. As an individual researcher and consultant may be assisted on individual projects by other chemists or technicians.

*NOTE:* Individuals in charge of a company's chemical program may match any of several of the survey job levels, depending on the size and complexity of chemical programs. Excluded from the definition are: (1) Chemists in

charge of programs so extensive and complex (e.g., consisting of highly diversified or unusually novel products and procedures) that one or more subordinate supervisory chemists are performing at level VIII; (2) individuals whose decisions have direct and substantial effect on setting policy for the organization (included, however, are supervisors deciding the "kind and extent of chemical programs" within broad guidelines set at higher levels); (3) individual researchers and consultants who are recognized as national and/or international authorities and scientific leaders in very broad areas of scientific interest and investigation.

## ENGINEER

Performs professional work in research, development, design, testing, analysis, production, construction, maintenance, operation, planning, survey, estimating, application, or standardization of engineering facilities, systems, structures, processes, equipment devices, or materials requiring knowledge of the science and art by which materials, natural resources, and power are made useful. Work typically requires a B.S. degree in engineering or the equivalent in combined education and experience. (*Excluded* are: Safety engineers, industrial engineers, quality control engineers, sales engineers, and engineers whose primary responsibility is to be in charge of nonprofessional maintenance work.)

### Engineer I

*General characteristics.* This is the entry level of professional work requiring a bachelor's degree in engineering and no experience, or the equivalent of a degree in appropriate education and experience. Performs assignments designed to develop professional work knowledge and abilities. May also receive formal classroom or seminar-type training. (Terminal positions are excluded.)

*Direction received.* Works under close supervision. Receives specific and detailed instructions as to required tasks and results expected. Work is checked during progress and is reviewed for accuracy upon completion.

*Typical duties and responsibilities.* Performs a variety of routine tasks that are planned to provide experience and familiarization with the engineering staff, methods, practices, and programs of the company.

*Responsibility for the direction of others.* Usually none.

### Engineer II

*General characteristics.* At this continuing developmental level, performs routine engineering work requiring application of standard techniques, procedures, and criteria in car-

rying out a sequence of related engineering tasks. Limited exercise of judgment is required on details of work and in making preliminary selections and adaptations of engineering alternatives. Requires work experience acquired in an entry level position, or appropriate graduate level study. For training and developmental purposes, assignments may include some work that is typical of a higher level. (Terminal positions are excluded.)

*Direction received.* Supervisor screens assignments for unusual or difficult problems and selects techniques and procedures to be applied on nonroutine work. Receives close supervision on new aspects of assignments.

*Typical duties and responsibilities.* Using prescribed methods, performs specific and limited portions of a broader assignment of an experienced engineer. Applies standard practices and techniques in specific situations, adjusts and correlates data, recognizes discrepancies in results, and follows operations through a series of related detailed steps or processes.

*Responsibility for the direction of others.* May be assisted by a few aids or technicians.

### Engineer III

*General characteristics.* Independently evaluates, selects, and applies standard engineering techniques, procedures, and criteria, using judgment in making minor adaptations and modifications. Assignments have clear and specified objectives and require the investigation of a limited number of variables. Performance at this level requires developmental experience in a professional position, or equivalent graduate level education.

*Direction received.* Receives instructions on specific assignment objectives, complex features, and possible solutions. Assistance is furnished on unusual problems and work is reviewed for application of sound professional judgment.

*Typical duties and responsibilities.* Performs work which involves conventional types of plans, investigations, surveys, structures, or equipment with relatively few complex features for which there are precedents. Assignments usually include one or more of the following: Equipment design and development, test of materials, preparation of specifications, process study, research investigations, report preparation, and other activities of limited scope requiring knowledge of principles and techniques commonly employed in the specific narrow area of assignments.

*Responsibility for the direction of others.* May supervise or coordinate the work of drafters, technicians, and others who assist in specific assignments.

## Engineer IV

*General characteristics.* As a fully competent engineer in all conventional aspects of the subject matter or the functional area of the assignments, plans and conducts work requiring judgment in the independent evaluation, selection, and substantial adaptation and modification of standard techniques, procedures, and criteria. Devises new approaches to problems encountered. Requires sufficient professional experience to assure competence as a fully trained worker; or, for positions primarily of a research nature, completion of all requirements for a doctoral degree may be substituted for experience.

*Direction received.* Independently performs most assignments with instructions as to the general results expected. Receives technical guidance on unusual or complex problems and supervisory approval on proposed plans for projects.

*Typical duties and responsibilities.* Plans, schedules, conducts, or coordinates detailed phases of the engineering work in a part of a major project or in a total project of moderate scope. Performs work which involves conventional engineering practice but may include a variety of complex features such as conflicting design requirements, unsuitability of standard materials, and difficult coordination requirements. Work requires a broad knowledge of precedents in the specialty area and a good knowledge of principles and practices of related specialties.

*Responsibility for the direction of others.* May supervise a few engineers or technicians on assigned work.

## Engineer V

*General characteristics.* Applies intensive and diversified knowledge of engineering principles and practices in broad areas of assignments and related fields. Makes decisions independently on engineering problems and methods, and represents the organization in conferences to resolve important questions and to plan and coordinate work. Requires the use of advanced techniques and the modification and extension of theories, precepts, and practices of own field and related sciences and disciplines. The knowledge and expertise required for this level of work usually result from progressive experience, including work comparable to engineer IV.

*Direction received.* Supervision and guidance relate largely to overall objectives, critical issues, new concepts, and policy matters. Consults with supervisor concerning unusual problems and developments.

*Typical duties and responsibilities.* One or more of the following: (1) In a supervisory capacity plans, develops, coor-

dinates, and directs a large and important engineering project or a number of small projects with many complex features. A substantial portion of the work supervised is comparable to that described for engineer IV. (2) As individual researcher or worker carries out complex or novel assignments requiring the development of new or improved techniques and procedures. Work is expected to result in the development of new or refined equipment, materials, processes, products, and/or scientific methods. (3) As staff specialist develops and evaluates plans and criteria for a variety of projects and activities to be carried out by others. Assesses the feasibility and soundness of proposed engineering evaluation tests, products, or equipment when necessary data are insufficient or confirmation by testing is advisable. Usually performs as a staff advisor and consultant as to a technical specialty, a type of facility or equipment, or a program function.

*Responsibility for the direction of others.* Supervises, coordinates, and reviews the work of a small staff of engineers and technicians; estimates personnel needs and schedules and assigns work to meet completion date. Or, as individual researcher or staff specialist may be assisted on projects by other engineers or technicians.

## Engineer VI

*General characteristics.* Has full technical responsibility for interpreting, organizing, executing, and coordinating assignments. Plans and develops engineering projects concerned with unique or controversial problems which have an important effect on major company programs. This involves exploration of subject area, definition of scope and selection of problems for investigation, and development of novel concepts and approaches. Maintains liaison with individuals and units within or outside the organization, with responsibility for acting independently on technical matters pertaining to own field. Work at this level usually requires extensive progressive experience including work comparable to engineer V.

*Direction received.* Supervision received is essentially administrative, with assignments given in terms of broad general objectives and limits.

*Typical duties and responsibilities.* One or more of the following: (1) In a supervisory capacity (a) plans, develops, coordinates, and directs a number of large and important projects or a project of major scope and importance, or (b) is responsible for the entire engineering program of a company when the program is of limited complexity and scope. Extent of responsibilities generally requires a few (3 to 5) subordinate supervisors or team leaders with at least one in a position comparable to level V. (2) As individual researcher or worker conceives, plans, and conducts research in problem areas of considerable scope and com-

plexity. The problems must be approached through a series of complete and conceptually related studies, are difficult to define, require unconventional or novel approaches, and require sophisticated research techniques. Available guides and precedents contain critical gaps, are only partially related to the problem, or may be largely lacking due to the novel character of the project. At this level, the individual researcher generally will have contributed inventions, new designs, or techniques which are of material significance in the solution of important problems. (3) As a staff specialist serves as the technical specialist for the organization (division or company) in the application of advanced theories, concepts, principles, and processes for an assigned area of responsibility (i.e., subject matter, function, type of facility or equipment, or product). Keeps abreast of new scientific methods and developments affecting the organization for the purpose of recommending changes in emphasis of programs or new programs warranted by such developments.

*Responsibility for the direction of others.* Plans, organizes, and supervises the work of a staff of engineers and technicians. Evaluates progress of the staff and results obtained, and recommends major changes to achieve overall objectives. Or, as individual researcher or staff specialist may be assisted on individual projects by other engineers or technicians.

#### Engineer VII

*General characteristics.* Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive engineering activities. Initiates and maintains extensive contacts with key engineers and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues. At this level individuals will have demonstrated creativity, foresight, and mature engineering judgment in anticipating and solving unprecedented engineering problems, determining program objectives and requirements, organizing programs and projects and developing standards and guides for diverse engineering activities.

*Direction received.* Receives general administrative direction.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity is responsible for (a) an important segment of the engineering program of a company with extensive and diversified engineering requirements, or (b) the entire engineering program of a company when it is more limited in scope. The overall engineering program contains critical problems the solution of which requires major technological advances and opens the way for extensive related development. Extent of responsibilities generally requires several subordinate organizational segments or teams. Recommends facilities, personnel, and

funds required to carry out programs which are directly related with and directed toward fulfillment of overall company objectives. (2) As individual researcher and consultant is a recognized leader and authority in the company in a broad area of specialization or in a narrow but intensely specialized field. Selects research problems to further the company's objectives. Conceives and plans investigations of broad areas of considerable novelty and importance for which engineering precedents are lacking in areas critical to the overall engineering program. Is consulted extensively by associates and others, with a high degree of reliance placed on the incumbent's scientific interpretations and advice. Typically, will have contributed inventions, new designs, or techniques which are regarded as major advances in the field.

*Responsibility for the direction of others.* Directs several subordinate supervisors or team leaders, some of whom are in positions comparable to engineer VI; or, as individual researcher and consultant, may be assisted on individual projects by other engineers and technicians.

#### Engineer VIII

*General characteristics.* Makes decisions and recommendations that are recognized as authoritative and have a far-reaching impact on extensive engineering and related activities of the company. Negotiates critical and controversial issues with top level engineers and officers of other organizations and companies. Individuals at this level demonstrate a high degree of creativity, foresight, and mature judgment in planning, organizing, and guiding extensive engineering programs and activities of outstanding novelty and importance.

*Direction received.* Receives general administrative direction.

*Typical duties and responsibilities.* One or both of the following: (1) In a supervisory capacity is responsible for (a) an important segment of a very extensive and highly diversified engineering program of a company, or (b) the entire engineering program of a company when the program is of moderate scope. The programs are of such complexity and scope that they are of critical importance to overall objectives, include problems of extraordinary difficulty that often have resisted solution, and consist of several segments requiring subordinate supervisors. Is responsible for deciding the kind and extent of engineering and related programs needed to accomplish the objectives of the company, for choosing the scientific approaches, for planning and organizing facilities and programs, and for interpreting results. (2) As individual researcher and consultant formulates and guides the attack on problems of exceptional difficulty and marked importance to the company or industry. Problems are characterized by their lack of scientific prece-

dents and source material, or lack of success of prior research and analysis so that their solution would represent an advance of great significance and importance. Performs advisory and consulting work for the company as a recognized authority for broad program areas or in an intensely specialized area of considerable novelty and importance.

*Responsibility for the direction of others.* Supervises several subordinate supervisors or team leaders some of whose positions are comparable to engineer VII, or individual researchers some of whose positions are comparable to engineer VII and sometimes engineer VIII. As an individual researcher and consultant may be assisted on individual projects by other engineers or technicians.

## Technical Support

### ENGINEERING TECHNICIAN

To be covered by these definitions, employees must meet *all* of the following criteria: (1) Provides semiprofessional technical support for engineers working in such areas as research, design, development, testing, or manufacturing process improvement. (2) Work pertains to electrical, electronic, or mechanical components or equipment. (3) Required to have some knowledge of science or engineering. (*Excludes* production or maintenance workers, quality control testers, craft workers, drafters, designers, and engineers.)

#### Engineering Technician I

Performs simple routine tasks under close supervision or from detailed procedures. Work is checked in process or on completion. Performs, at this level, one or a combination of such typical duties as:

- Assembles or installs equipment or parts requiring simple wiring, soldering, or connecting;

- Performs simple or routine tasks or tests such as tensile or hardness tests; operates and adjusts simple test equipment; records test data;

- Gathers and maintains specified records of engineering data such as tests, drawings, etc.; performs computations by substituting numbers in specified formulas; plots data and draws simple curves and graphs.

#### Engineering Technician II

Performs standardized or prescribed assignments involving a sequence of related operations. Follows standard work methods or explicit instructions; technical adequacy of routine work is reviewed on completion; nonroutine work may

*NOTE:* Individuals in charge of a company's engineering program may match any of several of the survey job levels depending on the size and complexity of engineering programs. Excluded from the definition are: (1) Engineers in charge of programs so extensive and complex (e.g., consisting of research and development on a variety of complex products or systems with numerous novel components) that one or more subordinate supervisory engineers are performing at level VIII; (2) individuals whose decisions have direct and substantial effect on setting policy for the organization (included, however, are supervisors deciding the "kind and extent of engineering and related programs" within broad guidelines set at higher levels); (3) individual researchers and consultants who are recognized as national and/or international authorities and scientific leaders in very broad areas of scientific interest and investigation.

also be reviewed in process. Performs, at this level, one or a combination of such typical duties as:

- Assembles or constructs simple or standard equipment or parts. May service or repair simple instruments or equipment;

- Conducts a variety of standardized tests; may prepare test specimens; sets up and operates standard test equipment; records test data;

- Extracts engineering data from various prescribed sources; processes the data following well-defined methods; presents the data in prescribed form.

#### Engineering Technician III

Performs assignments that are not completely standardized or prescribed. Selects or adapts standard procedures or equipment. Receives initial instructions, equipment requirements, and advice from supervisor or engineer; technical adequacy of completed work is checked. Performs, at this level, one or a combination of such typical duties as:

- Constructs components, subunits, or simple models or adapts standard equipment. May troubleshoot and correct malfunctions;

- Conducts various tests or experiments which may require minor modifications in test setups or procedures; selects, sets up, and operates standard test equipment and records test data;

- Extracts and compiles a variety of engineering data; processes or computes data using specified formulas and procedures. Performs routine analysis to check applicability, accuracy, and reasonableness of data.

#### Engineering Technician IV

Performs nonroutine assignments of substantial variety and complexity. Receives objectives and technical advice

from supervisor or engineer; work is reviewed for technical adequacy. May be assisted by lower level technicians. Performs, at this level, one or a combination of such typical duties as:

- Works on limited segment of development project; constructs experimental or prototype models to meet engineering requirements; conducts tests or experiments; records and evaluates data and reports findings;

- Conducts tests or experiments requiring selection and adaptation or modification of test equipment and test procedures; records data; analyzes data and prepares test reports;

- Compiles and computes a variety of engineering data; may analyze test and design data; develops or prepares schematics, designs, specifications, parts lists, or makes recommendations regarding these items. May review designs or specifications for adequacy.

### **Engineering Technician V**

Performs nonroutine and complex assignments involving responsibility for planning and conducting a complete project of relatively limited scope or a portion of a larger and more diverse project. Selects and adapts plans, techniques, designs, or layouts. May coordinate portions of overall assignments; reviews, analyzes, and integrates the technical work of others. Supervisor or professional engineer outlines objectives, requirements, and design approaches; completed work is reviewed for technical adequacy and satisfaction of requirements. May be assisted by lower level technicians. Performs, at this level, one or a combination of such typical duties as:

- Designs, develops, and constructs major units, devices, or equipment; conducts tests or experiments; analyzes results and redesigns or modifies equipment to improve performance; reports results;

- Plans or assists in planning tests to evaluate equipment performance. Determines test requirements, equipment modification, and test procedures; conducts tests, analyzes and evaluates data, and prepares reports on findings and recommendations;

- Reviews and analyzes a variety of engineering data to determine requirements to meet engineering objectives; may calculate design data; prepares layouts, detailed specifications, parts lists, estimates, procedures, etc. May check and analyze drawings or equipment to determine adequacy of drawings and design.

### **DRAFTER**

Performs drafting work requiring knowledge and skill in drafting methods, procedures, and techniques. Prepares drawings of structures, mechanical and electrical equipment, piping and duct systems, and similar equipment, systems, and assemblies. Drawings are used to communicate engineering ideas, designs, and information in support of engineering functions. Uses recognized systems of symbols, legends, shadings, and lines having specific meaning in drawings.

The following are excluded when they constitute the primary purpose of the job:

- Design work requiring the technical knowledge, skill, and ability to conceive or originate designs;

- Illustrating work requiring artistic ability;

- Work involving the preparation of charts, diagrams, room arrangements, floor plans, etc.;

- Cartographic work involving the preparation of maps or plats and related materials and drawings of geological structures; and

- Supervisory work involving the management of a drafting program or the supervision of drafters when either constitutes the primary purpose of the job.

Positions are classified into levels on the basis of the following definitions.

#### **Drafter I**

Working under close supervision, traces or copies finished drawings, making clearly indicated revisions. Uses appropriate templates to draw curved lines. Assignments are designed to develop increasing skill in various drafting techniques. Work is spot checked during progress and reviewed upon completion.

*NOTE:* Exclude drafters performing elementary tasks while receiving training in the most basic drafting methods.

#### **Drafter II**

Prepares drawings of simple, easily visualized parts or equipment from sketches or marked-up prints. Selects appropriate templates and other equipment needed to complete assignments. Drawings fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy.

#### **Drafter III**

Prepares various drawings of parts and assemblies, including sectional profiles, irregular or reverse curves, hidden lines, and small or intricate details. Work requires use of most of the conventional drafting techniques and a working knowledge of the terms and procedures of the industry. Familiar or recurring work is assigned in general terms; unfamiliar assignments include information on methods, procedures, sources of information, and precedents to be followed. Simple revisions to existing drawings may be assigned with a verbal explanation of the desired results; more complex revisions are produced from sketches which clearly depict the desired product.

#### **Drafter IV**

Prepares complete sets of complex drawings which include multiple views, detail drawings, and assembly drawings. Drawings include complex design features that require considerable drafting skill to visualize and portray. Assignments regularly require the use of mathematical

formulas to compute weights, load capacities, dimensions, quantities of materials, etc. Working from sketches and verbal information supplied by an engineer or designer, determines the most appropriate views, detail drawings, and supplementary information needed to complete assignments. Selects required information from precedents, manufacturer's catalogues, and technical guides. Independently resolves most of the problems encountered. Supervisor or designer may suggest methods of approach or provide advice on unusually difficult problems.

**NOTE:** Exclude drafters performing work of similar difficulty to that described at this level but who provide support for a variety of organizations which have widely differing functions or requirements.

#### **Drafter V**

Works closely with design originators, preparing drawings of unusual, complex, or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawings produced. Exercises independent judgment in selecting and interpreting data based on a knowledge of the design intent. Although working primarily as a drafter, may occasionally perform engineering design work in interpreting general designs prepared by others or in completing missing design details. May provide advice and guidance to lower level drafters or serve as coordinator and planner for large and complex drafting projects.

### **COMPUTER OPERATOR**

Monitors and operates the control console of a digital computer, in accordance with operating instructions, to process data. Work is characterized by the following:

- Studies operating instructions to determine equipment setup needed;
- Loads equipment with required items (tapes, cards, paper, etc.);
- Switches necessary auxiliary equipment into system;
- Starts and operates computer;
- Responds to operating instructions and computer output instructions;
- Reviews error messages and makes corrections during operation *or* refers problems;
- Maintains operating record.

May test-run new or modified programs and *assist* in modifying systems or programs. Included within the scope of this definition are fully qualified computer operators, trainees working to become fully qualified operators, and lead operators providing *technical* assistance to lower level operators.

#### **Computer Operator I**

Work assignments consist of on-the-job training (sometimes augmented by classroom training). Operator is provided detailed written or oral guidance before and during assignments and is under close personal supervision.

#### **Computer Operator II**

Work assignments typically are established production runs (i.e., programs which present few operating problems) executed by serial processing (i.e., one program is processed at a time). In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure.

#### **Computer Operator III**

Work assignments are characterized by the frequent introduction of new programs, applications, and procedures (i.e., situations which require the operator to adapt to a variety of problems) executed by serial processing. In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure.

*OR*

Work assignments typically are established production runs (i.e., programs which present few operating problems) executed by serial processing. Selects from a variety of standard setup and operating procedures. In response to computer output instructions or error conditions, deviates from standard procedures if standard procedures do not provide a solution. Then refers or aborts program.

*OR*

Work assignments are established production runs (i.e., programs which present few operating problems) executed by multiprocessing (i.e., simultaneous processing of two or more programs). In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedures.

#### **Computer Operator IV**

Work assignments are characterized by the frequent introduction of new programs, applications, and procedures (i.e., situations which require the operator to adapt to a variety of problems) executed by serial processing. Selects from a variety of standard setup and operating procedures. In response to computer output instructions or error conditions, deviates from standard procedures if standard procedures do not provide a solution. Then refers problems or aborts program.

*OR*

Work assignments are characterized by the frequent introduction of new programs, applications, and procedures (i.e., situations which require the operator to adapt to a

variety of problems) executed by multiprocessing. In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure.

OR

Work assignments are established production runs, (i.e., programs which present few operating problems) executed by multiprocessing. Selects from a variety of standard setup and operating procedures. In response to computer output instructions or error conditions, deviates from standard procedures if standard procedures do not provide a solution. Then refers problems or aborts program.

#### **Computer Operator V**

Work assignments are characterized by the frequent testing and introduction of new programs, applications, and

procedures (i.e., situations which require the operator to adapt to a variety of problems). In responding to computer output instructions and error conditions or to avoid loss of information or to conserve computer time, operator deviates from standard procedures or aborts program. Such actions may materially alter the computer unit's production plans. Advises programmers and subject-matter experts on setup techniques.

#### **Computer Operator VI**

In addition to level V characteristics, assignments at this level require a knowledge of program language, computer features, and software systems to *assist* in: (1) Maintaining, modifying, and developing operating systems or programs; (2) developing operating instructions and techniques to cover problem situations; (3) switching to emergency backup procedures.<sup>4</sup>

## **Clerical**

### **ACCOUNTING CLERK**

Performs one or more accounting tasks, such as posting to registers and ledgers; balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Levels I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording transactions and accounting information. Levels III and IV *require* a knowledge and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some jobs at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

#### **Accounting Clerk I**

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

#### **Accounting Clerk II**

Performs one or more routine accounting clerical operations, such as: Examining, verifying, and correcting accounting transactions to ensure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

#### **Accounting Clerk III**

Uses a knowledge of double entry bookkeeping in performing one or more of the following: Posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

#### **Accounting Clerk IV**

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: Reviews invoices and

<sup>4</sup> Insufficient data were obtained for level VI to warrant presentation of average salaries.

statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system.

*NOTE:* Excluded from level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

## **FILE CLERK**

Files, classifies, and retrieves material in an established filing system. May perform clerical and manual tasks required to maintain files. Positions are classified into levels on the basis of the following definitions.

### **File Clerk I**

Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; may fill out withdrawal charge. May perform simple clerical and manual tasks required to maintain and service files.

### **File Clerk II**

Sorts, codes, and files unclassified material by simple (subject-matter) headings or partly classified material by finer subheadings. Prepares simple related index and cross-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical tasks required to maintain and service files.

### **File Clerk III**

Classifies and indexes file material such as correspondence, reports, technical documents, etc., in an established filing system containing a number of varied subject matter files. May also file this material. May keep records of various types in conjunction with the files. May lead a small group of lower level file clerks.

## **KEY ENTRY OPERATOR**

Operates keyboard-controlled data entry device such as keypunch machine or key-operated magnetic tape or disc

encoder to transcribe data into a form suitable for computer processing. Work requires skill in operating an alphanumeric keyboard and an understanding of transcribing procedures and relevant data entry equipment.

Positions are classified into levels on the basis of the following definitions.

### **Key Entry Operator I**

Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding, or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

### **Key Entry Operator II**

Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform some routine work as described for level I.

*NOTE:* Excluded are operators above level II using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

## **MESSENGER**

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening and distributing mail, and other minor clerical work. *Excluded* are positions that require operation of a motor vehicle as a significant duty.

## **PERSONNEL CLERK (EMPLOYMENT)**

Personnel clerks (employment) provide clerical and technical support to personnel professionals or managers in matters relating to recruiting, hiring, transfer, change in pay status, and termination of company employees. At the lower levels, clerks primarily provide basic information to current and prospective employees, maintain personnel records and information listings, and prepare and process papers on personnel actions. At the higher levels, clerks (often titled personnel assistants or specialists) may perform limited aspects of a personnel professional's work, e.g., interviewing candidates, recommending placements, and preparing personnel reports. Final decisions on personnel actions are made by personnel professionals or managers. Some clerks may perform a limited amount of work in other specialties, such as benefits, compensation, or employee relations. Typing may be required at any level.

*Excluded are:*

Clerks who primarily compute and process payrolls or compute and/or respond to questions on company benefits or retirement claims;

Workers responsible for maintaining and safeguarding personnel record files for a company;

Workers whose duties do not require a knowledge of the company's personnel rules and procedures, such as receptionists, messengers, typists, or stenographers;

Workers in developmental personnel professional positions, generally requiring a college degree or equivalent administrative experience; and

Workers who are primarily compensated for duties outside the employment specialty, such as benefits, compensation, or employee relations.

Positions are classified into levels on the basis of the following definitions. The work described is essentially at a responsible clerical level at the low levels and progresses to a staff assistant or technician level. At Level III, which is transitional, both types of work are described. Jobs which match either type of work described at Level III, or which are combinations of the two, can be matched.

#### **Personnel Clerk (Employment) I**

Performs routine tasks while receiving training and gaining experience in applying company personnel procedures and policies. Provides employment information and appropriate forms to applicants or employees on types of jobs being filled, procedures to follow, and sources of additional information. Ensures that the proper company forms are completed for name changes, locator information, applications, etc. Reviews completed forms for signatures, proper entries, etc. May maintain assigned segments of company personnel records, posting such items as dates of promotion, transfer, and hire; rates of pay; or personal data. (If this information is computerized, skill in coding or entering information may be needed as a minor duty.) May answer outside inquiries for simple factual information, such as verification of dates of employment in response to credit checks on employees. Some receptionist or other clerical duties may be performed.

Detailed company rules and procedures are available for all aspects of the assignment. Guidance and assistance on unusual questions are available at all times. Work is spot checked, often on a daily basis.

#### **Personnel Clerk (Employment) II**

Examines and/or processes personnel action documents, ensuring that all information is complete and consistent and determines whether further discussion with applicants or employees is needed or whether personnel information must be checked against additional files or listings. Must select the most appropriate precedent, rule, or procedure as a basis for action from a number of alternatives. Responds to questions from applicants, employees, or managers when such information is readily available or can be obtained from file material or manuals. May provide information to

managers on availability of applicants and status of hiring actions; may verify employment dates and places supplied on job applications; may maintain assigned personnel records; may administer typing and stenography tests.

Completes routine assignments independently. Detailed guidance is available for situations which deviate from established precedents. Clerks are relied upon to alert higher level clerks or supervisor to such situations. Work may be spot checked periodically.

#### **Personnel Clerk (Employment) III**

##### **Type A**

Serves as a clerical expert in independently processing the most complicated types of personnel actions, e.g., temporary employment, rehires, and dismissals, and in providing information when it is necessary to consolidate data from a number of sources, often with short deadlines. Screens applications for obvious rejections. Resolves conflicts in computer listings or other sources of employee information. Locates lost documents or reconstructs information using a number of sources. May check references of applicants when information in addition to dates and places of past work is needed and judgment is required to ask follow-up questions. May provide guidance to lower level clerks. Supervisory review is similar to level II.

*AND/OR*

##### **Type B**

Performs routine personnel assignments beyond the clerical level, such as: Orienting new employees to company programs, facilities, rules on time and attendance, and leave policies; computing basic statistical information for reports on manpower profiles, EEO progress and accomplishments, hiring activities, attendance and leave profiles, turnover, etc.; and screening applicants, rejecting those who do not qualify for available openings for clear cut reasons, referring others to appropriate employment interviewer. Guidance is provided on possible sources of information, methods of work, and types of reports needed. Completed written work receives close technical review from higher level personnel office employees; other work may be checked occasionally.

#### **Personnel Clerk (Employment) IV**

Performs work in support of personnel professionals which requires a good working knowledge of personnel procedures, guides, and precedents. In representative assignments: Interviews applicants, obtains references, and recommends placement of applicants in a few well-defined occupations (trades or clerical) within a stable organization or unit; conducts postplacement or exit interviews to identify job adjustment problems or reasons for leaving the company; performs routine statistical analyses related to manpower, EEO, hiring, or other employment concerns, e.g., compares one set of data to another set as instructed;

and requisitions applicants through employment agencies for clerical or similar level jobs. At this level assistants typically have a range of personal contacts within and outside the company and with applicants, and must be tactful and articulate. May perform some clerical work in addition to the above duties. Supervisor reviews completed work against stated objectives.

#### Personnel Clerk (Employment) V

Workers at this level perform duties similar to level IV, but are responsible for more complicated cases and work with greater independence. Performs limited aspects of professional personnel work dealing with a variety of occupations common to the company which are clear-cut and stable in employment requirements. Typical duties include: Researching recruitment sources, such as employment agencies or State manpower offices, and advising managers on the availability of candidates in common occupations; screening and selecting employees for a few routine, nonpermanent jobs, such as summer employment; or answering inquiries on a controversial issue, such as a hiring or promotion freeze. These duties often require considerable skill and diplomacy in communications. Other typical duties may include: Surveying managers for future hiring requirements; developing newspaper vacancy announcements or explaining job requirements to employment agencies for administrative or professional positions; or reviewing the effect of corporate personnel procedural changes on local employment programs (e.g., automation of records, new affirmative action goals). May incidentally perform some clerical duties. Supervisory review is similar to level IV.

### SECRETARY

Assigned as a personal secretary, normally to one individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor. Works fairly independently, receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and understanding of the organization, programs, and procedures related to the work of the supervisor.

**Exclusions.** Not all positions that are titled "secretary" possess the above characteristics. *Examples* of positions which are excluded from the definition are as follows:

- a. Positions which do not meet the "personal" secretary concept described above;
- b. Stenographers not fully trained in secretarial-type duties;
- c. Stenographers serving as office assistants to a group of professional, technical, or managerial persons;
- d. Assistant-type positions which entail more difficult or more responsible technical, administrative, or super-

**Table C-4. Criteria for matching secretaries by level**

| Level of secretary's supervisor | Level of secretary's responsibility |      |
|---------------------------------|-------------------------------------|------|
|                                 | LR-1                                | LR-2 |
| LS-1 .....                      |                                     | II   |
| LS-2 .....                      |                                     | III  |
| LS-3 .....                      |                                     | IV   |
| LS-4 .....                      | IV                                  | V    |

visory duties which are not typical of secretarial work, e.g., administrative assistant, or executive assistant;

- e. Positions which do not fit any of the situations listed in the section below titled "Level of Secretary's Supervisor," e.g., secretary to the president of a company that employs, in all, over 5,000 persons;
- f. Trainees.

Secretary jobs which meet the required characteristics are matched at one of the five levels according to (a) the level of the secretary's supervisor within the company's organizational structure and (b) the level of the secretary's responsibility. Table C-4 indicates the level of the secretary for each combination of the factors.

#### Level of Secretary's Supervisor (LS)

- LS-1** a. Secretary to the supervisor or head of a small organizational unit (e.g., fewer than about 25 or 30 persons); or
- b. Secretary to a nonsupervisory staff specialist, professional employee, administrative officer or assistant, skilled technician, or expert. (*NOTE:* Many companies assign stenographers, rather than secretaries as described above, to this level of supervisory or nonsupervisory worker.)
- LS-2** a. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for LS-3, but whose organizational unit normally numbers at least several dozen employees and is usually divided into organizational segments which are often, in turn, further subdivided. In some companies, this level includes a wide range of organizational echelons; in others, only one or two; or
- b. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, fewer than 5,000 persons.
- LS-3** a. Secretary to a corporate officer (other than chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
- b. Secretary to the head (immediately below the officer level) of either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational segment (e.g., a regional headquarters; a major division) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or

- c. Secretary to the head of an individual plant, factory, etc., (or other equivalent level of official) that employs, in all, over 5,000 persons; or
- d. Secretary to the head of a large and important organizational segment (e.g., a middle management supervisor of an organizational segment often involving as many as several hundred persons) of a company that employs, in all, over 25,000 persons.

- LS-4**
- a. Secretary to the chairman of the board or president of a company that employs, in all, over 100 but fewer than 5,000 persons; or
  - b. Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 5,000 but fewer than 25,000 persons; or
  - c. Secretary to the head, immediately below the corporate officer level, of a major segment or subsidiary of a company that employs, in all, over 25,000 persons.

**NOTE:** The term "corporate officer" used in the above *LS* definitions refers to those officials who have a significant corporatewide policymaking role with regard to major company activities. The title "vice president," though normally indicative of this role, does not in all cases identify such positions. Vice presidents whose primary responsibility is to act personally on individual cases or transactions (e.g., approve or deny individual loan or credit actions; administer individual trust accounts; directly supervise a clerical staff) are not considered to be "corporate officers" for purposes of applying the definition.

#### Level of Secretary's Responsibility (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at *LR-1* or *LR-2* described below according to their level of responsibility.

**LR-1.** Performs varied secretarial duties including or comparable to most of the following:

- a. Answers telephone, greets personal callers, and opens incoming mail.
- b. Answers telephone requests which have standard answers. May reply to requests by sending a form letter.
- c. Reviews correspondence, memoranda, and reports prepared by others for the supervisor's signature to assure procedural and typographic accuracy.
- d. Maintains supervisor's calendar and makes appointments as instructed.
- e. Types, takes and transcribes dictation, and files.

**LR-2.** Performs duties under *LR-1* and, *in addition*, performs tasks requiring greater judgment, initiative, and knowledge of office functions including or comparable to most of the following:

- a. Screens telephone and personal callers, determining which can be handled by the supervisor's subordinates or other offices.
- b. Answers requests which require a detailed knowledge of office procedures or collection of information from files or other offices. May sign routine correspondence in own or supervisor's name.
- c. Compiles or assists in compiling periodic reports on the basis of general instructions.
- d. Schedules tentative appointments without prior clearance. Assembles necessary background material for scheduled meetings. Makes arrangements for meetings and conferences.
- e. Explains supervisor's requirements to other employees in supervisor's unit. (Also types, takes dictation, and files.)

#### STENOGRAPHER

Primary duty is to take dictation using shorthand, and to transcribe the dictation. May also type from written copy. May operate from a stenographic pool. May occasionally transcribe from voice recordings.

**NOTE:** This job is distinguished from that of a secretary in that a secretary normally works in a confidential relationship with only one manager or executive and performs more responsible and discretionary tasks.

##### Stenographer, General

Dictation involves a normal routine vocabulary. May maintain files, keep simple records, or perform other relatively routine clerical tasks.

##### Stenographer, Senior

Dictation involves a varied technical or specialized vocabulary such as in legal briefs or reports on scientific research. May also set up and maintain files, keep records, etc.

##### OR

Performs stenographic duties requiring significantly greater independence and responsibility than stenographer, general, as evidenced by the following: Work requires a high degree of stenographic speed and accuracy; a thorough working knowledge of general business and office procedure and of the specific business operations, organizations, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as maintaining follow-up files; assembling material for reports, memoranda, and letters; composing simple letters from general instructions; reading and routing incoming mail; answering routine questions, etc.

## TYPIST

Uses a typewriter to make copies of various materials or to make out bills after calculations have been made by another person. May include typing of stencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping simple records, filing records and reports, or sorting and distributing incoming mail.

### Typist I

Performs *one or more of the following*: Copy typing from rough or clear drafts; or routine typing of forms, in-

surance policies, etc.; or setting up simple standard tabulations; or copying more complex tables already set up and spaced properly.

### Typist II

Performs *one or more of the following*: Typing material in final form when it involves combining material from several sources; or responsibility for correct spelling, syllabication, punctuation, etc., of technical or unusual words or foreign language material; or planning layout and typing of complicated statistical tables to maintain uniformity and balance in spacing. May type routine form letters, varying details to suit circumstances.

NOTE: The occupational titles and definitions for messenger and stenographer are the same as those used in the Bureau's program of occupational wage surveys in metropolitan areas.<sup>1</sup> The occupations listed below have the same definition in both the national and area surveys; however, the level designations differ as shown:

| Occupation                   | National Survey of<br>Professional, Adminis-<br>trative, Technical, and<br>Clerical Pay | Occupational<br>Wage Surveys in<br>Metropolitan<br>Areas |
|------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|
| Drafter <sup>1</sup> .....   | I<br>II<br>III<br>IV<br>V                                                               | E<br>D<br>C<br>B<br>A                                    |
| File clerk .....             | I<br>II<br>III                                                                          | C<br>B<br>A                                              |
| Key entry operator .....     | I<br>II<br>III                                                                          | B<br>A<br>A                                              |
| Secretary <sup>1</sup> ..... | I<br>II<br>III<br>IV<br>V                                                               | E<br>D<br>C<br>B<br>A                                    |
| Typist .....                 | I<br>II                                                                                 | B<br>A                                                   |

<sup>1</sup> The 5-level definition for drafter was introduced in the area surveys in calendar year 1979 and the 5-level definition for secretary, in 1977. Three years are required to bring new job definitions into all areas covered by the program.

## **Appendix D. Comparison of Salaries in Private Industry with Salaries of Federal Employees Under the General Schedule**

The survey was designed to provide a basis for comparing salaries under the General Schedule classification and pay system with salaries in private enterprise. To assure collection of pay data for work levels equivalent to the General Schedule grade levels, the Office of Personnel Management (OPM), in cooperation with the Bureau of

Labor Statistics, prepared the occupational work level definitions used in the survey. Definitions were graded by OPM according to standards established for each grade level. Table D-1 shows the surveyed jobs grouped by work levels equivalent to General Schedule grade levels.

Table D-1. Comparison of average annual salaries in private industry with salary rates for Federal employees under the General Schedule

| Occupation and level surveyed by BLS <sup>1</sup> | Average annual salary in private industry, <sup>2</sup> March 1979 | Salary rates for Federal employees under the General Schedule, March 1979 and October 1979 <sup>3</sup> |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
|---------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                                   |                                                                    | Grade <sup>4</sup>                                                                                      | Average, <sup>5</sup> March 1979 and October 1979 | Step <sup>6</sup>  |                    |                    |                    |                    |                    |                    |                    |                    |                    |
|                                                   |                                                                    |                                                                                                         |                                                   | 1                  | 2                  | 3                  | 4                  | 5                  | 6                  | 7                  | 8                  | 9                  | 10                 |
| File clerks I .....                               | \$7,063                                                            | GS 1                                                                                                    | \$6,694<br>(7,348)                                | \$6,561<br>(7,210) | \$6,780<br>(7,450) | \$6,999<br>(7,690) | \$7,218<br>(7,930) | \$7,437<br>(8,170) | \$7,656<br>(8,410) | \$7,875<br>(8,650) | \$8,094<br>(8,890) | \$8,313<br>(8,902) | \$8,532<br>(9,126) |
| Messengers .....                                  | 8,112                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Accounting clerks I .....                         | 8,248                                                              | GS 2                                                                                                    | 7,630<br>(8,333)                                  | 7,422<br>(8,128)   | 7,669<br>(8,399)   | 7,916<br>(8,670)   | 8,163<br>(8,902)   | 8,410<br>(9,002)   | 8,657<br>(9,267)   | 8,904<br>(9,532)   | 9,151<br>(9,797)   | 9,398<br>(10,062)  | 9,645<br>(10,327)  |
| Drafters I .....                                  | 9,395                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| File clerks II .....                              | 8,265                                                              | GS 3                                                                                                    | 8,998<br>(9,627)                                  | 8,366<br>(8,952)   | 8,645<br>(9,250)   | 8,924<br>(9,548)   | 9,203<br>(9,846)   | 9,482<br>(10,144)  | 9,761<br>(10,442)  | 10,040<br>(10,740) | 10,319<br>(11,038) | 10,598<br>(11,336) | 10,877<br>(11,634) |
| Key entry operators I .....                       | 9,094                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Typists I .....                                   | 8,398                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Accounting clerks II .....                        | 9,555                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Drafter II .....                                  | 10,715                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Engineering technicians I .....                   | 10,825                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| File clerks III .....                             | 10,483                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Key entry operators II .....                      | 10,833                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Personnel clerks I .....                          | 8,979                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Stenographers, general .....                      | 10,931                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Typists II .....                                  | 10,125                                                             | GS 4                                                                                                    | 10,460<br>(11,193)                                | 9,391<br>(10,049)  | 9,704<br>(10,384)  | 10,017<br>(10,719) | 10,330<br>(11,054) | 10,643<br>(11,389) | 10,956<br>(11,724) | 11,269<br>(12,059) | 11,582<br>(12,394) | 11,895<br>(12,729) | 12,208<br>(13,064) |
| Accounting clerks III .....                       | 11,367                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Computer operators I .....                        | 9,198                                                              |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Drafters III .....                                | 12,835                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Engineering technicians II .....                  | 12,690                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Personnel clerk II .....                          | 10,683                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Secretaries I .....                               | 10,354                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Stenographers, senior .....                       | 12,458                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Accounting clerks IV .....                        | 13,606                                                             | GS 5                                                                                                    | 11,935<br>(12,773)                                | 10,507<br>(11,243) | 10,857<br>(11,618) | 11,207<br>(11,993) | 11,557<br>(12,368) | 11,907<br>(12,743) | 12,257<br>(13,118) | 12,607<br>(13,493) | 12,957<br>(13,868) | 13,307<br>(14,243) | 13,657<br>(14,618) |
| Accountants I .....                               | 13,595                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Auditors I .....                                  | 13,482                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Buyers I .....                                    | 13,859                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Chemists I .....                                  | 14,455                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Computer operators II .....                       | 10,875                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Drafters IV .....                                 | 15,307                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Engineers I .....                                 | 17,345                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Engineering technicians III .....                 | 15,094                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Personnel clerks III .....                        | 12,060                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Secretaries II .....                              | 11,375                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Computer operators III .....                      | 12,013                                                             | GS 6                                                                                                    | 13,498<br>(14,445)                                | 11,712<br>(12,531) | 12,102<br>(12,949) | 12,492<br>(13,367) | 12,882<br>(13,785) | 13,272<br>(14,203) | 13,662<br>(14,621) | 14,052<br>(15,039) | 14,442<br>(15,457) | 14,832<br>(15,875) | 15,222<br>(16,293) |
| Personnel clerks IV .....                         | 14,298                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Secretaries III .....                             | 12,861                                                             |                                                                                                         |                                                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |

See footnotes at end of table.

Table D-1. Comparison of average annual salaries in private industry with salary rates for Federal employees under the General Schedule—Continued

| Occupation and level surveyed by BLS <sup>1</sup> | Average annual salary in private industry, <sup>2</sup> March 1979 | Salary rates for Federal employees under the General Schedule, March 1979 and October 1979 <sup>3</sup> |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
|---------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                                   |                                                                    | Grade <sup>4</sup>                                                                                      | Average, <sup>5</sup> March 1979 and October 1979 | Step <sup>6</sup>    |                      |                      |                      |                      |                      |                      |                      |                      |                      |
|                                                   |                                                                    |                                                                                                         |                                                   | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                    | 8                    | 9                    | 10                   |
| Accountants II .....                              | \$16,706                                                           | GS 7                                                                                                    | \$14,736<br>(15,766)                              | \$14,014<br>(13,925) | \$13,448<br>(14,389) | \$13,882<br>(14,853) | \$14,316<br>(15,317) | \$14,750<br>(15,781) | \$15,184<br>(16,245) | \$15,618<br>(16,709) | \$16,052<br>(17,173) | \$16,486<br>(17,637) | \$16,920<br>(18,101) |
| Auditors II .....                                 | 16,493                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Buyers II .....                                   | 17,107                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chemists II .....                                 | 17,365                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Computer operators IV .....                       | 14,921                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Drafters V .....                                  | 19,269                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineers II .....                                | 19,026                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineering technicians IV .....                  | 17,624                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Job analysts II .....                             | 15,333                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Personnel clerks V .....                          | 16,518                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Public accountants I .....                        | 13,939                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Secretaries IV .....                              | 14,075                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Computer operators V .....                        | 16,975                                                             | GS 8                                                                                                    | 16,734<br>(17,907)                                | 14,414<br>(15,423)   | 14,894<br>(15,397)   | 15,374<br>(16,451)   | 15,854<br>(16,965)   | 16,334<br>(17,479)   | 16,814<br>(17,993)   | 17,294<br>(18,507)   | 17,774<br>(19,021)   | 18,254<br>(19,535)   | 18,734<br>(20,049)   |
| Secretaries V .....                               | 15,693                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Accountants III .....                             | 19,468                                                             | GS 9                                                                                                    | 17,869<br>(19,119)                                | 15,920<br>(17,035)   | 16,461<br>(17,603)   | 16,982<br>(18,171)   | 17,513<br>(18,739)   | 18,044<br>(19,307)   | 18,575<br>(19,875)   | 19,106<br>(20,443)   | 19,637<br>(21,011)   | 20,168<br>(21,579)   | 20,699<br>(22,147)   |
| Attorneys I .....                                 | 18,740                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Auditors III .....                                | 20,303                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Buyers III .....                                  | 21,200                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chemists III .....                                | 21,025                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineers III .....                               | 21,931                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineering technicians V .....                   | 20,222                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Job analysts III .....                            | 20,106                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Public accountants II .....                       | 15,817                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Accountants IV .....                              | 24,045                                                             | GS 11                                                                                                   | 21,697<br>(23,215)                                | 19,263<br>(20,611)   | 19,905<br>(21,298)   | 20,547<br>(21,985)   | 21,189<br>(22,672)   | 21,831<br>(23,359)   | 22,473<br>(24,046)   | 23,115<br>(24,733)   | 23,757<br>(25,420)   | 24,399<br>(26,107)   | 25,041<br>(26,794)   |
| Attorneys II .....                                | 23,468                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Auditors IV .....                                 | 24,700                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Buyers IV .....                                   | 25,508                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chemists IV .....                                 | 25,459                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chief accountants I .....                         | 25,457                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Directors of personnel I .....                    | 22,996                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineers IV .....                                | 25,989                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Job analysts IV .....                             | 24,231                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Public accountants III .....                      | 19,174                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Accountants V .....                               | 29,744                                                             | GS 12                                                                                                   | 26,156<br>(27,984)                                | 23,087<br>(24,703)   | 23,857<br>(25,526)   | 24,627<br>(26,349)   | 25,397<br>(27,172)   | 26,167<br>(27,995)   | 26,937<br>(28,818)   | 27,707<br>(29,641)   | 28,477<br>(30,464)   | 29,247<br>(31,287)   | 30,017<br>(32,110)   |
| Attorneys III .....                               | 29,644                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chemists V .....                                  | 30,828                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Chief accountants II .....                        | 29,604                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Directors of personnel II .....                   | 27,981                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Engineers V .....                                 | 30,472                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Public accountants IV .....                       | 24,183                                                             |                                                                                                         |                                                   |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |

See footnotes at end of table.

Table D-1. Comparison of average annual salaries in private industry with salary rates for Federal employees under the General Schedule—Continued

| Occupation and level surveyed by BLS <sup>1</sup> | Average annual salary in private industry, <sup>2</sup> March 1979 | Salary rates for Federal employees under the General Schedule, March 1979 and October 1979 <sup>3</sup> |                                                   |                   |          |          |          |          |          |          |          |          |          |
|---------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                                                   |                                                                    | Grade <sup>4</sup>                                                                                      | Average, <sup>5</sup> March 1979 and October 1979 | Step <sup>6</sup> |          |          |          |          |          |          |          |          |          |
|                                                   |                                                                    |                                                                                                         |                                                   | 1                 | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       |
| Attorneys IV .....                                | \$37,807                                                           | GS 13                                                                                                   | \$31,440<br>(33,641)                              | \$27,453          | \$28,368 | \$29,283 | \$30,198 | \$31,113 | \$32,028 | \$32,943 | \$33,858 | \$34,773 | \$35,688 |
| Chemists VI .....                                 | 35,232                                                             |                                                                                                         |                                                   | (29,375)          | (30,354) | (31,333) | (32,312) | (33,291) | (34,270) | (35,249) | (36,228) | (37,207) | (38,186) |
| Chief accountants III .....                       | 36,561                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Directors of personnel III .....                  | 34,285                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Engineers VI .....                                | 34,801                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Attorneys V .....                                 | 45,599                                                             | GS 14                                                                                                   | 37,112<br>(39,711)                                | 32,442            | 33,523   | 34,604   | 35,685   | 36,766   | 37,847   | 38,928   | 40,009   | 41,090   | 42,171   |
| Chemists VII .....                                | 42,016                                                             |                                                                                                         |                                                   | (34,713)          | (35,870) | (37,027) | (38,184) | (39,341) | (40,498) | (41,655) | (42,812) | (43,969) | (45,126) |
| Chief accountants IV .....                        | 45,274                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Directors of personnel IV .....                   | 43,933                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Engineers VII .....                               | 39,340                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |
| Attorneys VI .....                                | 56,964                                                             | GS 15 <sup>7</sup>                                                                                      | 43,948<br>(46,887)                                | 38,160            | 39,432   | 40,704   | 41,976   | 43,248   | 44,520   | 45,792   | 47,064   | 48,336   | 49,608   |
| Chemists VIII .....                               | 48,961                                                             |                                                                                                         |                                                   | (40,832)          | (42,193) | (43,554) | (44,915) | (46,276) | (47,637) | (48,998) | (50,359) | (51,720) | (53,081) |
| Engineers VIII .....                              | 45,221                                                             |                                                                                                         |                                                   |                   |          |          |          |          |          |          |          |          |          |

<sup>1</sup> For definitions, see appendix C.<sup>2</sup> Survey findings, as summarized in table 1 of this bulletin. For scope of survey, see appendix A.<sup>3</sup> General Schedule rates in effect in March 1979, the reference date of the PATC survey, are shown on the first line for each grade. Rates as adjusted in October 1979 are shown in parentheses.<sup>4</sup> Corresponding grades in the General Schedule were supplied by the Office of Personnel Management.<sup>5</sup> Mean salary of all General Schedule employees in each grade as of March 31, 1979. Not limited to Federal employees in occupations surveyed by BLS. October 1979 averages are shown in parentheses.<sup>6</sup> Section 5335 of title 5 of the U.S. Code provides for within-grade increases on condition that the employee's work is of an acceptable level of competence as defined by the head of the agency. For employees who meet this condition, the service requirements are 52 calendar weeks each for advancement to salary rates 2, 3, and 4; 104 weeks each for advancement to salary rates 5, 6, and 7; and 156 weeks each for advancement to salary rates 8, 9, and 10. Section 5336 provides that an additional within-grade increase may be granted within any period of 52 weeks in recognition of high quality performance above that ordinarily found in the type of position concerned.<sup>7</sup> The rate of pay for employees at some steps is limited by section 5308 of title 5 of the U.S. Code to the rate for level V of the Executive Schedule.

Under Section 5303 of title 5 of the U.S. Code, higher minimum rates (but not exceeding the maximum salary rate prescribed in the General Schedule for the grade or level) and a corresponding new salary range may be established for positions or occupations under certain conditions. The conditions include a finding that the Government's recruitment or retention of well qualified persons is significantly handicapped because the salary rates in private industry are substantially above the salary rates of the statutory pay schedules. As of March 1979, special, higher salary ranges were authorized for professional engineers at the entry grades (GS-5 and GS-7), and at GS-9. Information on special salary rates, including the occupations and the areas to which they apply, may be obtained from the Office of Personnel Management, Washington, D.C. 20415, or its regional offices.



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| CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U): U.S. CITY<br>AVERAGE (1967=100) |                               |                                            |                                           |                                      |
|---------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------|
| GROUP                                                                                 | UNADJ<br>INDEX<br>MAY<br>1979 | UNADJUSTED<br>PER CHG<br>FROM 12<br>MO AGO | UNADJUSTED<br>PER CHG<br>FROM 1<br>MO AGO | S ADJ<br>PER CHG<br>FROM 1<br>MO AGO |
| ALL ITEMS                                                                             | 214.1                         | 10.8                                       | 1.2                                       | 1.1                                  |
| ALL ITEMS(1957-59=100)                                                                | 249.0                         | -                                          | -                                         | -                                    |
| FOOD AND BEVERAGES                                                                    | 228.2                         | 11.2                                       | .8                                        | .7                                   |
| FOOD                                                                                  | 234.3                         | 11.4                                       | .9                                        | .7                                   |
| FOOD AT HOME                                                                          | 233.4                         | 11.3                                       | .7                                        | .5                                   |
| CEREALS AND BAKERY PRODUCTS                                                           | 216.2                         | 9.5                                        | .8                                        | 1.0                                  |
| MEATS, POULTRY, FISH, AND EGGS                                                        | 242.2                         | 19.4                                       | .9                                        | .1                                   |
| DAIRY PRODUCTS                                                                        | 203.8                         | 11.1                                       | .7                                        | .8                                   |
| FRUITS AND VEGETABLES                                                                 | 226.8                         | 3.4                                        | .1                                        | -.2                                  |
| FOOD AWAY FROM HOME                                                                   | 241.1                         | 11.7                                       | 1.1                                       | 1.1                                  |
| HOUSING                                                                               | 222.4                         | 11.3                                       | 1.2                                       | 1.2                                  |
| RENT, RESIDENTIAL                                                                     | 173.8                         | 6.8                                        | 1.0                                       | 1.0                                  |
| HOMEOWNERSHIP                                                                         | 254.9                         | 14.6                                       | 1.3                                       | 1.3                                  |
| FUEL AND OTHER UTILITIES                                                              | 232.2                         | 7.7                                        | 2.1                                       | 2.2                                  |
| FUEL OIL, COAL, AND BOTTLED GAS                                                       | 364.3                         | 23.2                                       | 4.1                                       | 4.8                                  |
| GAS (PIPED) AND ELECTRICITY                                                           | 251.6                         | 8.2                                        | 2.6                                       | 2.6                                  |
| HOUSEHOLD FURNISHINGS AND OPERATION                                                   | 189.2                         | 7.5                                        | .3                                        | .4                                   |
| APPAREL AND UPKEEP                                                                    | 166.1                         | 3.9                                        | .4                                        | .0                                   |
| TRANSPORTATION                                                                        | 207.7                         | 13.4                                       | 2.4                                       | 1.8                                  |
| NEW CARS                                                                              | 165.8                         | 8.7                                        | .9                                        | 1.1                                  |
| USED CARS                                                                             | 205.4                         | 11.3                                       | 2.7                                       | -.5                                  |
| GASOLINE                                                                              | 247.7                         | 29.1                                       | 5.5                                       | 5.0                                  |
| PUBLIC TRANSPORTATION                                                                 | 193.3                         | 3.1                                        | .4                                        | .7                                   |
| MEDICAL CARE                                                                          | 236.3                         | 8.9                                        | .5                                        | .6                                   |
| MEDICAL CARE SERVICES                                                                 | 254.4                         | 9.4                                        | .5                                        | .6                                   |
| ENTERTAINMENT                                                                         | 187.8                         | 6.6                                        | .7                                        | .5                                   |
| OTHER GOODS AND SERVICES                                                              | 193.9                         | 7.5                                        | .4                                        | .5                                   |
| PERSONAL CARE <sup>1/</sup>                                                           | 193.9                         | 7.5                                        | .6                                        | .6                                   |
| COMMODITIES                                                                           | 205.8                         | 10.9                                       | 1.2                                       | .9                                   |
| COMMODITIES LESS FOOD AND BEVERAGES                                                   | 192.9                         | 10.9                                       | 1.5                                       | 1.0                                  |
| NONDURABLES LESS FOOD AND BEVERAGES                                                   | 195.7                         | 12.0                                       | 2.0                                       | 1.9                                  |
| DURABLES                                                                              | 189.2                         | 10.0                                       | 1.1                                       | .5                                   |
| SERVICES                                                                              | 229.5                         | 10.3                                       | 1.1                                       | 1.3                                  |
| ALL ITEMS LESS FOOD                                                                   | 203.9                         | 10.5                                       | 1.3                                       | 1.2                                  |
| ENERGY <sup>1/</sup>                                                                  | 260.8                         | 19.8                                       | 4.2                                       | 4.2                                  |
| ALL ITEMS LESS FOOD AND ENERGY                                                        | 204.1                         | 9.5                                        | .9                                        | .9                                   |

<sup>1/</sup> NOT SEASONALLY ADJUSTED.

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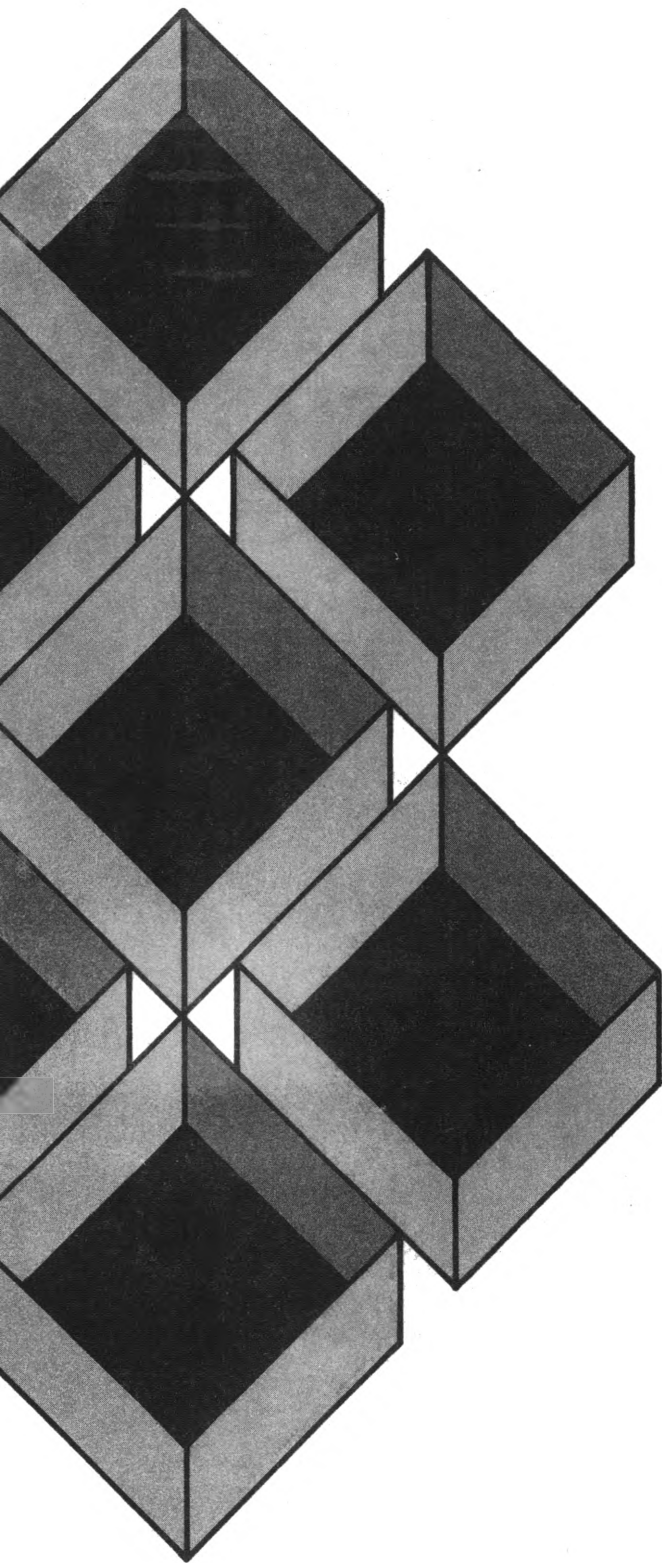
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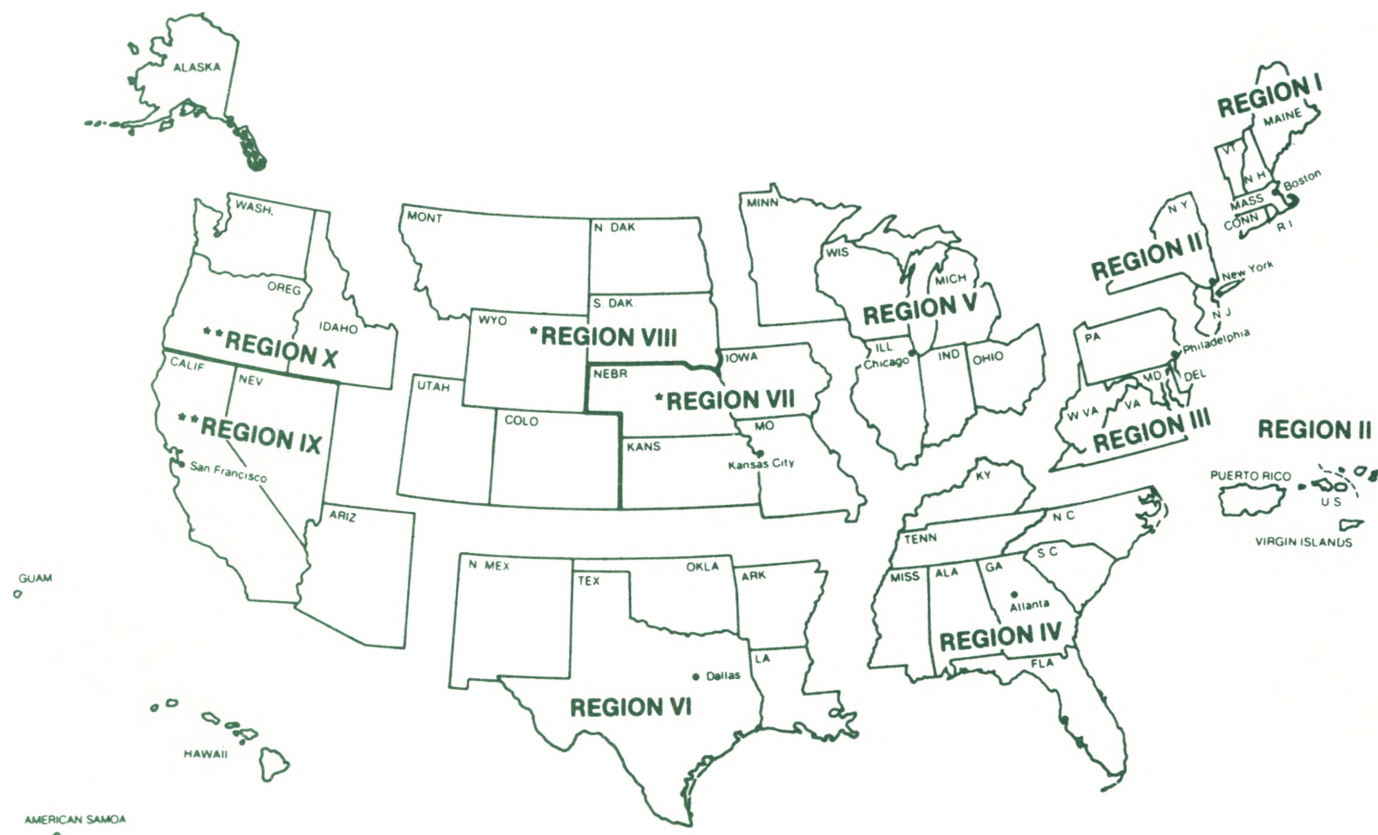
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