

Occupational Wage Survey

MUSKEGON—MUSKEGON HEIGHTS, MICHIGAN

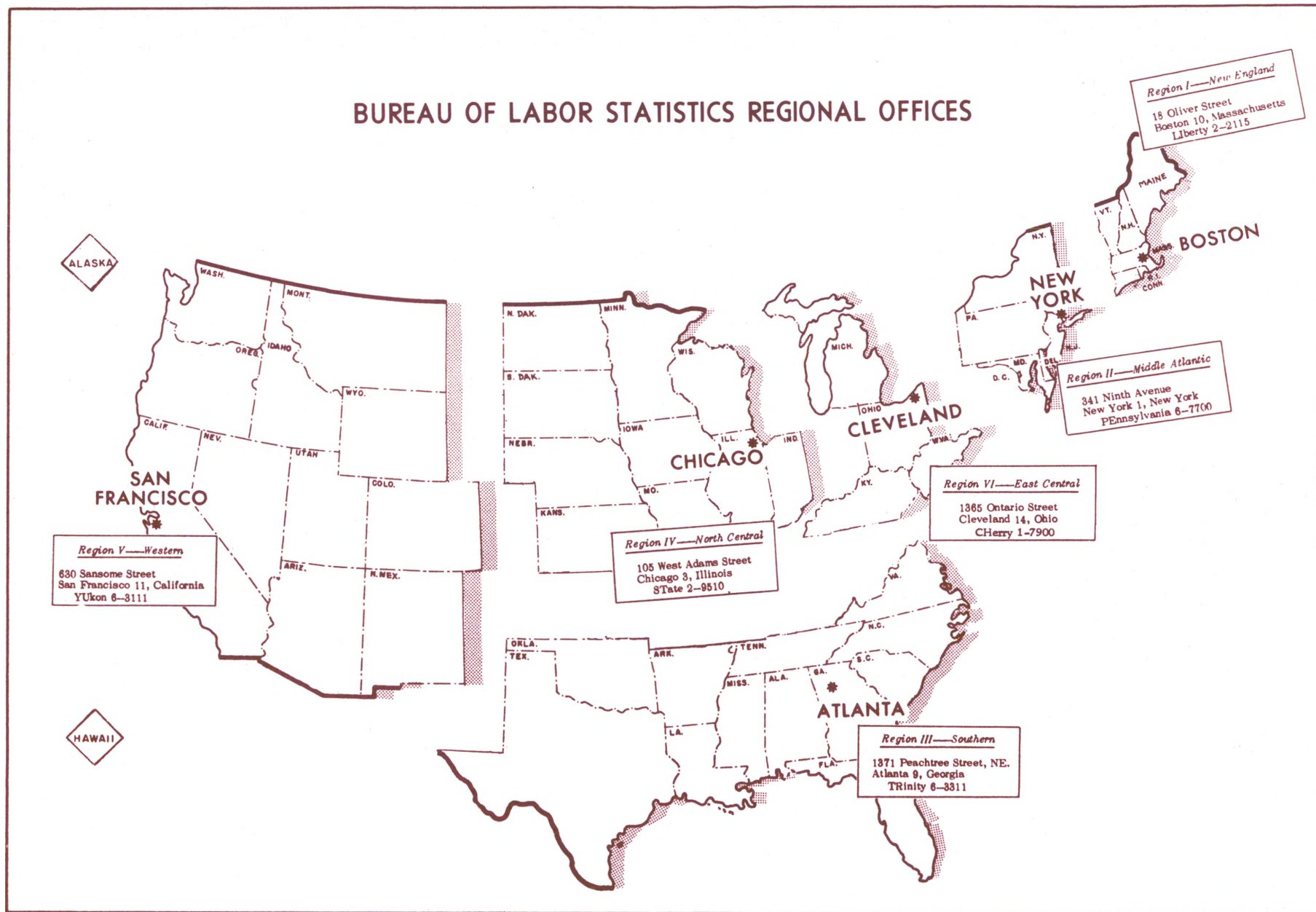
MAY 1963

Bulletin No. 1345-69

UNITED STATES DEPARTMENT OF LABOR
W. Willard Wirtz, Secretary

BUREAU OF LABOR STATISTICS
Ewan Clague, Commissioner

BUREAU OF LABOR STATISTICS REGIONAL OFFICES



Occupational Wage Survey

MUSKEGON—MUSKEGON HEIGHTS, MICHIGAN

MAY 1963

Bulletin No. 1345-69

July 1963

UNITED STATES DEPARTMENT OF LABOR
W. Willard Wirtz, Secretary

BUREAU OF LABOR STATISTICS
Ewan Clague, Commissioner



For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. - Price 20 cents

Preface

The Labor Market Occupational Wage Survey Program

Eighty-two labor markets currently are included in the Bureau of Labor Statistics program of annual occupational wage surveys in major labor markets. These studies provide data on occupational earnings and related supplementary benefits. Information on related supplementary benefits is obtained biennially in most of the labor markets.

A preliminary report which presents earnings trends for selected occupational groups and average earnings in selected jobs is released within a month after the completion of the study in each area. This bulletin provides additional data not included in the preliminary report.

A two-part summary bulletin is issued after the completion of all of the area bulletins for a round of surveys (for the current round of surveys, the first part of this bulletin will be available late in 1963 and the second part early in 1964). The first part presents individual labor market data. The second part presents data relating to all metropolitan areas in the United States.

This bulletin was prepared in the Bureau's regional office in Cleveland, Ohio, by Elliott A. Browar, Assistant Regional Director for Wages and Industrial Relations.

Contents

	Page
Introduction	1
Wage trends for selected occupational groups	3
Tables:	
1. Establishments and workers within scope of survey	2
2. Percents of increase in standard weekly salaries and straight-time hourly earnings for selected occupational groups, for selected periods	2
A: Occupational earnings:*	
A-1. Office occupations—men and women	4
A-2. Professional and technical occupations—men and women	5
A-3. Office, professional, and technical occupations— men and women combined	5
A-4. Maintenance and powerplant occupations	6
A-5. Custodial and material movement occupations	7
Appendix: Occupational descriptions	9

* NOTE: Similar tabulations are available for other major areas. (See inside back cover.)

Occupational Wage Survey—Muskegon—Muskegon Heights, Mich.

Introduction

This area is 1 of 82 labor markets in which the U.S. Department of Labor's Bureau of Labor Statistics conducts surveys of occupational earnings and related wage benefits on an areawide basis.

This bulletin presents current occupational employment and earnings information obtained largely by mail from the establishments visited by Bureau field economists in the last previous survey for occupations reported in that earlier study. Personal visits were made to nonrespondents and to those respondents reporting unusual changes since the previous survey.

In each area, data are obtained from representative establishments within six broad industry divisions: Manufacturing; transportation, communication, and 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 they tend to furnish insufficient employment in the occupations studied to warrant inclusion. Separate tabulations are provided for each of the broad industry divisions which meet publication criteria.

These surveys are conducted on a sample basis because of the unnecessary cost involved in surveying all establishments. To obtain optimum accuracy at minimum cost, a greater proportion of large than of small establishments is studied. In combining the data, however, all establishments are given their appropriate weight. Estimates based on the establishments studied are presented, therefore, as relating to all establishments in the industry grouping and area, except for those below the minimum size studied.

Occupations and Earnings

The occupations selected for study are common to a variety of manufacturing and nonmanufacturing industries, and are of the following types: (a) Office clerical; (b) professional and technical; (c) maintenance and powerplant; and (d) custodial and material movement. Occupational classification is based on a uniform set of job descriptions designed to take account of interestablishment variation in duties within the same job. The occupations selected for study are listed and described in the appendix. Earnings data for some of the occupations listed and described are not presented in the A-series tables because either (1) employment in the occupation is too small to provide enough data to merit presentation, or (2) there is possibility of disclosure of individual establishment data.

Occupational employment and earnings data are shown for full-time workers, i.e., those hired to work a regular weekly schedule in the given occupational classification. Earnings data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Nonproduction bonuses are excluded, but cost-of-living bonuses and incentive earnings are included. Where weekly hours are reported, as for office clerical occupations, reference is to the work schedules (rounded to the nearest half hour) for which straight-time salaries are paid; average weekly earnings for these occupations have been rounded to the nearest half dollar.

Differences in pay levels for selected occupations in which both men and women are commonly employed are largely due to (1) differences in the distribution of the sexes among industries and establishments; (2) differences in specific duties performed, although the occupations are appropriately classified within the same survey job description; and (3) differences in length of service or merit review when individual salaries are adjusted on this basis. Longer average service of men would result in higher average pay when both sexes are employed within the same rate range. Job descriptions used in classifying employees in these surveys are usually more generalized than those used in individual establishments to allow for minor differences among establishments in specific duties performed.

Occupational employment estimates represent the total in all establishments within the scope of the study and not the number actually surveyed. Because of differences in occupational structure among establishments, the estimates of occupational employment obtained from the sample of establishments studied serve only to indicate the relative importance of the jobs studied. These differences in occupational structure do not materially affect the accuracy of the earnings data.

Establishment Practices and Supplementary Wage 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 biennially in this area. These tabulations on minimum entrance salaries for inexperienced women office workers; shift differentials; scheduled weekly hours; paid holidays; paid vacations; and health, insurance, and pension plans are presented (in the B-series tables) in previous bulletins for this area.

Table 1. Establishments and workers within scope of survey and number studied in Muskegon-Muskegon Heights, Mich.,¹
by major industry division,² May 1963

Industry division	Number of establishments		Workers in establishments	
	Within scope of study ³	Studied	Within scope of study ⁴	Studied
All divisions -----	76	53	25,800	23,870
Manufacturing -----	44	31	21,900	20,640
Nonmanufacturing -----	32	22	3,900	3,230
Transportation, communication, and other public utilities ⁵ -----	8	8	1,700	1,750
Wholesale trade ⁶ -----	4	2	200	170
Retail trade ⁶ -----	13	7	1,300	860
Finance, insurance, and real estate ⁶ -----	4	2	500	260
Services ^{6,7} -----	3	3	200	190

¹ The Muskegon-Muskegon Heights Standard Metropolitan Statistical Area consists of Muskegon County. The "workers within scope of study" estimates shown in this table provide a reasonably accurate description of the size and composition of the labor force included in the survey. The estimates are not intended, however, to serve as a basis of comparison with other employment indexes for the area to measure employment trends or levels since (1) planning of wage surveys requires the use of establishment data compiled considerably in advance of the payroll period studied, and (2) small establishments are excluded from the scope of the survey.

² The 1957 revised edition of the Standard Industrial Classification Manual was used in classifying establishments by industry division.
³ Includes all establishments with total employment at or above the minimum limitation (50 employees). All outlets (within the area) of companies in such industries as trade, finance, auto repair service, and motion picture theaters are considered as 1 establishment.

⁴ Includes all workers in all establishments with total employment (within the area) at or above the minimum limitation (50 employees).
⁵ Taxicabs and services incidental to water transportation were excluded.

⁶ This industry division is represented in estimates for "all industries" and "nonmanufacturing" in the Series A tables. Separate presentation of data for this division is not made for one or more of the following reasons: (1) Employment in the division is too small to provide enough data to merit separate study, (2) the sample was not designed initially to permit separate presentation, (3) response was insufficient or inadequate to permit separate presentation, and (4) there is possibility of disclosure of individual establishment data.

⁷ Hotels; personal services; business services; automobile repair shops; motion pictures; nonprofit membership organizations; and engineering and architectural services.

Table 2. Percents of increase in standard weekly salaries and straight-time hourly earnings for selected occupational groups in Muskegon-Muskegon Heights, Mich., for selected periods

Industry and occupational group	May 1962 to May 1963	May 1961 to May 1962	May 1960 to May 1961
All industries:			
Office clerical (men and women) -----	3.0	4.3	3.9
Industrial nurses (men and women) -----	3.3	4.0	1.8
Skilled maintenance (men) -----	2.6	3.4	2.7
Unskilled plant (men) -----	3.9	4.2	2.7
Manufacturing:			
Office clerical (men and women) -----	3.1	4.1	4.4
Industrial nurses (men and women) -----	3.3	4.0	1.8
Skilled maintenance (men) -----	2.6	3.4	2.7
Unskilled plant (men) -----	4.3	4.6	2.1

Wage Trends for Selected Occupational Groups

Presented in table 2 are percentages of change in average salaries of office clerical workers and industrial nurses, and in average earnings of selected plant worker groups.

For office clerical workers and industrial nurses, the percentages of change relate to average weekly salaries for normal hours of work, that is, the standard work schedule for which straight-time salaries are paid. For plant worker groups, they measure changes in average straight-time hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. The percentages are based on data for selected key occupations and include most of the numerically important jobs within each group. The office clerical data are based on men and women in the following 19 jobs: Bookkeeping-machine operators, class B; clerks, accounting, class A and B; clerks, file, class A, B, and C; clerks, order; clerks, payroll; Comptometer operators; keypunch operators, class A and B; office boys and girls; secretaries; stenographers, general; stenographers, senior; switchboard operators; tabulating-machine operators, class B; and typists, class A and B. The industrial nurse data are based on men and women industrial nurses. Men in the following 8 skilled maintenance jobs and 2 unskilled jobs are included in the plant worker data: Skilled—carpenters; electricians; machinists; mechanics; mechanics, automotive; painters; pipefitters; and tool and die makers; unskilled—janitors, porters, and cleaners; and laborers, material handling.

Average weekly salaries or average hourly earnings were computed for each of the selected occupations. The average salaries or hourly earnings were then multiplied by employment in each of

the jobs during the period surveyed in 1961. These weighted earnings for individual occupations were then totaled to obtain an aggregate for each occupational group. Finally, the ratio (expressed as a percentage) of the group aggregate for the one year to the aggregate for the other year was computed and the difference between the result and 100 is the percentage of change from the one period to the other.

The percentages of change measure, principally, the effects of (1) general salary and wage changes; (2) merit or other increases in pay received by individual workers while in the same job; and (3) changes in average wages due to changes in the labor force resulting from labor turnover, force expansions, force reductions, and changes in the proportions of workers employed by establishments with different pay levels. Changes in the labor force can cause increases or decreases in the occupational averages without actual wage changes. For example, a force expansion might increase the proportion of lower paid workers in a specific occupation and lower the average, whereas a reduction in the proportion of lower paid workers would have the opposite effect. Similarly, the movement of a high-paying establishment out of an area could cause the average earnings to drop, even though no change in rates occurred in other establishments in the area.

The use of constant employment weights eliminates the effect of changes in the proportion of workers represented in each job included in the data. The percentages of change are not influenced by changes in standard work schedules or in premium pay for overtime, since they are based on pay for straight-time hours.

Wage indexes for selected groups of workers based on data from the labor market surveys were computed for 20 areas between 1953 and 1960. In 1961, the labor market occupational wage program was expanded to include 80 Standard Metropolitan Statistical Areas which will be surveyed annually. This expansion made data available for the computation of wage indexes for selected job groupings in each of the 80 areas. The above text represents the method used in computing these new wage change indexes. The new series was initiated last year and the data are not comparable with trends published prior to that time.

The new series covers the same job groupings as the earlier series with the following exceptions: The clerical and industrial nurse groups, formerly restricted to women, now include both men and women. Changes were also made in the jobs included within job groupings in order that an identical list could be employed in all areas.

A: Occupational Earnings

Table A-1. Office Occupations—Men and Women

(Average straight-time weekly hours and earnings for selected occupations studied on an area basis
by industry division, Muskegon—Muskegon Heights, Mich., May 1963)

Sex, occupation, and industry division	Number of workers	AVERAGE		NUMBER OF WORKERS RECEIVING STRAIGHT-TIME WEEKLY EARNINGS OF—																									
		Weekly hours ¹ (Standard)	Weekly earnings ² (Standard)	Under \$ 45	\$ 45 and under 50	\$ 50 - 55	\$ 55 - 60	\$ 60 - 65	\$ 65 - 70	\$ 70 - 75	\$ 75 - 80	\$ 80 - 85	\$ 85 - 90	\$ 90 - 95	\$ 95 - 100	\$ 100 - 105	\$ 105 - 110	\$ 110 - 115	\$ 115 - 120	\$ 120 - 125	\$ 125 - 130	\$ 130 - 135	\$ 135 - 140	\$ 140 - 145	\$ 145 - 150				
Men																													
Clerks, accounting, class A	41	40.0	\$119.50	-	-	-	-	-	-	-	-	-	1	1	3	1	-	2	7	15	6	2	-	2	1				
Manufacturing	37	40.0	121.00	-	-	-	-	-	-	-	-	-	-	1	2	-	-	2	7	15	6	1	-	2	1				
Tabulating-machine operators, class B	21	40.0	99.00	-	-	-	-	-	-	-	1	4	2	1	4	-	3	2	2	2	-	-	-	-	-				
Manufacturing	15	40.0	104.00	-	-	-	-	-	-	-	-	2	1	1	2	-	3	2	2	2	-	-	-	-	-				
Women																													
Bookkeeping-machine operators, class B	20	40.0	64.50	-	-	3	4	5	4	1	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-				
Clerks, accounting, class A	37	40.0	92.50	-	-	-	-	-	-	2	8	3	7	1	1	11	1	3	-	-	-	-	-	-	-				
Manufacturing	17	40.0	82.00	-	-	-	-	-	-	2	6	3	5	1	-	-	-	-	-	-	-	-	-	-	-				
Clerks, accounting, class B	71	40.0	83.50	1	1	-	1	9	9	7	3	4	5	6	9	11	3	2	-	-	-	-	-	-	-				
Manufacturing	36	40.0	82.50	-	-	-	-	8	5	4	2	3	1	1	-	7	3	2	-	-	-	-	-	-	-				
Nonmanufacturing	35	39.5	84.50	1	1	-	1	1	4	3	1	1	4	5	9	4	-	-	-	-	-	-	-	-	-				
Public utilities ²	16	40.0	84.50	-	-	-	-	-	3	2	-	1	4	1	5	-	-	-	-	-	-	-	-	-	-				
Clerks, payroll	56	40.0	75.00	-	-	-	1	10	5	12	11	9	5	-	3	-	-	-	-	-	-	-	-	-	-				
Manufacturing	44	40.0	75.00	-	-	-	1	7	4	10	8	9	3	-	2	-	-	-	-	-	-	-	-	-	-				
Comptometer operators	55	40.0	80.00	-	3	3	3	6	4	7	3	-	-	1	24	1	-	-	-	-	-	-	-	-	-				
Manufacturing	55	40.0	80.00	-	3	3	3	6	4	7	3	-	-	1	24	1	-	-	-	-	-	-	-	-	-				
Keypunch operators, class B	65	40.0	67.00	-	-	11	10	9	16	5	7	1	-	-	6	-	-	-	-	-	-	-	-	-	-				
Manufacturing	42	40.0	70.50	-	-	3	4	7	11	4	6	1	-	-	6	-	-	-	-	-	-	-	-	-	-				
Nonmanufacturing	23	40.0	60.00	-	-	8	6	2	5	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Secretaries	170	40.0	91.50	-	1	-	1	-	3	14	29	10	25	18	9	19	22	13	2	2	2	-	-	-	-				
Manufacturing	131	40.0	93.00	-	-	-	-	-	2	5	24	8	21	13	8	15	21	10	1	2	1	-	-	-	-				
Nonmanufacturing	39	40.0	86.50	-	1	-	1	-	1	9	5	2	4	5	1	4	1	3	1	-	1	-	-	-	-				
Stenographers, general	90	40.0	70.00	-	-	-	13	14	21	17	13	10	1	1	-	-	-	-	-	-	-	-	-	-	-				
Manufacturing	72	40.0	71.00	-	-	-	6	11	16	16	12	9	1	1	-	-	-	-	-	-	-	-	-	-	-				
Stenographers, senior	85	40.0	90.50	-	-	-	-	-	-	5	15	10	3	8	41	3	-	-	-	-	-	-	-	-	-				
Manufacturing	80	40.0	90.50	-	-	-	-	-	-	5	15	9	2	7	40	2	-	-	-	-	-	-	-	-	-				
Switchboard operators	15	40.0	64.50	³ 3	1	2	1	1	2	-	-	1	2	-	-	1	1	-	-	-	-	-	-	-	-				
Switchboard operator-receptionists	33	40.0	71.50	-	-	-	1	7	6	10	3	5	1	-	-	-	-	-	-	-	-	-	-	-	-				
Manufacturing	26	40.0	70.50	-	-	-	1	7	3	9	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-				
Typists, class A	76	40.0	85.50	-	-	-	-	6	7	11	2	4	2	4	40	-	-	-	-	-	-	-	-	-	-				
Manufacturing	70	40.0	87.00	-	-	-	-	2	7	11	2	2	2	4	40	-	-	-	-	-	-	-	-	-	-				
Typists, class B	107	40.0	62.00	-	-	20	17	36	21	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Manufacturing	80	40.0	63.00	-	-	9	15	25	19	11	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

¹ Standard hours reflect the workweek for which employees receive their regular straight-time salaries and the earnings correspond to these weekly hours.

² Transportation, communication, and other public utilities.

³ All workers were at \$ 30 to \$ 35.

Table A-2. Professional and Technical Occupations—Men and Women

(Average straight-time weekly hours and earnings for selected occupations studied on an area basis by industry division, Muskegon—Muskegon Heights, Mich., May 1963)

Sex, occupation, and industry division	Number of workers	AVERAGE		NUMBER OF WORKERS RECEIVING STRAIGHT-TIME WEEKLY EARNINGS OF--																		
		Weekly hours ¹ (Standard)	Weekly earnings ¹ (Standard)	\$ 65 and under 70	\$ 70 75	\$ 75 80	\$ 80 85	\$ 85 90	\$ 90 95	\$ 95 100	\$ 100 105	\$ 105 110	\$ 110 115	\$ 115 120	\$ 120 125	\$ 125 130	\$ 130 135	\$ 135 140	\$ 140 145	\$ 145 150	\$ 150 155	
<u>Men</u>																						
Draftsmen, senior	100	40.0	\$123.50	-	-	-	-	-	1	3	4	6	7	14	16	17	18	5	7	-	2	
Manufacturing	100	40.0	123.50	-	-	-	-	-	1	3	4	6	7	14	16	17	18	5	7	-	2	
Draftsmen, junior	68	40.0	102.50	1	-	2	6	5	7	5	12	5	10	5	6	4	-	-	-	-	-	
Manufacturing	68	40.0	102.50	1	-	2	6	5	7	5	12	5	10	5	6	4	-	-	-	-	-	
<u>Women</u>																						
Nurses, industrial (registered)	18	40.0	93.00	1	1	-	2	2	3	1	7	1	-	-	-	-	-	-	-	-	-	
Manufacturing	18	40.0	93.00	1	1	-	2	2	3	1	7	1	-	-	-	-	-	-	-	-	-	

¹ Standard hours reflect the workweek for which employees receive their regular straight-time salaries and the earnings correspond to these weekly hours.

Table A-3. Office, Professional, and Technical Occupations—Men and Women Combined

(Average straight-time weekly earnings for selected occupations studied on an area basis by industry division, Muskegon—Muskegon Heights, Mich., May 1963)

Occupation and industry division	Number of workers	Average weekly earnings ¹ (Standard)	Occupation and industry division	Number of workers	Average weekly earnings ¹ (Standard)	Occupation and industry division	Number of workers	Average weekly earnings ¹ (Standard)
Office occupations			Office occupations—Continued			Office occupations—Continued		
Bookkeeping-machine operators, class B	20	\$64.50	Key punch operators, class B	65	\$67.00	Tabulating-machine operators, class B	26	\$96.50
			Manufacturing	42	70.50	Manufacturing	17	103.00
			Nonmanufacturing	23	60.00			
Clerks, accounting, class A	78	106.50	Secretaries	172	92.00	Typists, class A	78	85.50
Manufacturing	54	109.00	Manufacturing	133	93.50	Manufacturing	72	87.00
			Nonmanufacturing	39	86.50			
Clerks, accounting, class B	75	83.00	Stenographers, general	91	70.00	Typists, class B	107	62.00
Manufacturing	38	83.00	Manufacturing	73	71.50	Manufacturing	80	63.00
Nonmanufacturing	37	83.50				Professional and technical occupations		
Public utilities ²	17	83.50						
Clerks, order	16	103.50	Stenographers, senior	85	90.50	Draftsmen, senior	100	123.50
Manufacturing	16	103.50	Manufacturing	80	90.50	Manufacturing	100	123.50
Clerks, payroll	59	76.50				Draftsmen, junior	68	102.50
Manufacturing	45	76.00	Switchboard operators	15	64.50	Manufacturing	68	102.50
Comptometer operators	55	80.00	Switchboard operator-receptionists	33	71.50	Nurses, industrial (registered)	18	93.00
Manufacturing	55	80.00	Manufacturing	26	70.50	Manufacturing	18	93.00

¹ Earnings relate to regular straight-time weekly salaries that are paid for standard workweeks.² Transportation, communication, and other public utilities.

Table A-4. Maintenance and Powerplant Occupations

(Average straight-time hourly earnings for men in selected occupations studied on an area basis
by industry division, Muskegon-Muskegon Heights, Mich., May 1963)

Occupation and industry division	Number of workers	Average hourly earnings ¹	NUMBER OF WORKERS RECEIVING STRAIGHT-TIME HOURLY EARNINGS OF--																		
			Under \$1.80	\$1.80 and under 1.90	\$1.90 2.00	\$2.00 2.10	\$2.10 2.20	\$2.20 2.30	\$2.30 2.40	\$2.40 2.50	\$2.50 2.60	\$2.60 2.70	\$2.70 2.80	\$2.80 2.90	\$2.90 3.00	\$3.00 3.10	\$3.10 3.20	\$3.20 3.30	\$3.30 3.40	\$3.40 3.50	\$3.50 3.60
Carpenters, maintenance	26	\$2.85	-	-	-	-	-	-	-	5	2	-	2	6	1	-	10	-	-	-	-
Manufacturing	26	2.85	-	-	-	-	-	-	-	5	2	-	2	6	1	-	10	-	-	-	-
Electricians, maintenance	121	2.93	-	-	-	-	-	-	2	-	1	10	19	35	1	15	2	36	-	-	-
Manufacturing	120	2.93	-	-	-	-	-	-	2	-	1	10	18	35	1	15	2	36	-	-	-
Firemen, stationary boiler	51	2.51	3	4	-	-	-	3	12	7	3	-	-	3	-	8	8	-	-	-	-
Manufacturing	48	2.60	-	4	-	-	-	3	12	7	3	-	-	3	-	8	8	-	-	-	-
Helpers, maintenance trades	18	2.64	-	-	-	-	-	-	-	7	3	-	-	8	-	-	-	-	-	-	-
Machine-tool operators, toolroom	106	3.16	-	-	-	-	-	-	-	-	2	-	5	1	5	17	39	2	17	18	-
Manufacturing	106	3.16	-	-	-	-	-	-	-	-	2	-	5	1	5	17	39	2	17	18	-
Machinists, maintenance	81	2.96	-	-	-	-	-	-	-	-	2	6	-	42	-	3	9	10	9	-	-
Manufacturing	77	2.94	-	-	-	-	-	-	-	-	2	6	-	42	-	3	9	10	5	-	-
Mechanics, automotive (maintenance)	59	2.85	-	-	-	-	-	-	6	3	-	-	-	30	6	2	9	3	-	-	-
Manufacturing	34	2.80	-	-	-	-	-	-	6	3	-	-	-	16	-	-	9	-	-	-	-
Nonmanufacturing	25	2.93	-	-	-	-	-	-	-	-	-	-	-	14	6	2	-	3	-	-	-
Public utilities ²	25	2.93	-	-	-	-	-	-	-	-	-	-	-	14	6	2	-	3	-	-	-
Mechanics, maintenance	142	2.90	-	-	-	-	-	-	-	-	-	5	28	70	6	6	-	27	-	-	-
Manufacturing	142	2.90	-	-	-	-	-	-	-	-	-	5	28	70	6	6	-	27	-	-	-
Millwrights	115	2.87	-	-	-	-	-	-	-	-	28	-	3	38	11	-	35	-	-	-	-
Manufacturing	115	2.87	-	-	-	-	-	-	-	-	28	-	3	38	11	-	35	-	-	-	-
Oilers	35	2.59	-	-	1	-	-	1	14	1	2	9	-	-	-	-	7	-	-	-	-
Manufacturing	35	2.59	-	-	1	-	-	1	14	1	2	9	-	-	-	-	7	-	-	-	-
Pipefitters, maintenance	60	2.90	-	-	-	-	-	-	-	-	9	2	9	6	10	7	17	-	-	-	-
Manufacturing	60	2.90	-	-	-	-	-	-	-	-	9	2	9	6	10	7	17	-	-	-	-
Tool and die makers	165	3.19	-	-	-	-	-	-	-	-	-	1	3	7	22	28	32	22	4	33	13
Manufacturing	165	3.19	-	-	-	-	-	-	-	-	-	1	3	7	22	28	32	22	4	33	13

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.² Transportation, communication, and other public utilities.

Table A-5. Custodial and Material Movement Occupations

(Average straight-time hourly earnings for selected occupations studied on an area basis
by industry division, Muskegon-Muskegon Heights, Mich., May 1963)

Occupation ¹ and industry division	Number of workers	Average hourly earnings ²	NUMBER OF WORKERS RECEIVING STRAIGHT-TIME HOURLY EARNINGS OF—																									
			Under \$1.20	\$1.20 and under 1.30	\$1.30 1.40	\$1.40 1.50	\$1.50 1.60	\$1.60 1.70	\$1.70 1.80	\$1.80 1.90	\$1.90 2.00	\$2.00 2.10	\$2.10 2.20	\$2.20 2.30	\$2.30 2.40	\$2.40 2.50	\$2.50 2.60	\$2.60 2.70	\$2.70 2.80	\$2.80 2.90	\$2.90 3.00	\$3.00 3.10	\$3.10 3.20	\$3.20 3.30	\$3.30 3.40			
Guards and watchmen -----	112	\$ 2.42	1	-	-	-	3	-	1	3	1	15	16	7	14	6	-	-	4	36	2	3	-	-	-	-		
Manufacturing -----	104	2.45	-	-	-	-	-	-	1	3	1	15	16	7	14	6	-	-	-	36	2	3	-	-	-	-		
Guards -----	91	2.50	-	-	-	-	-	-	-	-	-	12	16	7	14	1	-	-	-	36	2	3	-	-	-	-		
Janitors, porters, and cleaners (men) -----	246	2.28	3	-	2	1	10	5	3	3	13	14	22	21	18	109	5	17	-	-	-	-	-	-	-	-		
Manufacturing -----	210	2.36	-	-	-	-	-	2	3	3	13	13	13	21	18	107	-	17	-	-	-	-	-	-	-			
Nonmanufacturing -----	36	1.82	3	-	2	1	10	3	-	-	-	1	9	-	-	2	5	-	-	-	-	-	-	-	-			
Public utilities ³ -----	18	2.15	-	-	-	1	2	1	-	-	-	1	6	-	-	2	5	-	-	-	-	-	-	-	-			
Janitors, porters, and cleaners (women) -----	37	1.82	1	6	-	-	-	7	4	3	-	7	4	-	3	2	-	-	-	-	-	-	-	-	-			
Manufacturing -----	18	2.03	-	-	-	-	-	4	3	-	-	3	4	-	3	1	-	-	-	-	-	-	-	-	-			
Nonmanufacturing -----	19	1.63	1	6	-	-	-	7	4	-	-	4	-	-	-	1	-	-	-	-	-	-	-	-	-			
Laborers, material handling -----	253	2.37	-	-	-	-	-	-	1	3	2	35	16	86	7	4	52	38	5	-	-	2	-	-	2	-		
Manufacturing -----	240	2.38	-	-	-	-	-	-	1	1	2	34	16	76	7	4	52	38	5	-	-	2	-	-	2	-		
Order fillers -----	42	2.53	-	-	-	-	-	-	-	-	-	-	-	-	6	16	3	7	10	-	-	-	-	-	-			
Manufacturing -----	32	2.45	-	-	-	-	-	-	-	-	-	-	-	-	6	16	3	7	-	-	-	-	-	-	-			
Packers, shipping -----	158	2.56	-	-	-	-	-	-	-	-	-	-	3	3	20	2	122	-	-	-	6	2	-	-	-	-		
Manufacturing -----	152	2.55	-	-	-	-	-	-	-	-	-	-	3	3	20	2	122	-	-	-	-	2	-	-	-	-		
Receiving clerks -----	26	2.55	-	-	-	-	-	-	-	-	-	-	-	4	3	2	2	11	2	1	1	-	-	-	-			
Manufacturing -----	26	2.55	-	-	-	-	-	-	-	-	-	-	-	4	3	2	2	11	2	1	1	-	-	-	-			
Shipping clerks -----	26	2.71	-	-	-	-	-	-	-	-	-	-	-	-	5	1	-	4	9	4	1	1	-	-	1	-		
Manufacturing -----	26	2.71	-	-	-	-	-	-	-	-	-	-	-	-	5	1	-	4	9	4	1	1	-	-	1	-		
Truckdrivers ⁴ -----	48	2.61	-	-	-	-	-	-	2	-	-	2	2	4	14	3	4	1	-	6	6	4	-	-	-	-		
Manufacturing -----	39	2.58	-	-	-	-	-	-	1	-	-	2	1	3	14	3	4	1	-	6	-	4	-	-	-	-		
Truckdrivers, medium (1½ to and including 4 tons) -----	15	2.62	-	-	-	-	-	-	1	-	-	-	2	1	2	1	4	-	-	-	-	4	-	-	-	-		
Truckers, power (forklift) -----	158	2.47	-	-	-	-	-	-	-	1	-	15	12	26	39	54	4	-	-	5	-	2	-	-	-	-		
Manufacturing -----	152	2.48	-	-	-	-	-	-	-	1	-	15	6	26	39	54	4	-	-	5	-	2	-	-	-	-		
Truckers, power (other than forklift) -----	91	2.45	-	-	-	-	-	-	-	-	-	15	4	-	25	47	-	-	-	-	-	-	-	-	-	-		
Manufacturing -----	91	2.45	-	-	-	-	-	-	-	-	-	15	4	-	25	47	-	-	-	-	-	-	-	-	-	-		

¹ Data limited to men workers except where otherwise indicated.² Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.³ Transportation, communication, and other public utilities.⁴ Includes all drivers regardless of size and type of truck operated.

Appendix: Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field staff in classifying into appropriate occupations workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This is essential in order to permit the grouping of occupational wage rates representing comparable job content. Because of this emphasis on interestablishment and interarea comparability of occupational content, the Bureau's job descriptions may differ significantly from those in use in individual establishments or those prepared for other purposes. In applying these job descriptions, the Bureau's field economists are instructed to exclude working supervisors, apprentices, learners, beginners, trainees, handicapped, part-time, temporary, and probationary workers.

OFFICE

BILLER, MACHINE

Prepares statements, bills, and invoices on a machine other than an ordinary or electromatic typewriter. May also keep records 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 special billing machine (Moon Hopkins, Elliott Fisher, Burroughs, etc., which are combination typing and adding machines) to prepare bills and invoices from customers' purchase orders, internally prepared orders, shipping memorandums, etc. Usually involves application of predetermined discounts and shipping charges and entry of necessary extensions, which may or may not be computed on the billing machine, and totals which are automatically accumulated by machine. The operation usually involves a large number of carbon copies of the bill being prepared and is often done on a fanfold machine.

Biller, machine (bookkeeping machine)—Uses a bookkeeping machine (Sundstrand, Elliott Fisher, Remington Rand, etc., which may or may not have typewriter keyboard) to prepare customers' bills as part of the accounts receivable operation. Generally involves the simultaneous entry of figures on customers' ledger record. The machine automatically accumulates figures on a number of vertical columns and computes and usually prints automatically the debit or credit balances. Does not involve a knowledge of bookkeeping. Works from uniform and standard types of sales and credit slips.

BOOKKEEPING-MACHINE OPERATOR

Operates a bookkeeping machine (Remington Rand, Elliott Fisher, Sundstrand, Burroughs, National Cash Register, with or without a typewriter keyboard) to keep a record of business transactions.

Class A—Keeps a set of records requiring a knowledge of and experience in basic bookkeeping principles and familiarity with the structure of the particular accounting system used. Determines proper records and distribution of debit and credit items to 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 usually requiring 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 distribution, expense distribution, inventory control, etc. May check or assist in preparation of trial balances and prepare control sheets for the accounting department.

CLERK, ACCOUNTING

Class A—Under general direction of a bookkeeper or accountant, has responsibility for keeping one or more sections of a complete set of books or records relating to one phase of an establishment's business transactions. Work involves posting and balancing subsidiary ledger or ledgers such as accounts receivable or accounts

CLERK, ACCOUNTING—Continued

payable; examining and coding invoices or vouchers with proper accounting distribution; and requires judgment and experience in making proper assignments and allocations. May assist in preparing, adjusting and closing journal entries; and may direct class B accounting clerks.

Class B—Under supervision, performs one or more routine accounting operations such as posting simple journal vouchers or accounts payable vouchers, entering vouchers in voucher registers; reconciling bank accounts; and posting subsidiary ledgers controlled by general ledgers, or posting simple cost accounting data. This job does not require a knowledge of accounting and book-keeping principles but is found in offices in which the more routine accounting work is subdivided on a functional basis among several workers.

CLERK, FILE

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

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

Class C—Performs routine filing of material that has already been classified or which is easily classified in a simple serial classification system (e.g., alphabetical, chronological, or numerical). As requested, locates readily available material in files and forwards material; and may fill out withdrawal charge. Performs simple clerical and manual tasks 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 customers; making out an order sheet listing the items 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 to determine credit rating of customer, acknowledge receipt of orders from customers, follow up orders to see that they have been filled, keep file of orders received, and check shipping invoices with original orders.

CLERK, PAYROLL

Computes wages of company employees and enters the necessary data on the payroll sheets. Duties involve: Calculating workers' earnings based on time or production records; and posting calculated data on payroll sheet, showing information such as worker's name, working days, time, rate, 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.

COMPTOMETER OPERATOR

Primary duty is to operate a Comptometer to perform mathematical computations. This job is not to be confused with that of statistical or other type of clerk, which may involve frequent use of a Comptometer but, in which, use of this machine is incidental to performance of other duties.

DUPLICATING-MACHINE OPERATOR (MIMEOGRAPH OR DITTO)

Under general supervision and with no supervisory responsibilities, reproduces multiple copies of typewritten or handwritten matter, using a Mimeograph or Ditto machine. Makes necessary adjustment such as for ink and paper feed counter and cylinder speed. Is not required to prepare stencil or Ditto master. May keep file of used stencils or Ditto masters. May sort, collate, and staple completed material.

KEYPUNCH OPERATOR

Class A—Operates a numerical and/or alphabetical or combination keypunch machine to transcribe data from various source documents to keypunch tabulating cards. Performs same tasks as lower level keypunch operator but in addition, work requires application of coding skills and the making of some determinations, for example, locates on the source document the items to be punched; extracts information from several documents; and searches for and interprets information on the document to determine information to be punched. May train inexperienced operators.

Class B—Under close supervision or following specific procedures or instructions, transcribes data from source documents to punched cards. Operates a numerical and/or alphabetical or combination keypunch machine to keypunch tabulating cards. May verify cards. Working from various standardized source documents, follows specified sequences which have been coded or prescribed in detail and require little or no selecting, coding, or interpreting data to be punched. Problems arising from erroneous items or codes, missing information, etc., are referred to supervisor.

OFFICE BOY OR GIRL

Performs various routine duties such as running errands, operating minor office machines such as sealers or mailers, opening and distributing mail, and other minor clerical work.

SECRETARY

Performs secretarial and clerical duties for a superior in an administrative or executive position. Duties include making appointments for superior; receiving people coming into office; answering and

SECRETARY—Continued

making phone calls; handling personal and important or confidential mail, and writing routine correspondence on own initiative; and taking dictation (where transcribing machine is not used) either in shorthand or by Stenotype or similar machine, and transcribing dictation or the recorded information reproduced on a transcribing machine. May prepare special reports or memorandums for information of superior.

STENOGRAPHER, GENERAL

Primary duty is to take dictation from one or more persons either in shorthand or by Stenotype or similar machine, involving a normal routine vocabulary; and transcribe dictation. May also type from written copy. May maintain files, keep simple records, or perform other relatively routine clerical tasks. May operate from a stenographic pool. Does not include transcribing-machine work. (See transcribing-machine operator.)

STENOGRAPHER, SENIOR

Primary duty is to take dictation from one or more persons, either in shorthand or by Stenotype or similar machine, involving a varied technical or specialized vocabulary such as in legal briefs or reports on scientific research and transcribe dictation. May also type from written copy. May also set up and maintain files, keep records, etc.

OR

Performs stenographic duties requiring significantly greater independence and responsibility than stenographers, general as evidenced by the following: Work requires high degree of stenographic speed and accuracy; and a thorough working knowledge of general business and office procedures and of the specific business operations, organization, policies, procedures, files, workflow, etc. Uses this knowledge in performing stenographic duties and responsible clerical tasks such as, maintaining followup files; assembling material for reports, memorandums, letters, etc.; composing simple letters from general instructions; reading and routing incoming mail; and answering routine questions, etc. Does not include transcribing-machine work.

SWITCHBOARD OPERATOR

Operates a single- or multiple-position telephone switchboard. Duties involve handling incoming, outgoing, and intraplant or office calls. May record toll calls and take messages. May give information to persons who call in, or occasionally take telephone orders. For workers who also act as receptionists see switchboard operator-receptionist.

SWITCHBOARD OPERATOR-RECEPTIONIST

In addition to performing duties of operator, on a single position or monitor-type switchboard, acts as receptionist and may also type or perform routine clerical work as part of regular duties. This typing or clerical work may take the major part of this worker's time while at switchboard.

TABULATING-MACHINE OPERATOR

Class A—Operates a variety of tabulating or electrical accounting machines, typically including such machines as the tabulator, calculator, interpreter, collator, and others. Performs complete reporting assignments without close supervision, and performs difficult wiring as required. The complete reporting and tabulating assignments typically involve a variety of long and complex reports which often are of irregular or nonrecurring type requiring some planning and sequencing of steps to be taken. As a more experienced operator, is typically involved in training new operators in machine operations, or partially trained operators in wiring from diagrams and operating sequences of long and complex reports, *Does not include* working supervisors performing tabulating-machine operations and day-to-day supervision of the work and production of a group of tabulating-machine operators.

Class B—Operates more difficult tabulating or electrical accounting machines such as the tabulator and calculator, in addition to the sorter, reproducer, and collator. This work is performed under specific instructions and may include the performance of some wiring from diagrams. The work typically involves, for example, tabulations involving a repetitive accounting exercise, a complete but small tabulating study, or parts of a longer and more complex report. Such reports and studies are usually of a recurring nature where the procedures are well established. May also include the training of new employees in the basic operation of the machine.

TABULATING-MACHINE OPERATOR—Continued

Class C—Operates simple tabulating or electrical accounting machines such as the sorter, reproducing punch, collator, etc., with specific instructions. May include simple wiring from diagrams and some filing work. The work typically involves portions of a work unit, for example, individual sorting or collating runs or repetitive operations.

TRANSCRIBING-MACHINE OPERATOR, GENERAL

Primary duty is to transcribe dictation involving a normal routine vocabulary from transcribing-machine records. May also type from written copy and do simple clerical work. Workers transcribing dictation involving a varied technical or specialized vocabulary such as legal briefs or reports on scientific research are not included. A worker who takes dictation in shorthand or by Stenotype or similar machine is classified as a stenographer, general.

TYPIST

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

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

Class B—Performs one or more of the following: Copy typing from rough or clear drafts; routine typing of forms, insurance policies, etc.; and setting up simple standard tabulations, or copying more complex tables already set up and spaced properly.

PROFESSIONAL AND TECHNICAL

DRAFTSMAN, JUNIOR

(Assistant draftsman)

Draws to scale units or parts of drawings prepared by draftsman or others for engineering, construction, or manufacturing purposes. Uses various types of drafting tools as required. May prepare drawings from simple plans or sketches, or perform other duties under direction of a draftsman.

DRAFTSMAN, LEADER

Plans and directs activities of one or more draftsmen in preparation of working plans and detail drawings from rough or preliminary sketches for engineering, construction, or manufacturing purposes. Duties involve *a combination of the following*: Interpreting blueprints, sketches, and written or verbal orders; determining work procedures; assigning duties to subordinates and inspecting their work; and performing more difficult problems. May assist subordinates during emergencies or as a regular assignment, or perform related duties of a supervisory or administrative nature.

DRAFTSMAN, SENIOR

Prepares working plans and detail drawings from notes, rough or detailed sketches for engineering, construction, or manufacturing purposes. Duties involve *a combination of the following*: Preparing working plans, detail drawings, maps, cross-sections, etc., to scale by use of drafting instruments; making engineering computations such as those involved in strength of materials, beams and trusses; verifying

DRAFTSMAN, SENIOR—Continued

completed work, checking dimensions, materials to be used, and quantities; writing specifications; and making adjustments or changes in drawings or specifications. May ink in lines and letters on pencil drawings, prepare detail units of complete drawings, or trace drawings. Work is frequently in a specialized field such as architectural, electrical, mechanical, or structural drafting.

NURSE, INDUSTRIAL (REGISTERED)

A registered nurse who gives nursing service to ill or injured employees or other persons who become ill or suffer an accident on the premises of a factory or other establishment. Duties involve *a combination of the following*: Giving first aid to the ill or injured; attending to subsequent dressing of employees' injuries; keeping records of patients treated; preparing accident reports for compensation or other purposes; conducting physical examinations and health evaluations 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.

TRACER

Copies plans and drawings prepared by others, by placing tracing cloth or paper over drawing and tracing with pen or pencil. Uses T-square, compass, and other drafting tools. May prepare simple drawings and do simple lettering.

MAINTENANCE AND POWERPLANT

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, casings, and trim made of wood in an establishment. Work involves *most of the following*: Planning and laying out of work from blueprints, drawings, models, or verbal instructions; using a variety of carpenter's handtools, portable

CARPENTER, MAINTENANCE—Continued

power tools, and standard measuring instruments; making standard shop computations relating to dimensions of work; and selecting materials necessary for the work. In general, the work of the maintenance carpenter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

ELECTRICIAN, MAINTENANCE

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generating, distribution, or utilization of electric energy in an establishment. Work involves *most of the following*: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layout, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; and using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

ENGINEER, STATIONARY

Operates and maintains and may also supervise the operation of stationary engines and equipment (mechanical or electrical) to supply the establishment in which employed with power, heat, refrigeration, or air-conditioning. Work involves: Operating and maintaining equipment such as steam engines, air compressors, generators, motors, turbines, ventilating and refrigerating equipment, steam boilers and boiler-fed water pumps; making equipment repairs; and keeping a record of operation of machinery, temperature, and fuel consumption. May also supervise these operations. *Head or chief engineers in establishments employing more than one engineer are excluded.*

FIREMAN, STATIONARY BOILER

Fire 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 checks water and safety valve. May clean, oil, or assist in repairing boilerroom equipment.

HELPER, MAINTENANCE TRADES

Assists 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; cleaning working area, machine, and equipment; assisting worker by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to 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 specialized machine operations, or parts of a trade that are also performed by workers on a full-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-shop tools, gages, jigs, fixtures, or dies. Work involves *most of the following*: Planning and 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, to dress tools, and to select proper coolants and cutting and lubricating oils. For cross-industry wage study purposes, machine-tool operators, toolroom, in tool and die jobbing shops are excluded from this classification.

MACHINIST, MAINTENANCE

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 specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds and speeds of machining; knowledge of the working

MACHINIST, MAINTENANCE—Continued

properties of the common metals; selecting standard materials, parts, and equipment required for his work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

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, gages, drills, or specialized equipment in disassembling or fitting parts; replacing broken or defective parts from stock; grinding and adjusting valves; reassembling and installing the various assemblies in the vehicle and making necessary adjustments; and alining wheels, adjusting brakes and lights, or tightening body bolts. In general, the work of the automotive mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

MECHANIC, MAINTENANCE

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 or partly dismantling machines and performing repairs that mainly involve the use of handtools in scraping and fitting parts; replacing broken or defective parts with items obtained from stock; ordering 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 shop; 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*: Planning and laying out of the work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; alining and balancing of equipment; selecting standard tools, equipment and parts to be used; and installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, the millwright's work normally requires a rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

OILER

Lubricates, with oil or grease, the moving parts or wearing surfaces of mechanical equipment of an establishment.

PAINTER, MAINTENANCE

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 interstices; and applying paint with spray gun or brush. May mix colors, oils, white lead, and other 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 machine; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings

PIPEFITTER, MAINTENANCE—Continued

and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of 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.*

PLUMBER, MAINTENANCE

Keeps the plumbing system of an establishment in good order. Work involves: Knowledge of sanitary codes regarding installation of vents and traps in plumbing system; installing or repairing pipes and fixtures; and opening clogged drains with a plunger or plumber's snake. In general, the work of the maintenance plumber requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

SHEET-METAL WORKER, MAINTENANCE

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 roofing) 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

SHEET-METAL WORKER, MAINTENANCE—Continued

types of sheet-metal-working machines; using a variety of handtools in cutting, bending, 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

(Die maker; jig maker; tool maker; fixture maker; gage maker)

Constructs and repairs machine-shop tools, gages, 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 necessary shop computations relating to dimensions of work, speeds, feeds, and tooling of machines; heattreating 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 materials, tools, and processes. In general, the tool and die maker's work requires a rounded training in machine-shop and toolroom practice usually acquired 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**ELEVATOR OPERATOR, PASSENGER**

Transports passengers between floors of an office building apartment house, department store, hotel, or similar establishment. Workers who operate elevators in conjunction with other duties such as those of starters and janitors are excluded.

GUARD

Performs routine police duties, either at fixed post or on tour, maintaining order, using arms or force where necessary. *Includes gate-men who are stationed at gate and check on identity of employees and other persons entering.*

JANITOR, PORTER, OR CLEANER

(Sweeper; charwomen; janitress)

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office, apartment house, or commercial or other establishment. Duties involve *a combination of the following*: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing 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, MATERIAL HANDLING

(Loader and unloader; handler and stacker; shelve; trucker; stockman or stock helper; warehouseman or warehouse helper)

A worker employed in a warehouse, manufacturing plant, store, or other establishment 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 hand truck, car, or wheelbarrow. *Longshoremen, who load and unload ships are excluded.*

ORDER FILLER

(Order picker; stock selector; warehouse stockman)

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 storage by placing them in shipping containers, the specific operations performed being dependent upon the type, size, and number of units to be packed, the type of container employed, and method of shipment. Work requires the placing of items in shipping containers and *may involve one or more of the following*: Knowledge of various items of stock in order to verify content; selection of appropriate type and size of container; inserting enclosures in container; using 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 wooden boxes or crates are excluded.*

SHIPPING AND RECEIVING CLERK

Prepares merchandise for shipment, or receives and is responsible for incoming shipments of merchandise 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

Shipping and receiving 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 plants, freight depots, warehouses, wholesale and retail establishments, or between retail establishments and customers' houses 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-salesmen and over-the-road drivers are excluded.*

For wage study purposes, truckdrivers are classified by size and type of equipment, as follows: (Tractor-trailer should be rated on the basis of trailer capacity.)

Truckdriver (combination of sizes listed separately)
Truckdriver, light (under 1½ tons)
Truckdriver, medium (1½ 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 transport goods and materials of all kinds about a warehouse, manufacturing plant, or other establishment.

For wage study purposes, workers are classified by type of truck, as follows:

Trucker, power (forklift)
Trucker, power (other than forklift)

WATCHMAN

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