## $18.3!$ AREA WAGE SURVEY

## Portland, Oregon-Washington, Metropolitan Area

 May 1975Bulletin 1850-40


## Preface

This bulletin provides results of a May 1975 survey of occupational earnings in the Portland, Oregon-Washington, Standard Metropolitan Statistical Area (Clackamas, Multnomah, and Washington Counties, Oreg.; and Clark County, Washo). The survey was made as part of the Bureau of Labor Statistics' annual area wage survey program. The program is designed to yield data for individual metropolitan areas, as well as national and regional estimates for all Standard Metropolitan Statistical Areas in the United States, excluding Alaska and Hawaii.

A major consideration in the area wage survey program is the need to describe the level and movement of wages in a variety of labor markets, through the analysis of (1) the level and distribution of wages by occupation, and (2) the movement of wages by occupational category and skill level. The program develops information that may be used for many purposes, including wage and salary administration, collective bargaining, and assistance in determining plant location, Survey results also are used by the U.S. Department of Labor to make wage determinations under the Service Contract Act of 1965.

Currently, 82 areas are included in the program. (See list of areas on inside back cover.) In each area, occupational earnings data are collected annually. Information on establishment practices and supplementary wage benefits is obtained every third year.

Each year after all individual area wage surveys have been completed, two summary bulletins are issued. The first brings together data for each metropolitan area surveyed. The second summary bulletin presents national and regional estimates, projected from individual metropolitan area data.

The Portland survey was conducted by the Bureau's regional office in San Francisco, Calif., under the general direction of Milton Keenan, Associate Assistant Regional Director for Operations. The survey could not have been accomplished without the cooperation of the many firms whose wage and.salary data provided the basis for the statistical information in this bulletin. The Bureau wishes to express sincere appreciation for the cooperation received.

## Note:

Reports on occupational earnings and supplementary wage benefits in the Portland area are available for banking (September 1973) and fluid milk (October 1973); and on earnings only for selected laundry and dry cleaning (May 1975) industries. Also available are listings of union wage rates for building trades, printing trades, local-transit operating employees, local truckdrivers and helpers, and grocery store employees. Free copies of these are available from the Bureau's regional offices. (See back cover for addresses.)

## Portland, Oregon-Washington, Metropolitan Area, May 1975

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[^0] BLS Regional Offices listed on back cover. Price 75 cents. Make checks payable to Superintendent of Documents.

## Introduction

This area is 1 of 82 in which the U.S. Department of Labor's Bureau of Labor Statistics conducts surveys of occupational earnings and related benefits on an areawide basis. In this area, data were obtained by a combination of personal visit, mail questionnaire, and telephone interview. Representative establishments within six broad industry divisions were contacted: Manufacturing; transportation, communication, and other other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services. Major industry groups excluded from these studies are government operations and the construction and extractive industries. Establishments having fewer than a prescribed number of workers are omitted because of insufficient employment in the occupations studied. Separate tabulations are provided for each of the broad industry divisions which meet publication criteria.

## A-series tables

Tables A-1 through A-6 provide estimates of straight-time hourly or weekly earnings for workers in occupations common to a variety of manufacturing and nonmanufacturing industries. Occupations were selected from the following categories: (a) Office clerical, (b) professional and technical, (c) maintenance and powerplant, and (d) custodial
and material movement. In the 31 largest survey areas, tables A-la through A-6a provide similar data for establishments employing 500 workers or more.

Following the occupational wage tables is table A-7 which provides percent changes in average earnings of office clerical workers, electronic data processing workers, industrial nurses, skilled maintenance workers, and unskilled plant workers. This measure of wage trends eliminates changes in average earnings caused by employment shifts among establishments as well as turnover of establishments included in survey samples. Where possible, data are presented for all industries, manufacturing, and nonmanufacturing. Appendix A discusses this wage trend measure.

## Appendixes

This bulletin has two appendixes. Appendix A describes the methods and concepts used in the area wage survey program and provides information on the scope of the survey. Appendix B provides job descriptions used by Bureau field economists to classify workers in occupations for which straight-time earnings information is presented.

## A. Earnings

Table A-1. Weekly earnings of office workers in Portland, Oreg.-Wash., May 1975


See footnotes at end of tables.

Table A-1. Weekly earnings of office workers in Portland, Oreg.-Wash., May 1975—Continued

| Occupation and industry division | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { morker } \end{gathered}$ | Averagewekkyhounstandars | Weekly earmings ' (standand) |  |  | Number of workers receiving atraight-time weekly earnings of- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean ${ }^{\text {2 }}$ | Median 2 | Middle range ${ }^{2}$ | 8    <br> 80 <br> and <br> under 85 90 95 <br> 85 90 95 100 |  |  |  | ${ }^{5} 10$ |  |  |  |  |  |  |  |  | $5$ |  |  |  |  | $526$ |  |  | \$300 |  |
|  |  |  |  |  |  |  |  |  |  | - |  | - | - | - | - |  |  | - | - | - |  | - |  |  | - | - | and |
|  |  |  |  |  |  |  |  |  |  | 120 | 130 | 140 | 100 | 160 | 170 | 180 | 190 | 20.4 | 220 | 242 |  | 260 | 28 |  | 3.20 | 320 | over |
| ALL WORKERS-CONTINUED |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SECRETARIES--Cont inued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SECPETARIES, CLASS \% --------------- | 338 | 39.5 | 189.00 | 176.50 | 157.50-207.50 | - | - | - | - | 2 | 2 | 3 | 9 | 21 | 56 | 45 | 40 | 45 | 13 | 39 | 17 |  | 15 |  | 5 | 24 | 1 | 1 |
| MANUFACTURING ------------------- | 148 | 40.0 | 168.50 | 165.00 | 152.50-183.00 | - | - |  |  | 2 | 2 | 3 | 9 | 15 | 34 | 24 | 12 | 21 | 3 | 16 | 5 |  | 1 |  | 1 |  |  |  |
|  | 190 | 39.5 | 204.50 | 184.00 | 169.00-235.00 | - | - | - | - |  | $\underline{-}$ | - | - | 6 | 22 | 21 | 28 | 24 | 10 | 23 | 12 |  | 14 |  | 4 | 24 | 1 | 1 |
| PUALIC UTILITIES ---------------- | 49 | 40.0 | 213.00 | 284.00 | 252.50-294.30 | - | - | - | - | - | - | - | - | - | - | - | - | , | 1 | 2 | , |  | 11 |  | 4 | 24 | 1 | 1 |
| SECRETARIES, CLASS C ------------ | 659 | 39.5 | 167.50 | 160.00 | 142.06-185.00 | - | - | - | - | 7 | 18 | 56 | 72 | 90 | 86 | 95 | 50 | 37 | 37 | 36 | 24 |  | 3 n |  | 13 | 2 | - | 1 |
|  | 244 | 40.0 | 156.50 | 149.50 | 134.50-174.00 | - | - | - | - | 3 | 11 | 34 | 35 | 41 | 24 | 30 | 13 | 23 | 1 |  | 6 |  | 5 |  | \% | - | - | 1 |
| NONMANUFACTURING ---------------- | 415 | 39.0 | 173.50 | 164.50 | 145.00-195.00 | - | - | - |  | 4 | , | 22 | 37 | 40 | 02 | 65 | 37 | 14 | 27 | 29 | 23 |  | 25 |  | 11 | 2 | - | 1 |
| SECRETARIES, CLASS D ------------ | 595 | 39.3 | 155.00 | 153.00 | 136.56-170.50 | - | - | - | 9 | - | 34 | 56 | 47 | 97 | 89 | 69 | 50 | 32 | 15 | 30 | 8 |  | $?$ |  | 1 | - | - | - |
| MANUF ACTURING --------------------- | 176 | 40.0 | 158.50 | 154.50 | 136.50-172.50 | - | - | - |  | - | 4 | 19 | 32 | 24 | 21 | 24 | 20 | 11 | 2 | 11 | 5 |  | , |  | 1 | - | E |  |
|  | 419 | 39.0 | 153.00 | 152.00 | 136.50-169.00 | - | - | - | 9 | - | 30 | 37 | 55 | 13 | 08 | 45 | 46 | 21 | 13 | 19 | 1 |  | - |  | - | - | - |  |
| PUALIC UTILITIES -------------- | 63 | 40.0 | 15.00 | 155.50 | 129.50-179.50 | - | - | - |  | - | 8 | 8 | 12 | - | 4 | 2 | 14 | ? | $\cdots$ | , | 1 |  | - |  | - | - | - |  |
| STENOGRAPHERS , GENLRAL ------------- | 178 | 40.0 | 155.50 | 144.60 | 126.56-177.60 | - | - | - | - | 6 | 27 | 20 | 28 | 29 | 3 | 17 | 9 | , | + | 2 | 20 |  | 4 |  | 1 | - | - | - |
| MANUF ACTURING -------------------- | 53 | 40.0 | 157.00 | 150.60 | 140.00-167.00 | - | - |  |  | 1 | 3 | ${ }^{2}$ | 7 | 14 | 3 | 11 | \% | 1 | 3 | $?$ | 2 |  | - |  | - | - | E |  |
|  | 125 | 40.0 | 155.00 | 135.00 | 122.00-174.00 | - | - | - |  | 5 | 24 | 18 | 21 | 15 | - | 6 | 6 | 4 | 1 | , | 19 |  | 4 |  | 1 | - | - |  |
| PUALIC UTILITIES ------------- | 38 | 40.0 | 214.50 | 227.00 | 183.0し-232.54 | - | - | - | - | - | - | - | - | - | - | 2 | 6 | 4 | 1 | ? | 14 |  | 4 |  | 1 | - | - |  |
| STENOGRAPHEAS, SETIOR ---------------- | 204 | 40.0 | 174.00 | 172.50 | 151.00-193.00 | - | - | - | - | - | - | 11 | 14 | 26 | 21 | 20 | 52 | ? | 14 | 13 | 1. |  | 7 |  | ¢ | - | - | - |
| MANUF ACTURING ---------------------- | 63 | 40.0 | 170.00 | 170.00 | 150.5リJ 188.50 | - |  |  |  |  |  |  |  |  |  |  | 10 | $?$ | 11 | 5 | - |  | 7 |  | - | - | - |  |
| NONMANUFACTUHING PUHLIC UTILITIES | 141 58 | 39.5 40.0 | 176.00 196.50 | 173.00 208.00 | $153.00-195.00$ $163.50-227.50$ | - | - | - | - | - | - | 11 | $\stackrel{8}{-}$ | 16 | 15 6 | 15 | 34 6 | - | 4 4 4 | 8 | 17 |  | ? |  | - | - | - | - |
| SWITCHBIARD OPERATORS, CLASS A ---- | 68 | 40.0 | 163.50 | 155.00 | 136.50-180.00 | - | - | - | - | - | 5 | 8 | 8 | 9 | 10 | 7 | - | 5 | 3 | 9 | 1 |  | 3 |  | - | - | - | - |
| SWITCHBOARD OPERATORS. CLASS B --- | 103 | 40.0 | 136.50 | 121.00 | 106.00-152.00 | - | - | 3 | 1 | 28 | 17 | 10 | 1 | 9 | 11 | 5 | ? | - | 4 | 12 |  |  | - |  | - | - | - | - |
| NONMANUFACTURING ---------------- | 83 | 40.0 | 142.00 | 144.50 | 106.00-164.50 | - | - | 3 | 1 | 28 | 2 | 6 | - | 9 | 11 | 5 | 2 | - | 4 | 12 | - |  | - |  | - | - | - | - |
| SWITCHBOARD OPERATOR-RECEPTIUNISTS- | 337 | 40.0 | 134.00 | 132.50 | 115.00-144.00 | - | - | - | 9 | 51 | 47 | 57 | 59 | 45 | 14 | 20 | d | 5 | 4 | 19 | 2 |  | - |  | - | - | - | - |
| MANUFACTURING F----------------------------- | 98 | 40.0 | 139.50 | 139.00 | 121.00-147.50 | - | - | - | - | 10 | 5 | 24 | 19 | 20 | 1 | 12 | 1 | 1 | 1 | $?$ | 2 |  | - |  | - | - | - |  |
| NONMANUFACTURING ------------------ | 239 | 40.0 | 132.00 | 126.50 | 110.00-144.00 | - | - | - | 9 | 41 | 42 | 33 | 40 | 25 | 18 | 8 | 7 | 5 | 3 | R | - |  | - |  | - | - | - |  |
| TRANSCRIEING-MACHINE OPERATURS, <br> GENERAL | 64 | 39.0 | 146.00 | 133.50 | 113.50-177.00 | - | - | - | 4 | 5 | 19 | 3 | 2 | 7 | - | 4 | 15 | - | - | ${ }^{8}$ | - |  | , |  | - | - | - | - |
| NONMANUF ACTURING ----------------- | 56 | 39.0 | 150.50 | 146.00 | 115.00-177.00 | - | - | - | 4 | 3 | 14 | 2 | 2 | 7 | - | 4 | 10 | - | - | ${ }_{8}$ | - |  | ? |  | - | - | - | - |
|  | 187 | 40.0 | 140.00 | 132.50 | 127.50-138.50 | - | - | - | - | 8 | 17 | 30 | 86 | 12 | 5 | 10 | - | 6 | 2 | 7 | 1 |  | 3 |  | - | - | - |  |
|  | 80 107 | 40.0 | 129.00 | 126.50 | 118.50-133.50 | - | - | - | - | 8 | 16 | 26 | 16 | 10 | 1 | 1 | - | 1 | - | - |  |  | - |  | - | - | - |  |
|  | 107 | 39.5 | 148.00 | 139.00 | 132.50-15v.00 | - | - | - | - | - | 1 | 4 | 70 | 2 | 4 | 9 | - | 5 | 2 | 7 | - |  | 3 |  | - | - | - |  |
|  | 442 | 38.5 | 113.00 | \$11.00 | 99.00-120.00 | - | - | 53 |  | 100 | 116 | 59 | 22 | 5 | 5 | 1 | 5 | 11 | - | 2 |  |  | - |  | - | - | - |  |
| MANUFACTURING --------------------- | 59 | 40.0 | 118.00 | 115.00 | 104.50-127.00 | - | - |  | 5 | 15 | 20 | 7 | 7 | 2 | 1 | - | 1 | 1 | - | - |  |  | - |  | - | - | - |  |
| NONMANUFACTURING ----------------- | 383 | 38.5 | 112.50 | 109.50 | 98.50-11d.00 |  | - | 53 | 58 | 85 | 96 | 52 | 15 | 3 | 4 | 1 | 4 | 16 | - | 2 | - |  | - |  | - | - | - | - |

See footnotes at end of tables

Table A-1a. Weekly earnings of office workers-large establishments in Portland, Oreg.-Wash., May 1975


[^1]Table A-1a. Weekly earnings of office workers-large establishments in Portland, Oreg.-Wash., May 1975—Continued

| Occupation and industry division | $\begin{aligned} & \text { Namber } \\ & \text { of } \\ & \text { worken } \end{aligned}$ | $\begin{aligned} & \text { Average } \\ & \text { we ckly } \\ & \text { hour } \\ & \text { (standard) } \end{aligned}$ | $\begin{gathered} \text { Weekly earnings } \\ \text { (standard) } \end{gathered}$ |  |  | Number of workers receiving straight-time weekly earnings of- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 59 | 100 | ${ }^{5} 105$ | $\left.\right\|_{110} ^{5}$ | ${ }^{5} 120$ | ${ }^{\$} 130$ | $5_{140}$ | ${ }^{\$ 150}$ | $160$ | ${ }_{170}$ | ${ }_{180}$ | ${ }^{\$} 190$ | $200$ | $\$ 210$ | ${ }_{5}^{520}$ | ${ }_{240}$ | ${ }^{\$ 60}$ | ${ }_{280}$ | $\$ 300$ | ${ }^{\$ 320}$ |
|  |  |  | Mean ${ }^{2}$ | Median ${ }^{2}$ | Middie range ${ }^{2}$ | $\begin{array}{lrl} \text { Under } & \text { and } \\ 8 & \text { under } \\ 95 & 100 \\ \hline \end{array}$ | 105 | 110 | $120$ | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 | $240$ | $260$ | $280$ | $300$ | $320$ | and <br> over |
| ALL WORKERS-continued | 53 | 40.0 | $\$$ | $\$$ | $\begin{gathered} \$ \\ 136.50-199.50 \end{gathered}$ |  |  |  | 5 | 5 | 7 | 5 | 8 | 3 | - | 5 | 3 | - | 9 | 1 | 2 | - | - | - |  |
| SWITCHEOARD OPERATORS, CLASS A - |  |  |  |  |  | - - - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TYPISTS. CLASS A manuf acturing | $\begin{aligned} & 74 \\ & 64 \end{aligned}$ | 40.0 40.0 | 135.50 127.00 | 126.50 125.00 | $\begin{aligned} & 117.50-136.00 \\ & 117.00-131.50 \end{aligned}$ | - $=$ | - | ${ }_{8}^{8}$ | 15 14 | 25 25 | 10 10 | 3 3 | 1 | 1 | - | 1 | 2 | 7 | $=$ | 1 | $=$ | - | - | Z |  |
| FYPISTS, CLASS E MANUFACTURING | $\begin{array}{r} 136 \\ 50 \end{array}$ | 39.9 40.0 | $\left\|\begin{array}{l} 120.00 \\ 119.00 \end{array}\right\|$ | $\begin{aligned} & 112.50 \\ & 115.00 \end{aligned}$ | $\begin{aligned} & 106.00-127.00 \\ & 106.00-126.30 \end{aligned}$ | $=\quad 2$ $=\quad 2$ | 119 | 28 | 46 | 16 | 17 4 | 3 2 | 5 1 | $\underline{1}$ | 1 | 1 | - | 1 | 1 | - | - | - | - | - | - |

See footrotes at end of tables.

Table A-2. Weekly earnings of professional and technical workers in Portland, Oreg.-Wash., May 1975


* Workers were distributed as follows: 1 at $\$ 110$ to $\$ 120$; and 12 at $\$ 120$ to $\$ 130$.

See footnotes at end of tables.

Table A-2a. Weekly earnings of professional and technical workers-large establishments in Portland, Oreg. - Wash., May 1975


[^2]Tahle A-3. Average weekly earnings of office, professional, and technical workers, by sex,

## in Portland, Oreg.-Wash., May 1975

| Sex, occupation, and induatry diviaion | $\begin{aligned} & \text { Numbar } \\ & \text { of } \\ & \text { voteren } \end{aligned}$ | $\begin{aligned} & \text { Average } \\ & \left(\text { meap }^{2}\right) \\ & \hline \end{aligned}$ |  | Sex, occupation, and industry division | $\begin{aligned} & \text { Mumber } \\ & \text { of } \\ & \text { morkeal } \end{aligned}$ | $\begin{aligned} & \text { Averife } \\ & \left(\text { mean }{ }^{2}\right) \\ & \hline \end{aligned}$ |  | Sex, occupation, and induatry diviaion | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { worken } \end{aligned}$ | $\begin{aligned} & \text { Averige } \\ & \left(\text { mate }{ }^{2}\right) \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\|\begin{array}{c} \text { Weackly } \\ \text { boun } \\ \text { Inemaders) } \end{array}\right\|$ | Weakly, swning (racomerd $)$ |  |  | $\left\lvert\, \begin{gathered} \text { Werkly } \\ \text { hound } \\ \text { Crtanderd) } \end{gathered}\right.$ |  |  |  | $\left.\begin{gathered} \text { Weakly } \\ \text { hound } \\ \text { hatadent) } \end{gathered} \right\rvert\,$ |  |
| OfFICE OCCUPATIONS - MEN |  |  |  | office occupations -WOMEN--CONTINUED |  |  |  | office occupations -hOMEN-CONTINUED |  |  |  |
| CLERKS, ACCOUNTING, CLASS A ------- | 100 | 40.0 | 206.50 |  |  |  |  |  |  |  |  |
|  |  | 40.0 | 218.50 | KEYPUNCH OPERATORS, CLASS a | 281 | 40.0 | 139.50 | transcriaing-machine operators, |  |  | \$ |
|  |  |  |  | MANUFACTURING | 104 | 40.0 | 144.50 | GENERAL ---------- | 63 | 39.0 | 145.08 |
| CLERKS, ACCOUNTING, CLASS B ------nONMANUFACTURING | $\begin{aligned} & 56 \\ & 50 \end{aligned}$ | $40.0$ | 163.00 | NONMANUFACTUKIN | 177 | 40.0 | 136.50 | NONMANUFACTUHIN | 55 | 39.0 | 149.50 |
|  |  |  |  | IC |  |  |  | TYPISTS, CLASS a | 107 | 40.0 |  |
| CLERKS, ORDER | 136 | 40.0 | 190.50 | MESSENGERS | 89 | 39.5 | 105.00 | MANUFACTURING | 80 | 40.0 | 140.00 129.00 |
|  | 102 | 40.0 | 190.00 | NONMANUFACTURING | 58 | 39.0 | 103.50 | NONMANUFACTURING | 107 | 39.5 | 14 PrOO |
|  |  |  |  | SECRETARIES --- | 1,734 | 39.5 | 169.00 | TYPISTS, CLASS a | 440. | 38.6 | 113.50 |
|  |  |  |  | MANUFACTUEING | 636 | 40.0 | 162.50 | manufacturing | b9 | 40.0 | 118.00 |
| OFFICE OCCUPATIONS - WOMEN |  |  |  | NONMANUFACTURING | 1,098 | 39.0 | 172.50 | NONMA: UFFACTURING | 361 | 38.5 | 112.56 |
|  |  |  |  |  | 198 | $40.0$ | 218.50 161.50 | professional and technical |  |  |  |
| Billers. machine (billing |  |  |  |  |  |  |  | occupations - men |  |  |  |
| MACHINE) ----------------- | 60 | 40.0 | 131.00 | SECRETARIES, CLASS A | 127 | 39.5 | 192.00 |  |  |  |  |
|  |  |  |  | MANUFACTURING | 55 | 40.0 | 164.50 | COMPUTER OPERATORS, CLASS A ------- | 82 | 40.0 | 234.50 |
| BOOKKEEPING-MACHINE OPERATURS. <br>  | 01 | 40.0 | 135.50 | NONMANUFACTURING ---------------0 | 12 | 39.0 | 198.00 | OMPUTER OPERATORS, CLASS | 140 | 39.5 | 184.50 |
|  |  |  |  | SECRETAKIES, CLASS A | 334 | 39.5 | 187.50 | NONMANUF ACTUAING ---------------- | 95 | 39.5 | 186.50 |
| CLERKS, ACCOUNTING, CLASS A | 662 | 39.5 | 178.00 |  | 148 | 40.0 | 168.50 |  |  |  |  |
| MAPUUFACTURING -------------------- | 182 | 39.5 | 168.00 | NONMANUFACTURING | 186 | 39.5 | 203.00 | COMPUTER PROGRAMMERS, |  |  |  |
| NONMANUFACTURING ------------------ | 480 | 39.5 | 182.00 | PUBLIC UTILITIES ------------- | 47 | 40.0 | 270.00 | BUSINESS. CLASS A | 123 | 39.5 | 256.00 |
|  | 80 | 40.0 | 162.50 |  |  |  |  | MANUFACTURING - |  | 40.0 | 244.50 |
|  |  |  |  | SECRETARIES: CLASS C | 656 | 39.5 | 166.50 | NONHANUF ACTURING | 70 | 39.5 | 264.50 |
|  |  | $40.0$ | 132.00 | MANUFACTURING -- | 244 | 40.0 | 158.50 |  |  |  |  |
| NONMANUFACTURING | 926 | 40.0 | 144.00 | nonmanuracturing | 412 | 39.0 | 173.06 | COMPUTER PROGRAMMERS, |  |  |  |
| PUHLIC UTILITIES ---------*--- | 134 | 40.0 | 193.50 | SECRETARIES, CLASS | 595 | 39.0 |  |  | 87 68 | 39.0 34.5 | 22.5 .50 230.00 |
| RETAIL TRADE ------------------ | 472 | 40.0 | 137.00 |  | 176 | 40.0 | 158.50 | NONHANOFACTURI |  |  | 2300 |
|  |  |  |  |  | 419 | 39.0 | 153.00 | Computer srstems analysts. |  |  |  |
| CLERKS, FILE, CLASS B ---*-----*-*- | 186 | 39.0 | 123.50 | PUPLIC UTILITIES -------*----- | 63 | 40.0 | 158.00 | BUSINESS. CLASS A ----... | 05 | 39.5 | 335.00 |
| NONMANUFACTURING | 175 | 39.0 | 123.50 |  |  |  |  |  |  |  |  |
|  |  |  |  | STENOGRAPHERS, GENERAL ------------* | 177 | 40.0 | 155.00 | COMPUTER SYSTEMS AnALYSTS, |  |  |  |
| CLERKS, FILE, CLASS C --------------- | 125 | 39.0 | 97.50 | MANUFACTURING | 53 | 40.0 | 157.00 | BUSINESS. CLASS A | 67 | 39.5 | 294.54 |
| NONMANUFACTURING | 111 | 39.0 | 97.50 |  | 124 | 40.0 | 154.00 |  |  |  |  |
|  |  |  |  | PUBLIC UTILITIES | 37 | 40.0 | 213.00 |  | 168 | 40.0 | 225.00 |
| CLERKS, ORDER ----------------------- | 301 | 46.0 | 159.50 |  |  |  |  | manuf acturing | 97 | 40.0 | 224.00 |
|  | 97 | 40.0 | 154.50 | STENOGRAPHERS, SENIOR -------------- | 204 | 40.0 | 174.00 |  |  |  |  |
| NONMANUFACTURING ---------------* | 204 | 40.0 | 102.00 |  | 63 | 40.0 | 170.00 |  | 273 | 40.0 | 206.00 |
|  |  |  |  | NONMANUFACTURING -- | 141 | 39.5 | 176.00 |  | 158 | 40.0 | 235.50 |
| CLERKS, PAYROLL --------------------- | 207 | 40.0 | 106.00 | PUALIC UTILITIES ------------* | 58 | 40.0 | 196.50 | NONMANUFACTUKING | 115 | 40.0 | 206.50 |
|  | 125 | 40.0 | 154.07 |  |  |  |  | PUBLIC UTILIties | 35 | 40.0 | 253.50 |
|  | 142 58 | 40.0 | 177.00 | SWITCHBOPRO OPERATORS, CLASS A ---- | 68 | 40.0 | 163.50 |  |  |  |  |
|  | 58 | 40.0 | 204.50 |  |  |  |  |  | 101 | 40.0 | 151.50 |
| KEYPUNCH OPEGATURS, CLASS A ------* | 439 | 39.5 | 158.00 | SWITCHBOARD OPERATORS, CLASS ${ }_{\text {S }}$ | 103 83 | 40.0 | 136.50 |  |  |  |  |
|  | 104 | 40.0 | 133.00 | Nonmanuracturing |  | 40.0 | 142.00 | OCCUPATIUNS - WOMEI |  |  |  |
|  | 335 | 39.5 | 165.50 | SWITCHBOARO OPERATOR-RECEPTICINISTS- | 337 | 40.0 | 134.00 |  |  |  |  |
| PUALIC UTILITIES | 74 | 40.0 | 217.00 |  | 98 | 40.0 | 139.50 | COMPUTER OPERATORS, CLASS b ------- | 78 | 39.5 | 174.00 |
| RETAIL TRADE ------------------ | 61 | 40.0 | 172.50 | NONMANUF ACTUR!NG ----------------- | 239 | 40.0 | 132.00 | NONMANUFACTURING ---------------- | 62 | 39.5 | 176.50 |

NOTE: Earnings data in table A-3 relate only to workers whose sex identification was provided by the establishment. Earnings data in tables A-1 and A-2, on the other hand, relate
NOTE: Earnings data in table A-3 reate only to workers whese sex
to all workers in an occupation. (See appendix A for publication criteria.)
See footnotes at end of tables.

Table A-3a. Average weekly earnings of office, professional, and technical workers, by sex-large establishments in Portland, Oreg.-Wash., May 1975

| Sex, occupation, and induatry division | $\left\lvert\, \begin{aligned} & \text { Number } \\ & \text { ot } \\ & \text { wothen } \end{aligned}\right.$ | $\begin{aligned} & \text { A varaga } \\ & \left(\text { mana }{ }^{\text {a }}\right) \\ & \hline \end{aligned}$ |  | Sex, occupation, and industry division | $\begin{gathered} \text { Murcher } \\ \text { ob } \\ \text { wosken } \end{gathered}$ | $\begin{aligned} & \text { Avarge } \\ & \text { (mend }{ }^{2} \\ & \hline \end{aligned}$ |  | Sex, oceupation, and industry diviaion | $\begin{aligned} & \text { Number } \\ & \text { ob } \\ & \text { mortien } \end{aligned}$ | $\begin{aligned} & \text { Averag } \\ & (\text { meen } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\left\|\begin{array}{c} \text { Wockly } \\ \text { hound } \\ \text { (trioderd } \end{array}\right\|$ |  |  |  | $\left\|\begin{array}{c} \text { We cekly } \\ \text { hour } \\ \text { (thendard) } \end{array}\right\|$ |  |
| OfFice occupations - wamen |  |  |  | OFFICE OCCUPATIONS -WOMEN-CONT INUED |  |  |  | OFFICE OCCUPATIONS -WOMEN--CONTINUED |  |  |  |
| CLERKS, ACCOUNTING, CLASS A ---.--- | 232 | 40.0 | 205.00 |  |  |  |  |  |  |  |  |
|  | 95 | 40.0 | 157.50 | SECRETARIES <br> MANUFACTURING | $\begin{aligned} & 837 \\ & 448 \end{aligned}$ | $\begin{aligned} & 40: 0 \\ & 40: 0 \end{aligned}$ | $\begin{aligned} & 179.50 \\ & 165.00 \end{aligned}$ |  mANUFACTURING | 74 | $\begin{aligned} & 40.0 \\ & 40.0 \end{aligned}$ | $\begin{aligned} & 135.50 \\ & 127.00 \end{aligned}$ |
| CLERKS, ACCOUNTING, CLASS O -------- | 431 | 40.0 | 163.50 |  | 389 | 39.5 | 196.00 |  |  |  |  |
| MANUF ACTURING --------------------- | 107 | 40.0 | 134.00 | RETAIL TRADE ----------------- | 65 | 40.0 | 184.50 | TYPISTS, CLASS a -------------------3 | 138 | 39.0 | 120.00 |
|  | 324 | 40.0 | 173.00 |  |  |  |  | MANUFACTURING -------------------* | 50 | 40.0 | 119.00 |
|  | 117 | 40.0 | 202.00 | SECRETARIES, CLASS - ------------* | 186 | 40.0 | 196.00 |  |  |  |  |
|  | 152 | 40.0 | 163.00 | NONMANUFACTURING ----------------- <br> PU日LIC UTILITIES $-\infty-\infty-\infty$ | $\begin{aligned} & 80 \\ & 47 \end{aligned}$ | $\begin{gathered} 40.0 \\ 40.0 \end{gathered}$ | $\left\|\begin{array}{l} 237.00 \\ 270.00 \end{array}\right\|$ |  |  |  |  |
| CLERKS, FILE, CLASS B --------------- | 79 | 40.0 | 135.50 |  |  |  |  | PROFESSIONAL AND TECHNICAL OCCUPATIONS - MEN |  |  |  |
| NONMANUFACTURING ----------------- | 71 | 40.15 | 137.03 | SECRETAFIES, CLASS C ------------- | 340 | 40.0 | 173.00 |  |  |  |  |
|  |  |  |  | MANUFACTURING | 182 | 40.0 | 157.00 | COMPUTER OPERATORS, CLASS A -------- | 66 | 40.0 | 239.50 |
| CLERKS, ORDER ---------------------- | 62 | 40.0 | 140.50 | NONMANUFACTURING --------------0-0 | 158: | 40.0 | 191.50 |  |  |  |  |
| CLERKS, PAYROLL ----------------------- | 127 | 40.0 | 178.50 | SECRETARIES, CLASS D ------------- | 242 | 39.5 | 167.50 | COMPUTER OPERATORS, CLASS | ¢ | 40. | 194.00 |
| NONMANUFACTURING ------------------ | 87 | 40.0 | 190.00 | MANUFACTURING -------------------- | 111 | 40.0 | 169.00 | COMPUTER PROGRAMMERS. |  |  |  |
| PUBLIC UTILITIES ------------- | 54 | 40.0 | 201.50 |  | 131 | 39.1 | 165.50 | BUSINESS, CLASS A | 71 | 40.0 | 245.50 |
| KEYPUNCH OPERATORS, CLASS A ------- | 281 | 40.0 | 168.50 | STENOGRAPHERS, GENERAL ------------ | 97 | 40.0 | 161.50 | COMPUTER SYSTEMS ANALYSTS. |  |  |  |
| MANUFACTURING $-7-\cdots-\cdots-{ }^{-}$ | 97 | 40.0 | 133.00 | NONMANUFACTURING | 66 | $40 \cdot 0$ | 163.00 | business, Class b | 52. | 40.0 | 306.50 |
|  | 184 | 40.6 | 187.00 | PUBLIC UTILITIES ------------- | 31 | 40.0 | 214.00 |  |  |  |  |
| PUBLIC UTILITIES -------------- | 74 | 40.0 | 217.00 | STENOGRAPHERS, SENIOR | 85 | 40.0 | 176.50 | ORAFTERS, CLASS MANUFACTURING | 66 57 | $\begin{aligned} & 40.0 \\ & 40.0 \end{aligned}$ | $\begin{aligned} & 232.00 \\ & 220.00 \end{aligned}$ |
| KEYPUNCH OPERATORS, CLASS B ------- | 119 | 40.0 | 149.00 | NONMANUF ACTURING: |  |  |  |  |  |  |  |
|  | 58 | 40.0 | 143.00 | PUBLIC UTILITIES $=---------$ | 40 | 40.0 | 189.50 | DRAF TERS, CLASS | 113 | 40.0 | 213.50 |
|  | 61 | 40.0 | 154.50 | SWITCHBOARD OPERATORS, CLASS A ---- | 53 | 40.0 | 165.50 | MANUFACTURING ---- NONMANUF ACTURING: | 80 | 40.0 | 196.00 |
| messengers | 51 | 39.5 | 105.00 |  |  |  |  | public utilities | 33. | 40.0 | 255.5u |

See footnotes at end of tables.

[^3]Table A-4. Hourly earnings of maintenance and powerplant workers in Portland, Oreg.-Wash., May 1975


See footnotes at end of tablea

Table A-4a. Hourly earnings of maintenance and powerplant workers-large establishments in Portland, Oreg.-Wash., May 1975


See footnotes at end of tables.

Table A-5. Hourly earnings of custodial and material movement workers in Portland, Oreg.-Wash., May 1975


* Workers were at $\$ 7.40$ to $\$ 7.80$.

See footnotes at end of tables

Table A-5. Hourly earnings of custodial and material movement workers in Portland, Oreg.-Wash., May 1975—Continued


* Workers were at $\$ 7.40$ to $\$ 7.80$.

See footnotes at end of tables.

Table A-5a. Hourly earnings of custodial and material movement workers-large establishments in Portland, Oreg.-Wash., May 1975


[^4]See footnotes at end of tables.

Table A-6. Average hourly earnings of maintenance, powerplant, custodial, and material movement workers, by sex, in Portland, Oreg.-Wash., May 1975

| Sex, occupation, and industry division | $\begin{gathered} \text { Number } \\ \text { worker } \end{gathered}$ |  | Sex, occupation, and industry division | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { oodken } \end{gathered}$ |  | Sex, occupation, and industry diviaion | $\left\lvert\, \begin{gathered} \text { Number } \\ \text { of } \\ \text { worken } \end{gathered}\right.$ | $\begin{array}{\|l} \text { Aversige } \\ \text { (meas } \\ \text { hoory } \\ \text { eaving } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MAINTENANCE ANO POWERPLANT OCCUPATIONS - MEN |  |  | CUSTODIAL mind material muvement OCCUPATIONS - MEA--CONTINUED |  |  | CuStodial and material mjvfment occupatinns - man--CONTINUED |  |  |
| boiler tenders | 143 | 4.93 | JANITORS, PORTERS, AND CLEANERS --- | 1,214 | 3. R2 | truckdrivers - centinued |  |  |
| MANUFACTURING | 133 | 4.90 | manuFacturing | 403 | 4.25 |  |  |  |
|  |  |  | NONMANIUFACTURING | 811 | 3.63) | TRUCKDRIVERS. MEDJUM 1f-1/2 |  | \$ |
| CARPENTFRS, MAINTENANCE | 55 | 6.48 | PUBLIC UTILITIES | 111 | 4.37 | AND INCLUDING 4 TONS) -------- | 1,017 | 6.41 |
|  |  |  | RETAIL TRADE | 254 | 3.39 | MANUFACTURING | 226 | $6.3{ }^{\circ}$ |
| ELECTRICIANS, MAINTENANCE --------- | 291 | 6.82 |  |  |  | MONMANUF ACTURING | 791 | 6.41 |
| MANUFACTURIVG ------------------- | 255 | 6.94 | LABORERS, MATERIAL HANDLING | 814 | 5.72 |  |  |  |
|  |  |  | MANUFACTURING | 423 | 5.62 | TRUCKDRIVERS, HEAVY ROVEY 4 TONS. |  |  |
| ENGINEEPS, STATIONALOY | 318 | 6.26 | NONMANUF ACTUQIN | 391 | 5.8 2 | TRAILER TYPE) ------------------- | 1,444 | 6.87 |
| MAINUF ACTURING --------------------- | 240 | 6.36 | PUBLIC UTILITIES | 175 | 6.24 | MANUFACTURING | 275 | 6. $\mathrm{HO}_{0}$ |
| NONHANUIFACTURING ------------------ | 78 | 5.98 |  |  |  | NONMANUF ACTURING: | 1.169 | 6.BE |
|  |  |  | OROER FILLERS | 1.046 | 5.48 | PUBLIC UTILITIES | 645 | 6.80 |
| MACHINE-TOOL OPFRATORS, TOULRONM -- | 51 | 5.71 | MANUFACTURING | 159 | 5.23 |  |  |  |
| MANUFACTURING --------------------- | 51 | 5.71 | NONMANUFACTURIN | 887 | 5.52 | TRUCKDRIVEPS, MEAVY COVEH 4 TONS. |  |  |
|  |  |  | RETAIL TRADE | 190 | 5.99 | OTHER THAN TPAILER TYPF) ---- | 366 | 6.67 |
| MACHINISTS, MAINTENANCE ------------ | 344 | 6.58 |  |  |  | MANUFACTURING |  | 6. 50 |
|  | 313 | 6.60 | PACKEQS, SHIPPING | 331 | 4.25 | NONMANUF ACTUPIMG | 285 | 6.71 |
|  |  |  | YANUFACTURING | 260 | 4.03 | PUBLIC UTILITIES | 265 | 5.73 |
| MECMANICS; AUTOMOTIVE |  |  |  |  |  |  |  |  |
| (MAINTENANCE) ------------------------ | 650 | 7.05 | RECEIVING CLERKS | 133 | 5.54 | TRUCKERS, POWER (FORKLIFT) -- | 976 | 5.61 |
| MANUFACTURING | 73 | 6.86 | MANUFACTURING | 66 | 5.3 n | MANUFACTURING -- | 634 | 5.17 |
| NONMANUF ACTUR1NG ----------------- | 577 | 7.07 | NONMANUF ACTURING | 117 | 5.67 | NONMANUF ACTURING | 342 | 6.43 |
| PUALIC UTILITIES ------------- | 475 | 7.09 |  |  |  |  |  |  |
| MECHANICS, MAINTENANCE ------------ | 682 | 6.38 | SHIDPING CLERKS | 148 78 | 5.65 | TRUCKEPS: POWER COTHER THAM FORKLIFT) |  |  |
| MANUFACTURING | 630 | 6.33 | NONMANUF ACTURI | 70 | 5.83 | MANUFACTURING | 135 | 5.29 |
| PIPEFITTERS, MAINTEMANCE | 81 | 6.32 | SHIPPING AND RECEIVING CLERKS ----- | 137 | 5.94 | WAREHOUSEMEN | 74.3 | 5.56 |
|  |  |  | VONMANUF ACTURING ---------------- | 93 | 6.09 | manuF acturing | 226 | 4.93 |
| TOOL AND DIE MAKERS | 133 | 6.49 |  |  |  | NONMANUF ACTURING | 517 | 5.9 d |
| MANUFACTURING | 133 | 6.49 |  | 3.653 |  | RETAIL TRADE ------------------- | 81 | 5.75 |
|  |  |  | MAAUUFACTURING --------------------- | 761 | 6.78 |  |  |  |
|  |  |  | NONMANUFACTUPING | 2,892 | 6.58 | OCCUPATLONS - WOMEN |  |  |
| CUSTODIAL ANO MATERIAL MOVEMENT |  |  | PUBLIC UTILITIES | 1.603 | 6.72 |  |  |  |
| OCCUPATIONS - MEN |  |  | retail traje | 338 | 6.13 | JANITORS, PORTERS, ${ }^{\text {a }}$ (ND CLEANERS --- | 445 | 3.73 |
|  |  |  |  |  |  | NกTMMANUFACTUR1NG -------------------- | 415 | 3.69 |
| GUARDS AND WATCHMEN ---------------0-0 | 2.168 | 2.55 | TRUCKDRIVEPS, LIGHT (UNDER |  |  | PUALIC UTILITIES | 54 | 4.22 |
| MANUFACTURING |  | 4.34 | 1-1/2 TONS) | 204 | 4.60 |  |  |  |
| NONMANUFACTURING --------------- | $2 \cdot 110$ | 2.50 | NONMANUFACTURING | 192 | 4.55 | ORDER FILLEGS | 84 | 3.98 |

See footnotes at end of tables.

Earnings data in table A-6 relate only to workers whose sex identification was provided by the establishment. Earnings data in occupation. (See appendix A for publication criteria.)

Table A-6a. Average hourly earnings of maintenance, powerplant, custodial, and material movement workers, by sex-large establishments in Portland, Oreg.-Wash., May 1975

| Sex, occupation, and industry division | $\begin{aligned} & \text { Number } \\ & \text { oh } \\ & \text { wodenem } \end{aligned}$ |  | Sex, occupation, and induntry division | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { woiken } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| maintenance ano powerplant OCCUPATIONS - MEN |  |  | custodial anu material movement decupations - men--Continuen |  |  |
| ELECTRICIANS, MAINTENANCE --------- | 200 | 7.17 |  | 322 | \$.18 |
|  | 191 | 7.23 |  | 285 | 6.42 |
| MACHINISTS, MAIHTENANCE | 158 | 7.08 |  | 395 | 6.57 |
| MaNuFACTURING | 155 | 7.08 | NONMANUF ACTURING | 353 | 6.79 |
| MECHANICS. AUTOMOTIVE (MAINTENANCE) - | 165 | 7.13 | TRUCKDRIVERS, MEOIUM $11-1 / 2$ TO <br>  | 79 | 5.36 |
|  | 143 | 7.21 |  |  |  |
|  |  |  | TRUCKORIVERS, HEAVY SOVER 4 TONS: |  |  |
| mechanics, maintenance | 311 | 6.96 |  | 209 | 7.03 |
| MANUFACTURING | 311 | 6.96 |  | 209 | 7.03 |
| custonial and material muvement |  |  | TRUCKERS, PUWER (FOKKLIFT) ---me-o- | 414 | 5.89 |
| OCCUPATIONS - MEN |  |  |  | 257 | 5.39 |
|  |  |  | NONMANUFACTURING --------------- | 157 | 6.70 |
| GUAROS ANO WATCHMEN ------------------- | 69 | 4.42 |  |  |  |
| MANUFACTUPING ---------------------- | 52 | 4.46 | warehousemen | 97 | 4.81 |
|  |  |  |  | 54 | 5.26 |
| JANITORS, PORTERS, ANU CLEINERS --- | 515 | 3.94 |  |  |  |
|  | 223 | 4.08 |  |  |  |
| NONMANUF ACTURING --------------0-0 | 292 | 3.84 | CUSTODIAL ANO MATERIAL MUVEMENT |  |  |
| PUHLIC UTILITIES ---------------- | 102 | 4.42 | OCCUPATIONS - WOME'N |  |  |
| LABORERS, MATERIAL HANOLING ------* | 145 | 5.07 |  |  |  |
| nonmanufacturing - | 96 | 5.53 | janitors, porters, anu cleaners --- | 99 | 4.02 |
| PUALIC UTILITIES -------------- | 65 | 5.52 |  | 74 | 3.92 |

See footnotes at end of tables.

> Earnings data in table A-6a relate only to workera whose sex identification was provided by the establishrnent. Earning data in tables A-aa and A-5a, on the other hand, relate to all workers in an occupation. (See appendix A.for publication criteria.)

Table A-7. Percent increases in average hourly earnings for selected occupational groups, adjusted for employment shifts, in Portland, Oreg.-Wash., for selected periods
$\left.\begin{array}{c|c|c}\begin{array}{c}\text { Industrial and occupational } \\ \text { group }\end{array} & \begin{array}{c}\text { May 1972 } \\ \text { to } \\ \text { May } 1973\end{array} & \begin{array}{c}\text { May 1973 } \\ \text { to }\end{array} \\ \text { May 1974 }\end{array}\right]$

* Data not available.
** Data do not meet publication criteria.

NOTE: The percent increases presented in this table are based on changes in average hourly earnings for establithmenta reporting the trend jobs in both the current and previous year (matched establishments). They are not affected by changes in average earnings
resulting from employment shifts among establishments or turnover of eatablishments included in survey samples. The percent increases, however, are atill affected by factors other than wage increases. Hirings, layoffa, and turnover may affect an establishment avarage for an occupation when workers are paid under plans providing a range of wage rates for individual jobs. In periods of increased hiring, for example, new employees enter at the

These wage trend are not linked to the wage indexes previously published for this area because the wage indexes measured changes in area averages whereas these wage trends measure changes in matched establishment averages. Other characteristics of these wage trends which differ from the discontinued indexes include (1) earning data of office clerical
workera and induatrial nursea are converted to an hourly basis (2) trend estimates are workers and induatrial nuraes are converted to an hourly basis, (2) trend estimates are provided for electronic data processing jobs. For a more detailed description of the method used to compute the ae wage trenda, see
"Improving Area Wage Survey Indexes," Monthly Labor Review. January 1973, Pp. 52-57.

## Footnotes

 to these weekly hours.


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## Appendix A

Area wage and related benefita data are obtained by personal visits of Bureau field represent atives at ${ }^{3}$-year intervals. In each of the intervening years, information on employment and
occupational earninge ia collected by a combination of personal visit; mail questionnaire, and telephone interview fromestablishments participating in the previous survey.

In each of the $82^{2}$ areas currently surveyed, data are obtained from representative estab-
Manufacturing; transportation, communication, and othar lishmenta within six braad industry divisions: Manufacturing; transportation, communication, and othar industry groups excluded from these atudiea are government operations and the construction and extractive induatries. Establehment having ewer because of inaufficient employment in the occupation atudied. Sepa
each of the broud induatry divisiona which méet publication criteria.

These surveya are conducted on a ample basia. The sampling procedurea involve detailed stratification of all eatablishments within the acope of an individual area survey by industry and number
of employes. From this atratified universe a probability sample is selected, with each eatablishment having a predetermined chance of aelection. To obtain optimum accuracy at minimum coat, a greater proportion of large than emall establighments is selected. When data are combined, each eatablishment is weighted according to its probability of aelection, so that unbiased estimates are generated. For plus three others. An alternate of the same original probability is chosen in the same induatry-sizi classification if data are not available for the original sample member. If no suttable subatitute i available, additional weight is assigned to a sample mernber that is similar to the misaing unit.

## Occupations and Earninge

Occupationa selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (1) Office clerical; (2) professional and technical; (3) maintenance and powerplant; and (4) custodial and material movernent. Occupational clansification is in duties within the ame job. Occupations selected for atudy are liated and deacribed in appendix B. Unlest otherwise indicated, the earnings data following the job titles are for all industries combined. Earnings data for some of the occupationa listed and described, or for some industry divisions within occupations, are not presented in the A-aeries tables, because either (1) employment in the occupation is too mall to provide enough data to mertt presentation, or (2) there is posaibility of diaclosure of individual eatablishment data, Separate men's and women's earnings data are not presented when the
number of workers not identified by sex is 20 percent or more of the men or women identified in an occupation. Earninga data not ahown separately for industry diviaions are included in all induatries combined data, where shown. Likewise, data are included in the overall classification when a aubclassification of electronics technicians, secretaries, or truckdrivers is not shown or information to subclassify is not available.

Occupational employment and earninga data are shown for full-time workers, i.e., those hired to work a regular weekly achedule. Earning data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Nonproduction bonuses are excluded, but cost-of-living allowancee and incentive bonuses are included. Weekly hours for office clerical and profesaional and technical receive regular atraight-time salaries (excluaive of pay for overtime at regular and/or premium rates). Average weekly earnings for these occupationa are rounded to the nearest half dollar.

Theae surveys measure the level of occupational earninge in an area a particular time Comparisona of individual occupational averages over time may not reflect expected wage changea The averages for individual jobs are affected by changes in wages and employment patterna. For example, proportions of workers employed by high- or low-wage firms may change, or high-wage workers may adyance to better jobs and be replaced by new workers at lower rates. Such ehift in employment could decrease an occupational average even though most eatablishmonta in an area are better indicators of wage trends than individual jobs within the groupa.

Penonal vinim were on a 2 -year cycle before July 1972




Average earning reflect compoatte, areawide eatimates. Induatries and eatablishments differ in pay level and job staffing, and thus contribute differently to the estimates for each job. Pay

Average pay levele for men and women in elected oscupations should not be asoumed to reflect differences in pay of the sexes within individual establishments. Factors which may contribute to differences include progression within established rate ranges, since only the rates paid incumbent a are collected, and performance of specific duties within the general survey job descriptions. Job description uned to clansify employees in these survey ubually are more generalized than those uaed in individual establishments and allow for minor differences among establishments in specific duties performed.

Occupational employment entimates represent the total in all eatablishments within the scope of the study and not the number actually surveyed. Because occupational atructures among establisherve only to indicate the relative importance of the jobs studied. These differences in occupational structure do not affect materially the accuracy of the earnings data
Wage trends for selected occupational groupa
The percents of change in table A-7 relate to wage changes between the indicated dates, An 12 months Annual increased at a constant rate between suryeys. Occupationa used to compute wage trends are:

| Office clerical (men and women): | Electronic data processing (men |
| :---: | :---: |
| Bookkeoping-machine operators, clasa B | and women)-Continued |
|  | Computer syatems analysts, classes A, |
| Clerks, accounting, classes $A$ and $B$ Clerks, file, clasвes A, B, and C | $B$, and C |
| Clerks, order | Industrial nursea (men and women): |
| Clerka, payroll |  |
| Keypunch operators, classea A and B | Nurses, industrial (registered) |
| Messengers | Skilled maintenance (men): |
| Steretarieg |  |
| Stenographers, genior | Carpenters <br> Electricians |
| Switchboard operators, classes A and B | Machinists |
| Tabulating-machine operator, | Mechanice |
| class B | Mechanica (automotive) |
| Typiata, clanses A and B | Painters |
| Electronic data procepsing | Pipefitters |
| (men and women): | Tool and die makers |
| Computer operators, claseas $\mathrm{A}, \mathrm{B}$, and C | Unskilled plant (men): |
| Computer programmer*, clanee $A, B$, and $C$ | Janitors, porters, and cleaners Laborers, material handling |

Percent changes for individual areas in the program are computed as followanding

## group erage (mean)

 ang. ormuliphed by weight. The product are totaled to obtain a group average for the 3. The ratio of group averages for 2 consecutive years is computed by dividing the average is the current change.Establishment practices and supplementary ware provisions
Tabulations on selected establishment practices and supplementary wage provisions (B-series tables) are not presented in this bulletin. Information for these tabulations is collected at 3 -year intervals. 'These tabulations on minimum entrance salaries for inexperienced office workers; shif differentials; scheduled weekly hours and days; paid holidays; paid vacations; and health, insurance, and
pension plans are presented (in the B-series tables) in previous bulletins for this area.

Establishments and workers within scope of survey and number studied in Portland, Oreg.-Wash., ' May 1975

${ }^{1}$ The Portland Standard Metropolitan Statiatical Area, as defined by the Office of Management and Budget through February 1974, consists of Clackamas, Multnomah, and Washington Countiea, Oreg.: and Clark County. Wash. The 'workers within acope of atudy' estimates shown in this
table provide a reasonably accurate description of the size and composition of the labor force included in the survey. Estimates are not Intended however for comparison with other employment indexes to measure employment trends or levels since (1) planning of wage surveys require establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the aurvey.
${ }_{3}^{2}$ The 1967 edition of the Standard Industrial Classification Manual was ued in claseifying establishments by industry division.
Includes all establishments with total employment at or above the minimum limitation. All outlets (within the area) of companies in industries such as trade, finance, auto repair aervice, and motion picture theaters are conidered as 1 establishment.

5 Includes all workers in all establishments with total employment (within the area) at or above the minimum limitation. tranalt syatem is publicly owned and is excluded by definition from the scope of the study.
This division is represented in estimates for "all industriss" and "nonmanufacturing" in the A-series tables. Separate presentation of data is not made for one or more of the following reasons: (1) Employment is too amall to provide enough data to merit separate study, (2) the sample is posilhility of disclosure of individual estabishment data 7 Hotels and motels; laundries and other personal

## Appendix B. Occupational Descriptions

The primary purpose of preparing job descriptionafor the Bureaula wage surveys is to asaist ita field staff in classifying into appropriate
occupationa workera who are employed under a variety of payroll titlea and different work arrangementa from eatablishment to eatabliahment and
from area to area. This permita the grouping of occupational wage rates representing comparable job content. Because of this emphasis on
interestablishment and interarea comparabli'y of occupational content, the Bureau's job descriptiona may differ aignificantly from those in use in
$\begin{aligned} & \text { individual establishments or those prepared for other purposes. Ln aplying these job deacriptiona, the bureaus field economiate are instructed } \\ & \text { to exclude working supervisors; apprentices; learners; beginners; trainees; and handicapped, part-time, temporary, and probationary workers. }\end{aligned}$

## OFFICE

## ILLER, MACHINE

Prepares atatements, billa, and invoices on a machine other than an ordinary or electromatic ypewriter. May ala keep recorda as to billings or shipping charges or perform other clerical work incidental to billing operations. For wage study purposes, billers, machine, are classified by type of machine, as follows:

Biller, machine (billing machine). Uses a apecial billing machine (combination typing and dding machine) to prepare bills and invoices from customers' purchase orders, internally prepared shipping charges and entry of necessary extensions, which may or may not be computed on the billing machine, and totala which are automatically accumulated by machine. The operation usually involves a arge number of carbon copies of the bill being prepared and is often done on a fanfold machine.

Billex, machine (bookkeeping machine). Uses a bookkeeping machine (with or without a typewriter keyboard) to prepare cuatomers' bills as part of the accounts receivable operation autornatically accumulates figuneous entry of figures on customers' ledger record. The machin automatically the debiter crigures on a number of vertical columns and computes and usually print uniform and standard types of sales and credit slips.

## BOOKKEEPING-MACHINE OPERATOR

Operates a bookkeeping machine (with or without a typewriter keyboard) to keep a record of

Class A. Keeps a aet of records requiring a knowledge of and experience in basic bookkeeping pinciples, and familiarity with the structure of the particular accounting ayatem used. Determine roper recorde and distribution of debit and credit items ta be used in each phase of the work. May prepare consolidated reports, balance sheets, and other records by hand

Class B. Keeps a record of one or more phases or sections of a set of records uaually equiring little knowledge of basic bookkeeping. Phases or sections include accounts payable, payroll customers' accounts (not including a simple type of billing described under biller, machine), cost diat ribution, expense distribution, inventory control, etc. May check or assiat in preparation of trial
balances and prepare control aheeta for the accounting department.

CLERKS, ACGOUNTING
Performs one or more accounting clerical tasks auch as posting to registers and ledgers reconciling bank accounts; verifying the internal consistency, completesess, and mathematical accuracy of accounting documents; asaigning prescribed accounting distribution codes; examining and verifying for clerical accuracy various types of reports, lists, calculations, posting, etc.; or preparing simple or counting prepar

The work requires a knowledge of clerical methods and office practices and procedures which relates to the clerical processing and recording of transactions and accounting information. With experience, the worker typically becomes familiar with the bookkeeping and accounting terms and procedures used in the assigned work, but is not required to have a knowledge of the formal principles of bookkeeping and accounting.

Positions are clasaified into levels on the basis of the following definitions
Clasa A. Under general supervision, performs accounting clerical operations which requir the application of experience and judgment, for example, clerically processing complicated or nonrepetitive accounting transactions, selecting among a substantial variety of prescribed accounting codes and classifications, or tracing transactions though previous accounting actions to determin acur

Class B. Under close superviaion, following detailed inatructions and standardized procedures perform one or more routine accounting clerical operations, such as posting to ledgers, cards, of worksheets where identification of items and locations of postings are clearly indicated; checkin accuracy and completeness of atandardized and repetitive records or accounting documents; and codin cocments using few prescribed accounting codes.

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

Class. A. Classifies and indexes file material such as correspondence, reports, technical ocumento etc., in an established filing system containing nomber of variect subject mate May also file this material. May keep records of various types in conjunction with the files. May

Listed below are revised occupational titles introduced this year to eliminate sex
stereotypes:

Revised title
Former title
Drafter
Drafter-tracer
Draftsman

- Draftaman-tracer


## GLERKS, FILE-Continued

Clans B. Sorta, codes, and files unclassified material by simple (subject matter) headings or partly clasified material by finer subheadinga. Prepares aimple related index and crosa-reference aids. As requested, locates clearly identified material in files and forwards material. May perform related clerical taske required to maintain and service files.

Class C. Performs routine filing of material that has already been classified or which is asily clasified in a simple serial clasaification astem (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; and may ill out withdrawal charge. May perform aimple clerical and manual taka required to maintain and service files.

CLERK, ORDER
Receives customers' orders for material or merchandise by mail, phone, or personally. Duties involve any combination of the following: Quoting prices to cuatomera; making out an order sheet listing the itema to make up the order; checking prices and quantities of items on order sheet; and distributing order sheets to respective departments to be filled. May check with credit department ordera to see that they have been filled, keep file of orders received, and check ahipping invoices with original orders

## clerk, payroll

Computes wages of company employefes and enters the necessary data on the payroll sheets. Dutien involve: Calculating workers' earnings based on time or production records; and posting ate, deductions for insurance, and total wages due. May make out paychecks and assist paymaster in making up and distributing pay envelopes. May use a calculating machine KEYPUNGH OPERATOR

Operates a keypunch machine to record or verify alphabetic and/or numeric data on tabulating carda or on tape.

Positions are classified into levela on the basis of the following definitions,
Clasa A. 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 keypunched from a variety of source documenth.

Glaga B. Wark 1a routine and repetitive. Under close apervision or following apecific procedures or instructions, works from various standardized source documenta which have beon coded, coding, or interpreting of data to be recorded. Refers to supervisor problems arising from erroneous items or codes or misaing information
MESSENGER
Performs varioua routine duties auch an running errands, operating minor office machines uch at aealers or mailert, opening and diatributing mail, and ocher minor clerical work. Exclude positiona that require operation of motor vehicle a aignificant duty. segretary

Assigned as personal secretary, normally to one individual. Maintaina a close and highly responsive relationahip to the day-today work of the supervisor. Works fairly independently
receiving a minimum of detailed aupervision and guidance. Performa varied clerical and secretarial duties, uaually including moat of the following:
a. Receives telephone calls, personal callers, and incoming mail, answera routine inquirea
b. Establishes, maintains, and revises the supervisor's files;
. Maintains the supervisor's calendar and makes appointments as instructed;
d. Relays messagea from aupervisor to subordinates;
e. Review correspondence, memorandums, and reports prepared by others for the super ignature to asmure procedural and typographic accuracy:
f. Performs stenographic and typing work. May also perform other clerical and secretarial taks of comparable nature and difficulty. and procedures related to the work of the supervisor.

SECRETARY-Continued

## Exclusions

Not all positions that are titled "secretary" poesess the above characteristica. Examples of Not all positions that are titled "secretary" poesess the
positions which are excluded from the definition are as follows
a. Positions which do not meet the "personal" eecretary 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 persona
d. Secretary positions in which the dutics are either substantially more routine or aubstantially more complex and responsible than those characterized in the definition;
e. Assiatant type positions which involve more difficult or more responsible technical, administrative, supervisory, or specialized clerical duties which are not typical of gecretarial work.

NOTE: The term "corporate officer," used in the level definitions following, refers to those officials who have a significant corporate-wide 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 tranactions (e.g., approve or deny individual loan or credit actions; administer individual rust accounts; dires (eiguperion purposes of applying the following level definitions.

## Class A

1. 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
2. Secretary to a corporate officer (other than the chairman of the board or president) of company that employs, in all, over 5,000 but fewer than 25 , 000 persons; or
3. 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.

## Class B

1. Secretary to the chairman of the board or president of a company that employs, in all, fewer than 100 persons; or
2. Secretary to a corporate officer (other than the chairman of the board or president) of a company that employs, in all, over 100 but fewer than 5,000 persons; or
3. Secretary to the head, immediately below the officer level, over either a major corporatewide functional activity (e.g., marketing, research, operations, industrial relations, etc.) or a major geographic or organizational aegment (e.g., a regional headquarters; a major division) of a company that employs, in all، over 5,000 but fewer than 25,000 employees; or
4. 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
5. Secretary to the head of a large and important organizational segment (e.g., a middle management eupervisor of an organizational segment often involving as many as several hundred persons) or a company that employs, in all, over 25,000 persona.

## Glasa C

1. Secretary to an executive or managerial person whose responsibility is not equivalent to one of the specific level situations in the definition for class $B$, 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 sorne companies, this level includes a wide range of organizational echelons; in others, only one or two; or
2. Secretary to the head of an individual plant, factory, etc. (or other equivalent level of official) that employs, in all, fewer than 5, 000 persong.

## Class D

1. Secretary to the supervisor or head of a emall organizational unit (e.g., fewer than about 25 or 30 persons); or
2. Secretary to a nonsupervisory staff specialist, professional employee, administrative officer, or assistant, skilled technician or expert. (NOTE: Many companies assign stenographera, $r$ ather than secretaries as described above, to this level of supervisory or nonsupervisory worker.)

Primary duty is to take dictation using shorthand, and to transcribe the dictation. May also type from writen copy. May operate from a stenographic pool. May occasionally transcribe from voice recordings (if primary duty is transcribing from recordings, see Transcribing-Machine Operator, General).

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

Stenographer, General
Dictation involves a normal routine vocabulary. May maintain files, keep simple records, orform other relatively routine clerical tasks.

## Stenographer, Senior

Dictation involves a varied technical or specialized vocabulary such as in legal briefs of eports 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 he specific business operations, organization, policies, procedures, files, workflow, etc. Uses this nos assembling material for eneral instructions; reading and routing incoming mail; and answering routine questions, SWIT CHBOARD OPERATOR

Class A. Operates a single- or multiple-position telephone switchboard handling incoming, outgoing, intraplant or office calls. Performs full telephone information service or handles complex alls, such as conference, collect, overseas, or similar calls, either in addition to doing routine work as described for switchboard operator, class B, or as a full-time assignment. ("Full" telephone information service occurs when the establishment has varied functions that are not readily
understandable for telephone information purposes, e.g., because of overlapping or interrelated functions, and consequently present frequent problems as to which extensions are appropriate for calls.

Class B. Operates a single- or multiple-position telephone switchboard handing incoming utgoing, limited telephone information Maydle routine long distance cals and record cins if th unctions of the establishment serviced are readily understandable for telephone information purposes ormplex calls are referred to another operator.)

These classifications do not include switchboard operators in telephone companies who assis WITCHBOARD OPERATOR-RECEPTIONIST

In addition to pertorming duties of operator on a single-position or monitor-type switchboard yping or clerical work may take the major part of this worker's time while at switchboard

TABULATING-MACHINE OPERATOR (Electric Accounting Machine Operator)
Operates one or a variety of machines such as the tabulator, calculator, collator, interpreter orter, reproducing punch, etc. Excluded from this definition are working supervisors. Alao exclude

Positions are classified into levels on the basis of the following definitions
Clasa A. Performa complete reporting and tabulating assignmenta including devising difficult ontrol panel wiring under generalsupervision. Assignments and andy involve a variety of long an equencing of operations, and the use of a variety of machines. is typically involved in traming operators in machine operations or training lower level operators in wiring from diagrams and in he operating sequences of long and complex reports. Does not include positions in which wirin reaponsibility is limited to selection and insertion of prewired boarda

Class B. Performs work according to established procedures and under apecific instructions, Assignmenta typically involve complete but routine and recurring reporte or parts of larger and mor omplex reports. Operates more difficult tabulating or electrical accounting machines such as the abulator and calculator, in addition to the simpler machines used by class C operators. May be

Class C. Under apecific instructions, operates simple tabulating or electrical accountin machines such as the sorter, interpreter, reproducing punch, collator, etc. Assignments typically involve portions of a work unit, for example, individual sorting or collating runs, or repetitive operations. May perform simple wiring from diagrams, and do some filing work.
TRANSCRIBING-MACHINE OPERATOR, GENERAL
Primary duty is to transcribe dictation involving a normal routine vocabulary from tran cribing-machine records. May also type from written copy and do simple clerical work. Worker ranscribing dictation involving a varied technical or specialized vocabulary such as legal briefs or Stenotype or similar marhine is classified as a stenographer

TYPIST
Uses a typewriter to make copies of various materials or to make out bills after calculation ave been made by another person, May include typing of atencils, mats, or similar materials for use in duplicating processes. May do clerical work involving little special training, such as keeping

Volve日 Clasa A. Performs one or more of the following: Typing material in final form when it unctuation etc andian, etc. of technical or unusual words or foreign language material or planning layout and efrestance

Class B. Performs one or mere of the following: Copy typing from rough or clear draita or routine typing of forms, insurance policies, etc; or setting up simple standard tabulations; o

## PROFESSIONAL AND TECHNICAL

## COMPUTER OPERATOR

Monitors and operates the control conmole of a digital computer to process data cccording to operating instructionn, usually prepared by a programmer. Work includea most of the following: tems (tape reels, cards, etc.); switches necessary auxiliary equipment into circuit, and atarts and perates computer; makes adjustments to computer to correct operating problems and meet special onditions reviews errors made during operation and determines cause or refera problem to program.

For wage atudy purposen, computer operators are clasaified an follows:
Class A. Operatea independently, or under only general direction, a computer running programs with most of the following characteristics: New programs are frequently iested and re of ced; scheduling requirementi are of critical importance to minimize downtime; the programe otal program, and alternate programs may not be available. May give direction and guidance "o

## COMPUTER OPERATOR-Continued

Clase B. Operates independently, or under only general direction, a computer running programs with most of the following characteristics: Most of the programs are established production required; alternate programs are provided in case original program needs major change or cannot be orrected within a reasonably time. In common error aituations, diagnoses cause and takes corrective action. This usually involves applying previously programmed corrective steps, or using standard correction technique

## or

 with the characteristics described for class A. May assist a higher level or operator by independently performing less difficult taskasasigned, and performing difficult tasks following detailed instructions and with frequent review of operations performed.Clasa C. Works on routine programs under close supervision. ls expected to develop workin knowledge of the computer equipment used and ability to detect problems involved in running routin programs, Usually has received some formal training in computer operation. May assist higher leve operator on complex programe.

Converts statements of business problems, typically prepared by a syatems analyst, into a equence of detailed instructions which are required to solve the problems by automatic data processing equipment. Working from charts or diagrams, the programmer devetopan entered int pulation of data to achieve desired resulta. Work involves most of the following: Applies knowledge of computer capabilities, mathematics, logic employed by computers, and particular subject matter involved to analyze charts flow charts to show order in which data will be processed; converts these charts to coded instructions for machine to follow; tests and corrects programs; prepares instructions for operating personnel during production run; analyzes, reviews, and alters programs to increase operating efficiency or adapt to new requirements; maintains records of program development and revisions. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is
the skill used to determine their pay.)

Does not include employees primarily responsible for the management or supervision of other electronic data proces
engineering problems.

## For wage study purposes, programmers are classified as follows

Class A. Works independently or under only general direction on complex problems which require competence in all phases of programming concepts and practices. Working from diagrams and charts which identify the nature of desired results, major processing steps to be accomplished,
and the relationships between various steps of the problem solving routine; plans the full range and the relationships between various steps of the problem solving routine; plans the full range of programini

At this level, programming is difficult because computer equipment must be organized to produce several interrelated but diverse products from numerous and diverse data elements. A wide variety and extensive number of internal processing actions must occur. This requires such actions as development of common operations which can be reused, establishment of linkage points between operations, adjustments to data when program requirements exceed computer storake capacity, and

May provide functional direction to lower level programmers who are asaigned to assist.
Class B. Works independently or under only general direction on relatively simple programs, or on simple segments of complex programs, Programs (or segments) usually process information to
produce data in two or three varied sequences or formats. Reports and listings are produced by refining, adapting, arraying, or making minor additions to or deletions from input data which are readily available. While numerous records may be processed, the data have been refined in prior actions so that the accuracy and sequencing of data can be tested by using a few routine checks. Typically, the program deals with routine record-keeping type operations.

OR
Works on complex programs (as describad for class A) under close direction of a higher level programmer or supervisor. May assist higher level programmer by independently performing
less difficult tasks assigned, and performing more difficult tasks under fairly close direction.

May guide or instruct lower level programmers.
Class C. Makes practical applications of programming practices and concepte usually learned in formal training courses. Assignments are designed to develop competence in the application of tandard procedures to routine problems. Receives close supervision on new aspects of assignments; COMPUTER SYSTEMS ANALYST, BUSINESS Analyzes business problems to formulate procedures for solving them by use of electronic
data processing equipment.
Develops a complete description of all specifications needed to enable programmers to prepare required digital computer programs. Work involves most of the following: Analyzes subject-matter operations to be automated and identifies conditions and criteria required to achieve satisfactory results; specifies number and types of records, files, and documents to be used;
outlines actions to be performed by personnel and computers in aufficient detail for presentation to management and for programming (typically this involves preparation of work and data flow charts); coordinates the development of test problems and participates in trial runs of new and revised systems; and recommends equipment changes to obtain more effective overall operations. (NOTE: Workers performing both systems analysis and programming should be classified as systems analysts if this is

Does not include employees primarily responsible for the management or supervision of other engineering problems.

## COMPUTER SYSTEMS ANALYST, BUSINESS-Continue

For wage study purposes, syatems analysta are classified as follows:
Class A. Works independently or under only general direction on complex problems involving all phases of system analysis. Problems are complex becauge of diverse sources of input data and multiple-use requirements of output data. (For example, develops an integrated production scheduling, inventory control, cost analysis, and ales analysis record in which every item of each type is by the computer.) Confers with persons concerned to determine the data processing problems and advises subject-matter personnel on the implications of new or revised systems of data processing operations. Makes recommendations, if needed, for approval of major systems installations or changes and for obtaining equipment

May provide functional direction to lower level systems analysts who are assigned to assist. uncomplicated to . Works independently or under only general direction on problems that are relatively ources of input data are homogeneous and the output data are closely related. (For example, develops ystems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail stablishment, of maintaining inventory accounts a manuractaring or wholesale establishment.) matter personnel on the implications of the data processing systems to be applied,

OR
Works on a segment of a complex data processing scheme or system, as described for class A Works independently on routine assignments and receives instruction and guidance on complex proper alignment with the overall system.

Class_C. Works under immediate supervision, carrying out analyses as assigned, usually of a single activity. Assignments are designed to develop and expand practical experience in the application of procedures and skills required for systems analysis work. For example, may assist a hgher level systems analyst by preparing the detailed specifications required by programmers from

## DRAFTER

Class A. Plans the graphic presentation of complex items having distinctive design features that differ significantly from established drafting precedents. Works in close support with the design details of form may recommend minor design changipg of components and parts. Works with a minimum of supervisory assistance. Completed work is reviewed by design originator for consistency with prior engineering determinations. May either prepare drawings, or direct theír preparation by
lower level drafters.

Class B. Performs nonroutine and complex drafting assignments that require the application most of the standardized drawing techniques regularly used, Duties typically involve such work as prepares working drawings of subassemblies with irregular shapes, multiple functions, and precise positional relationships between components; prepares architectural drawings for construction of a building including detail drawings of foundations, wall sections, floor plans, and roof. Uses accepted ormulas and manuals in making necessary computations to determine quantities of materials to be advice from supervisor. Completed work is checked for technical adequacy.

Class.C. Prepares detail drawings of single units or parts for enginecring, construction, manufacturing, or repair purposes. Types of drawings prepared include isometric projections (depicting three.dimensions in accurate scale) and sectional views to clarify positioning of components ransposes scale as required. Suggested methods of approach, applicable precedents, and advice on source materials are given with initial assignments. Instructions are less complete when assignments recur. Work may be spot-checked during progress

## DRAFTER-TRACER

Copies plans and drawings prepared by others by placing tracing cloth or paper over drawings and tracing with pen or pencil. (Does not include tracing limited to plans primarily consigting of straight lines and a large scale not requiring close delineation.)

AND/OR
Prepares simple or repetitive drawings of easily visualized items. Work is closely supervised during progress.

Works on various types of electronic equipment and related devices by performing one or a combination of the following: Installing, maintaining, repairing, overhauling, troubleshooting, madifying, principles, ability to determine malfunctions, and akill to put equipment in required operating condition.

The equipment-consisting of either many different kinds of circuits or multiple repetition of the same kind of circuit-includes, but is not limited to, the following: (a) Electronic transmitting digital and analog computers, and (c) industrial and medical measuring and controlling equipment.

This classification excludes repairmen of such standard electronic equipment as common office achines and household radio and television ats; production assemblers and teaters; workera whose supervisory responsibility; and drafters, designers, and profesaional engineers.

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

Ciass A. Applies advanced technical knowledge to solve unusually complex problems (i.e. those that typically cannot be solved solely, by reference to manufacturersi manuals or similar
documents) in working on electronic equipment. Examples of such problems include location and density of circuitry, electro-magnetic radiation, isolating malfunctions, and frequent engineering independent judgment in performing such tasks as making circuit analyses, calculating wave forms racing relationahipa in signal fow; and regularly using complex test inatrumenta (e.g., dual trace oscilloscopes, $Q$-meters, deviation meters, pulse generators).

Work may be reviewed by aupervisor (frequently an engineer or deaigner) for general
compliance with accepted practices. May provide technical guidance to lower level techniciana.

Claas B. Applies comprehensive technical knowledge to solve complex problems (i.e., those that typically can be solved solely by properly interpreting manufacturers manuals or similar documents) in working on electronic equipment. Work involves: A familiarity with the interrelation inatruments circuits; and judgment in determining work sequence and in gelecting tools and testing A technician
Receives technical guidance, as required, from supervisor or higher level technician, and work is reviewed for specific compliance with accepted practices and work assignments. May provide echnical guidance to lower level technicians.

Class C. Applies working technical knowledge to perform simple or routine tasks in working on electronic equipment, following detailed inatructions which cover virtually all procedures. Work typically involves such tasks as: Assisting higher level technicians by performing such activities as
replacing components, wiring circuits, and taking test readings; repairing simple electronic equipment and using tools and common test instruments (e.g., multimeters, audio signal generators, tube teaters, oscilloscopes). Is not required to be familiar with the interrelationshipa of circuits. Thia knowledge however, may be aequired through asaignmenta designed to increase competence (including classroom training) so that worker can advance to higher level technician.

Receives technical guidance, as required, from supervisor or higher level technician. Work is typically spot checked, but is given detailed review when new or advanced asaignments are involved NURSE, INDUSTRIAL (Registered)

A registered nurse who gives nuraing service under general medical direction to ill or injured employees or other persons who become ill or suffer an accident on the premises of a factory or other establishrnent. Duties involve a combination of the following: Giving first aid to the ill o preparing accident reports for compensation or other purposes; ansisting in physical examinations and health evaluation of applicants and employees; and planning and carrying out programs involving health education, accident prevention, evaluation of plant environment, or other activities affecting the health welfare, and safety of all personnel. Nursing supervisors or head nurses in establishments employing

# MAINTENANCE AND POWERPLANT 

BOILER TENDER
Fires stationary boilers to furnish the establishment in which employed with heat, power or steam. Feeds fuels to fire by hand or operates a mechanical stoker, gas, or oil burner; and CARPENTER, MAINTENANCE

Performs the carpentry duties necessary to construct and maintain in good repair building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors, floors, stairs, and laying out of work from blueprints, drawings, models, or verbal inatructions; using a variety of carpenter's handtools, portable power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the wark. In general, the work of the maintenance carpenter requires rounded training and experience usually

ELECTRICIAN, Maintenance
Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy in an establishment. such as generators, tranaformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, of other specifications; locating and diagnosing trouble in the electrical syatem of equipment; working atandard computations relating to load requirements of wiring or electrical equipment; and uaing a variety of electricianis handtools and measuring and teating instruments. In general, the work of the apprenticeahip or equivalent training and experience.

## ENGINEER, STATIONARY

Operates and maintains and may also supervise the operation of atationary engines and equipment (mechanical or electrical) to supply the eatablishment in which employed with power, heat,
refrigeration, or air-conditioning. Work involves: Operating and maintaining equipment such as ateam engines, air compressors, generators, motors, turbines, ventilating and refrigerating equipment,

ENGINEER, STATIONARY-Continued
team boilers and boiler-fed water pumps; making equipment repairs; and keeping a record of operatio HELPER, MAINTENANCE TRADES

Assiats one or more workers in the skilled maintenance trades, by performing specific or general duties of lesser skill, such as keeping a worker supplied with materials and tools; cleanin performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted o perform varies from trade to trade: In some trades the helper is confined to supplying, lifting and holding materials and tools, and cleaning working areas; and in others he is permitted to perform pecialized machine operations, or parts of a trade that are also performed by workers on ull-time basis.

MACHINE-TOOL OPERATOR, TOOLROOM
Specializes in the operation of one or more types of machine tools, such as jig borers cylindrical or surface grinders, engine lathes, or milling machines, in the construction of machine performing difficult machining operations; processing items requiring complicated setups or a high degree of accuracy; using a variety of precision measuring instruments; selecting feeds, speeds, tooling, and operation sequence; and making necessary adjustments during operation to achieve requisite tolerances or dimensions. May be required to recognize when tools need dressing, ores coolants and cutting and lubricating oils. For cross-industry from this classification.

MACHINIST, MANTENANCE
Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment operated in an establishment. Work involves most of the following: Interpreting written
instructions and apecifications; planning and laying out of worki using a variety of machinist's handtool and precision measuring instruments; setting up and operating standard machine tools; ahaping of metal

## MAGHINIST, MAINTENANCE-Continued

parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, eeds, and speeds of machining; knowledge of the working properties of the common metals; selecting standard materials, parts, and equipment required for this work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in
machinesshop practice usually acquired through a formal apprenticeship or equivalent training machine-shop.

MECHANIC, AUTOMOTIVE (Maintenance)
Repairs automobiles, buses, motortrucks, and tractors of an establishment. Work involves most of the following: Examining automotive equipment to diagnose source of trouble; disassembling equipment and performing repairs that involve the use of such handtools as wrenches, gauges, drills, or specialized equipment in disasembling or fitting parts; replacing broken or defective parts from and making necessary adjustments; and aligning wheels, adjusting brakes and lights, or tightening body bolts. In general, the work of the automotive mechanic requires roundedtraining and experience usually acquired through a formal apprenticeship or equivalent training and experience.

This classification does not include mechanics who repair customers' vehicles in automobile repair shops.

MECHANIC, MANTENANCE
Repairs machinery or mechanical equipment of an establishment. Work involves most of the following: Examining machines and mechanical equipment to diagnose source of trouble; dismantling pr partly dismantling machines and performing repairs that mainly involve the use of handtools in the production of a replacement part by a machine shop or sending of the machine to a machine shop for major repairs; preparing written specifications for major repairs or for the production of parts
ordered from machine shops; reassembling machines; and making all necessary adjustments for operation. In general, the work of a maintenance mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Excluded from this classification are workers whose primary duties involve setting up or adjusting machines.

Millwright
Installs new machines or heavy equipment, and dismantles and installs machines or heavy equipment when changes in the plant layout are required. Work involves most of the following: handtools and rigging; making standard shop computations relating to stresses, strength of materials, handtools and rigging; making standard shop computations relating to stresses, strength of materials, arts to be used; and installing and maintaining in good order power transmisaion equipment sueh and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

## PAINTER, MAINTENANGE

Paints and redecorates walls, woodwork, and fixtures of an establishment. Work involves the following: Knowledge of surface peculiarities and types of paint required for different applications; preparing surface for painting by removing old finish or by placing putty or filler in nail holes and paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

PIPEFITTER, MAINTENANCE
Installs or repairs water, steam, gas, or other types of pipe and pipefittings in an establishment. Work involves most of the following: Laying out of work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machines; threading pipe with atocks and
dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making or power-driven machines; assembling pipe with couplings an pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.
SHEET-METAL WORKER, MAINTENANGE
Fabricates, installs, and maintains in good repair the sheet-metal equipment and fixtures (such as machine guards, grease pans, shelves, lockers, tanks, ventilators, chutes, ducts, metal rooling of an establishment. Work involves most of the following: Planning and laying out all types of sheet-
metal maintenance work from blueprints, models, or other specifications; setting up and operating all available types of sheet-metal working machines; using a variety of handtools in cutting, bendin forming, shaping, fitting, and assembling; and installing sheet-metal articles as required. In general, the work of the maintenance sheet-metal worker requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience
TOOL AND DIE MAKER Constructs and repairs machine-shop tools, gauges, jigs, fixtures or dies for forgings, punching,
and other metal-forming work. Work involves most of the following: Planning and laying out of work from models, blueprints, drawings, or other oral and written specifications; using a variety of tool and die maker's handtools and precision measuring instruments; understanding of the working properties of
common metals and alloys; setting up and operating of machine tools and related equipment; making common metals and alloys; setting up and operating of machine tools and related equipment; making heat-treating of metal parts during fabrication as well as of finished tools and dies to achieve required qualities; working to close tolerances; fitting and assembling of parts to prescribed tolerances and allowances; and selecting appropriate mate rials, tools, and processes. in general, the tool and die maker's work requires a rounded training in machine-shop and toolroom practice usually acquire through a formal apprenticeship or equivalent training and experience.

For cross-industry wage study purposes, tool and die makers in tool and die jobbing shops are excluded from this classification.
custodial and material movement

GUARD AND WATCHMEN
Guard. Performs routine police duties, either at fixed poat or on tour, maintaining order, asing arms or force where necessary. Includes gatemen who are stationed at gate and check on identity of employees and other persons entering.

Watchman. Makes rounds of premises periodically in protecting property against fire, theft, and illegal entry.

JANITOR, PORTER, OR CLEANER
Cleans and keeps in an orderly condition factory warking areas and washrooms, or premise of an office, apartment house, or commercial or other establishment. Duties involve a combination of
the following: Sweeping, mopping or acrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; poliahing metal fixtures or trimmings; providing supplies and minor maintenance services; and cleaning lavatories, showers, and restrooms. Workers who specialize in window washing are excluded.

LABORER, MATERTAL HANDLING
A worker employed in a warehouse, manufacturing plant, atore, or other eatablishment whose duties involve one or more of the following: Loading and unloading various materials and merchandise
on or from freight cars, trucks, or other transporting devices; unpacking, shelving, or placing materials or merchandise in proper storage location; and transporting materials or merchandise by handtruck, car, or wheelbarrow. Longahoremen, who load and unload ahips are excluded.

## ORDER FILLER

Fills shipping or transfer orders for finished goods from stored merchandise in accordance with specifications on sales slips, customers' orders, or other instructions. May, in addition to
filling orders and indicating items filled or omitted, keep records of outgoing orders, requisition additional stock or report short supplies to supervisor, and perform other related duties.

## PACKER, SHIPPING

Prepares finished products for shipment or atorage by placing them in shipping containers the specific operations performed being dependent upon the type, size, and number of units to be in shipping containers and may involve one or more of the following: Knowledge of various iterns of

PACKER, SHIPPING-Continued stock in order to verify content; selection of appropriate type and fize of container; inserting
enclosures in container; uaing excelsior or other material to prevent breakage or damage; closing and
sealing container; and applying labels or entering identifying data on container. Packers who also make sealing container; and applying labels or entering identifying data on container. Packers who also make wooden boxes or crates are excluded
SHIPPING AND RECEIVING CLERK
Prepares merchandise for shipment, or receives and is responsible for incoming shipments of merchandiae or other materials. Shipping work involves: A knowledge of shipping procedures, practices, routes, available means of transportation, and rates; and preparing records of the goods
shipped, making up bills of lading, posting weight and shipping charges, and keeping a file of shipping records. May direct or assist in preparing the merchandise for shipment. Receiving work involves: Verifying or directing others in verifying the correctness of shipments against bills of lading, invoices. or other records; checking for shortages and rejecting damaged goods; routing merchandise or materials to proper departments; and maintaining necessary records and files.

For wage study purposes, workers are classified as follows:
Receiving clerk
Shipping clerk

## TRUCKDRIVER

Drives a truck within a city or industrial area to transport materials, merchandise, equipment, or men between various types of establishments such as: Manufacturing planta, freight depots, or men between various types of establishments such as: Manufacturing plants, freight depots,
warehouses, wholesale and retail establishments, or between retail establishments and customersi harehouses or places of business. May also load or unload truck with or without helpers, make minor mechanical repairs, and keep truck in good working order. Driver-Baleamen and over-the-road drivers are excluded

## TRUCKDRIVER-Continued

or wage study purposes, truckdrivers are classified by size and type of equipment, a er be rated on the basis or trailer capacity,
T ruckdriver (combination of sizes listed separately
Truckdriver, light (under $1^{1 / 2}$ tona)
ruckdriver, medium ( $11 / 2$ to and including 4 tons)
Truckdriver, heavy (over 4 tons, trailer type)
Truckdriver, heavy (over 4 tons, other than trailer type

## TRUCKER, POWER

Operates a manually controlled gasoline- or electric-powered truck or tractor to tranapor gooas and materials of all kinds about a warehouse, manufacturing plant, or other establishment. for wage study purposes, workers are clasaified by type of truck, as followa:
rucker, power (forklift)
Trucker, power (other than forklift

## WAREHOUSEMAN

As directed, performs a yariety of warehouring duties which require an underatanding of the establishment's storage plan. Work involves most of the following: Verifying materials (or routing materiala to preacribed storage locations; storing, stacking, or palletizing materials in ccordance with prescribed storage methods: rearranging and taking inventory of stored materials examining stored materials and reporting deterioration and damage; removing material from storage and preparing it for shipment. May operate hand or power trucks in performing warehousing duties

Exclude workers whose primary duties involve shipping and receiving work (see shipping and
clerk and packer, shipping), order filling (see order filler), or operating power trucks (see trucker, power)

## Available On Request-

The following areas are surveyed periodical


## Little Rock-North Little Rock, Ark

Logansport-Peru, Ind
Lorain-Elyria, Ohio
Lynchburg, Va .
Macon, Ga.
Madison, Wis.
Mansfield, Ohio
Marquette, Escanaba, Sault Ste, Marie, Mich
McAllen-Pharr-Edinburg and Brownswille-
Medford-Klamath Falls-Grants Pass, Oreg.
Meridian, Miss.
Middlesex, Monmouth, and Ocean Cos., N.J.
Mobile, Ala, and Pensacola, Fla
Montgomery, Ala.
New Bern-Jacksonville, N.C.
North Daknta
Norwich-Groton-New London, Conn.
Orlando, Fla.
Conard-Simi Valley-Ventura, Calif
Peoria, Ill.
Phoenix, Ariz.
Pine Bluff, Ark
Pine Bluff, Ark
Portsmouth, N. H.-Maine-Mass.
Pueblo, Colo.
Puerto Rico
Reno, Nev.
Richland-Kernewick-Walla Walla
Pendleton, Wash.-Oreg.
Riverside-San Bernardino-Ontario, Calif
Salina, Kans.
Santa Barbara-Santa Maria-Lompoc, Calif.
Savannah, Ga.
Selma, Ala.
Sherman-Denison, Tex
Shreveport, La.
Spokane, Wash.
Springfield, Ill.
Springfield-Chicopee-Holyoke, Masa.-Conn
Stamford, Conn.
Tacoma, Wash.
Tampa-St. Petersburg, Fla
Topeka, Kans.
Tuchon, Ariz.
Vallejo-Fairfield-Napa, Calif
Waco and Killeen-Temple
Waterloo-Cedar Falls, Iowa
West Texas Plains

Grand Forks, N. Dak
Sacramento, Calif*

## Abilene, Tex,** <br> Gorpus Christi, Tex <br> Forpus Christi,

Wilmington, Del. -N.J.-Md.*

* Expanded to an area wage survey in fiscal year 1975. See inside back cover
** Included in West Texas Plains.

 offices shown on the back cover, or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.


## Area Wage Surveys

 obtained without cost, where indicated, from BLS regional offices.



* Prices are determined by the Gaverument Printing Office and are subject to change.

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POSTAGE AND FEES PAID U.S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS REGIONAL OFFICES




[^0]:    For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, GPO Bookstores, or

[^1]:    * Workers were distributed as follows: 18 at $\$ 85$ to $\$ 90$; and 9 at $\$ 90$ to $\$ 95$.
    ** Workers were distributed as follows: 15 at $\$ 85$ to $\$ 90$; and 13 at $\$ 90$ to $\$ 95$.

    See footnotes at end of tables.

[^2]:    See footnotes at end of tables.

[^3]:    Earnings data in table A.3a relate only to workers whose sex identification was provided by the establishment. Earnings data in ables A-la and A-2a, on the other hand, relate to all workers in a occupation. (See appendix A for publication criteria.)

[^4]:    * Workers were at $\$ 7$ to $\$ 7.40$.

