U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

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WAGES AND HOURS OF LABOR SERIES

WAGES AND HOURS OF LABOR IN THE MOTOR VEHICLE INDUSTRY: 1925

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CONTENTS

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BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS

NO. 438 WASHINGTON MAY, 1927

WAGES AND HOURS OF LABOR IN THE MOTOR VEHICLE INDUSTRY, 1925

INTRODUCTION AND SUMMARY

The Bureau of Labor Statistics presents in this bulletin the results of a study of hours of labor and of earnings in the motor vehicle industry in 1925. The industry includes the manufacture of passenger cars, trucks, busses, bodies, and parts.

The figures were compiled from data collected by agents of the bureau from the pay rolls and other records of 99 establishments. The establishments were located in Illinois, Indiana, Michigan, New York, New Jersey, Ohio, Pennsylvania, and Wisconsin. According to the 1923 Census of Manufactures, 91 per cent of the wage earners in the industry were employed in these States, while the remaining 9 per cent were in 13 other States.

The data herein presented are for a total of 144,362 wage earners, or 35.6 per cent of the whole number reported in the motor vehicle industry by the 1923 Census of Manufactures. The total includes 3,432 females.

A summary of the 1925 average full-time hours per week, average earnings per hour, and average full-time earnings per week in Table A (p. 26) for each occupation and for all occupations combined are shown in Table 1 (p. 2) in comparison with like figures for 1922. Detailed 1922 figures from 49 establishments are given in Bulletin No. 348.

Average full-time weekly hours of males in all occupations combined increased from 50.1 in 1922 to 50.3 in 1925, of females in all occupations decreased from 50.3 in 1922 to 50.1 in 1925, and of males and females in all occupations combined for the industry increased from 50.1 in 1922 to 50.3 in 1925.

Average earnings per hour of males in all occupations combined increased from 66.2 cents in 1922 to 72.9 in 1925, for females the increase was from 43.8 to 46.7 cents, and for all males and females combined for the industry as a whole the increase was from 65.7 cents in 1922 to 72.3 cents per hour in 1925.

Average full-time earnings per week of males in all occupations increased from $33.19 in 1922 to $36 67 in 1925, of females from $22.05 to $23.40, and of all males and females combined from $32.92 in 1922 to $36.37 in 1925.

In 1922 the occupational average earnings per hour, "apprentices" excepted, ranged for males from 49.5 cents for "laborers" to 93.1 cents per hour for "letterers, stripers, and varnishers," and in 1925 from 57 cents per hour for "laborers" to $1.037 per hour for "ding men." Average earnings per hour of females in 1922 ranged from

35.2 cents for "inspectors" to 68 cents per hour for "other skilled occupations," and in 1925 from 36.1 cents per hour for "inspectors" to 69.6 cents per hour for "lathe operators."

TABLE 1.—*Average full-time hours per week and earnings per hour and per week, 1922 and 1925, by occupation and sex*

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Apprentices	M.	1922	19	300	52.5	$0.385	$20.21
	M.	1925	45	544	50.0	.512	25.60
Assemblers, axle	M.	1922	30	763	49.8	.675	33.62
	M.	1925	45	1,922	50.3	.729	36.67
	F.	1925	2	24	50.0	.496	24.80
Assemblers, body frame [1]	M.	1925	49	3,091	50.8	.739	37.54
Assemblers, chassis	M.	1922	41	1,357	50.2	.647	32.48
	M.	1925	54	2,902	49.9	.694	34.63
	F.	1925	3	34	50.0	.520	26.00
Assemblers, final	M.	1922	46	3,108	50.3	.672	33.82
	M.	1925	74	7,400	50.1	.731	36.62
	F.	1922	7	170	49.1	.621	30.52
	F.	1925	18	318	49.8	.507	25.25
Assemblers, frame	M.	1922	29	364	49.0	.673	33.01
	M.	1925	47	1,115	50.0	.753	37.65
Assemblers, motor	M.	1922	41	2,147	50.0	.661	33.03
	M.	1925	61	4,851	49.8	.747	37.20
	F.	1922	2	2	52.5	.485	25.47
	F.	1925	6	48	50.0	.489	24.45
Automatic operators (lathe and screw machine).	M.	1922	34	1,673	50.2	.688	34.56
	M.	1925	65	2,622	49.7	.764	37.97
	F.	1925	4	6	49.7	.493	24.50
Bench hands, machine shop	M.	1922	35	2,176	50.0	.670	33.47
	M.	1925	70	2,439	50.2	.716	35.94
	F.	1922	4	14	49.6	.546	27.10
	F.	1925	8	35	49.3	.568	28.00
Blacksmiths	M.	1922	34	388	50.0	.810	40.54
	M.	1925	80	1,040	49.6	.957	47.47
Body builders	M.	1922	26	1,604	50.7	.718	36.41
Boring-mill operators	M.	1922	30	392	50.2	.701	35.22
	M.	1925	53	828	50.6	.765	38.71
Bumpers [2]	M.	1925	35	323	49.8	.945	47.06
Crane operators [3]	M.	1925	29	145	49.7	.726	36.08
Cutters, cloth and leather [4]	M.	1925	44	219	50.5	.803	40.55
	F.	1925	5	18	51.8	.517	26.78
Die setters [3] (sheet metal)	M.	1925	19	274	49.9	.797	39.77
Ding men [2]	M.	1925	32	209	50.6	1.037	52.47
Door hangers [1]	M.	1925	32	659	51.2	.827	42.34
Drill-press operators	M.	1922	42	3,443	49.6	.644	31.96
	M.	1925	84	8,688	50.3	.712	35.81
	F.	1922	5	44	51.4	.447	22.99
	F.	1925	17	99	49.8	.573	28.54
Forge-shop helpers	M.	1922	34	656	49.6	.698	34.62
	M.	1925	55	1,661	51.0	.753	38.40
Gear-cutter operators	M.	1922	30	497	50.2	.678	34.07
	M.	1925	48	1,331	50.6	.746	37.75
Grinding-machine operators	M.	1922	38	2,574	50.0	.710	35.47
	M.	1925	69	5,422	50.1	.765	38.33
	F.	1922	2	3	52.9	.572	30.28
	F.	1925	3	9	49.9	.471	23.50
Hardeners	M.	1922	29	667	51.7	.676	34.97
	M.	1925	54	945	53.7	.725	38.93
Helpers	M.	1922	43	1,042	50.8	.531	26.95
	M.	1925	81	3,019	50.9	.603	30.69
	F.	1925	2	25	50.0	.491	24.55
Inspectors	M.	1922	44	2,808	50.1	.608	30.45
	M.	1925	93	7,676	50.1	.682	34.17
	F.	1922	7	197	51.2	.352	18.03
	F.	1925	24	437	49.6	.361	17.91
Laborers	M.	1922	47	5,982	50.2	.495	24.86
	M.	1925	97	16,592	50.4	.570	28.73
	F.	1922	5	46	50.5	.385	19.46
	F.	1925	13	105	50.2	.403	20.23
Lacquer rubbers [5]	M.	1925	38	709	50.2	.871	43.72
Lathe operators	M.	1922	41	2,950	49.5	.689	34.13
	M.	1925	72	6,260	50.0	.762	38.10
	F.	1922	3	12	52.0	.463	24.07
	F.	1925	5	41	49.8	.696	34.66

[1] Included in body builders in 1922.
[2] Included in sheet metal workers, skilled, in 1922.
[3] Included in other skilled occupations or in other employees in 1922.
[4] Included in trim bench hands in 1922.
[5] Not found in 1922; process developed since.

TABLE 1.—*Average full-time hours per week and earnings per hour and per week, 1922 and 1925, by occupation and sex*—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Letterers, stripers, and varnishers	M.	1922	37	762	50.8	$0.931	$47.26
	M.	1925	56	990	50.1	.996	49.90
Machinists	M.	1922	41	1,291	50.0	.715	35.78
	M.	1925	73	3,604	50.0	.806	40.30
Metal finishers [1]	M.	1925	36	3,397	50.6	.851	43.06
Metal panelers [1]	M.	1925	32	1,655	51.5	.770	39.66
Milling-machine operators	M.	1922	39	1,591	50.0	.659	32.94
	M.	1925	74	3,549	50.4	.737	37.14
	F.	1922	3	14	50.7	.394	19.98
	F.	1925	4	20	48.7	.469	22.84
Molders (belt and drip) [1]	M.	1925	19	266	51.0	.823	41.97
Painters, general	M.	1922	47	2,114	50.7	.733	37.17
	M.	1925	77	1,934	50.6	.776	39.27
	F.	1925	5	16	47.8	.519	24.81
Paint sprayers	M.	1922	34	177	50.6	.723	36.56
	M.	1925	69	993	50.0	.850	42.50
Planer and shaper operators	M.	1922	21	165	49.3	.738	36.40
	M.	1925	32	308	49.7	.786	39.06
Platers [3]	M.	1925	27	181	50.1	.734	36.77
Polishers and buffers	M.	1922	28	564	50.4	.756	38.08
	M.	1925	35	1,095	50.4	.908	45.76
Punch-press operators	M.	1922	27	1,096	49.4	.715	35.31
	M.	1925	61	4,416	49.6	.718	35.61
	F.	1925	6	103	50.0	.457	22.85
Sand blasters, etc.	M.	1922	32	480	50.6	.618	31.29
	M.	1925	51	954	50.8	.680	34.54
Sanders and rough-stuff rubbers [6]	M.	1925	44	1,937	50.5	.843	42.57
Sewing-machine operators	M.	1922	11	101	49.0	.748	36.65
	M.	1925	14	378	48.4	.718	34.75
	F.	1922	27	505	50.5	.442	22.32
	F.	1925	48	1,113	50.7	.472	23.93
Sheet-metal workers, skilled	M.	1922	32	779	50.7	.780	39.53
Sheet-metal workers	M.	1922	35	1,304	50.2	.656	32.92
	M.	1925	60	3,111	50.3	.783	39.38
	F.	1925	3	39	49.5	.490	24.26
Straighteners [3]	M.	1925	42	628	50.9	.753	38.33
Testers, final and road	M.	1922	41	666	50.5	.610	30.80
	M.	1925	45	741	50.8	.639	32.46
Testers, motor	M.	1922	38	489	51.2	.633	32.43
	M.	1925	48	1,433	50.5	.712	35.96
Tool and die makers	M.	1922	40	1,097	50.0	.769	38.47
	M.	1925	80	3,689	50.2	.875	43.93
Top builders	M.	1922	36	1,410	50.8	.778	39.55
	M.	1925	64	4,415	50.6	.808	40.88
	F.	1922	5	18	51.8	.468	24.26
	F.	1925	14	155	51.4	.481	24.72
Trim bench hands	M.	1922	19	182	49.4	.595	29.40
	M.	1925	35	473	49.2	.754	37.10
	F.	1922	18	202	50.6	.438	22.14
	F.	1925	26	474	49.7	.479	23.81
Varnish rubbers	M.	1922	25	501	50.9	.870	44.27
	M.	1925	34	553	50.3	.901	45.32
Welders and braziers [3]	M.	1925	68	783	50.3	.810	40.74
Welders, spot and butt [3]	M.	1925	33	677	50.2	.792	39.76
Woodworking-machine operators [1]	M.	1925	42	1,942	51.2	.674	34.51
Other skilled occupations	M.	1922	37	1,659	49.5	.710	35.15
	M.	1925	91	3,771	50.0	.774	38.70
	F.	1922	3	15	49.0	.680	33.34
	F.	1925	3	8	50.0	.536	26.80
Other employees	M.	1922	47	3,611	49.9	.644	32.13
	M.	1925	97	10,171	49.9	.692	34.53
	F.	1922	11	137	49.0	.461	22.59
	F.	1925	26	305	49.6	.450	22.32
All occupations	M.	1922	49	54,930	50.1	.662	33.19
	M.	1925	99	140,930	50.3	.729	36.67
	F.	1922	29	1,379	50.3	.438	22.05
	F.	1925	59	3,432	50.1	.467	23.40
All occupations, male and female		1922	49	56,309	50.1	.657	32.92
		1925	99	144,362	50.3	.723	36.37

[1] Included in body builders in 1922.
[3] Included in other skilled occupations or in other employees in 1922.
[6] Included in "Painters, general," in 1922.

Table 2 shows for males, for females, and for males and females together, all occupations combined, the average full-time hours per week, average earnings per hour, and average full-time earnings per week in 1925 in each State.

The average full-time hours per week of males range from 48.5 in Ohio to 53.4 in Wisconsin, of females from 48.2 in Wisconsin to 50.9 in Illinois, and of males and females combined from 48.5 in Ohio to 53.4 in Wisconsin.

Average earnings per hour of males range from 59.3 cents in Pennsylvania to 75.6 cents in Michigan, of females from 39.4 cents in Illinois to 47.9 cents in New Jersey, and of males and females combined from 59.2 cents in Pennsylvania to 74.8 cents per hour in Michigan.

Average full-time earnings per week of males range from $30.90 in Pennsylvania to $37.88 in Michigan, of females from $20.05 in Illinois to $24.23 in New York, and of males and females combined from $30.78 in Pennsylvania to $37.47 in Michigan.

TABLE 2.—*Average full-time hours per week, and earnings per hour and per week, 1925, by State and sex*

State and sex	Number of establishments	Number of wage earners	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Illinois:					
Male	9	3,596	51.4	$0.682	$35.05
Female	4	20	50.9	.394	20.05
Total	9	3,616	51.4	.680	34.95
Indiana:					
Male	12	10,028	50.6	.690	34.91
Female	9	277	49.9	.474	23.65
Total	12	10,305	50.5	.684	34.54
Michigan:					
Male	29	82,268	50.1	.756	37.88
Female	18	2,354	50.5	.464	23.43
Total	29	84,622	50.1	.748	37.47
New Jersey:					
Male	6	5,412	50.2	.720	36.14
Female	3	137	49.7	.479	23.81
Total	6	5,549	50.2	.714	35.84
New York:					
Male	14	10,878	51.1	.685	35.00
Female	10	110	50.8	.477	24.23
Total	14	10,988	51.1	.683	34.90
Ohio:					
Male	15	16,929	48.5	.736	35.70
Female	9	416	48.3	.477	23.04
Total	15	17,345	48.5	.730	35.41
Pennsylvania:					
Male	8	6,675	52.1	.593	30.90
Female	3	50	50.1	.420	21.04
Total	8	6,725	52.0	.592	30.78
Wisconsin:					
Male	6	5,144	53.4	.674	35.99
Female	3	68	48.2	.467	22.51
Total	6	5,212	53.4	.669	35.72
Total:					
Male	99	140,930	50.3	.729	36.67
Female	59	3,432	50.1	.467	23.40
Grand total	99	144,362	50.3	.723	36.37

Table 3 shows for each of 18 specified occupations the number of establishments and employees, the average earnings per hour, and the per cent of employees earning each classified amount per hour, 1925 compared with 1922.

Data are shown for males in all of the 18 occupations and for females in 6. Females were reported in 13 of the 18 occupations, but were too few in number in 7 of the 13 to be representative and are omitted from this table. They are included in other tables in the group designated as "other employees." The males in the 18 occupations represent 55.5 per cent of the total number of males covered in each of the years 1922 and 1925, and the females in the 6 occupations represent 73.4 per cent of the total number of females covered in 1922 and 69.4 per cent of the number covered in 1925. The males and females combined in this table represent 56 per cent of the total number of employees covered in 1922 and 55.8 per cent of the number covered in 1925. These occupations were selected as representative of all the occupations in the industry as regards the range or spread of figures for the individual wage earners. The classification of employees in the other occupations was omitted from this and Tables 4, 6, C, D, E, and F to save time and space.

In reading the figures for axle assemblers, the first occupation in the table, it is seen that the 763 employees of the 30 establishments covered in 1922 earned an average of 67.6 cents per hour, and that the 1,922 employees of the 45 establishments covered in 1925 earned 72.9 cents per hour; also that the per cent of employees in the lower groups of earnings is less in 1925 than in 1922. For example, in 1922 25 per cent and in 1925 only 14 per cent earned under 60 cents per hour.

TABLE 3.—*Average earnings per hour and classified per cent of employees in 18 specified occupations, 1922 and 1925, by occupation and sex*

Occupation and sex	Number of establishments	Number of employees	Average earnings per hour	Per cent of employees whose average earnings per hour were—																
				Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under $1	$1 and under $1.10	$1.10 and under $1.20	$1.20 and under $1.30	$1.30 and under $1.40	$1.40 and under $1.50	$1.50 and under $1.75	$1.75 and under $2	$2 and over
Assemblers, axle, male:																				
1922	30	763	$0.675	------	------	(1)	1	6	18	29	31	14	1	(1)	------	------	------	------	------	------
1925	45	1,922	.729	------	------	(1)	1	2	11	24	34	23	5	1	(1)	------	------	------	------	------
Assemblers, body-frame, male:[3]																				
1925	49	3,091	.739	------	(1)	(1)	1	3	18	18	26	20	9	3	(1)	(1)	(1)	(1)	------	------
Assemblers, chassis, male:																				
1922	41	1,357	.647	------	------	(1)	2	11	20	33	17	15	2	(1)	------	------	------	------	------	------
1925	54	2,902	.694	------	------	------	(1)	4	19	28	28	15	5	(1)	------	(1)	------	(1)	------	------
Assemblers, frame, male:																				
1922	29	364	.673	------	------	------	1	7	22	31	23	12	4	------	------	------	------	------	------	------
1925	47	1,115	.753	------	------	------	1	5	11	17	29	21	14	3	------	(1)	------	(1)	------	------
Assemblers, motor, male:																				
1922	41	2,147	.661	------	------	(1)	1	11	15	34	25	14	1	(1)	(1)	(1)	------	(1)	(1)	------
1925	61	4,851	.747	------	------	(1)	(1)	2	11	18	29	31	6	1	(1)	(1	(1)	(1)	(1)	(1)
Automatic operators (lathe and screw machine), male:																				
1922	34	1,673	.688	(1)	------	------	1	4	17	33	26	13	5	(1)	------	------	------	------	------	------
1925	65	2,622	.764	------	------	(1)	(1)	3	10	18	24	28	13	2	1	(1)	------	------	------	------
Drill-press operators, male:																				
1922	42	3,443	.644	------	------	(1)	4	13	22	21	23	15	2	(1)	(1)	------	(1)	------	------	------
1925	84	8,688	.712	------	(1)	(1)	1	7	14	24	26	20	5	1	(1)	(1)	(1)	------	------	------
Drill-press operators, female:																				
1922	5	44	.447	------	------	2	23	57	16	------	2	------	------	------	------	------	------	------	------	------
1925	17	99	.573	------	------	4	8	28	21	17	8	10	1	2	------	------	------	------	------	------
Grinding-machine operators, male:																				
1922	38	2,574	.710	------	------	(1)	1	4	18	24	28	19	5	1	(1)	(1)	------	------	------	------
1925	69	5,422	.765	------	------	------	(1)	3	10	19	26	25	11	4	1	(1)	(1)	(1)	(1)	------
Inspectors, male:																				
1922	44	2,808	.608	------	------	(1)	1	14	32	33	12	4	2	1	(1)	------	------	------	------	------
1925	93	7,676	.682	------	------	(1)	(1)	5	18	36	21	12	5	2	(1)	(1)	(1)	(1)	------	(1)
Inspectors, female:																				
1922	7	197	.352	------	------	4	71	25	------	------	------	------	------	------	------	------	------	------	------	------
1925	24	437	.361	------	------	2	73	24	1	------	------	------	------	------	------	------	------	------	------	------
Laborers, male:																				
1922	47	5,982	.495	------	(1)	1	11	48	22	7	5	4	1	(1)	------	------	(1)	------	------	------
1925	97	16,592	.570	(1)	(1)	(1)	3	30	30	15	10	10	1	(1)	(1)	(1)	------	------	------	------

Laborers, female:																						
1922	5	46	.385				50	48	2													
1925	13	105	.403		1	1	43	48	8													
Lathe operators, male:																						
1922	41	2,950	.689				1	6	18	28	26	16	4	1	(1)							
1925	72	6,260	.762			(1)	1	2	8	19	31	27	10	2	(1)	(1)	(1)					
Letterers, stripers, and varnishers, male:																						
1922	37	762	.931					1	4	10	16	18	13	13	12	8	4	1	(1)	(1)		
1925	56	990	.996					(1)	2	7	15	12	12	19	12	7	6	3	4	1	(1)	
Machinists, male:																						
1922	41	1,291	.715				1	3	11	31	29	13	8	3	(1)	(1)	(1)					
1925	73	3,604	.806					(1)	4	14	29	28	14	8	2	(1)	(1)	(1)	(1)			
Milling-machine operators, male:																						
1922	39	1,591	.659			(1)	2	10	22	25	25	11	2	2	(1)							
1925	74	3,549	.737			(1)	1	6	11	21	28	23	7	3	1	(1)	(1)					
Sewing-machine operators, male:																						
1922	11	101	.748		1	1		4	9	17	15	49	4	1								
1925	14	378	.718					(1)	5	38	22	33	1	(1)								
Sewing-machine operators, female:																						
1922	27	505	.442		2	6	26	38	22	5	1	(1)	(1)									
1925	48	1,113	.472		1	2	27	31	26	11	2	1	(1)									
Tool and die makers, male:																						
1922	40	1,097	.769				(1)	(1)	4	23	39	20	7	3	3	(1)	(1)		(1)	(1)	(1)	
1925	80	3,689	.875				(1)	(1)	1	8	19	29	24	11	4	1	(1)	(1)	(1)	(1)	(1)	
Top builders, male:																						
1922	36	1,410	.778		(1)	(1)	1	4	8	15	28	23	15	5	1	(1)	(1)					
1925	64	4,415	.808	(1)	(1)	(1)	(1)	3	8	13	24	24	18	8	2	(1)	(1)	(1)				
Top builders, female:																						
1922	5	18	.468			6	17	28	39	6		6										
1925	14	155	.481				18	52	22	7		1		1								
Trim bench hands, male:																						
1922	19	182	.595			3	9	12	25	29	8	10	4	1								
1925	35	473	.754				1	4	10	22	17	31	9	5	(1)	(1)						
Trim bench hands, female:																						
1922	18	202	.438		1	4	30	36	26	3												
1925	26	474	.479	1	1	5	19	34	27	11	2	(1)										

[1] Less than 1 per cent.

[2] Included in body builders in 1922.

REGULAR OR CUSTOMARY HOURS OF OPERATION

The regular or customary hours of operation of an establishment are the hours when the establishment is working its recognized standard of hours per day and per week, as established by the regular fixed time of beginning work in the morning and of closing in the afternoon less the time off duty for the midday lunch or dinner. No consideration was given to broken time of individual workers. Further, no weight was given to overtime nor to the custom in a few plants of working a short week of 5 days or a short day on Saturday or other week day during one, two, or three months in summer. The hours of operation per week in these few plants for the other 9, 10, or 11 months were used in arriving at the full-time hours for such plants.

Table 4 shows for each of the 18 specified occupations, and for each year, the number of establishments and employees, average full-time hours per week, and the per cent of employees coming within each classified group of full-time hours per week. Reading the figures for axle assemblers in explanation of the data in the table, it is seen that full-time hours increased from an average of 49.8 per week in 1922 to 50.3 in 1925, that the full-time hours of 9 per cent of the 763 axle assemblers covered in 1922 were 44½ per week, of 16 per cent were 48 per week, of 1 per cent were 49½ per week, of 59 per cent were 50 per week, etc.; also that the full-time hours of 22 per cent of the 1,922 wage earners covered in 1925 were less than 50 hours per week, of 64 per cent were 50 per week, etc.

TABLE 4.—*Average and classified per cent of full-time hours per week in 18 specified occupations, 1922 and 1925, by occupation and sex*

Occupation and sex	Number of establishments	Number of employees	Average full-time hours per week	Per cent of employees whose full-time hours per week were—													
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Assemblers, axle, male:																	
1922	30	763	49.8	-------	9	-------	16	-------	1	59	1	8	6	-------	-------	-------	-------
1925	45	1,922	50.3	-------	3	(1)	18	-------	1	64	-------	(1)	5	9	-------	-------	(1)
Assemblers, body-frame,[2] male:																	
1925	49	3,091	50.8	-------	(1)	1	19	(1)	5	47	2	14	11	-------	1	-------	-------
Assemblers, chassis, male:																	
1922	41	1,357	50.2	-------	7	-------	16	(1)	5	49	3	8	12	-------	-------	-------	-------
1925	54	2,902	49.9	-------	1	2	20	1	6	60	-------	3	6	-------	1	-------	-------
Assemblers, frame, male:																	
1922	29	364	49.0	-------	23	-------	27	1	2	28	2	2	15	-------	-------	-------	-------
1925	47	1,115	50.0	-------	2	1	19	-------	2	67	-------	1	8	-------	1	-------	(1)
Assemblers, motor, male:																	
1922	41	2,147	50.0	-------	5	-------	27	(1)	6	45	1	8	9	-------	-------	-------	-------
1925	61	4,851	49.8	-------	2	(1)	24	2	3	60	2	2	5	(1)	-------	(1)	(1)
Automatic operators (lathe and screw machine), male:																	
1922	34	1,673	50.2	-------	9	-------	19	-------	1	47	(1)	6	18	-------	-------	-------	-------
1925	65	2,622	49.7	-------	2	(1)	39	1	1	45	3	1	4	3	(1)	1	(1)
Drill-press operators, male:																	
1922	42	3,443	49.6	-------	9	-------	26	(1)	4	47	(1)	3	11	-------	-------	-------	-------
1925	84	8,688	50.3	-------	3	1	23	1	2	55	2	1	6	5	(1)	1	1
Drill-press operators, female:																	
1922	5	44	51.4	-------	-------	-------	2	23	-------	11	57	-------	7	-------	-------	-------	-------
1925	17	99	49.8	-------	-------	-------	23	-------	-------	67	8	2	-------	-------	-------	-------	-------
Grinding-machine operators, male:																	
1922	38	2,574	50.0	-------	5	-------	30	(1)	2	46	(1)	2	15	-------	-------	-------	-------
1925	69	5,422	50.1	-------	3	1	24	2	1	55	2	1	5	4	-------	1	1
Inspectors, male:																	
1922	44	2,808	50.1	-------	6	-------	21	-------	5	50	(1)	5	13	-------	-------	-------	-------
1925	93	7,676	50.1	-------	2	1	23	1	3	57	3	2	4	3	(1)	1	(1)
Inspectors, female:																	
1922	7	197	51.2	-------	-------	-------	-------	3	7	45	38	-------	7	-------	-------	-------	-------
1925	24	437	49.6	-------	3	-------	14	2	4	74	3	1	-------	-------	-------	-------	-------
Laborers, male:																	
1922	47	5,982	50.2	-------	3	-------	26	(1)	5	46	(1)	4	14	-------	(1)	(1)	(1)
1925	97	16,592	50.4	(1)	1	(1)	25	1	4	52	2	2	[3] 7	2	(1)	3	1

[1] Less than 1 per cent.

[2] Included in body builders in 1922.

[3] Including 10 employees, less than 1 per cent, at 56 hours.

TABLE 4.—*Average and classified per cent of full-time hours per week in 18 specified occupations, 1922 and 1925, by occupation and sex*—Continued

Occupation and sex	Number of establishments	Number of employees	Average full-time hours per week	Per cent of employees whose full-time hours per week were—													
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Laborers, female:																	
1922	5	46	50.5							80	17		2				
1925	13	105	50.2	11	1				8	66		7	2			2	4
Lathe operators, male:																	
1922	41	2,950	49.5		10		30	(1)	4	42	(1)	2	12				
1925	72	6,260	50.0		5	2	24	2	1	52	2	1	5	4	(1)	1	1
Letterers, stripers, and varnishers, male:																	
1922	37	762	50.8		3		19	(1)	9	38	1	13	16				
1925	56	990	50.1		2	(1)	20	1	3	61	1	8	4		(1)	(1)	
Machinists, male:																	
1922	41	1,291	50.0		5		29	(1)	2	46	(1)	3	15				
1925	73	3,604	50.0		1	(1)	37	2	1	43	4	1	4	3	(1)	2	(1)
Milling-machine operators, male:																	
1922	39	1,591	50.0		9		24	(1)	5	47	(1)	4	10				
1925	74	3,549	50.4		4	1	21	1	2	55	2	2	5	5		1	1
Sewing-machine operators, male:																	
1922	11	101	49.0				76			11		12	1				
1925	14	378	48.4				92	1	(1)	1		6					
Sewing-machine operators, female:																	
1922	27	505	50.5		2		18	1	14	39	10	4	12				
1925	48	1,113	50.7		(1)	4	[4] 11	2	11	42	(1)	25	5				
Tool and die makers, male:																	
1922	40	1,097	50.0		(1)		28	(1)	6	52	(1)	6	8				
1925	80	3,689	50.2		2		27	1	3	54	2	1	6	2	(1)	2	1
Top builders, male:																	
1922	36	1,410	50.8		1		18	(1)	13	39	1	11	17				
1925	64	4,415	50.6		(1)	(1)	17	(1)	7	53	1	7	13		(1)		
Top builders, female:																	
1922	5	18	51.8					22		17	22	39					
1925	14	155	51.4				1			64		35	1				
Trim bench hands, male:																	
1922	19	182	49.4		3		54		7	18	2	15	2				
1925	35	473	49.2			1	52	1	(1)	39	1	1	5		(1)		
Trim bench hands, female:																	
1922	18	202	50.6		1		14		5	49	25	2	4				
1925	26	474	49.7			4	[5] 18		9	62	1	4	1				

[1] Less than 1 per cent.

[4] Including 3 employees, approximately 1 per cent, at 47½ hours.

[5] Including 1 employee, less than 1 per cent, at 47½ hours.

The hours per day of employees in different establishments may and often do differ on account of the difference in the time of beginning and quitting work, of amount of time off duty for lunch or dinner, or of short day on Saturday. For these reasons the hours per day of employees may differ and yet the full-time hours per week be the same.

The purpose of Table 5 is to show the variation in the regular or customary hours per week and per day of employees and also to show the per cent of employees at each specified number of full-time hours per week and per day.

The full-time hours of 23.7 per cent of the 144,362 employees covered in 1925 were 48 per week distributed as follows: 13.6 per cent at 8 hours per day on 6 days, 1 per cent at 8½ hours on 5 days and 5½ hours on Saturday, 5.4 per cent at $8\frac{6}{10}$ hours on 5 days and 5 hours on Saturday, 0.6 per cent at $8\frac{7}{10}$ hours on 5 days and 4½ on Saturday, 3 per cent at 8¾ hours on 5 days and 4¼ on Saturday, and 0.1 per cent at 9¾ hours on 4 days, 9 hours on Friday, and no hours of operation on Saturday.

The full-time hours of 48.2 per cent of the employees were 50 per week, distributed as follows: 47.9 per cent at 9 hours per day on 5 days and 5 hours on Saturday, and 0.3 per cent at 10 hours per day on 5 days with no hours of operation on Saturday.

The miscellaneous group at the end of the table includes 10 per cent of the 144,362 employees distributed as follows: 2.6 per cent at less than 48 hours per week, 3.5 per cent at hours ranging from 52 to 53¾ per week, and 3.9 per cent at over 55 hours per week.

TABLE 5.—*Regular working hours and per cent of employees at each specified number per week and per day, 1925*

Hours				Per cent of employees
Per week	Monday to Thursday	Friday	Saturday	
48	8	8	8	13.6
48	8½	8½	5½	1.0
48	$8\frac{6}{10}$	$8\frac{6}{10}$	5	5.4
48	$8\frac{7}{10}$	$8\frac{7}{10}$	4½	.6
48	8¾	8¾	4¼	3.0
48	9¾	9		.1
49½	9	9	4½	3.7
50	9	9	5	47.9
50	10	10		.3
54	9	9	9	1.8
54	9¾	9¾	5¼	1.7
54	$9\frac{6}{10}$	$9\frac{6}{10}$	5	.1
55	10	10	5	9.7
55	11	11		1.1
Other				10.0

NUMBER OF DAYS WORKED

Table 6 shows for each of the 18 specified occupations the average days actually worked in the pay period studied in 1925 and the per cent of employees who worked on each specified number of days. The first section of the table is for establishments in which employees are paid weekly, and the second section is for those in which the employees are paid every two weeks or semimonthly. "Days" in this table means the number of calendar days on which an employee worked, but does not differentiate as to length of the day or the number of hours worked.

Earnings were paid weekly by 54 plants, every two weeks by 13, and half-monthly by 31. In this report where averages are shown by pay periods data for two-week and for half-month pay rolls were combined.

All establishments included in the first section of Table 6 had a basic week of 6 days. Employees who worked more than 6 days worked on a day when the establishment as a whole was not in operation. This occurred in a number of cases as shown in more detail, by occupation and State, in General Table B, page 37. Example: Forge shop helpers (p. 42) in New Jersey, a 6-day week occupation, worked an average of 6.7 days in one week, due to demand for increased production which resulted in work on Sunday for some of the employees in the occupation. Those who worked less than six days were not on duty on one or more days on account of being sick, disabled, laid off, termination of service before end of week, of entering service after beginning of pay period, or for other causes. Reading line 1 of the first section in explanation of the table it is seen that the 762 axle assemblers in 23 establishments worked an average of 5.6 days in one week, that only 1 per cent of them worked on 1 day, 1 per cent on 2 days, 1 per cent on 3 days, 2 per cent on 4 days, 25 per cent on 5 days, and that 70 per cent of them worked on 6 days. Average days worked in one week, by occupation and sex, ranged from 5.4 days for "drill press operators" and "letterers, stripers, and varnishers" to 5.8 days for "machinists" and "sewing-machine operators" for males, and for females ranged from 4.3 days for "top builders" to 5.6 days for "inspectors."

The establishments included in the second section were in operation 12, 13, or 14 days in the two-week or the half-month pay period taken. No establishment as a whole was in operation on less than 12 or more than 14 days in the pay period. Employees who are shown as having worked on more than 14 days were on duty on all week days and one or more Sundays in the pay period covered, and employees who worked on less than 12 days did not, on account of the reasons stated above, work on all the days that the establishments were in operation.

TABLE 6.—*Average number of days worked by employees and per cent of employees in 18 specified occupations who worked each specified number of days in pay period, 1925, by occupation and sex*

ONE-WEEK PAY PERIOD

Occupation	Sex	Number of establishments	Number of employees	Average number of days worked in pay period	Per cent of employees who worked on each specified number of days in one week						
					1	2	3	4	5	6	7
Assemblers, axle	M.	23	762	5.6	1	1	1	2	25	70	-----
Assemblers, body-frame	M.	28	1,660	5.5	1	1	3	8	17	64	6
Assemblers, chassis	M.	28	1,335	5.5	1	1	2	5	28	62	1
Assemblers, frame	M.	26	626	5.5	(1)	2	2	4	33	59	-----
Assemblers, motor	M.	32	1,469	5.6	1	(1)	1	3	29	65	1
Automatic operators (lathe and screw machine)	M.	34	1,133	5.5	1	1	2	7	27	63	(1)
Drill-press operators	M.	43	2,650	5.4	1	2	3	5	24	65	(1)
	F.	10	54	5.4	2	-----	4	7	22	65	-----
Grinding-machine operators	M.	32	1,961	5.5	1	1	2	7	24	64	1
Inspectors	M.	49	3,147	5.7	1	1	2	4	19	69	4
	F.	12	166	5.6	1	1	2	2	22	72	-----
Laborers	M.	52	6,490	5.6	1	2	3	4	16	67	6
	F.	2	12	5.3	8	-----	-----	-----	25	67	-----
Lathe operators	M.	39	2,218	5.6	(1)	1	2	5	22	68	1
Letterers, stripers, and varnishers	M.	30	513	5.4	1	2	7	4	17	68	1
Machinists	M.	38	1,364	5.8	(1)	1	1	3	13	72	9
Milling-machine operators	M.	37	1,239	5.5	1	1	2	4	23	68	1
Sewing-machine operators	M.	9	30	5.8	-----	-----	-----	3	10	87	-----
	F.	26	439	5.2	3	4	4	5	34	48	2
Tool and die makers	M.	43	1,427	5.7	1	1	2	3	17	65	11
Top builders	M.	37	1,491	5.5	1	2	6	5	20	60	6
	F.	9	64	4.3	6	8	28	2	16	41	-----
Trim-bench hands	M.	20	355	5.7	1	1	2	4	16	75	1
	F.	11	211	5.2	4	5	5	3	25	59	-----

[1] Less than 1 per cent.

TWO-WEEK OR HALF-MONTH PAY PERIOD

Occupation	Sex	Number of establishments	Number of employees	Average number of days worked in pay period	Per cent of employees who worked on each specified number of days in two weeks or half month.														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assemblers, axle	M.	22	1,160	11.4	1	1	1	1	1	2	1	2	3	4	12	31	31	9	-----	-----
Assemblers, body-frame	M.	21	1,431	10.1	5	3	3	2	3	3	3	1	2	7	9	31	27	1	(1)	-----
Assemblers, chassis	M.	26	1,567	10.7	2	3	1	1	1	3	2	1	2	16	13	29	25	1	1	-----
Assemblers, frame	M.	21	489	11.4	1	2	(1)	1	2	1	2	1	1	8	16	26	39	(1)	(1)	-----
Assemblers, motor	M.	29	3,382	11.2	1	1	1	1	1	2	1	3	3	8	13	36	24	6	-----	-----
Automatic operators (lathe and screw machine)	M.	31	1,489	11.3	(1)	1	1	1	1	1	1	2	3	6	17	44	21	1	-----	-----
Drill-press operators	M.	41	6,038	11.0	1	2	1	1	2	2	2	3	4	8	15	29	27	4	(1)	-----
	F.	7	45	9.9	-----	-----	4	-----	-----	-----	2	-----	7	64	11	9	2	-----	-----	-----
Grinding-machine operators	M.	37	3,461	11.4	1	1	1	1	1	1	2	2	3	6	14	34	29	5	1	(1)
Inspectors	M.	44	4,529	11.5	(1)	1	1	1	1	1	1	2	3	8	16	36	25	4	1	-----
	F.	12	271	11.2	(1)	1	(1)	1	1	2	-----	1	5	13	17	28	30	-----	-----	-----
Laborers	M.	45	10,102	11.0	1	2	2	2	2	2	2	2	3	7	12	34	22	5	2	(1)
	F.	11	93	11.3	2	1	-----	-----	3	3	1	3	1	3	9	34	37	-----	2	-----
Lathe operators	M.	33	4,042	11.4	1	1	1	1	1	1	2	2	2	7	12	33	32	4	(1)	-----
Letterers, stripers, and varnishers	M.	26	477	11.2	1	2	1	1	-----	1	1	5	7	9	8	22	35	6	(1)	-----
Machinists	M.	35	2,240	11.6	1	1	(1)	1	1	1	1	1	2	6	14	42	21	6	2	(1)
Milling-machine operators	M.	37	2,310	11.2	1	1	1	1	2	2	2	2	4	8	14	32	28	5	(1)	-----
Sewing-machine operators	M.	5	348	11.1	1	(1)	2	1	1	1	(1)	1	4	5	17	64	2	(1)	-----	-----
	F.	22	674	9.9	1	4	2	3	3	2	2	5	5	14	20	25	14	(1)	-----	-----
Tool and die makers	M.	37	2,262	11.7	1	1	1	1	1	1	1	2	2	5	12	30	27	8	4	1
Top builders	M.	27	2,924	10.5	2	2	2	1	2	2	3	3	5	11	13	27	25	1	(1)	-----
	F.	5	91	10.6	1	-----	3	1	1	2	2	1	4	24	14	20	25	-----	-----	-----
Trim-bench hands	M.	15	118	10.6	2	4	1	1	2	3	4	-----	3	4	16	47	13	2	-----	-----
	F.	15	263	10.5	1	1	3	1	3	1	3	4	7	19	14	17	27	-----	-----	-----

[1] Less than 1 per cent.

Table 7 shows, for each State and for all States combined, average and classified days of operation of establishments during the year, October 1, 1924, to September 30, 1925. Data in the table are for 95 establishments. Data for 4 establishments that began operation in 1925, and were therefore in operation less than one year, are not included.

Days of operation in the year, by establishments, range from 151 days for one in Indiana to 310 days for one in New York. Average days of operation, by States, range from 269.5 in Indiana to 305.1 in Pennsylvania, and average 295.1 days in all States combined.

TABLE 7.—*Average and classified days of operation during the year ending September 30, 1925, by State*

State	Number of establishments	Average number of days of operation in one year	Number of establishments in which days of operation were—																						
			255	258	262	276	277	284	289	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308
Illinois	9	294.2	[1]1					1							1		4				1		1	
Indiana	12	269.5	[2]4										1						1				5	1
Michigan	27	296.3		1		3			2	1	2	1	2			3	1	1	2		2		6	
New Jersey	6	296.0	1								1											3		1
New York	13	302.9								1	1		1			1	1		1	1		2	3	[3]1
Ohio	14	299.2			1		1				2						1				2	1	5	1
Pennsylvania	8	305.1													1					1	2		4	
Wisconsin	6	301.3									1			1				2			1	1		
Total	95	295.1	[4]6	1	1	3	1	1	2	2	7	1	4	1	2	4	7	3	4	2	8	7	24	[5]4

[1] At 249.
[2] One at 151, 1 at 178, 1 at 210, and 1 at 252.
[3] At 310.
[4] Including 1 at 151, 1 at 178, 1 at 210, 1 at 249, and 1 at 252.
[5] Including 1 at 310.

Table 8 shows, for each State and for all States combined, the average number of days establishments were in operation, and also the average number of days establishments were idle, by specified causes, during the year October 1, 1924, to September 30, 1925. The 95 establishments for which data are shown in the table were closed an average of 0.5 of a day on Saturdays, 52 Sundays, 6.2 holidays, 2.9 days for inventory, 5.9 days on account of lack of orders, 1 day while changing models, and 1.3 days for other causes which includes vacations.

TABLE 8.—*Average number of days of operation and of days idle on account of specified causes, during year ending September 30, 1925, by State*

State	Number of establishments	Average number of days of operation in year	Average number of days idle during year on account of—						
			Saturday	Sunday	Holiday	Inventory	Slack business or lack of orders	Change of models	Other causes
Illinois	9	294.2		52.0	6.1	4.3	2.6	5.8	
Indiana	12	269.5		52.0	6.0	.3	37.2		
Michigan	27	296.3		52.0	6.1	4.5	2.6		3.4
New Jersey	6	296.0	8.7	52.0	6.3	2.0			
New York	13	302.9		52.0	6.3	2.9			.9
Ohio	14	299.2		52.0	6.1	1.9	2.0	2.9	.9
Pennsylvania	8	305.1		52.0	6.4	.8			.8
Wisconsin	6	301.3		52.0	7.2	4.5			
All States	95	295.1	.5	52.0	6.2	2.9	5.9	1.0	1.3

GROWTH OF THE INDUSTRY

Prior to 1904 the motor vehicle industry was considered of so little importance that it was grouped by the United States Census of Manufactures with the "carriage and wagon industry." Since 1904 the automobile has entered so rapidly into the industrial and the social life of the Nation, increasing the number of wage earners in the industry, the output, and the value of products so greatly that it is now, measured in value of products, the ranking industry in the United States.

The figures in Table 9, which were drawn from reports of the United States Census of Manufactures, show the tremendous growth of the industry during the period 1904 to 1923. The figures include establishments making bodies and parts, except the two items "Cost of material" and "Value of products," which relate only to finished vehicles, thus avoiding a duplication of the figures for bodies and parts in the corresponding figures for finished machines. The number of establishments increased from 178 in 1904 to 2,471 in 1923. The cost of materials increased from more than 11 million dollars in 1904 to more than 2 billion dollars in 1923. The value of products increased from 26 million dollars in 1904 to 3 billion in 1923. The number of wage earners increased from an average of 12,049 in 1904 to 404,886 in 1923. The amount paid in wages increased from $7,159,000 in 1904 to $659,887,000 in 1923. The average yearly earnings of wage earners increased from $594 in 1904 to $1,630 in 1923.

TABLE 9.—*Number of establishments, cost of materials, value of products, wage earners, and average earnings, by year, 1904, 1909, 1914, 1919, 1921, and 1923*

Year	Number of establishments	Cost of materials (in thousands)	Value of products (in thousands)	Average number of wage earners	Amount paid in wages (in thousands)	Average yearly earnings of wage earners
1904	178	$11,658	$26,645	12,049	$7,159	$594
1909	743	107,731	193,823	75,721	48,694	643
1914	1,271	292,597	503,230	127,092	101,927	802
1919	2,830	1,578,651	2,387,903	343,115	491,121	1,431
1921	2,359	1,107,062	1,671,386	212,777	318,753	1,498
1923	2,471	2,147,463	3,163,327	404,886	659,887	1,630

Table 10 shows for each census year, 1904 to 1925, and for 1922 and 1924, the number of passenger cars, the number of business cars, and the total number of all cars built in each of the specified years. The figures for the last four years were published in "Survey of Current Business," by the Department of Commerce.

The figures in this table also indicate the great expansion of the industry. While the industry was growing in importance prior to the World War, it had hardly reached a standardization of methods until about the time of the bureau's 1922 study of wages and hours of labor. In 1922 practically all automobile manufacturers had completed their war-time contracts and were again confining their work to the manufacture of motor vehicles. During the war period, or between 1914 and 1919, the number of wage earners increased from 127,092 to 343,115. Production of cars increased from 569,054

in 1914 to 1,683,916 in 1919, and then dropped to 1,513,245 in 1921. The increase in number of wage earners was due largely to the impetus of war demand for higher production, which included cars and also necessary war supplies. There has since been an evolution in methods and efficiency of machinery and organization. The effect of this evolution is shown in an article on "Productivity of labor," published in the January, 1927, Monthly Labor Review. In this article it is shown that productivity in the automobile industry based on the production of 1914 rose to an index of 249 in 1922, 270 in 1923, 262 in 1924, and 272 in 1925. This means that in 1922 the average production per man was 2.49 times, and in 1925, 2.72 times the average production per man in 1914.

Based on the number of wage earners in Table 9 and the total number of cars in Table 10, production per wage earner per year increased from an average of 4.91 in 1919 to 10.12 cars in 1923.

The effects of the increased production are to a very great extent shown by the reduction in the average value of closed cars and of open cars, notwithstanding a very large increase in average yearly earnings of wage earners. The census reports the average value of closed and of open cars by years. The average value of closed cars was $1,281 in 1919 and $888 in 1923, of open cars $801 in 1919 and $534 in 1923, and wage earners earned an average of $1,431 in 1919 and $1,630 in 1923. These figures have been influenced by the change in models, in the proportion of cars of high and low value, and also in the increase in the proportion of closed cars. The production of closed cars increased from 9.5 per cent of the total in 1919 to 35 per cent in 1923.

TABLE 10.—*Number of cars built in each specified year, 1904 to 1925*

Year	Passenger cars	Business cars	Total, all models
1904	20,261	1,431	21,692
1909	121,868	4,725	126,593
1914	543,679	25,375	569,054
1919	1,557,480	126,436	1,683,916
1921	1,404,004	109,241	1,513,245
1922	2,397,827	251,434	2,649,261
1923	3,719,164	378,288	4,097,452
1924	3,262,764	378,106	3,640,870
1925	3,835,801	500,470	4,336,271

INDEX NUMBERS OF EMPLOYMENT, PAY ROLLS, AND PRODUCTION, 1922 TO 1926

In addition to the regular reports on wages and hours of labor of employees in various industries, the Bureau of Labor Statistics also makes monthly reports on "Employment in Selected Manufacturing Industries." The monthly reports on employment show index numbers or percentage of increase or decrease in number of employees and in amount of pay rolls for each of the industries from which monthly employment figures are obtained. Production figures are available in United States Census reports. Index numbers of employment, of pay rolls, and of production for the motor vehicle industry are shown in Table 11 for each of the months, June, 1922, to June, 1926, with the 1923 average taken as the base or 100. Previous to June, 1922, comparable figures were not available.

TABLE 11.—*Index numbers of employment, of pay rolls, and of production, June, 1922, to June, 1926*

[1923 average=100.0]

Year and month	Employment [1]	Pay rolls [1]	Production [2]	Year and month	Employment [1]	Pay rolls [1]	Production [2]
1922				1924—Continued			
June	85.1	79.8	84.8	July	82.4	73.4	79.4
July	86.5	78.9	74.7	August	83.6	79.0	84.3
August	86.9	86.0	82.4	September	84.2	82.1	87.4
September	87.3	81.1	62.0	October	85.4	85.8	86.8
October	82.1	81.9	70.8	November	83.5	81.8	68.4
November	80.9	83.7	70.8	December	86.0	84.1	61.0
December	83.1	80.6	68.5	1925			
1923				January	89.9	73.4	70.5
January	86.6	75.6	72.8	February	91.1	97.0	83.8
February	94.5	91.3	82.6	March	97.6	105.0	110.6
March	98.7	99.7	106.9	April	105.5	114.7	128.8
April	103.0	104.9	113.0	May	111.4	120.3	124.5
May	104.4	106.8	117.3	June	106.5	111.1	118.0
June	103.9	101.3	112.9	July	105.9	110.2	118.1
July	100.6	98.7	98.4	August	107.6	107.3	76.7
August	99.7	101.4	103.5	September	112.2	114.1	97.8
September	100.9	98.5	98.0	October	119.3	130.7	133.2
October	102.5	109.7	109.2	November	118.1	131.4	111.3
November	103.0	109.6	93.9	December	112.4	120.1	94.6
December	102.4	102.6	91.5	1926			
1924				January	112.8	99.9	91.9
January	107.2	92.0	95.1	February	115.3	122.1	108.5
February	109.5	115.0	110.2	March	118.2	125.4	129.4
March	111.6	113.3	114.3	April	114.5	121.5	131.9
April	106.9	109.6	111.8	May	110.2	115.5	127.9
May	96.8	97.3	92.5	June	108.5	108.5	116.5
June	86.5	80.3	73.7				

[1] From Bureau of Labor Statistics on "Employment in Selected Manufacturing Industries."
[2] Computed from reports of U. S. Department of Commerce.

Chart 1 (p. 18) is presented in order that the seasonal and other variations in each of the three series of index numbers in Table 11 may be the more easily seen and compared.

Generally there are seasonal variations in the industry. The manufacture of new models usually starts in the early fall, resulting in little variation in employment and pay rolls, although there is considerable decrease in production of finished cars. New models are introduced and displayed throughout the country at the January automobile shows. Immediately after the shows orders come in for the new models and actual production is greatly increased. There is an increase in the number of employees on the pay rolls and a greater increase in the amount of the pay rolls, due to an increase in the hours of operation.

The demand for new cars increases rapidly from January to April or May, and employment, pay rolls, and production also increase. Following the spring season there is a drop in each of these items. The decrease continues to near midsummer and is due largely to vacations and reduction in hours of operation in the summer months and also to some extent to the preparation or planning of new models. The cycle begins again in the fall with another change in models.

The chart also shows the months in which the bureau made a study of the wages and hours of labor in the industry in 1922 and 1925. The data for these months are fairly representative of employment and pay rolls in those years.

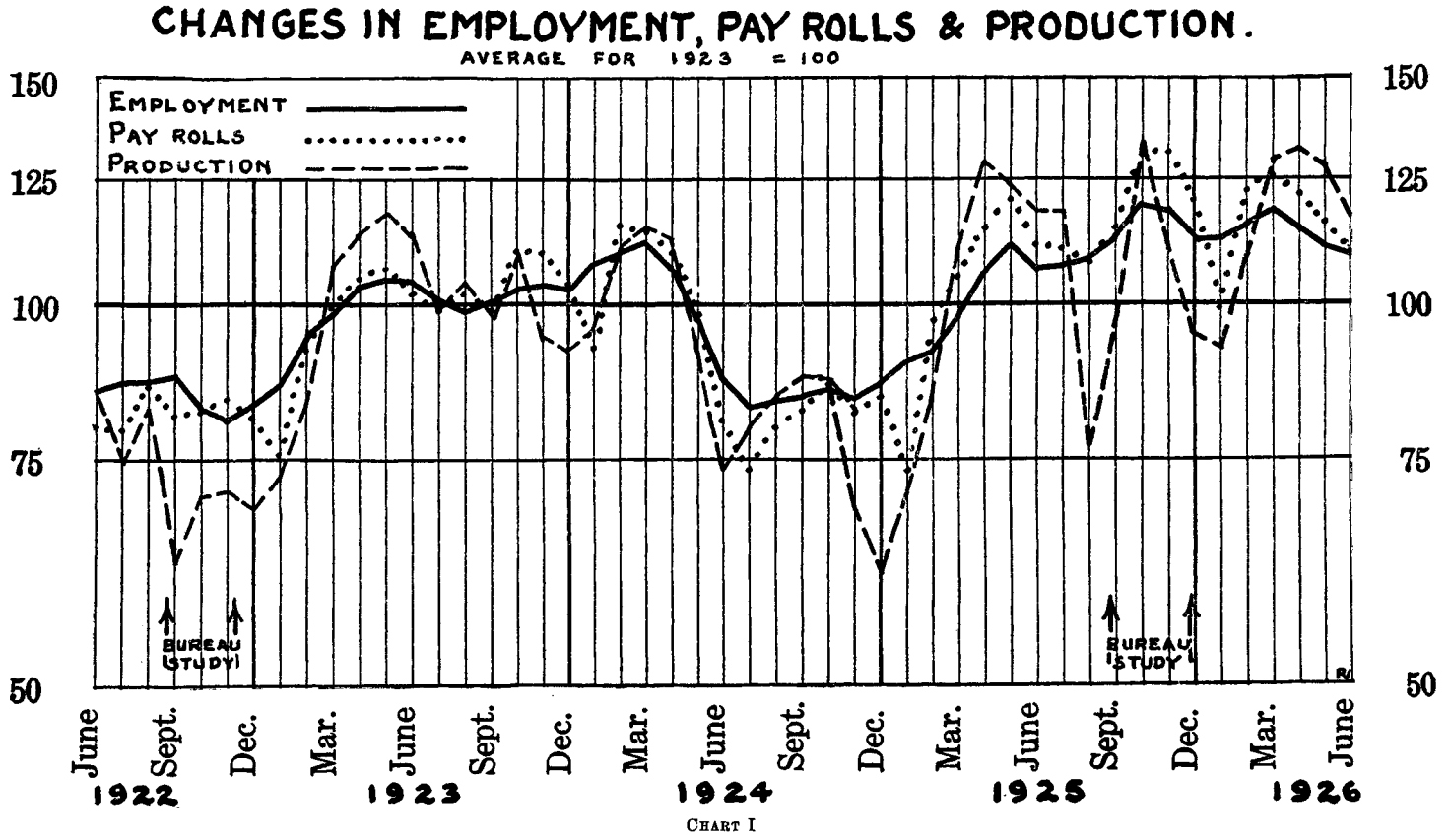

CHART I

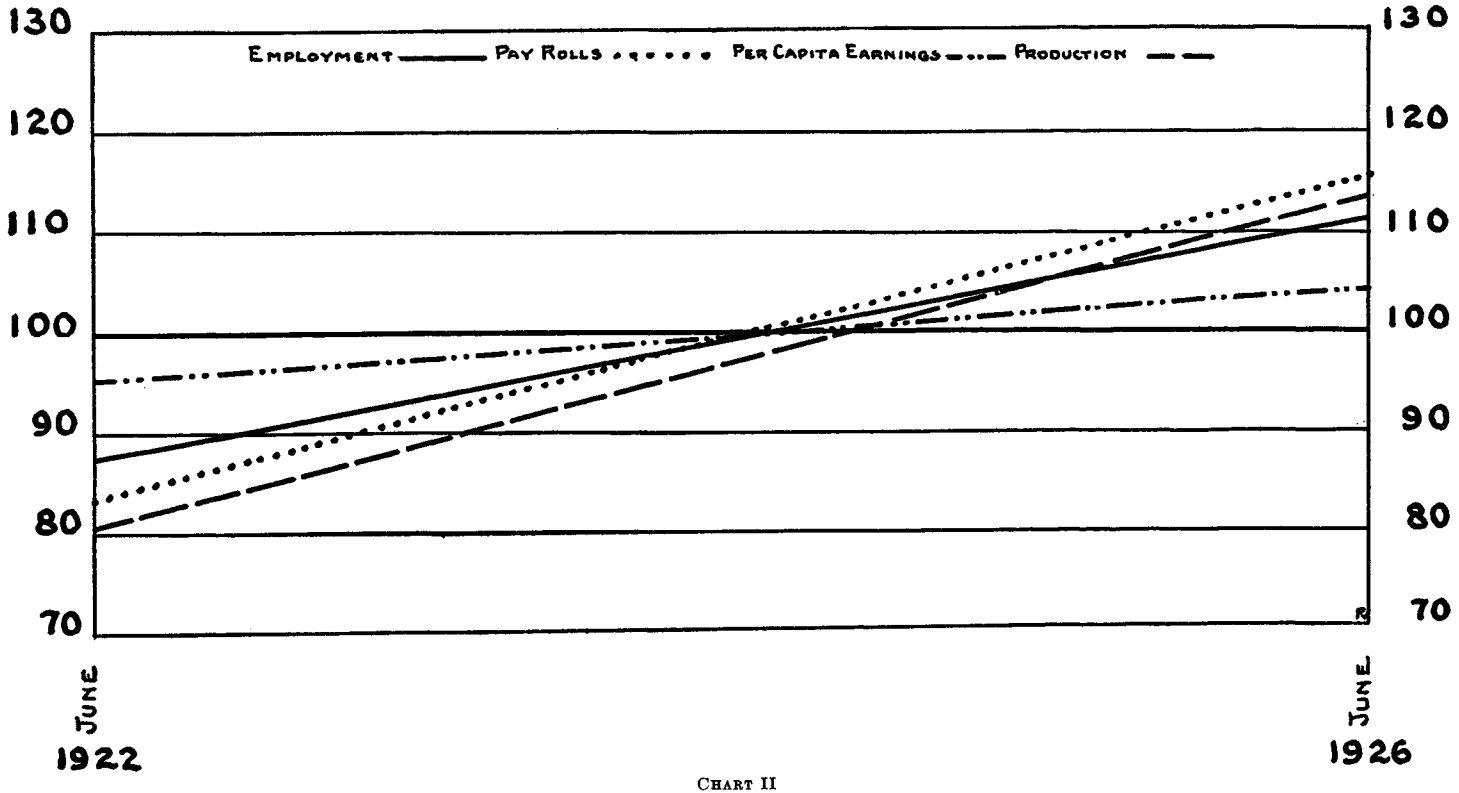

CHART II

Employment, pay rolls, and production as shown in Chart 1 are so variable that it is extremely difficult to perceive even approximately the average upward trend of each of the three items. Therefore the trend has been reduced to a straight line by the process of least squares and used on Chart 2 (p. 19), which shows the upward trend of employment, pay rolls, production, and also of per capita earnings during the period June, 1922, to June, 1926. Per capita earnings were computed by dividing the pay-roll index by the index of employment.

The upward trend of production is but slightly in excess of the trend of pay rolls. The upward trend of employment, however, is much less than that of production or of pay rolls, thus showing graphically the effects of increased efficiency in methods, machinery, and organization in the industry between June, 1922, and June, 1926.

The per capita earnings show approximately the same percentage increase as is shown in average earnings between the study of wages and hours of labor in 1922 and 1925.

CHANGES IN HOURS, WAGE RATES, AND BONUSES

During the 1925 study data were obtained as to changes in full-time hours, wage rates, and bonuses in the industry since October 31, 1922.

Only two of the 99 plants included in the 1925 study reported changes in full-time hours. In each of these hours were reduced from 55 to 50 per week.

Sixteen plants reported general changes in wage rates. Two made a decrease of 10 per cent in rates and 13 increased rates. One plant changed wage rates but did not report details. The percentage increases by individual plants range from 5 to 15 per cent, and the increases in hourly rates range from 2 to 5 cents per hour. Many of the plants reporting changes in rates called them readjustments and stated that the readjustments were due to the great development of precision work by specialized machine tools. The machine tools in these plants so increased production per man per hour that even where piece rates were reduced average earnings per hour were seldom decreased. An official of one plant stated that "Rates of pieceworkers are 5 to 7 per cent higher, but due to more efficient methods, routing, etc., earnings are about 12 per cent higher." This statement is typical of others where "readjustments" have been reported.

An example of the above condition is given. A well-known establishment paid a specified piece rate for machining cast-iron gear covers. The piece rate was reduced 16.6 per cent after the equipment of the machine with a new cutting tool. The new tool increased production 43.7 per cent and earnings 19.0 per cent.

Only five plants reported changes in bonus systems. Of these, four inaugurated systems and one changed from a system based on individual production to one based on production by groups of employees.

BONUS SYSTEMS AND INCENTIVES

Thirty-eight of the 99 plants included in this report had bonus systems in operation all or part of the period between October 31, 1922, and the period of the 1925 study, by which earnings of wage

earners were increased by the addition of a specified per cent or amount to their earnings at regular time or piece rates.

The bonus in some plants was based on individual production and in others on the production by a group of employees. In the latter the bonus for the group was divided among the employees according to the basic rate and hours worked by each individual in the group during the pay period.

1. Four plants had systems by which employees were paid a definite amount for each piece above a certain standard quantity. In one plant the sheet-metal employees only, in another those in final assembly only, and in two all productive employees were entitled to the bonus. Example: The standard for 25 men in 10 hours was 23 assembled motors. The 25 men in 10 hours assembled 35 motors, or 12 more than the standard. A bonus of $3 was paid for each of the 12 motors. The average bonus per man per hour was 14.4 cents.

2. Six plants had systems ordinarily known as a premium system. A specified or standard of time was set for the completion of each piece or operation. All employees in four plants, and the die makers in another plant, were paid their hourly rate for all the hours worked and also for each hour of time saved. In one plant all employees were paid their hourly rate for the time worked, and also 50 per cent of their hourly rate for each hour saved by completing a piece or operation in less than the specified standard time.

3. Five plants had a specified standard of production per day. In three all employees, in one the tool-room employees only, and in one only the employees in the shipping department, were entitled to this bonus. In applying this bonus the actual production was reduced to percentage of efficiency with the specified standard of quantity production per day taken as the base or 100. In three of the five plants the rate was increased the per cent that the percentage of efficiency was above the standard. In the fourth plant the rate of increase ranged from 1 to 15 per cent according to percentage of efficiency, and in the fifth the percentage varied but details were not reported.

4. Fourteen plants reported systems similar to the above except that payment for efficiency began before the completion of the specified standard of 100 per cent production.

(*a*) One plant paid an hourly rate for each hour worked and in addition a rate per piece for each piece produced in excess of 60 per cent of the standard.

(*b*) One paid the hourly rate for the time worked, and 1 per cent of the rate additional for each per cent of the standard above 89 and up to 99, 15 per cent additional on the hourly rate for the standard (100), and also paid 1 per cent in addition to the 15 per cent for each percentage of production over the standard.

(*c*) One paid the hourly rate for the time worked and 1 per cent of the rate additional for each per cent of efficiency over 80 per cent of the standard.

(*d*) One paid an increased rate for each per cent of efficiency over 85 but did not report details.

(*e*) Ten plants employing 19.4 per cent of the employees included in this study were paid the regular rate for production of less than 75 per cent of the standard, and an increased rate as shown in Table 12 for production of 75 per cent or more of the standard.

For 75 per cent of the set standard of production, or 100 per cent of efficiency, an employee was paid his earnings at his regular time rate, and was also paid a bonus of 1 per cent of such earnings. The bonus increased 0.6 per cent for each percentage of increase of efficiency from 75 up to and including 90 or from 1.6 per cent for 76 to 10 per cent for 90. An additional increase of 1 per cent was made for each per cent of increase or from a bonus of 11 per cent for an efficiency of 91 per cent to a bonus of 20 per cent for an efficiency of 100. An additional increase of 1.2 per cent was made for each per cent efficiency from 100 to 200.

To illustrate, an employee whose production was 75 per cent of the standard of efficiency earned $50 at his regular rate and also earned a bonus of 1 per cent of the $50, or a total of $50.50. Anyone who earned $50 at his regular rate and whose efficiency was 76 per cent also received a bonus of 1.6 per cent of the $50, or a total of $50.80. If his efficiency was 90 per cent, he earned a bonus of 10 per cent of the $50, making a total earnings of $55.

TABLE 12.—*Per cent of bonus paid for each specified per cent of efficiency*

[19.4 per cent of all employees covered by this study participated]

Per cent of—		Per cent of—		Per cent of—		Per cent of—		Per cent of—		Per cent of—		Per cent of—	
Efficiency	Bonus	Efficiency	Bonus	Efficiency	Bonus	Efficiency	Bonus	Efficiency	Bonus	Efficiency	Bonus	Efficiency	Bonus
75	1.0	93	13.0	111	33.2	129	54.8	147	76.4	165	98.0	183	119.6
76	1.6	94	14.0	112	34.4	130	56.0	148	77.6	166	99.2	184	120.8
77	2.2	95	15.0	113	35.6	131	57.2	149	78.8	167	100.4	185	122.0
78	2.8	96	16.0	114	36.8	132	58.4	150	80.0	168	101.6	186	123.2
79	3.4	97	17.0	115	38.0	133	59.6	151	81.2	169	102.8	187	124.4
80	4.0	98	18.0	116	39.2	134	60.8	152	82.4	170	104.0	188	125.6
81	4.6	99	19.0	117	40.4	135	62.0	153	83.6	171	105.2	189	126.8
82	5.2	100	20.0	118	41.6	136	63.2	154	84.8	172	106.4	190	128.0
83	5.8	101	21.2	119	42.8	137	64.4	155	86.0	173	107.6	191	129.2
84	6.4	102	22.4	120	44.0	138	65.6	156	87.2	174	108.8	192	130.4
85	7.0	103	23.6	121	45.2	139	66.8	157	88.4	175	110.0	193	131.6
86	7.6	104	24.8	122	46.4	140	68.0	158	89.6	176	111.2	194	132.8
87	8.2	105	26.0	123	47.6	141	69.2	159	90.8	177	112.4	195	134.0
88	8.8	106	27.2	124	48.8	142	70.4	160	92.0	178	113.6	196	135.2
89	9.4	107	28.4	125	50.0	143	71.6	161	93.2	179	114.8	197	136.4
90	10.0	108	29.6	126	51.2	144	72.8	162	94.4	180	116.0	198	137.6
91	11.0	109	30.8	127	52.4	145	74.0	163	95.6	181	117.2	199	138.8
92	12.0	110	32.0	128	53.6	146	75.2	164	96.8	182	118.4	200	140.0

5. Three plants had systems much like contract work. An estimate of the labor cost was made for an order. Employees who worked on the order were paid a straight time rate until the order was completed. If the estimate was greater than the time rate cost, the difference between the estimated and the actual cost was divided among those who worked on the order according to the individual basic rate and number of hours worked. In two of the plants all employees and in one only the employees of the die-making department were entitled to the bonus.

6. Seven plants paid a bonus for regular attendance. One also had an efficiency bonus.

In two of the seven plants all night workers were paid 10 per cent extra for perfect attendance in the pay period, and in five plants were paid extra for years of service as well as for attendance.

Four plants paid earnings at regular rates and in addition 5 per cent of the year's earnings at the end of the first, second, third, and fourth years of service, and 10 per cent at the end of the fifth and each succeeding year of continuous service, and also gave a vacation of one week annually with pay at average earnings after two years of service. One plant gave a vacation of one week annually with pay for service of 5 to 10 years, and of 2 weeks annually with pay for service of more than 10 years. This plant also paid $50 annually for a service of 5 years and $10 additional for each year of service over 5 but not to exceed $100 to any employee in any year. To get these bonuses it was necessary to be regular in attendance, not take more than 30 days annually for sickness and excused absence, and not be tardy or absent without leave more than six days of the year.

PAY FOR OVERTIME AND SUNDAY AND HOLIDAYS

Work in excess of the regular or customary hours per day and per week is expected in most plants at certain seasons of the year. Work on Sunday and holidays is also necessary at times.

During all or part of the period between October 31, 1922, and the period of the 1925 study, 60 of the 99 plants included in this report paid all or part of their employees an increased rate for the time worked in excess of the regular hours per day and per week and for work on Sunday and holidays. The increases in rates for such extra work, as shown in Table 13, ranged from 1⅕ times the regular rate for overtime and Sunday and holiday work to only the sheet-metal workers of one plant (line 22), to 1½ times the regular rate for overtime and double the regular rate for work on Sunday and holidays to all employees of 2 plants (line 3) and to only the maintenance and repair employees of one plant (line 16). The sheet-metal workers, line 22, were paid the regular rate for this extra work prior to September 1, 1925.

TABLE 13.—*Number of establishments paying extra for overtime and for Sunday and holiday work, employees entitled, and amounts of increase, 1925*

Line No.	Number of establishments	Pay for overtime, Oct. 31, 1922, to—	Employees entitled to extra pay	Payment for—		
				Overtime on week days		Work on Sunday and holidays. Hourly rate multiplied by—
				After—	Hourly rate multiplied by—	
1	27	Date of 1925 study	All	Regular hours per day	1½	1½
2	5	do	All	Regular hours per week	1½	1½
3	2	do	All	Regular hours per day	1½	2
4	1	do	All	do	1¼	1½
5	1	do	All	do	1¼	1¼
6	1	do	72-hour per week workers.	60 hours per week	1½	1½
			All others	Regular hours per day	1½	1½
7	1	do	Day workers	do	1¼	1½
			Night workers	Regular hours per night	1½	1½
8	8	do	Time workers	Regular hours per day	1½	1½
9	1	do	do	do	1¼	1¼
10	1	do	All	do	1	1½
11	1	do	All	do	1	1⅕
12	1	do	Janitors and sweepers.	do	(1)	1½
			All others	do	1½	1½

[1] 1 on 5 days; 1½ on Saturday.

TABLE 13.—*Number of establishments paying extra for overtime and for Sunday and holiday work, employees entitled, and amounts of increase, 1925*—Con.

Line No.	Number of establishments	Pay for overtime, Oct. 31, 1922, to—	Employees entitled to extra pay	Payment for—		
				Overtime on week days		Work on Sunday and holidays. Hourly rate multiplied by—
				After—	Hourly rate multiplied by—	
13	1	Date of 1925 study	Piece workers	Regular hours per week	1	1½
			Time workers	do	1½	1½
14	1	do	Watchmen, sweepers, and piece workers.	Regular hours per day	1	1
			All others	do	1½	1½
15	1	do	Nonproductive workers.	do	1½	1½
16	1	do	Maintenance and repair workers.	do	1½	2
17	1	do	All	Midnight	1½	1½
18	1	do	All	9 hours' work per day	(1)	(2)
				10 hours' work per day	1¼	1¼
19	1	do	Day workers	9 hours' work per day	1	(2)
				10 hours' work per day	1½	(2)
			Night workers	Regular hours per night	1	(2)
			All	Regular hours per day	1½	1½
20	1	Oct. 1, 1923				
		Oct. 1, 1923, to date of 1925 study.	All	do	1	1
		June 1, 1924	All	do	1½	2
21	1	June 1, 1924, to date of 1925 study.	All	do	1	1
		Sept. 1, 1925	All	do	1	1
22	1	Sept. 1, 1925, to date of 1925 study.	Sheet-metal workers	do	1⅓	1⅓

[1] 1 on 5 days; 1½ on Saturday. [2] Not reported.

SCOPE AND METHOD

This report was compiled from data drawn from the records of plants manufacturing or assembling motor vehicles, building bodies, motors, or radiators, making forgings, transmission gears, and axles or sheet-metal stampings for motor vehicles.

The report covers all of the occupations in the industry, starting with those employees who unload the raw materials, including all of the operations through the various processes of manufacture, excepting only those working on electric starters, generators, and magnetos, and ending with those who load the finished product for shipment. Data are shown in Tables 1, A, and B for employees in 55 of the most important occupations in the industry and for "other employees." Those designated as "other employees" include wage earners in other occupations each too few in number to warrant a separate classification. Data were not collected for executive employees, office clerks, employees engaged in the maintenance or construction of buildings, or for those in the power house, in the engineering, drafting, or experimental departments.

Data were collected for one representative pay period in either October, November, or December, 1925. Individual data as taken from the pay rolls include the occupation, sex, number of days and hours worked, and the amount of earnings in a pay period, and cover a total of 84,622 wage earners of 29 plants in Michigan, 17,345 of 15

plants in Ohio, 10,988 of 14 plants in New York, 10,305 of 12 plants in Indiana, 6,725 of 8 plants in Pennsylvania, 5,549 of 6 plants in New Jersey, 5,212 of 6 plants in Wisconsin, and 3,616 wage earners of 9 plants in Illinois.

A few large plants are represented in the study by only a part of their total number of employees because the inclusion of all employees would have tended to impair the representative character of the published averages, especially for the States in which such large plants are located.

In selecting establishments from which to obtain data the bureau undertook to represent all States in which the industry is of material importance, the measure of importance being the number of wage earners employed in the State as reported by the United States census of manufactures.

The average earnings per hour for all wage earners in each occupation were computed as follows: The average for all those in establishments in which wage earners were paid weekly was obtained by dividing their total earnings by their total hours worked. The average for those in establishments in which employees were paid every two weeks or half month was obtained in like manner. The weighted average for the two groups combined was obtained by multiplying the average for each group by the number of wage earners in each and dividing the sum of the products by the total number of wage earners in the two groups.

The average full-time hours per week were computed by dividing the total full-time hours per week of all employees in the occupation by the number of employees in the occupation during the pay period covered. The full-time hours of each employee were used in arriving at this average, even though some employees worked more or less than full time on account of overtime, sickness, disability, or some other cause.

Average full-time earnings per week for employees of each occupation were computed by multiplying the average earnings per hour of all employees in the occupation by the average full-time hours per week. This assumes that the earnings for full time would have been at the same average rate per hour as during the time that was actually worked in the pay period covered.

GENERAL TABLES

In addition to the text tables already shown, six general tables are presented, as follows:

TABLE A.—Average full-time hours per week, average earnings per hour, and average full-time weekly earnings, 1925, by occupation, sex, and State (p. 26).

TABLE B.—Average number of days on which employees worked, average full-time and actual hours and earnings in pay period, and per cent of full-time worked, 1925, by occupation, sex, pay period, and State (p. 37).

TABLE C.—Average and classified earnings per hour in 18 specified occupations, 1925, by sex and State (p. 55).

TABLE D.—Average and classified full-time hours per week in 18 specified occupations, 1925, by sex and State (p. 62).

TABLE E.—Average and classified hours actually worked by employees in 18 specified occupations, 1925, by sex, pay period, and State (p. 69).

TABLE F.—Average and classified earnings of employees in 18 specified occupations, 1925, by sex, pay period, and State (p. 80).

Data in Tables C, D, E, and F are limited to 18 representative occupations. Time and print space could not be spared to make a classification for all of the 55 occupations enumerated in Tables A and B.

The presentation in Table B, in parallel columns, of "average full-time hours per pay period," "average hours actually worked in pay period," and of "per cent of full time worked" is for the purpose of comparing the regular hours during which, under normal conditions, it is possible for employees in an occupation to work with the hours actually worked. The table also shows "average actual earnings in pay period" and "average full-time earnings in pay period." This permits comparison of the average actual amount earned in the pay period with the average amount that would have been earned had each employee in the occupation worked the regular or customary full-time hours.

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Apprentices, male:					
Illinois	4	14	50.7	$0.328	$16.63
Indiana	2	27	50.0	.381	19.05
Michigan	18	373	49.4	.560	27.66
New Jersey	3	14	49.9	.443	22.11
New York	6	81	52.6	.438	23.04
Ohio	5	12	49.5	.414	20.49
Pennsylvania	5	18	51.7	.330	17.06
Wisconsin	2	5	53.0	.396	20.99
Total	45	544	50.0	.512	25.60
Assemblers, axle, male:					
Illinois	3	53	53.7	.662	35.55
Indiana	7	109	51.2	.686	35.12
Michigan	15	1,147	50.9	.755	38.43
New York	4	171	49.5	.634	31.38
Pennsylvania	3	34	49.9	.598	29.84
Wisconsin	3	71	50.7	.709	35.95
New Jersey and Ohio *	10	337	48.0	.730	35.04
Total	45	1,922	50.3	.729	36.67
Assemblers, axle, female:					
Michigan	2	24	50.0	.496	24.80
Assemblers, body-frame, male:					
Illinois	3	172	50.0	.821	41.05
Indiana	7	625	50.7	.716	36.30
Michigan	11	1,039	51.1	.746	38.12
New Jersey	3	389	48.8	.710	34.65
New York	9	287	51.7	.771	39.86
Ohio	9	280	49.7	.750	37.28
Pennsylvania	4	109	49.6	.734	36.41
Wisconsin	3	190	55.0	.690	37.95
Total	49	3,091	50.8	.739	37.54

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Assemblers, chassis, male:					
Illinois	5	168	49.2	$0.661	$32.52
Indiana	7	167	49.4	.646	31.91
Michigan	16	1,461	49.9	.740	36.93
New Jersey	2	112	48.8	.718	35.04
New York	6	273	51.4	.634	29.34
Ohio	11	458	48.9	.652	31.88
Pennsylvania	3	131	50.0	.600	30.00
Wisconsin	4	132	52.2	.637	33.25
Total	54	2,902	49.9	.694	34.63
Assemblers, chassis, female:					
Michigan and New Jersey *	3	34	50.0	.520	26.00
Assemblers, final, male:					
Illinois	5	231	49.8	.732	36.45
Indiana	11	635	50.4	.746	37.60
Michigan	20	3,617	49.9	.755	37.67
New Jersey	4	225	49.5	.718	35.54
New York	9	618	51.2	.688	35.23
Ohio	14	1,432	49.0	.716	35.08
Pennsylvania	6	397	50.9	.638	32.47
Wisconsin	5	245	53.2	.688	36.60
Total	74	7,400	50.1	.731	36.62
Assemblers, final, female:					
Indiana	3	16	49.4	.532	26.28
Michigan	12	272	49.9	.501	25.00
New York, Ohio, and Wisconsin *	3	30	48.8	.549	26.79
Total	18	318	49.8	.507	25.25
Assemblers, frame, male:					
Illinois	3	19	49.7	.609	30.27
Indiana	6	106	50.3	.821	41.30
Michigan	14	539	50.0	.807	40.35
New Jersey	2	47	49.6	.740	36.70
New York	4	35	53.2	.675	35.91
Ohio	10	185	48.3	.765	36.95
Pennsylvania	5	164	51.1	.576	29.43
Wisconsin	3	20	53.5	.602	32.21
Total	47	1,115	50.0	.753	37.65
Assemblers, motor, male:					
Illinois	4	127	52.0	.718	37.34
Indiana	10	242	51.0	.727	37.08
Michigan	18	3,025	49.5	.770	38.12
New Jersey	4	188	48.2	.812	39.14
New York	6	258	50.4	.711	35.83
Ohio	11	710	48.9	.693	33.89
Pennsylvania	4	135	52.9	.636	33.64
Wisconsin	4	166	52.3	.694	36.30
Total	61	4,851	49.8	.747	37.20
Assemblers, motor, female:					
Indiana and Michigan *	6	48	50.0	.489	24.45
Automatic operators (lathe and screw-machine) male:					
Illinois	6	75	52.8	.650	34.32
Indiana	10	312	50.7	.667	33.82
Michigan	22	1,451	49.4	.813	40.16
New Jersey	3	49	50.0	.840	42.00
New York	8	339	50.3	.699	35.16
Ohio	7	241	47.9	.802	38.42
Pennsylvania	4	110	50.7	.593	30.07
Wisconsin	5	45	53.2	.644	34.26
Total	65	2,622	49.7	.764	37.97
Automatic operators (lathe and screw-machine), female:					
Indiana and Michigan*	4	6	49.7	.493	24.50

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Bench hands, machine shop, male:					
Illinois	6	66	52.2	$0.651	$33.98
Indiana	10	218	50.8	.695	35.31
Michigan	23	1,408	49.8	.754	37.55
New Jersey	3	68	50.0	.621	31.05
New York	8	193	51.8	.663	34.34
Ohio	8	217	47.6	.749	35.65
Pennsylvania	7	203	52.1	.570	29.70
Wisconsin	5	66	53.4	.629	33.59
Total	70	2,439	50.2	.716	35.94
Bench hands, machine shop, female:					
Michigan	5	19	50.0	.566	28.30
Indiana, New Jersey, and Ohio*	3	16	48.5	.570	27.65
Total	8	35	49.3	.568	28.00
Blacksmiths, male:					
Illinois	5	9	49.8	.731	36.40
Indiana	11	93	50.7	.764	38.73
Michigan	22	695	49.5	1.023	50.64
New Jersey	5	17	50.3	.810	40.74
New York	11	85	49.5	.869	43.02
Ohio	12	84	48.4	.986	47.72
Pennsylvania	8	35	49.9	.682	34.03
Wisconsin	6	22	54.3	.586	31.82
Total	80	1,040	49.6	.957	47.47
Boring-mill operators, male:					
Illinois	3	35	52.8	.668	35.27
Indiana	5	34	51.2	.659	33.74
Michigan	20	493	50.2	.792	39.76
New Jersey	3	30	50.0	.863	43.15
New York	6	42	51.5	.779	40.12
Ohio	8	68	47.2	.850	40.12
Pennsylvania	3	81	53.4	.590	31.51
Wisconsin	5	45	53.6	.732	39.24
Total	53	828	50.6	.765	38.71
Bumpers, male:					
Michigan	13	164	49.5	.979	48.46
New Jersey	2	25	50.3	1.001	50.35
New York	8	43	51.5	.822	42.33
Ohio	5	69	48.5	.878	42.58
Wisconsin	2	7	55.0	.821	45.16
Illinois and Indiana*	5	15	51.7	1.211	62.61
Total	35	323	49.8	.945	47.06
Crane operators, male:					
Indiana	2	4	50.0	.787	39.35
Michigan	15	99	49.4	.767	37.89
New Jersey	2	3	48.7	.703	34.24
New York	3	6	52.0	.648	33.70
Ohio	2	13	47.2	.772	36.44
Pennsylvania	3	17	52.2	.499	26.05
Illinois and Wisconsin*	2	3	54.2	.548	29.70
Total	29	145	49.7	.726	36.08
Cutters, cloth and leather, male:					
Illinois	2	7	49.7	.820	40.75
Indiana	5	25	50.0	.795	39.75
Michigan	18	112	50.6	.822	41.59
New Jersey	4	15	48.9	.846	41.37
Ohio	5	31	50.3	.815	40.99
Wisconsin	2	7	55.0	.763	41.97
New York and Pennsylvania*	8	22	50.6	.678	34.31
Total	44	219	50.5	.803	40.55

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Cutters, cloth and leather, female:					
Michigan	3	15	51.9	$0.561	$29.12
Indiana and Wisconsin*	2	3	51.7	.295	15.25
Total	5	18	51.8	.517	26.78
Die setters (sheet metal), male:					
Michigan	11	205	49.5	.819	40.54
New York	2	5	52.3	.739	38.65
Pennsylvania	2	5	51.6	.670	34.57
Indiana, New Jersey, Ohio, and Wisconsin*	4	59	50.8	.740	37.59
Total	19	274	49.9	.797	39.77
Dingmen, male:					
Illinois	2	7	51.7	1.473	76.15
Michigan	13	127	50.4	1.088	54.84
New Jersey	2	8	49.7	.935	46.47
New York	6	20	51.5	.879	45.27
Ohio	7	40	50.2	.951	47.74
Indiana and Wisconsin*	2	7	53.6	.739	39.61
Total	32	209	50.6	1.037	52.47
Door hangers, male:					
Illinois	3	77	50.2	.845	42.42
Indiana	3	48	50.4	.849	42.79
Michigan	10	305	50.5	.888	44.84
New Jersey	2	36	49.0	.788	38.61
New York	5	66	51.8	.878	45.48
Ohio	4	14	51.1	.748	38.22
Pennsylvania	3	16	51.5	.680	35.02
Wisconsin	2	97	55.0	.626	34.43
Total	32	659	51.2	.827	42.34
Drill-press operators, male:					
Illinois	7	215	52.5	.621	32.60
Indiana	12	538	50.8	.636	32.31
Michigan	24	5,594	50.3	.743	37.37
New Jersey	4	150	50.1	.735	36.82
New York	9	428	50.5	.652	32.93
Ohio	15	901	47.4	.720	34.13
Pennsylvania	7	450	52.7	.555	29.25
Wisconsin	6	412	53.4	.642	34.28
Total	84	8,688	50.3	.712	35.81
Drill-press operators, female:					
Indiana	2	16	50.0	.531	26.55
Michigan	9	59	49.5	.604	29.90
New Jersey	2	6	50.0	.660	33.00
New York	2	10	49.2	.483	23.76
Illinois and Ohio*	2	8	52.9	.480	25.39
Total	17	99	49.8	.573	28.54
Forge-shop helpers, male:					
Illinois	3	4	49.8	.565	28.14
Indiana	4	86	50.3	.734	36.92
Michigan	20	1,308	50.3	.770	38.73
New Jersey	4	48	77.6	.572	44.39
New York	8	53	50.2	.551	27.66
Ohio	7	117	48.1	.826	39.73
Pennsylvania	6	36	50.3	.506	25.45
Wisconsin	3	9	54.2	.676	36.64
Total	55	1,661	51.0	.753	38.40

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Gear-cutter operators, male:					
Illinois	3	20	54.2	$0.657	$35.61
Indiana	5	147	50.5	.638	32.22
Michigan	19	699	50.8	.791	40.18
New Jersey	3	41	50.0	.754	37.70
New York	4	277	50.7	.682	34.58
Ohio	6	100	47.4	.814	38.58
Pennsylvania	5	23	51.5	.609	31.36
Wisconsin	3	24	52.0	.726	37.75
Total	48	1,331	50.6	.746	37.75
Grinding-machine operators, male:					
Illinois	7	129	52.7	.653	34.41
Indiana	7	343	50.6	.655	33.14
Michigan	24	3,461	50.2	.793	39.81
New Jersey	2	114	50.0	.791	39.55
New York	7	515	50.3	.712	35.81
Ohio	10	506	46.9	.806	37.80
Pennsylvania	7	202	53.4	.596	31.83
Wisconsin	5	152	52.1	.715	37.25
Total	69	5,422	50.1	.765	38.33
Grinding-machine operators, female:					
Indiana, Michigan, and Pennsylvania *	3	9	49.9	.471	23.50
Hardeners, male:					
Illinois	3	41	54.7	.549	30.03
Indiana	7	69	50.5	.600	30.30
Michigan	21	597	53.4	.773	41.28
New Jersey	2	31	65.4	.657	42.97
New York	7	76	57.7	.690	39.81
Ohio	5	67	48.6	.754	36.64
Pennsylvania	5	48	53.5	.572	30.60
Wisconsin	4	16	54.4	.579	31.50
Total	54	945	53.7	.725	38.93
Helpers, male:					
Illinois	6	68	53.0	.451	23.90
Indiana	10	141	50.5	.521	26.31
Michigan	26	1,722	50.5	.648	32.72
New Jersey	5	117	51.3	.627	32.17
New York	10	179	51.5	.516	26.57
Ohio	12	314	47.8	.635	30.35
Pennsylvania	7	428	53.4	.492	26.27
Wisconsin	5	50	55.3	.511	28.26
Total	81	3,019	50.9	.603	30.69
Helpers, female:					
Michigan	2	25	50.0	.491	24.55
Inspectors, male:					
Illinois	9	158	51.9	.656	34.05
Indiana	11	486	49.4	.580	28.65
Michigan	28	4,544	50.1	.711	35.62
New Jersey	6	249	51.1	.697	35.62
New York	13	713	50.4	.623	31.40
Ohio	13	982	48.6	.708	34.41
Pennsylvania	7	362	52.2	.576	30.07
Wisconsin	6	182	52.7	.558	29.41
Total	93	7,676	50.1	.682	34.17
Inspectors, female:					
Indiana	2	35	50.0	.313	15.65
Michigan	15	347	49.8	.364	18.13
Ohio	2	19	46.0	.429	19.73
Pennsylvania	2	22	50.8	.349	17.73
Illinois, New York, and Wisconsin*	3	14	48.7	.340	16.56
Total	24	437	49.6	.361	17.91

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Laborers, male:					
Illinois	9	337	52.1	$0.487	$25.37
Indiana	12	1,074	50.9	.472	24.02
Michigan	29	10,200	50.1	.604	30.26
New Jersey	6	807	50.0	.553	27.65
New York	14	1,185	51.3	.522	26.78
Ohio	13	1,783	48.9	.558	27.29
Pennsylvania	8	807	53.9	.450	24.26
Wisconsin	6	399	53.4	.511	27.29
Total	97	16,592	50.4	.570	28.73
Laborers, female:					
Indiana	2	12	50.8	.388	19.71
Michigan	9	79	51.4	.395	20.30
Ohio	2	14	42.8	.463	19.82
Total	13	105	50.2	.403	20.23
Lacquer rubbers, male:					
Illinois	3	71	48.9	.799	39.07
Indiana	2	40	50.5	.891	45.00
Michigan	15	361	50.0	.843	42.15
New Jersey	3	31	48.4	.729	35.28
New York	4	52	49.9	1.081	53.94
Wisconsin	3	63	53.1	.797	42.32
Ohio and Pennsylvania*	8	91	50.4	1.009	50.85
Total	38	709	50.2	.871	43.72
Lathe operators, male:					
Illinois	6	111	52.1	.644	33.55
Indiana	6	253	51.0	.701	35.75
Michigan	24	3,888	50.1	.782	39.18
New Jersey	4	309	50.1	.762	38.18
New York	10	468	50.5	.711	35.91
Ohio	12	724	46.4	.809	37.54
Pennsylvania	5	239	52.1	.620	32.30
Wisconsin	5	268	53.1	.673	35.74
Total	72	6,260	50.0	.762	38.10
Lathe operators, female:					
Michigan	2	32	49.9	.745	37.18
New Jersey, New York, and Ohio*	3	9	49.6	.521	25.84
Total	5	41	49.8	.696	34.66
Letterers, stripers, and varnishers, male:					
Illinois	2	34	50.0	.941	47.05
Indiana	9	111	50.9	.822	41.84
Michigan	18	471	50.0	1.017	50.85
New Jersey	4	36	48.6	.932	45.30
New York	9	120	52.4	.936	49.05
Wisconsin	3	14	51.8	.966	50.04
Ohio and Pennsylvania*	11	204	48.6	1.098	53.36
Total	56	990	50.1	.996	49.90
Machinists, male:					
Illinois	6	82	52.1	.638	33.24
Indiana	4	89	50.5	.705	35.60
Michigan	26	2,463	49.8	.847	42.18
New Jersey	5	54	50.1	.764	38.28
New York	12	326	50.3	.715	35.96
Ohio	11	302	48.2	.765	36.87
Pennsylvania	6	223	51.9	.678	35.19
Wisconsin	3	65	51.3	.719	36.88
Total	73	3,604	50.0	.806	40.30
Metal finishers, male:					
Illinois	2	54	52.9	1.008	53.32
Indiana	2	316	49.3	.978	48.22
Michigan	16	2,177	50.2	.862	43.27
Ohio	5	130	51.2	.770	39.42
Pennsylvania	2	340	52.0	.703	36.56
Wisconsin	3	168	53.8	.750	40.35
New Jersey and New York*	6	212	51.3	.868	44.53
Total	36	3,397	50.6	.851	43.06

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Metal panelers, male:					
Illinois	3	78	51.0	$0.891	$45.44
Indiana	5	209	50.2	.816	40.96
Michigan	6	857	52.0	.755	39.26
New Jersey	3	81	48.9	.762	37.26
New York	6	81	51.4	.872	44.82
Wisconsin	2	146	55.0	.691	38.01
Ohio and Pennsylvania*	7	203	49.1	.762	37.41
Total	32	1,655	51.5	.770	39.66
Milling-machine operators, male:					
Illinois	7	84	51.2	.645	33.02
Indiana	8	208	51.3	.635	32.58
Michigan	25	2,216	50.4	.775	39.06
New Jersey	3	109	50.0	.748	37.40
New York	7	180	51.0	.680	34.68
Ohio	12	421	47.6	.734	34.94
Pennsylvania	7	209	52.8	.570	30.10
Wisconsin	5	122	53.4	.656	35.03
Total	74	3,549	50.4	.737	37.14
Milling-machine operators, female:					
Michigan	2	4	50.0	.538	26.90
New York and Pennsylvania*	2	16	48.3	.452	21.83
Total	4	20	48.7	.469	22.84
Molders (belt and drip), male:					
Illinois	2	14	52.0	1.034	53.77
Indiana	3	65	49.6	.831	41.22
Michigan	4	45	50.0	.906	45.30
New York	4	55	50.4	.855	43.09
Ohio	2	18	51.3	.772	39.60
Wisconsin	2	47	55.0	.656	36.08
New Jersey and Pennsylvania*	2	22	49.7	.816	40.56
Total	19	266	51.0	.823	41.97
Painters, general, male:					
Illinois	6	86	49.9	.717	35.78
Indiana	9	329	50.9	.800	40.72
Michigan	23	735	51.0	.795	40.55
New Jersey	6	112	49.3	.891	43.93
New York	10	203	51.7	.690	35.67
Ohio	13	257	48.7	.783	38.13
Pennsylvania	4	104	49.8	.659	32.82
Wisconsin	6	108	52.5	.750	39.38
Total	77	1,934	50.6	.776	39.27
Painters, general, female:					
Michigan	3	13	47.3	.550	26.02
New Jersey and New York*	2	3	49.7	.383	19.04
Total	5	16	47.8	.519	24.81
Paint sprayers, male:					
Illinois	5	48	48.8	.792	38.65
Indiana	6	132	49.7	.829	41.20
Michigan	23	465	50.1	.847	42.43
New Jersey	4	64	49.2	.887	43.64
New York	11	63	50.4	.908	45.76
Ohio	10	128	48.9	.926	45.28
Pennsylvania	6	23	50.2	.736	36.95
Wisconsin	4	70	54.1	.770	41.66
Total	69	993	50.0	.850	42.50
Planer and shaper operators, male:					
Michigan	16	210	49.3	.824	40.62
New Jersey	2	8	49.7	.804	39.96
New York	5	16	51.2	.721	36.92
Ohio	2	11	45.3	.836	37.87
Pennsylvania	2	23	52.4	.631	33.06
Wisconsin	2	7	50.7	.657	33.31
Illinois and Indiana*	3	33	50.6	.692	35.02
Total	32	308	49.7	.786	39.06

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Platers, male:					
Indiana	3	8	50.0	$0.715	$35.75
Michigan	14	108	50.3	.786	39.54
New York	5	26	51.6	.678	34.98
Ohio	2	30	47.8	.645	30.83
Illinois, New Jersey, and Pennsylvania*	3	9	50.8	.587	29.82
Total	27	181	50.1	.734	36.77
Polishers and buffers, male:					
Indiana	2	41	50.2	1.014	50.90
Michigan	13	657	50.0	.926	46.30
New York	7	147	53.5	.860	46.01
Ohio	6	136	48.2	1.008	48.59
Pennsylvania	3	101	51.6	.696	35.91
Illinois and Wisconsin*	4	13	54.1	.812	43.93
Total	35	1,095	50.4	.908	45.76
Punch-press operators, male:					
Illinois	5	24	52.4	.607	31.81
Indiana	5	201	50.3	.618	31.09
Michigan	22	3,524	49.2	.732	36.01
New Jersey	4	93	52.7	.666	35.10
New York	9	107	52.0	.683	35.52
Ohio	7	283	49.8	.706	35.16
Pennsylvania	6	147	51.9	.615	31.92
Wisconsin	3	37	53.8	.683	36.75
Total	61	4,416	49.6	.718	35.61
Punch-press operators, female:					
Michigan and New Jersey*	6	103	50.0	.457	22.85
Sandblasters, etc., male:					
Indiana	5	73	50.3	.589	29.63
Michigan	23	676	50.9	.698	35.53
New Jersey	2	35	55.7	.597	33.25
New York	6	36	50.9	.624	31.76
Ohio	6	93	48.0	.722	34.66
Pennsylvania	4	33	50.9	.528	26.88
Illinois and Wisconsin*	5	8	51.9	.660	34.25
Total	51	954	50.8	.680	34.54
Sanders and rough-stuff rubbers, male:					
Indiana	5	240	50.3	.908	45.67
Michigan	15	951	50.6	.792	40.08
New Jersey	4	96	49.1	.912	44.78
New York	8	109	51.7	.843	43.58
Ohio	8	333	49.4	.918	45.35
Wisconsin	2	187	52.0	.852	44.30
Illinois and Pennsylvania*	2	21	50.0	.809	40.45
Total	44	1,937	50.5	.843	42.57
Sewing-machine operators, male:					
Michigan	5	329	48.4	.715	34.61
New Jersey	2	16	48.1	.763	36.70
New York	4	10	49.3	.728	35.89
Illinois, Indiana, and Ohio *	3	23	48.1	.725	34.87
Total	14	378	48.4	.718	34.75
Sewing-machine operators, female:					
Illinois	3	11	50.0	.400	20.00
Indiana	7	117	50.0	.492	24.60
Michigan	16	653	51.7	.471	24.35
New Jersey	2	72	49.7	.445	22.12
New York	7	38	51.3	.487	24.98
Ohio	8	165	48.6	.480	23.33
Pennsylvania	2	18	49.7	.461	22.91
Wisconsin	3	39	47.8	.471	22.51
Total	48	1,113	50.7	.472	23.93

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Sheet-metal workers, male:					
Illinois	3	179	52.9	$0.718	$37.98
Indiana	9	194	51.3	.769	39.45
Michigan	21	1,754	49.5	.816	40.39
New Jersey	4	108	50.5	.798	40.30
New York	6	229	54.0	.767	41.42
Ohio	7	306	48.4	.763	36.93
Pennsylvania	6	216	50.5	.645	32.57
Wisconsin	4	125	52.9	.738	39.04
Total	60	3,111	50.3	.783	39.38
Sheet-metal workers, female:					
Michigan, New York, and Ohio *	3	39	49.5	.490	24.26
Straighteners, male:					
Indiana	3	7	50.7	.674	34.17
Michigan	18	417	51.3	.791	40.58
New Jersey	2	15	50.0	.715	35.75
New York	6	65	49.4	.601	29.69
Ohio	6	67	47.6	.784	37.32
Pennsylvania	4	24	54.4	.543	29.54
Illinois and Wisconsin *	3	33	53.1	.705	37.44
Total	42	628	50.9	.753	38.33
Testers, final and road, male:					
Illinois	4	36	49.9	.665	33.18
Indiana	5	22	52.7	.569	29.99
Michigan	13	307	50.6	.676	34.21
Ohio	10	179	49.8	.616	30.68
Pennsylvania	3	28	49.5	.611	30.24
Wisconsin	4	81	52.2	.546	28.50
New Jersey and New York *	6	88	52.6	.655	34.45
Total	45	741	50.8	.639	32.46
Testers, motor, male:					
Illinois	2	39	51.8	.662	34.29
Indiana	3	70	50.4	.761	38.35
Michigan	15	840	50.5	.738	37.27
New Jersey	4	104	49.8	.668	33.27
New York	6	76	50.0	.644	32.20
Ohio	11	187	49.4	.664	32.80
Pennsylvania	3	47	52.7	.611	32.20
Wisconsin	4	70	52.7	.713	37.58
Total	48	1,433	50.5	.712	35.96
Tool and die makers, male:					
Illinois	7	103	52.0	.754	39.21
Indiana	10	149	51.2	.739	37.84
Michigan	26	2,451	49.8	.920	45.82
New Jersey	5	123	51.1	.788	40.27
New York	9	297	50.9	.770	39.19
Ohio	11	390	49.4	.870	42.98
Pennsylvania	6	114	52.6	.678	35.66
Wisconsin	6	62	54.8	.675	36.99
Total	80	3,689	50.2	.875	43.93
Top builders, male:					
Illinois	4	129	50.1	.733	36.72
Indiana	9	261	51.0	.837	42.69
Michigan	20	2,367	50.1	.807	40.43
New Jersey	4	332	49.0	.773	37.88
New York	9	287	51.4	.862	44.31
Ohio	11	499	49.3	.877	43.24
Pennsylvania	4	45	49.8	.645	32.12
Wisconsin	3	495	54.6	.753	41.11
Total	64	4,415	50.6	.808	40.88
Top builders, female:					
Indiana	3	27	50.0	.503	25.15
Michigan	8	119	51.8	.473	24.50
New Jersey and New York *	3	9	50.9	.511	26.01
Total	14	155	51.4	.481	24.72

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Trim-bench hands, male:					
Illinois	3	22	49.6	$0.684	$33.93
Indiana	7	43	51.6	.726	37.46
Michigan	7	65	48.8	.752	36.70
New Jersey	3	33	48.2	.679	32.73
Ohio	5	273	48.9	.770	37.65
Wisconsin	3	5	53.0	.731	38.74
New York and Pennsylvania *	7	32	50.2	.785	39.41
Total	35	473	49.2	.754	37.10
Trim bench hands, female:					
Indiana	2	34	49.6	.544	26.98
Michigan	11	266	50.1	.484	24.25
New York	3	15	52.0	.591	30.73
Ohio	4	121	48.7	.456	22.21
Wisconsin	3	16	47.5	.386	18.34
Illinois, New Jersey, and Pennsylvania *	3	22	49.6	.441	21.87
Total	26	474	49.7	.479	23.81
Varnish rubbers, male:					
Indiana	4	41	52.4	.718	37.62
Michigan	13	266	50.2	.939	47.14
New Jersey	2	4	50.0	.808	40.40
New York	6	115	51.2	.863	44.19
Ohio	7	122	49.1	.926	45.47
Pennsylvania and Wisconsin *	2	5	53.0	.738	39.11
Total	34	553	50.3	.901	45.32
Welders and braziers, male:					
Illinois	7	20	51.8	.812	42.06
Indiana	2	35	49.4	.938	46.34
Michigan	23	501	50.0	.834	41.70
New Jersey	4	9	49.9	.809	40.37
New York	10	36	51.3	.743	38.12
Ohio	10	49	48.9	.805	39.36
Pennsylvania	7	96	51.8	.666	34.50
Wisconsin	5	37	52.8	.809	42.72
Total	68	783	50.3	.810	40.74
Welders, spot and butt, male:					
Michigan	15	355	49.1	.819	40.21
New Jersey	2	32	49.5	.842	41.68
New York	4	14	53.0	.763	40.44
Ohio	7	48	50.8	.790	40.13
Pennsylvania	2	183	51.9	.698	36.23
Indiana and Wisconsin *	3	45	50.7	.932	47.25
Total	33	677	50.2	.792	39.76
Woodworking-machine operators, male:					
Illinois	2	84	51.6	.659	34.00
Indiana	7	374	50.7	.660	33.46
Michigan	11	1,041	51.1	.669	34.19
New Jersey	2	16	50.0	.588	29.40
New York	8	140	51.4	.647	33.26
Ohio	6	129	49.8	.773	38.50
Pennsylvania	4	39	49.6	.725	35.96
Wisconsin	2	119	55.0	.691	38.01
Total	42	1,942	51.2	.674	34.51
Other skilled occupations, male:					
Illinois	8	111	50.6	.712	36.03
Indiana	9	215	50.2	.690	34.64
Michigan	29	1,940	49.8	.837	41.68
New Jersey	6	183	50.0	.768	38.40
New York	14	290	51.0	.704	35.90
Ohio	14	668	48.7	.745	36.28
Pennsylvania	6	211	51.2	.631	32.31
Wisconsin	5	153	54.0	.607	32.78
Total	91	3,771	50.0	.774	38.70

TABLE A.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1925, BY OCCUPATION, SEX, AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Other skilled occupations, female:					
Michigan	3	8	50.0	$0.536	$26.80
Other employees, male:					
Illinois	7	91	51.1	.533	27.24
Indiana	12	673	50.7	.649	32.90
Michigan	29	5,446	49.8	.717	35.71
New Jersey	6	452	49.4	.714	35.29
New York	14	1,187	50.9	.654	33.29
Ohio	15	1,693	48.5	.688	33.37
Pennsylvania	8	345	51.1	.594	30.35
Wisconsin	6	284	53.3	.621	33.10
Total	97	10,171	49.9	.692	34.53
Other employees, female:					
Indiana	3	11	49.5	.420	20.79
Michigan	13	237	49.7	.439	21.82
New Jersey	2	13	49.7	.535	26.59
New York	3	10	51.6	.418	21.57
Ohio	5	34	48.5	.511	24.78
Total	26	305	49.6	.450	22.32

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Apprentices, male—1 week:								
Illinois	2	9	5.3	49.8	44.3	89	$16.83	$14.98
Indiana	2	27	5.9	50.0	49.6	99	19.05	18.93
Michigan	5	34	5.7	48.7	47.0	97	25.28	24.38
New Jersey	3	14	6.0	49.9	52.8	106	22.11	23.41
New York	6	81	4.6	52.6	41.6	79	23.04	18.22
Ohio	3	9	5.2	49.1	43.6	89	19.84	17.63
Pennsylvania	3	15	5.5	51.1	48.8	95	16.76	15.99
Total	24	189	5.2	50.9	45.3	89	21.84	19.45
Apprentices, male—2 weeks, or half month:								
Illinois	2	5	10.4	108.1	90.1	83	33.62	28.03
Michigan	13	339	10.2	100.8	92.3	92	56.85	52.03
Ohio	2	3	13.0	101.3	100.3	99	44.98	44.51
Pennsylvania	2	3	11.3	113.3	103.2	91	38.41	55.01
Wisconsin	2	5	13.0	115.6	130.1	113	45.78	31.50
Total	21	355	10.3	101.2	92.9	92	56.06	51.48
Assemblers, axle, male—1 week:								
Indiana	6	102	5.5	50.9	48.5	95	35.68	33.99
Michigan	4	279	5.5	49.9	47.8	96	39.27	37.61
New York	4	171	5.6	49.5	47.8	97	31.38	30.31
Ohio	4	161	5.7	48.1	46.2	96	34.73	33.37
Pennsylvania	3	34	5.6	49.9	50.2	101	29.84	30.01
Illinois and New Jersey *	2	15	5.9	48.5	47.6	98	34.19	33.56
Total	23	762	5.6	49.5	47.7	96	35.49	34.17
Assemblers, axle, male—2 weeks or half month:								
Michigan	11	868	11.5	113.3	103.6	91	84.41	77.17
Ohio	5	165	11.1	99.8	95.2	95	73.55	70.17
Wisconsin	3	71	11.7	110.6	120.2	109	78.42	85.14
Illinois and Indiana *	3	56	11.4	108.3	107.8	99	69.53	69.23
Total	22	1,160	11.4	111.0	103.6	93	81.70	76.28
Assemblers, body frame, male—1 week:								
Indiana	6	601	5.6	50.5	50.6	100	36.06	36.14
New Jersey	3	389	5.9	48.8	51.1	105	34.65	36.30
New York	9	287	5.7	51.7	50.4	97	39.86	38.84
Ohio	4	183	4.8	48.2	37.6	78	36.01	28.12
Pennsylvania	4	109	5.7	49.6	48.5	98	36.41	35.62
Illinois and Michigan*	2	91	4.8	51.4	42.5	82	40.25	33.23
Total	28	1,660	5.5	50.0	48.7	97	36.55	35.56
Assemblers, body frame, male—2 weeks or half month:								
Michigan	10	980	9.6	107.1	82.6	77	79.68	61.42
Ohio	5	97	10.9	105.2	86.6	82	79.53	65.44
Wisconsin	3	190	11.5	120.0	95.3	79	82.80	65.81
Illinois and Indiana *	3	164	11.3	104.4	93.5	90	85.92	76.91
Total	21	1,431	10.1	108.3	85.8	79	80.90	64.05
Assemblers, chassis, male—1 week:								
Illinois	3	54	5.9	49.7	48.0	97	30.22	29.16
Indiana	6	159	5.3	49.2	46.9	95	32.08	30.58
Michigan	3	357	5.4	49.0	45.1	92	39.25	36.11
New Jersey	2	112	5.4	48.8	45.4	93	35.04	32.56
New York	6	273	5.4	51.4	46.3	90	32.59	29.34
Ohio	6	252	5.7	48.5	47.1	97	32.11	31.15
Pennsylvania	2	128	5.7	50.0	46.8	94	30.05	28.14
Total	28	1,335	5.5	49.5	46.2	93	34.06	31.79

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Assemblers, chassis, male—2 weeks or half month:								
Illinois	2	114	12.4	102.2	102.0	100	$70.11	$69.98
Michigan	13	1,104	10.5	107.2	89.7	84	77.18	64.56
Ohio	5	206	10.1	100.3	92.2	92	64.19	58.97
Wisconsin	4	132	12.3	113.9	119.5	105	72.55	76.16
Indiana and Pennsylvania *	2	11	11.0	106.2	101.0	95	56.50	53.69
Total	26	1,567	10.7	106.5	93.5	88	74.23	65.12
Assemblers, chassis, female—2 weeks or half month:								
Michigan	2	25	10.0	98.9	83.6	85	51.33	43.41
Assemblers, final, male—1 week:								
Illinois	3	67	5.9	49.6	50.0	101	32.84	33.10
Indiana	10	606	5.5	50.2	48.2	96	38.10	36.59
Michigan	4	668	5.4	49.5	45.1	91	40.34	36.74
New Jersey	4	225	5.4	49.5	50.5	102	35.54	36.25
New York	9	618	5.5	51.2	46.5	91	35.23	31.98
Ohio	6	668	5.7	48.3	47.6	99	36.32	35.82
Pennsylvania	5	395	5.6	50.9	50.8	100	32.47	32.44
Total	41	3,247	5.5	49.0	48.5	99	35.33	34.98
Assemblers, final, male—2 weeks or half month:								
Illinois	2	164	11.2	108.4	97.1	90	82.38	73.77
Michigan	16	2,949	10.5	103.5	90.3	87	76.69	66.86
Ohio	8	764	10.7	101.5	89.2	88	69.53	61.12
Wisconsin	5	245	11.6	116.1	100.9	87	79.88	69.44
Indiana and Pennsylvania *	2	31	11.5	109.1	108.2	99	51.82	51.43
Total	33	4,153	10.7	104.1	91.1	88	75.58	66.11
Assemblers, final, female—1 week:								
Indiana	3	16	5.1	49.4	42.9	87	$26.28	$22.79
Michigan	4	111	5.1	49.7	43.5	88	26.39	23.10
Ohio and New York *	2	20	5.9	48.2	47.9	99	24.44	24.28
Total	9	147	5.2	49.5	44.0	89	26.14	23.23
Assemblers, final, female—2 weeks or half month:								
Michigan and Wisconsin *	9	171	10.8	104.2	91.4	88	51.06	44.81
Assemblers, frame, male—1 week:								
Illinois	3	19	5.9	49.7	48.8	98	30.27	29.73
Indiana	6	106	5.2	50.3	46.2	92	41.30	37.96
Michigan	3	174	5.5	49.3	45.6	92	42.55	39.35
New Jersey	2	47	5.1	49.6	45.7	92	36.70	33.83
New York	4	35	5.3	53.2	46.1	87	35.91	31.16
Ohio	5	124	5.7	48.1	46.9	98	35.98	35.11
Pennsylvania	3	121	5.5	50.3	48.2	96	28.47	27.29
Total	26	626	5.5	49.7	46.6	94	37.08	34.78
Assemblers, frame, male—2 weeks or half month:								
Michigan	11	365	11.3	108.8	99.2	91	84.86	77.43
Ohio	5	61	11.8	100.0	105.7	106	80.10	84.69
Pennsylvania	2	43	11.0	107.1	93.8	88	64.69	56.67
Wisconsin	3	20	12.5	116.7	113.0	97	70.25	68.03
Total	21	489	11.4	107.9	100.1	93	82.00	76.13

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Assemblers, motor, male—1 week:								
Illinois	3	59	5.8	50.0	51.3	103	31.15	$31.96
Indiana	9	228	5.8	50.8	53.5	105	37.44	39.43
Michigan	3	449	5.5	49.6	47.0	95	41.47	39.26
New Jersey	4	188	5.8	48.2	53.2	110	39.14	43.22
New York	6	258	5.3	50.4	46.3	92	35.83	32.96
Ohio	5	235	5.5	48.1	47.1	98	36.03	35.26
Pennsylvania	2	52	5.8	50.0	48.2	96	27.70	26.66
Total	32	1,469	5.6	49.7	48.9	98	37.92	37.31
Assemblers, motor, male—2 weeks or half month:								
Michigan	15	2,576	11.3	106.1	97.8	92	80.42	74.10
Ohio	6	475	10.4	100.5	92.1	92	66.93	61.33
Pennsylvania	2	83	11.3	118.7	118.4	100	81.67	81.43
Wisconsin	4	166	12.0	114.2	120.5	106	79.25	83.55
Illinois and Indiana *	2	82	11.1	107.9	101.7	94	82.65	77.84
Total	29	3,382	11.2	106.0	98.7	93	78.44	73.04
Assemblers, motor, female—1 week:								
Indiana and Michigan *	2	26	5.6	50.0	45.3	91	25.30	22.95
Assemblers, motor, female—2 weeks or half month:								
Michigan	4	22	7.0	109.8	56.8	52	51.39	26.56
Automatic operators (lathe and screw machine), male—1 week:								
Illinois	3	20	5.5	49.8	48.0	96	31.47	30.33
Indiana	10	312	5.6	50.7	52.5	104	33.82	35.03
Michigan	5	189	5.3	50.4	47.1	93	46.07	43.03
New Jersey	3	49	5.8	50.0	53.4	107	42.00	44.84
New York	8	339	5.3	50.3	46.5	92	35.16	32.51
Ohio	2	119	5.8	48.2	52.4	109	38.42	41.74
Pennsylvania	3	105	5.5	50.5	49.5	98	29.64	29.05
Total	34	1,133	5.5	50.2	49.5	99	36.65	36.10
Automatic operators (lathe and screw machine), male—2 weeks or half month:								
Illinois	3	55	11.3	108.0	103.5	96	70.96	67.97
Michigan	17	1,262	11.3	102.2	99.1	97	81.56	79.08
Wisconsin	5	45	12.1	116.1	119.2	103	74.77	76.69
Ohio and Pennsylvania *	6	127	11.3	100.1	96.7	97	80.28	77.58
Total	31	1,489	11.3	102.6	99.6	97	80.85	78.47
Automatic operators (lathe and screw machine), female—1 week:								
Indiana and Michigan *	3	4	5.5	49.5	45.8	93	25.44	23.52
Bench hands, machine shop, male—1 week:								
Illinois	3	25	5.8	49.9	50.3	101	31.14	31.37
Indiana	9	214	5.4	50.7	49.3	97	35.39	34.40
Michigan	5	215	5.5	50.1	48.6	97	38.08	36.92
New Jersey	3	68	5.8	50.0	52.8	106	31.05	32.76
New York	8	193	5.7	51.8	49.6	96	34.34	32.88
Ohio	3	85	5.4	48.8	46.9	96	35.28	33.87
Pennsylvania	4	188	5.7	51.9	53.7	103	29.89	30.95
Total	35	988	5.6	50.8	50.1	99	34.24	33.76

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Bench hands, machine shop, male—2 weeks or half month:								
Illinois	3	41	11.6	108.7	109.1	100	$72.61	$72.84
Michigan	18	1,193	11.3	107.4	99.9	93	80.87	75.26
Ohio	5	132	11.1	99.1	91.9	93	75.81	70.32
Pennsylvania	3	15	11.9	113.9	112.4	99	56.61	55.85
Indiana and Wisconsin *	6	70	11.7	116.3	113.9	98	72.45	70.94
Total	35	1,451	11.3	107.2	100.3	94	79.44	74.33
Bench hands, machine shop, female—1 week:								
Michigan	2	2	6.0	50.0	49.6	99	23.75	23.53
Indiana, New Jersey, and Ohio*	3	16	5.6	48.5	45.7	94	27.55	26.00
Total	5	18	5.7	48.7	46.2	95	27.13	25.72
Bench hands, machine shop, female—2 weeks or half month:								
Michigan	3	17	11.5	104.8	96.9	92	60.47	55.89
Blacksmiths, male—1 week:								
Illinois	4	6	6.0	49.7	49.6	100	35.44	35.38
Indiana	10	91	5.5	50.6	50.2	99	38.71	38.35
Michigan	7	137	5.0	48.4	42.0	87	51.64	44.85
New Jersey	5	17	6.0	50.3	52.2	104	40.74	42.27
New York	11	85	5.4	49.5	45.6	92	43.02	39.64
Ohio	4	71	5.5	48.2	53.7	111	49.31	54.98
Pennsylvania	5	31	5.7	49.7	50.8	102	33.70	34.44
Total	46	438	5.4	49.2	47.4	96	44.77	43.16
Blacksmiths, male—2 weeks or half month:								
Michigan	15	558	10.9	101.3	93.4	92	102.52	94.49
Ohio	8	13	11.8	101.9	99.1	97	79.58	77.37
Pennsylvania	3	4	12.3	105.5	108.1	102	75.12	77.01
Wisconsin	6	22	11.6	118.7	115.0	97	69.56	67.38
Illinois and Indiana *	2	5	12.6	109.4	112.4	103	80.96	83.20
Total	34	602	11.0	102.0	94.5	93	100.27	92.92
Boring-mill operators, male—1 week:								
Indiana	5	34	5.7	51.2	55.1	108	33.74	36.31
Michigan	4	83	5.4	50.4	48.4	96	44.05	42.30
New Jersey	3	30	5.9	50.0	53.4	107	43.15	46.04
New York	6	42	5.8	51.5	50.2	97	40.12	39.12
Ohio	2	8	5.8	49.8	53.4	107	41.68	44.71
Illinois and Pennsylvania *	3	56	5.4	51.0	48.9	96	31.16	29.91
Total	23	253	5.6	50.8	50.5	99	39.01	38.74
Boring-mill operators, male—2 weeks or half month:								
Illinois	2	24	11.5	108.8	107.1	98	69.85	68.78
Michigan	16	410	11.1	111.4	99.8	90	86.34	77.36
Ohio	6	60	12.5	101.0	104.3	103	86.05	88.83
Pennsylvania and Wisconsin *	6	81	11.7	119.4	119.7	100	80.36	80.56
Total	30	575	11.4	111.3	103.4	93	84.70	78.65
Bumpers, male—1 week:								
Indiana	3	9	5.8	50.6	51.6	102	48.22	49.16
Michigan	4	19	3.8	49.2	35.2	72	50.28	35.98
New Jersey	2	25	5.9	50.3	60.2	120	50.35	60.26
New York and Ohio *	9	100	5.3	49.7	44.6	90	41.70	37.48
Total	18	153	5.3	49.8	46.4	93	44.72	41.70

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Bumpers, male—2 weeks or half month:								
Michigan	9	145	11.1	105.4	99.4	94	$102.55	$96.78
Ohio	4	12	11.7	101.3	95.4	94	100.70	95.09
Wisconsin	2	7	12.0	120.0	103.3	86	98.52	84.80
Illinois and Indiana *	2	6	12.3	109.7	119.6	109	178.92	195.18
Total	17	170	11.2	105.8	100.0	95	105.38	99.64
Crane operators, male—1 week:								
Michigan	4	17	6.0	51.5	55.0	107	37.03	39.53
New Jersey	2	3	6.0	48.7	54.1	111	34.24	38.05
New York	3	6	5.0	52.0	43.0	83	33.70	27.86
Pennsylvania	2	14	5.7	51.6	54.1	105	26.26	27.51
Indiana and Ohio *	3	14	5.2	48.6	43.6	90	37.96	34.04
Total	14	54	5.6	50.6	50.4	100	33.75	33.61
Crane operators, male—2 weeks or half month:								
Michigan	11	82	11.5	100.3	103.0	103	77.93	79.99
Illinois, Ohio, Pennsylvania, and Wisconsin *	4	9	13.1	106.7	118.7	111	61.46	68.37
Total	15	91	11.7	100.9	104.5	104	76.08	78.85
Cutters, cloth and leather, male—1 week:								
Indiana	5	25	5.6	50.0	47.7	95	39.75	37.90
Michigan	4	16	5.7	49.5	51.9	105	53.31	55.99
New Jersey	4	15	5.9	48.9	55.7	114	41.37	47.12
New York	7	17	5.5	50.7	46.3	91	34.37	31.39
Ohio	2	18	5.8	48.7	48.4	99	40.47	40.22
Illinois and Pennsylvania *	2	9	6.0	49.8	51.8	104	36.80	38.27
Total	24	100	5.7	49.6	49.8	100	41.32	41.52
Cutters, cloth and leather, male—2 weeks or half month:								
Michigan	14	96	10.9	106.1	99.5	94	82.65	77.55
Wisconsin	2	7	13.0	120.0	110.0	92	91.56	84.01
Illinois and Ohio *	4	16	12.3	105.9	103.5	98	84.61	82.74
Total	20	119	11.2	106.9	100.7	94	83.49	78.63
Cutters, cloth and leather, female—2 weeks or half month:								
Michigan and Wisconsin *	4	16	9.6	105.3	85.8	81	56.44	46.02
Die setters (sheet metal), male—1 week:								
Michigan	2	23	5.6	51.3	53.8	105	41.40	43.42
New York	2	5	5.8	52.3	54.5	104	38.65	40.28
Pennsylvania	2	5	5.8	51.6	54.8	106	34.57	36.76
Indiana, New Jersey, and Ohio *	3	54	5.9	50.8	57.3	113	37.49	42.27
Total	9	87	5.8	51.1	56.1	110	38.38	42.14
Die setters (sheet metal), male—2 weeks or half month:								
Michigan and Wisconsin *	10	187	11.3	103.4	107.9	104	84.58	88.24
Ding men, male—1 week:								
Michigan	4	33	4.8	50.9	41.4	81	53.14	43.20
New Jersey	2	8	4.6	49.7	46.5	94	46.47	43.48
New York	6	20	5.6	51.5	52.3	102	45.27	45.97
Ohio	2	16	5.4	48.9	47.2	97	47.87	46.15
Illinois and Indiana *	2	5	5.8	52.4	59.1	113	83.94	94.68
Total	16	82	5.1	50.6	46.8	92	51.51	47.62

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Ding men, male—2 weeks or half month:								
Michigan	9	94	10.2	105.0	86.0	82	$115.92	$94.95
Ohio	5	24	12.0	102.6	110.6	108	95.62	103.12
Illinois and Wisconsin *	2	9	13.0	115.1	116.5	101	100.25	101.51
Total	16	127	10.7	105.3	92.8	88	110.04	96.96
Door hangers, male—1 week:								
Michigan	2	33	4.0	50.0	34.3	69	44.55	30.54
New Jersey	2	36	5.7	49.0	55.0	112	38.61	43.36
New York	5	66	5.4	51.8	48.1	93	45.58	42.22
Pennsylvania	3	16	5.8	51.5	52.5	102	35.02	35.67
Illinois and Indiana *	4	67	5.8	51.4	50.4	98	45.03	44.14
Total	16	218	5.4	50.9	48.2	95	43.06	40.75
Door hangers, male—2 weeks or half month:								
Illinois	2	58	11.7	102.3	95.2	93	83.37	77.61
Michigan	8	272	10.5	108.8	92.2	85	96.61	81.92
Ohio	4	14	11.4	103.2	98.6	96	77.19	73.70
Wisconsin	2	97	8.9	120.0	76.0	63	75.12	47.58
Total	16	441	10.3	110.2	89.3	81	90.80	73.54
Drill-press operators, male—1 week:								
Illinois	4	72	5.7	49.8	49.4	99	28.73	28.53
Indiana	11	529	5.4	50.7	50.0	99	32.40	31.95
Michigan	5	849	5.3	51.4	47.3	92	42.35	38.93
New Jersey	4	150	5.7	50.1	53.1	106	36.82	39.05
New York	9	428	5.5	50.5	47.6	94	32.93	31.04
Ohio	6	298	5.5	48.3	48.1	100	36.08	35.90
Pennsylvania	4	324	5.6	51.4	51.5	100	28.48	28.55
Total	43	2,650	5.4	50.6	48.9	97	35.62	34.38
Drill-press operators, male—2 weeks or half month:								
Michigan	19	4,745	10.9	106.8	98.1	92	77.75	71.48
Ohio	9	603	11.5	99.5	97.0	97	70.35	68.55
Pennsylvania	3	126	11.3	120.2	114.5	95	66.95	63.75
Wisconsin	6	412	10.8	116.7	108.1	93	74.92	69.35
Illinois and Indiana *	4	152	11.4	108.8	105.4	97	68.87	66.72
Total	41	6,038	11.0	107.1	99.2	93	76.36	70.77
Drill-press operators, female—1 week:								
Indiana	2	16	5.3	50.0	45.9	92	26.55	24.37
Michigan	4	22	5.6	48.6	47.6	98	28.14	27.56
New Jersey	2	6	5.8	50.0	50.2	100	33.00	33.11
New York	2	10	5.0	49.2	42.9	87	23.76	20.71
Total	10	54	5.4	49.3	46.5	94	27.51	25.96
Drill-press operators, female—2 weeks or half month:								
Michigan	5	37	9.9	101.2	95.8	95	62.64	59.27
Illinois and Ohio *	2	8	10.1	105.8	89.9	85	50.89	43.25
Total	7	45	9.9	102.0	94.7	93	60.79	56.43
Forge-shop helpers, male—1 week:								
Illinois	2	3	6.0	49.7	49.7	100	27.83	27.83
Indiana	4	86	5.5	50.3	50.6	101	36.92	37.10
Michigan	5	251	5.0	51.1	45.5	89	37.81	33.70
New Jersey	4	48	6.7	77.6	75.6	97	44.39	43.19
New York	8	53	5.7	50.2	49.1	98	27.66	27.04
Ohio	3	111	5.5	48.1	54.3	113	40.31	45.55
Pennsylvania	4	33	5.6	49.8	49.5	99	25.40	25.25
Total	30	585	5.4	52.4	51.0	97	37.15	36.12

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Forge-shop helpers, male—2 weeks or half month:								
Michigan	15	1,057	10.6	90.6	91.1	101	$70.40	$70.75
Pennsylvania	2	3	11.7	116.7	110.7	95	54.15	51.34
Wisconsin	3	9	11.0	118.5	114.6	97	80.11	77.45
Illinois and Ohio*	5	7	12.7	102.8	107.6	105	58.18	63.75
Total	25	1,076	10.6	91.0	91.4	100	70.34	70.71
Gear-cutter operators, male—1 week:								
Indiana	5	147	5.1	50.5	51.4	102	32.22	32.81
Michigan	5	108	5.3	51.2	48.1	94	45.57	42.75
New Jersey	3	41	5.8	50.0	56.9	114	37.70	42.91
New York	4	277	5.2	50.7	47.2	93	34.58	32.20
Pennsylvania	3	19	5.7	51.5	51.1	99	31.67	31.45
Illinois and Ohio*	3	46	5.4	49.4	47.6	96	38.19	36.83
Total	23	638	5.3	50.6	49.1	97	36.23	35.13
Gear-cutter operators, male—2 weeks or half month:								
Illinois	2	18	11.7	109.4	113.7	104	71.33	74.13
Michigan	14	591	10.8	107.5	100.0	93	83.10	77.36
Ohio	4	56	12.5	99.3	113.0	114	83.91	95.53
Pennsylvania	2	4	11.0	108.0	94.9	88	62.64	55.05
Wisconsin	3	24	11.3	113.6	115.6	102	82.47	83.86
Total	25	693	10.9	107.1	101.9	95	82.79	78.84
Grinding-machine operators, male—1 week:								
Illinois	4	46	5.7	49.9	50.6	101	31.99	32.44
Indiana	7	343	5.4	50.6	50.9	101	33.14	33.32
Michigan	5	630	5.5	50.8	49.2	97	42.77	41.41
New Jersey	2	114	5.8	50.0	55.9	112	39.55	44.22
New York	7	515	5.4	50.3	47.4	94	35.81	33.71
Ohio	3	209	5.7	48.3	51.5	107	38.30	40.84
Pennsylvania	4	104	5.6	50.8	50.5	99	30.07	29.87
Total	32	1,961	5.5	50.3	49.7	99	37.67	37.25
Grinding-machine operators, male—2 weeks or half month:								
Illinois	3	83	11.2	108.6	103.0	95	71.57	67.88
Michigan	19	2 831	11.4	106.8	102.3	96	83.52	79.98
Ohio	7	297	11.9	98.9	101.1	102	80.60	82.33
Pennsylvania	3	98	11.3	122.1	115.6	95	73.38	69.48
Wisconsin	5	152	12 1	113.6	121.3	107	81.22	86.77
Total	37	3,461	11.4	106.9	103.4	97	82.63	79.90
Grinding-machine operators, female—1 week:								
Indiana and Pennsylvania*	2	5	5.4	49.8	45.7	92	27.09	24.89
Hardeners, male—1 week:								
Illinois	2	2	6.0	49.8	57.2	115	32.12	36.91
Indiana	7	69	5.6	50.5	60.1	119	30.30	36.04
Michigan	5	86	5.7	61.5	60.8	99	43.48	43.00
New Jersey	2	31	5.9	65.4	64.9	99	42.97	42.65
New York	7	76	5.8	57.7	61.0	106	39.81	42.03
Ohio	2	37	6.1	50.6	66.6	132	37.95	49.96
Pennsylvania	3	41	5.4	53.2	53.1	100	30.48	30.47
Total	28	342	5.7	56.6	60.8	107	37.81	40.56

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earning per pay period	Average actual earnings in pay period
Hardeners, male—2 weeks or half month:								
Michigan	16	511	11.3	119.6	106.1	89	$93.77	$83.23
Ohio	3	30	12.1	98.6	101.5	103	74.84	76.99
Wisconsin	4	16	12.9	119.0	145.7	122	68.90	84.39
Illinois and Pennsylvania*	3	46	11.7	110.9	123.2	111	60.66	67.38
Total	26	603	11.4	117.9	108.2	92	89.01	81.74
Helpers, male—1 week:								
Illinois	3	44	5.7	54.3	56.7	104	22.32	23.28
Indiana	10	141	5.5	50.5	52.0	103	26.31	27.09
Michigan	7	254	4.9	52.3	46.1	88	33.84	29.80
New Jersey	5	117	5.6	51.3	52.7	103	32.17	33.01
New York	10	179	5.6	51.5	51.1	99	26.57	26.35
Ohio	4	164	5.5	48.8	48.9	100	28.84	28.86
Pennsylvania	4	239	5.4	51.8	50.7	98	27.04	26.43
Total	43	1,138	5.4	51.3	50.1	98	28.88	28.16
Helpers, male—2 weeks or half month:								
Illinois	3	24	12.0	109.1	109.2	100	57.28	57.36
Michigan	19	1,468	10.8	107.5	100.3	93	69.66	65.02
Ohio	8	150	11.8	99.6	98.8	99	68.03	67.53
Pennsylvania	3	189	10.9	113.6	107.9	95	51.46	48.88
Wisconsin	5	50	11.4	120.7	102.4	85	61.68	52.35
Total	38	1,881	10.9	107.9	101.1	94	67.44	63.17
Inspectors, male—1 week:								
Illinois	5	35	5.8	50.1	51.9	104	31.41	32.57
Indiana	10	485	5.6	49.4	51.1	103	28.60	29.59
Michigan	6	877	5.6	50.3	50.5	100	37.12	37.28
New Jersey	6	249	5.8	51.1	58.1	114	35.62	40.48
New York	13	713	5.6	50.4	49.0	97	31.40	30.54
Ohio	4	501	5.8	48.4	52.6	109	34.46	37.47
Pennsylvania	5	287	5.8	51.3	53.7	105	29.09	30.43
Total	49	3,147	5.7	50.0	51.5	103	33.15	34.17
Inspectors, male—2 weeks or half month:								
Michigan	22	3,667	11.4	107.3	102.5	96	75.54	72.12
Ohio	9	481	11.5	100.3	103.4	103	70.51	72.71
Pennsylvania	2	75	11.9	119.9	120.9	101	73.38	73.97
Wisconsin	6	182	12.2	121.4	119.7	99	67.74	66.82
Illinois and Indiana *	5	124	12.1	107.4	111.2	104	71.42	73.96
Total	44	4,529	11.5	107.3	103.8	97	74.47	72.05
Inspectors, female—1 week:								
Indiana	2	35	5.7	50.0	49.0	98	15.65	15.33
Michigan	6	90	5.5	49.1	46.4	95	17.09	16.12
Pennsylvania	2	22	5.7	50.8	48.2	95	17.73	16.85
New York and Ohio *	2	19	5.5	48.0	45.7	95	17.76	16.92
Total	12	166	5.6	49.4	47.1	95	16.94	16.14
Inspectors, female—2 weeks or half month:								
Michigan	9	257	11.2	105.8	96.2	91	39.04	35.52
Illinois, Ohio, and Wisconsin *	3	14	11.3	99.5	90.9	91	41.39	37.77
Total	12	271	11.2	105.5	95.9	91	39.14	35.63

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Laborers, male—1 week:								
Illinois	5	89	5.8	51.6	53.5	104	$24.20	$25.11
*Indiana	11	1,031	5.6	50.7	52.0	103	24.03	24.65
Michigan	7	1,765	5.5	50.6	51.6	102	29.10	29.62
New Jersey	6	807	5.5	50.0	55.6	111	27.65	30.78
New York	14	1,185	5.6	51.3	50.3	98	26.78	26.27
Ohio	4	932	5.6	48.6	50.4	104	27.70	28.74
Pennsylvania	5	681	5.8	53.7	54.4	101	24.22	24.50
Total	52	6,490	5.6	50.7	52.1	103	26.92	27.64
Laborers, male—2 weeks or half month:								
Michigan	22	8,435	10.9	105.8	100.3	95	64.54	61.17
Ohio	9	851	10.9	101.3	95.0	94	55.21	51.77
Pennsylvania	3	126	11.6	114.8	111.6	97	51.09	49.66
Wisconsin	6	399	11.7	116.5	112.3	96	59.53	57.33
Illinois and Indiana *	5	291	11.8	108.8	109.9	101	52.66	53.14
Total	45	10,102	11.0	106.1	100.8	95	63.02	59.85
Laborers, female—1 week:								
Indiana	2	12	5.3	50.8	49.0	96	19.71	19.61
Laborers, female—2 weeks or half month:								
Michigan	9	79	11.1	112.5	91.5	81	44.44	36.12
Ohio	2	14	12.4	92.1	89.1	97	42.64	41.28
Total	11	93	11.3	109.5	91.1	83	44.35	36.90
Lacquer rubbers, male—1 week:								
Indiana	2	40	5.5	50.5	51.1	101	45.00	45.54
Michigan	4	81	5.3	49.8	41.3	83	41.78	34.62
New Jersey	3	31	5.7	48.4	48.8	101	35.28	35.53
New York	4	52	5.1	49.9	43.2	87	53.94	46.68
Ohio	2	48	5.6	49.8	48.0	96	51.69	49.87
Illinois and Pennsylvania *	2	35	6.0	49.5	56.2	114	41.28	46.88
Total	17	287	5.5	49.7	46.7	94	45.18	42.47
Lacquer rubbers, male—2 weeks or half month:								
Illinois	2	38	10.3	98.7	91.5	93	76.00	70.51
Michigan	11	280	10.3	107.2	87.8	82	90.48	74.10
Ohio	5	41	11.4	102.4	100.6	98	100.56	98.83
Wisconsin	3	63	10.0	115.8	84.8	73	92.29	67.56
Total	21	422	10.4	107.3	88.9	83	90.78	75.21
Lathe operators, male—1 week:								
Illinois	4	54	5.8	49.8	51.1	103	32.67	33.47
Indiana	6	253	5.6	51.0	53.2	104	35.75	37.32
Michigan	6	819	5.4	50.6	47.8	94	41.64	39.36
New Jersey	4	309	5.8	50.1	51.8	103	38.18	39.42
New York	10	468	5.6	50.5	47.6	94	35.91	33.87
Ohio	5	134	5.8	48.3	50.3	104	38.74	40.29
Pennsylvania	4	181	5.7	50.9	52.0	102	30.85	31.50
Total	39	2,218	5.6	50.4	49.5	98	37.90	37.25
Lathe operators, male—2 weeks or half month:								
Illinois	2	57	11.3	108.7	106.4	98	68.81	67.31
Michigan	18	3,069	11.3	106.4	101.5	95	82.03	78.25
Wisconsin	5	268	11.6	116.0	116.6	101	78.07	78.52
Ohio and Pennsylvania *	8	648	12.1	101.0	104.1	103	80.50	82.93
Total	33	4,042	11.4	106.2	103.0	97	81.35	78.87

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Lathe operators, female—1 week:								
Michigan, New Jersey, and New York *	3	10	5.3	49.0	46.6	95	$27.49	$26.14
Lathe operators, female—2 weeks or half month:								
Michigan and Ohio *	2	31	10.9	100.1	102.0	102	74.37	75.79
Letterers, stripers, and varnishers, male—1 week:								
Indiana	8	105	5.7	50.7	50.7	100	41.93	41.93
Michigan	4	98	4.6	49.7	37.1	75	51.74	38.64
New Jersey	4	36	5.9	48.6	52.3	108	45.30	48.73
New York	9	120	5.4	52.4	43.3	83	49.05	40.54
Ohio	3	136	5.7	48.3	46.9	97	56.17	54.47
Illinois and Pennsylvania *	2	18	6.1	49.9	56.7	114	42.17	47.86
Total	30	513	5.4	50.1	45.7	91	49.35	44.99
Letterers, stripers, and varnishers, male—2 weeks or half month:								
Michigan	14	373	11.1	106.1	93.1	88	107.27	94.21
Ohio	7	52	11.5	101.6	93.9	92	103.43	95.56
Wisconsin	3	14	11.7	112.9	106.1	94	109.06	102.50
Illinois and Indiana *	2	38	11.8	109.2	103.0	94	99.75	92.37
Total	26	477	11.2	106.1	94.4	89	106.21	94.45
Machinists, male—1 week:								
Illinois	3	41	5.7	50.0	51.5	103	32.50	33.44
Indiana	4	89	5.7	50.5	57.2	113	35.60	40.32
Michigan	6	432	5.8	50.4	52.8	105	41.98	44.02
New Jersey	5	54	6.0	50.1	58.6	117	38.28	44.82
New York	12	326	5.7	50.3	51.3	102	35.96	36.70
Ohio	4	229	6.0	48.7	55.7	114	36.14	41.33
Pennsylvania	4	193	5.8	51.3	55.2	108	35.29	38.00
Total	38	1,364	5.8	50.2	53.8	107	37.75	40.44
Machinists, male—2 weeks or half month:								
Illinois	3	41	11.6	109.6	108.4	99	68.61	67.90
Michigan	20	2,031	11.6	105.9	103.0	97	90.02	87.54
Ohio	7	73	12.2	99.8	103.3	104	83.63	86.61
Pennsylvania	2	30	12.8	117.6	134.2	114	71.85	82.01
Wisconsin	3	65	12.1	112.0	122.8	110	80.53	88.32
Total	35	2,240	11.6	106.1	104.1	98	88.81	87.10
Metal finishers, male—1 week:								
Michigan	4	233	4.2	49.6	38.1	77	47.12	36.19
New York	5	105	5.2	52.1	48.7	93	47.15	44.07
Pennsylvania	2	340	5.7	52.0	52.6	101	36.56	36.93
Illinois, Indiana, New Jersey, and Ohio *	4	506	5.3	50.0	48.9	98	46.40	45.42
Total	15	1,184	5.2	50.7	47.8	94	43.55	41.05
Metal finishers, male—2 weeks or half month:								
Michigan	12	1,944	10.4	108.3	92.3	85	92.27	78.70
Ohio	4	82	9.5	103.7	74.5	72	77.05	55.31
Wisconsin	3	168	10.5	117.4	97.0	83	88.05	72.76
Illinois and Indiana *	2	19	11.5	109.2	104.1	95	117.17	111.76
Total	21	2,213	10.4	108.9	92.1	85	91.80	77.67

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Metal panelers, male—1 week:								
Indiana	4	198	5.4	49.9	49.4	99	$40.32	$39.94
New Jersey	3	81	5.8	48.9	53.6	110	37.26	40.83
New York	6	81	5.4	51.4	49.7	95	44.82	43.33
Ohio	2	146	4.4	48.2	33.8	70	36.92	25.89
Illinois, Michigan, and Pennsylvania *	3	91	4.6	51.1	39.7	78	42.92	33.38
Total	18	597	5.1	49.7	44.7	90	40.11	36.08
Metal panelers, male—2 weeks or half month:								
Illinois	2	52	11.0	106.0	91.7	87	96.14	83.18
Michigan	5	801	9.1	108.2	77.6	72	81.04	58.14
Ohio	4	48	10.0	103.8	79.3	76	77.02	58.83
Indiana and Wisconsin *	3	157	10.9	119.3	96.4	81	84.82	68.54
Total	14	1,058	9.5	109.6	81.2	74	82.31	60.94
Milling-machine operators, male—1 week:								
Illinois	4	54	5.9	49.9	51.4	103	30.54	31.49
Indiana	8	208	5.6	51.3	52.0	101	32.58	33.03
Michigan	6	376	5.3	51.5	47.9	93	44.34	41.26
New Jersey	3	109	5.8	50.0	55.4	111	37.40	41.43
New York	7	180	5.6	51.0	48.1	94	34.68	32.72
Ohio	5	143	5.6	49.2	51.3	104	36.60	38.15
Pennsylvania	4	169	5.7	52.0	53.3	103	29.85	30.61
Total	37	1,239	5.5	51.0	50.6	99	36.72	36.41
Milling-machine operators, male—2 weeks or half month:								
Illinois	3	30	11.8	108.5	106.5	98	76.28	74.85
Michigan	19	1,840	11.1	107.2	99.8	93	81.26	75.63
Ohio	7	278	11.5	99.7	98.4	99	72.68	71.74
Pennsylvania	3	40	11.3	119.4	113.2	95	66.27	62.84
Wisconsin	5	122	12.2	116.6	122.4	105	76.49	80.34
Total	37	2,310	11.2	107.0	101.1	94	79.50	75.18
Milling-machine operators, female—1 week:								
New York and Pennsylvania *	2	16	5.1	48.3	41.6	86	22.02	18.94
Milling-machine operators, female—2 weeks or half month: Michigan	2	4	10.0	102.3	92.3	90	55.04	49.67
Molders, belt and drip, male—1 week:								
Indiana	3	65	5.6	49.6	50.5	102	41.22	41.92
New York	4	55	5.5	50.4	52.3	104	43.09	44.71
Illinois, Michigan, New Jersey, and Pennsylvania *	4	32	5.7	50.7	52.1	103	43.30	44.47
Total	11	152	5.6	50.1	51.5	103	42.33	43.47
Molders (belt and drip), male—2 weeks or half month:								
Michigan	3	42	11.0	108.7	89.1	82	98.81	81.07
Ohio	2	18	9.6	102.7	74.4	72	79.28	57.43
Illinois and Wisconsin *	3	54	9.6	118.6	81.2	68	85.39	58.47
Total	8	114	10.1	112.4	83.1	74	90.14	66.63
Painters, general, male—1 week:								
Illinois	4	22	5.8	52.2	53.5	102	38.73	39.69
Indiana	8	308	5.6	50.6	51.9	103	41.54	42.58
Michigan	6	162	5.7	54.5	53.4	98	41.64	40.84
New Jersey	6	112	5.8	49.3	56.2	114	43.93	50.05
New York	10	203	5.2	51.7	45.9	89	35.67	31.65
Ohio	6	129	5.7	48.5	49.9	103	38.65	39.79
Pennsylvania	4	104	5.7	49.8	49.2	99	32.82	32.43
Total	44	1,040	5.6	51.0	50.9	100	39.58	39.56

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Painters, general, male—2 weeks or half month:								
Illinois	2	64	12.4	102.9	106.4	103	$72.96	$75.49
Michigan	17	573	11.0	106.4	101.0	95	85.55	81.26
Ohio	7	128	11.1	101.6	96.2	95	78.13	73.93
Indiana and Wisconsin *	7	129	11.8	113.9	111.8	98	80.87	79.43
Total	33	894	11.2	106.5	102.3	96	82.86	79.53
Painters, general, female—1 week:								
Michigan, New Jersey, and New York *	3	6	5.7	49.8	47.7	96	22.81	21.85
Painters, general, female—2 weeks or half month:								
Michigan	2	10	10.1	95.7	76.3	80	53.30	42.51
Paint sprayers, male—1 week:								
Illinois	3	8	6.0	50.1	59.0	118	44.54	52.47
Indiana	5	131	5.5	49.6	49.9	101	41.12	41.38
Michigan	5	91	5.0	50.0	41.4	83	45.95	38.08
New Jersey	4	64	5.7	49.2	53.1	108	43.64	47.07
New York	11	63	5.7	50.4	48.7	97	45.76	44.23
Ohio	3	80	5.5	48.5	47.7	98	47.92	47.11
Pennsylvania	4	20	5.7	49.8	49.8	100	37.10	37.10
Total	35	457	5.5	49.6	48.3	97	44.09	42.92
Paint sprayers, male—2 weeks or half month:								
Michigan	18	374	10.6	106.3	93.9	88	88.12	77.82
Ohio	7	48	11.6	101.2	97.9	97	83.29	80.61
Pennsylvania	2	3	12.7	112.0	132.7	118	75.71	89.69
Wisconsin	4	70	10.1	118.5	94.7	80	91.25	72.93
Illinois and Indiana *	3	41	12.0	99.5	104.3	105	76.91	80.65
Total	34	536	10.8	106.9	95.4	89	87.12	77.71
Planer and shaper operators, male—1 week:								
Indiana	2	32	5.3	50.6	50.1	99	34.96	34.62
Michigan	4	28	5.5	49.7	49.3	99	40.01	39.65
New Jersey	2	8	6.4	49.7	59.3	119	39.96	47.69
New York	5	16	5.9	51.2	50.5	99	36.92	36.45
Illinois, Ohio, and Pennsylvania *	3	23	6.0	51.5	56.3	109	34.40	37.59
Total	16	107	5.7	50.6	52.0	103	36.84	37.82
Planer and shaper operators, male—2 weeks or half month:								
Michigan	12	182	11.2	101.4	98.7	97	83.86	81.65
Wisconsin	2	7	13.3	110.6	133.0	120	72.66	87.42
Ohio and Pennsylvania *	2	12	11.8	100.8	101.0	100	74.79	74.95
Total	16	201	11.3	101.7	100.0	98	82.78	81.45
Platers, male—1 week:								
Indiana	3	8	5.6	50.0	47.0	84	35.75	33.61
Michigan	4	16	5.5	52.6	51.9	99	40.61	40.02
New York	5	26	5.4	51.6	48.7	94	34.98	33.04
New Jersey, Ohio, and Pennsylvania *	3	35	5.8	48.4	52.1	108	30.54	32.85
Total	15	85	5.6	50.3	50.5	100	34.20	34.33
Platers, male—2 weeks:								
Michigan	10	92	10.5	105.9	97.0	92	83.56	76.56
Illinois and Ohio *	2	4	11.0	102.3	95.0	93	67.11	62.30
Total	12	96	10.5	105.8	96.9	92	82.95	75.96

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Polishers and buffers, male—1 week:								
Michigan	4	102	5.3	51.5	46.3	90	$53.25	$47.84
New York	7	147	5.4	53.5	48.8	91	46.01	41.99
Pennsylvania	3	101	5.8	51.6	54.7	106	35.91	38.09
Ohio and Indiana *	3	154	5.4	48.6	45.3	93	50.54	47.10
Total	17	504	5.5	51.2	48.4	95	46.49	43.96
Polishers and buffers, male—2 weeks or half month:								
Illinois	3	4	12.5	108.9	110.9	102	71.55	72.78
Michigan	9	555	11.2	105.5	99.5	94	95.58	90.09
Ohio and Wisconsin *	6	32	11.8	105.8	99.6	94	86.65	81.53
Total	18	591	11.2	105.6	99.5	94	94.93	89.51
Punch-press operators, male—1 week:								
Illinois	2	3	6.0	49.5	51.5	104	33.41	34.77
Indiana	5	201	5.5	50.3	50.6	101	31.09	31.24
Michigan	4	193	5.4	52.2	49.7	95	40.92	38.97
New Jersey	4	93	5.4	52.7	52.7	100	35.10	35.10
New York	9	107	5.3	52.0	47.1	91	35.52	32.15
Ohio	2	230	5.4	50.4	48.8	97	35.73	34.60
Pennsylvania	4	134	5.7	51.6	53.6	104	32.30	33.55
Total	30	961	5.5	51.3	50.2	98	35.14	34.41
Punch-press operators, male—2 weeks or half month:								
Illinois	3	21	11.4	109.0	104.6	96	65.13	62.42
Michigan	18	3,331	10.5	102.3	91.0	89	74.58	66.35
Ohio	5	53	12.0	99.7	102.4	103	68.89	70.76
Pennsylvania	2	13	13.5	110.8	141.0	127	55.07	70.08
Wisconsin	3	37	11.8	117.3	106.4	91	80.12	72.68
Total	31	3,455	10.6	102.4	91.6	89	74.24	66.48
Punch-press operators, female—1 week:								
Michigan and New Jersey *	2	52	5.5	50.0	44.9	90	23.45	21.06
Punch-press operators, female—2 weeks or half month:								
Michigan	4	51	9.4	107.8	73.5	68	47.86	32.67
Sand blasters, male—1 week:								
Indiana	5	73	5.7	50.3	53.0	105	29.63	31.22
Michigan	5	125	5.7	54.0	53.5	99	38.29	37.90
New Jersey	2	35	5.8	55.7	57.2	103	33.25	34.18
New York	6	36	5.5	50.9	53.2	105	31.76	33.18
Ohio	2	55	5.9	49.0	58.1	119	35.28	41.84
Pennsylvania	2	27	5.8	50.0	53.2	106	26.90	28.62
Total	22	351	5.7	52.0	54.4	105	34.01	35.56
Sand blasters, male—2 weeks or half month:								
Michigan	18	551	10.6	103.6	97.8	94	72.11	68.10
Ohio	4	38	12.5	100.0	103.1	103	72.40	74.63
Pennsylvania	2	6	12.3	111.7	128.7	115	53.95	62.09
Illinois and Wisconsin *	5	8	12.8	113.1	123.7	109	74.53	81.52
Total	29	603	10.8	103.6	98.8	95	72.00	68.63
Sanders and rough-stuff rubbers, male—1 week:								
Indiana	4	236	5.5	50.2	51.3	102	45.78	46.84
Michigan	4	261	4.7	52.6	39.4	75	42.66	31.90
New Jersey	4	96	5.7	49.1	54.1	110	44.78	49.30
New York	8	109	5.4	51.7	44.3	86	43.58	37.36
Ohio and Pennsylvania *	3	247	5.6	48.3	46.1	95	45.35	43.27
Total	23	949	5.3	50.5	46.1	91	44.84	40.96

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Sanders and rough-stuff rubbers, male—2 weeks or half month:								
Michigan	11	690	9.8	105.0	82.1	78	$82.43	$64.45
Ohio	6	94	10.1	104.6	89.0	85	88.49	75.24
Wisconsin	2	187	11.5	113.3	92.3	81	96.53	78.62
Illinois and Indiana *	2	17	10.4	109.2	87.6	80	86.05	69.02
Total	21	988	10.2	106.6	84.8	80	85.81	68.24
Sewing-machine operators, male—1 week:								
New Jersey	2	16	5.9	48.1	48.4	101	36.70	36.94
New York	4	10	5.7	49.3	48.0	97	35.89	34.96
Indiana, Michigan, and Ohio *	3	4	6.0	48.5	49.5	102	32.79	33.44
Total	9	30	5.8	48.5	48.4	100	35.84	35.82
Sewing-machine operators, male—2 weeks or half month:								
Illinois and Michigan *	5	348	11.1	96.8	97.9	101	69.41	70.19
Sewing-machine operators, female—1 week:								
Illinois	2	9	5.1	50.0	40.4	81	19.50	15.74
Indiana	6	113	5.4	49.8	46.6	94	24.85	23.25
Michigan	4	77	4.3	49.6	33.7	68	28.12	19.11
New Jersey	2	72	5.5	49.7	50.0	101	22.12	22.23
New York	7	38	5.0	51.3	39.0	76	24.98	19.02
Ohio	3	112	5.3	48.3	42.9	89	21.93	19.47
Pennsylvania	2	18	5.9	49.7	49.8	100	22.91	22.95
Total	26	439	5.2	49.5	43.3	87	23.86	20.86
Sewing-machine operators, female—2 weeks or half month:								
Michigan	12	576	9.8	107.3	83.4	78	49.14	38.20
Ohio	5	53	9.8	99.4	80.6	81	53.18	43.16
Wisconsin	3	39	10.8	117.7	86.4	73	55.44	40.71
Illinois and Indiana *	2	6	11.0	109.7	95.8	87	37.08	32.43
Total	22	674	9.9	107.3	83.5	78	49.68	38.68
Sheet-metal workers, male—1 week:								
Illinois	2	146	5.9	53.5	60.8	114	38.73	44.02
Indiana	8	183	5.5	51.0	49.3	97	39.83	38.55
Michigan	5	254	5.5	50.5	49.5	98	43.08	42.27
New Jersey	4	108	5.8	50.5	55.6	110	40.30	44.37
New York	6	229	4.5	54.0	42.0	78	41.42	32.22
Ohio	2	145	5.5	49.4	47.2	96	37.40	35.68
Pennsylvania	4	212	5.7	50.4	49.6	98	32.66	32.18
Total	31	1,277	5.4	51.4	49.7	97	39.17	37.89
Sheet-metal workers, male—2 weeks or half month:								
Michigan	16	1,500	11.1	104.1	99.3	95	84.32	80.43
Ohio	5	161	12.3	100.2	101.4	101	77.05	77.95
Pennsylvania	2	4	12.8	106.5	132.0	124	54.42	67.40
Wisconsin	4	125	11.8	115.5	112.5	97	85.24	82.97
Illinois and Indiana *	2	44	11.5	109.3	108.0	99	72.68	71.83
Total	29	1,834	11.3	104.7	100.6	96	83.34	80.15
Sheet-metal workers, female—1 week:								
Michigan, New York, and Ohio *	3	39	5.2	49.5	42.0	85	24.16	20.51
Straighteners, male—1 week:								
Indiana	3	7	5.4	50.7	52.2	103	34.17	35.19
Michigan	4	84	5.6	52.1	50.0	96	46.47	44.60
New Jersey	2	15	5.9	50.0	59.9	120	35.75	42.87
New York	6	65	5.6	49.4	46.6	94	29.69	28.00
Ohio	2	35	5.7	49.4	52.5	106	39.82	42.29
Pennsylvania	2	9	5.8	53.3	53.3	100	31.71	31.71
Total	19	215	5.6	50.7	50.3	99	38.58	38.24

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Straighteners, male—2 weeks or half month:								
Illinois	2	17	11.0	109.3	104.7	96	$63.83	$61.15
Michigan	14	333	11.7	112.5	107.0	95	86.06	81.83
Pennsylvania	2	15	11.1	111.3	109.4	98	56.87	55.90
Ohio and Wisconsin *	5	48	12.2	102.8	109.7	107	81.11	86.47
Total	23	413	11.7	111.2	107.3	96	83.51	80.58
Testers, final and road, male—1 week:								
Illinois	3	13	6.0	49.7	51.9	104	32.21	33.62
Indiana	4	16	6.1	51.9	57.1	110	28.91	31.79
Michigan	3	78	5.8	50.3	55.8	111	35.56	39.47
Ohio	4	68	5.9	48.2	51.2	106	26.37	27.97
Pennsylvania	2	26	5.8	49.6	60.4	122	29.96	36.48
New Jersey and New York *	6	88	5.4	52.6	50.7	96	34.56	33.33
Total	22	289	5.7	50.5	53.5	106	32.07	33.94
Testers, final and road, male—2 weeks or half month:								
Michigan	10	229	10.8	108.4	103.6	96	72.09	68.83
Ohio	6	111	9.7	102.2	101.0	99	67.35	66.56
Wisconsin	4	81	11.8	113.8	118.5	104	62.13	64.68
Illinois, Indiana, and Pennsylvania*	3	31	12.4	108.4	110.0	101	71.65	72.68
Total	23	452	10.8	107.8	106.1	98	68.88	67.79
Testers, motor and transmission, male—1 week:								
Indiana	3	70	5.7	50.4	51.3	102	38.35	39.05
Michigan	4	158	5.5	52.5	48.0	91	41.69	38.15
New Jersey	4	104	5.7	49.8	51.0	102	33.27	34.08
New York	6	76	5.6	50.0	52.4	105	32.20	33.77
Ohio	4	86	5.8	48.5	47.9	99	32.69	32.24
Illinois and Pennsylvania*	3	42	5.7	50.0	52.3	105	27.35	28.61
Total	24	536	5.6	50.5	50.0	99	35.50	35.16
Testers, motor and transmission, male—2 weeks or half month:								
Michigan	11	682	12.0	110.3	110.6	100	79.97	80.17
Ohio	7	101	10.8	102.7	99.6	97	67.27	65.20
Wisconsin	4	70	12.0	115.0	118.3	103	82.00	84.41
Illinois and Pennsylvania*	2	44	12.0	114.6	120.8	105	81.71	86.09
Total	24	897	11.9	110.0	110.5	100	78.76	79.10
Tool and die makers, male—1 week:								
Illinois	4	41	5.9	49.8	55.3	111	38.45	42.66
Indiana	10	149	5.7	51.2	55.0	107	37.84	40.61
Michigan	7	465	5.8	50.5	53.2	105	45.85	48.27
New Jersey	5	123	5.5	51.1	52.7	103	40.27	41.54
New York	9	297	5.8	50.9	53.5	105	39.19	41.21
Ohio	4	272	5.9	49.4	55.4	112	45.30	50.80
Pennsylvania	4	80	5.5	51.0	51.9	102	35.04	35.65
Total	43	1,427	5.7	50.5	53.8	107	42.27	45.01
Tool and die makers, male—2 weeks or half month:								
Illinois	3	62	11.8	107.8	106.4	99	79.99	78.94
Michigan	19	1,986	11.6	105.6	105.8	100	97.47	97.70
Ohio	7	118	11.7	100.9	102.8	102	76.89	78.26
Pennsylvania	2	34	11.2	123.0	121.4	99	80.69	79.66
Wisconsin	6	62	12.7	119.5	121.3	102	80.66	81.92
Total	37	2,262	11.7	106.1	106.3	100	95.28	95.47

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Top builders, male—1 week:								
Illinois	2	44	5.6	52.9	49.5	94	$37.51	$35.07
Indiana	8	239	5.6	50.7	51.4	101	42.94	43.58
Michigan	6	190	4.4	49.8	37.7	76	45.87	34.78
New Jersey	4	332	5.7	49.0	51.8	106	37.88	40.01
New York	9	287	5.4	51.4	45.3	88	44.31	39.07
Ohio	4	354	5.7	48.4	46.6	96	43.41	41.83
Pennsylvania	4	45	5.7	49.8	50.2	101	32.12	32.32
Total	37	1,491	5.5	49.8	47.4	95	41.83	39.77
Top builders, male—2 weeks or half month:								
Michigan	14	2,177	10.2	105.9	87.9	83	84.40	70.06
Ohio	7	145	11.0	103.3	91.7	89	85.43	75.77
Wisconsin	3	495	11.6	119.0	88.7	75	89.61	66.82
Illinois and Indiana*	3	107	11.4	101.9	97.6	96	75.51	72.36
Total	27	2,924	10.5	107.9	88.6	82	85.13	69.88
Top builders, female—1 week:								
Indiana	3	27	5.6	50.0	46.6	93	25.15	23.44
Michigan	3	28	3.0	49.9	22.1	44	29.04	12.88
New Jersey and New York*	3	9	4.9	50.9	42.9	84	25.96	21.85
Total	9	64	4.3	50.1	35.4	71	26.35	18.60
Top builders, female—2 weeks or half month:								
Michigan	5	91	10.6	108.6	87.3	80	47.78	38.38
Trim bench hands, male—1 week:								
Indiana	6	41	5.6	51.5	48.9	95	37.39	35.53
New Jersey	3	33	5.8	48.2	48.9	101	32.73	33.19
New York	6	11	5.6	50.5	49.6	98	38.53	37.89
Ohio	3	245	5.6	48.7	45.8	94	38.23	35.90
Illinois and Pennsylvania*	2	25	5.9	50.6	50.5	100	38.91	38.84
Total	20	355	5.7	49.2	46.9	95	37.69	35.88
Trim bench hands, male—2 weeks or half month:								
Michigan	7	65	11.3	99.5	100.7	101	74.82	75.81
Ohio	2	28	8.3	100.6	70.6	70	64.38	45.18
Wisconsin	3	5	10.2	115.6	85.4	74	84.50	62.46
Illinois and Indiana*	3	20	11.6	101.3	98.6	97	71.01	69.10
Total	15	118	10.6	100.7	92.6	92	72.71	66.84
Trim bench hands, female—1 week:								
Michigan	3	38	3.4	49.8	26.2	53	29.23	15.35
New York	3	15	5.3	52.0	45.2	87	30.73	26.69
Ohio	2	109	5.5	48.5	45.1	93	21.87	20.36
Indiana, New Jersey, and Pennsylvania*	3	49	5.7	49.2	53.9	110	25.78	28.23
Total	11	211	5.2	49.1	43.7	89	24.40	21.74
Trim bench hands, female—2 weeks or half month:								
Michigan	8	228	10.5	105.8	92.2	87	49.41	43.03
Ohio	2	12	10.5	102.0	85.0	83	51.51	42.97
Wisconsin	3	16	10.5	103.5	80.1	77	39.95	30.88
Illinois and Indiana*	2	7	10.1	109.4	88.1	81	39.06	31.47
Total	15	263	10.5	105.5	91.1	86	48.64	41.98

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Varnish rubbers, male—1 week:								
Michigan	4	16	5.5	48.4	45.0	93	$42.45	$39.44
New Jersey	2	4	5.5	50.0	52.3	105	40.40	42.24
New York	6	115	5.5	51.2	44.7	87	44.19	38.53
Ohio	2	70	5.5	48.1	44.0	91	46.51	42.52
Indiana and Pennsylvania*	5	43	5.7	52.3	51.6	99	37.45	36.91
Total	19	248	5.5	50.3	45.8	91	43.36	39.50
Varnish rubbers, male—2 weeks or half month:								
Michigan	9	250	11.0	108.0	94.7	88	101.84	89.34
Ohio and Wisconsin*	6	55	10.7	102.8	89.2	87	88.82	77.09
Total	15	305	10.9	107.1	93.7	87	99.60	87.13
Welders and braziers, male—1 week:								
Illinois	4	9	6.3	51.7	66.1	128	48.13	61.60
Indiana	2	35	5.0	49.4	44.9	91	46.34	42.10
Michigan	6	40	5.1	49.4	44.0	89	41.40	36.87
New Jersey	4	9	5.9	49.9	60.3	121	40.37	48.73
New York	10	36	5.6	51.3	48.6	95	38.12	36.09
Ohio	4	35	5.6	48.8	48.9	100	39.53	39.59
Pennsylvania	4	87	5.7	51.5	51.6	100	34.92	34.98
Total	34	251	5.5	50.4	49.5	98	39.26	38.52
Welders and braziers, male—2 weeks or half month:								
Illinois	3	11	12.5	108.8	115.2	106	77.79	82.35
Michigan	17	461	11.4	107.6	102.8	96	89.74	85.76
Ohio	6	14	11.6	100.9	111.0	110	80.11	88.14
Pennsylvania	3	9	11.2	112.9	106.2	94	62.55	58.77
Wisconsin	5	37	11.9	115.1	113.4	99	93.12	91.79
Total	34	532	11.4	108.0	104.1	96	88.99	85.72
Welders, spot and butt, male—1 week:								
Michigan	4	85	5.2	49.6	45.0	91	45.93	41.64
New Jersey	2	32	6.4	49.5	62.2	126	41.68	52.39
New York	4	14	4.6	53.0	38.7	73	40.44	29.52
Pennsylvania	2	183	5.6	51.9	50.9	98	36.23	35.52
Indiana and Ohio*	2	75	5.4	51.9	49.6	96	44.37	42.44
Total	14	339	5.5	51.2	50.6	99	39.53	39.03
Welders, spot and butt, male—2 weeks or half month:								
Michigan	11	320	11.2	102.4	98.0	96	82.64	79.09
Ohio	6	13	10.6	103.9	88.7	85	97.04	82.88
Wisconsin	2	5	12.0	115.6	114.7	99	83.69	83.07
Total	19	338	11.2	102.7	97.9	95	83.19	79.29
Woodworking-machine operators, male—1 week:								
Indiana	6	352	5.6	50.4	51.0	101	33.62	34.00
Michigan	3	85	3.2	49.9	28.8	58	36.73	21.19
New York	8	140	5.7	51.4	49.0	95	33.26	31.69
Ohio	2	71	5.8	48.1	47.2	98	36.94	36.25
Pennsylvania	3	38	5.7	49.6	47.7	96	36.01	34.64
Illinois and New Jersey*	3	49	5.9	52.7	56.8	108	28.56	30.78
Total	25	735	5.4	50.4	47.9	95	33.92	32.25
Woodworking-machine operators, male—2 weeks or half month:								
Michigan	8	956	9.6	108.1	86.1	80	71.67	57.07
Ohio	4	58	10.6	103.7	86.9	84	80.89	67.76
Wisconsin	2	119	11.7	120.0	105.6	88	82.92	72.93
Illinois, Indiana, and Pennsylvania*	3	74	11.8	109.1	105.4	97	72.66	70.21
Total	17	1,207	10.0	109.1	89.2	82	73.32	59.95

TABLE B.—AVERAGE NUMBER OF DAYS ON WHICH EMPLOYEES WORKED, AVERAGE FULL-TIME AND ACTUAL HOURS AND EARNINGS IN PAY PERIOD, AND PER CENT OF FULL TIME WORKED, 1925, BY OCCUPATION, SEX, PAY PERIOD, AND STATE—Contd.

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average number of days on which employees worked in pay period	Average full-time hours per pay period	Average hours actually worked in pay period	Per cent of full time worked	Average full-time earnings per pay period	Average actual earnings in pay period
Other skilled occupations, male—1 week:								
Illinois	5	44	6.0	51.0	55.0	108	$33.10	$35.65
Indiana	9	215	5.5	50.2	52.0	104	34.64	35.90
Michigan	7	530	5.6	49.7	50.8	102	43.39	44.36
New Jersey	6	183	5.9	50.0	52.6	105	38.40	40.35
New York	14	290	5.8	51.0	52.1	102	35.90	36.63
Ohio	5	437	6.0	48.5	54.9	113	36.38	41.18
Pennsylvania	4	196	5.8	51.0	54.4	107	32.64	34.78
Total	50	1,895	5.8	49.9	52.7	106	37.77	39.90
Other skilled occupations, male—2 weeks or half month:								
Illinois	3	67	12.4	109.0	111.4	102	82.08	83.85
Michigan	22	1,410	11.7	105.4	106.2	101	86.85	87.44
Ohio	9	231	11.9	100.7	102.2	101	74.01	75.14
Pennsylvania	2	15	11.9	118.4	111.7	94	60.74	57.24
Wisconsin	5	153	12.1	117.4	118.2	101	71.26	71.83
Total	41	1,876	11.8	106.0	106.9	101	83.63	84.29
Other skilled occupations, female—2 weeks or half month:								
Michigan	3	8	10.0	103.4	83.8	81	55.42	44.92
Other employees, male—1 week:								
Illinois	5	49	5.7	50.9	52.5	103	26.42	27.21
Indiana	11	660	5.7	50.6	53.1	105	32.84	34.47
Michigan	7	1,279	4.9	49.9	53.7	108	33.38	35.96
New Jersey	6	452	5.9	49.4	59.4	120	35.27	42.43
New York	14	1,187	5.8	50.9	51.1	100	33.29	33.43
Ohio	6	909	5.9	48.6	53.8	111	33.39	36.99
Pennsylvania	5	312	5.9	50.7	55.6	110	30.42	33.32
Total	54	4,848	5.6	50.0	53.7	107	33.25	35.68
Other employees, male—2 weeks or half month:								
Illinois	2	42	12.1	109.3	111.2	102	60.12	61.20
Michigan	22	4,167	11.5	104.7	104.7	100	76.64	76.64
Ohio	9	784	12.0	100.4	104.6	104	69.18	72.09
Pennsylvania	3	33	12.5	113.9	124.0	109	61.28	66.67
Indiana and Wisconsin *	7	297	11.3	116.0	110.1	95	72.27	68.48
Total	43	5,323	11.6	104.8	105.2	100	75.14	75.37
Other employees, female—1 week:								
Indiana	4	13	5.8	49.6	49.4	100	19.94	19.87
Michigan	6	97	5.5	49.0	45.4	93	22.20	20.59
New Jersey	2	22	5.5	49.8	49.7	100	26.44	26.39
New York	3	10	5.9	51.6	49.5	96	21.57	20.67
Ohio	2	28	5.6	48.2	45.5	94	24.92	23.53
Total	17	170	5.6	49.2	46.5	95	23.03	21.77
Other employees, female—2 weeks or half month:								
Michigan	7	195	11.2	108.2	94.3	87	47.82	41.62
Ohio	3	6	10.0	100.0	79.6	80	48.10	38.29
Total	10	201	11.2	107.9	93.8	87	47.80	41.52

TABLE C.—AVERAGE AND CLASSIFIED EARNINGS PER HOUR IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose average earnings per hour were—																
				Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under $1	$1 and under $1.10	$1.10 and under $1.20	$1.20 and under $1.30	$1.30 and under $1.40	$1.40 and under $1.50	$1.50 and under $1.75	$1.75 and under $2	$2 and over
Assemblers, axle, male:																				
Illinois	3	53	$0.662					1	11	23	12	6								
Indiana	7	109	.686				6	19	5	9	29	36	5							
Michigan	15	1,147	.755					7	55	252	445	311	70	6	1					
New York	4	171	.634			1		2	59	73	34	2								
Pennsylvania	3	34	.598					1	17	14	2									
Wisconsin	3	71	.709				4	9	8	9	20	21								
New Jersey and Ohio *	10	337	.730					3	47	86	117	67	12	5						
Total	45	1,922	.729			1	10	42	202	466	659	443	87	11	1					
Assemblers, body frame, male:																				
Illinois	3	172	.821						3	41	27	55	23	12	4	5	1	1		
Indiana	7	625	.716			7	34	48	61	83	164	146	75	5	1		1			
Michigan	11	1,039	.746					13	317	151	198	221	94	42	1	2				
New Jersey	3	389	.710					9	44	107	158	59	9	2	1					
New York	9	287	.771					15	59	37	52	42	43	29	4	5	1			
Ohio	9	280	.750		1			7	25	52	108	40	32	11		2	1	1		
Pennsylvania	4	109	.734					4	20	21	27	22	11	4						
Wisconsin	3	190	.690				1	7	37	53	64	26	1		1					
Total	49	3,091	.739		1	7	35	103	566	545	798	611	288	105	12	14	4	2		
Assemblers, chassis, male:																				
Illinois	5	168	.661					4	52	58	12	32	10							
Indiana	7	167	.646				3	16	38	16	85	7	2							
Michigan	16	1,461	.740					35	139	389	478	311	102	6		1				
New Jersey	2	112	.718						4	37	63	8								
New York	6	273	.634					10	80	120	47	11	4					1		
Ohio	11	458	.652				3	13	175	134	71	54	8							
Pennsylvania	3	131	.600					7	58	59	4	3								
Wisconsin	4	132	.637				7	33	19	11	50	6	6							
Total	54	2,902	.694				13	118	565	824	810	432	132	6		1		1		

TABLE C.—AVERAGE AND CLASSIFIED EARNINGS PER HOUR IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose average earnings per hour were—																	
				Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under $1	$1 and under $1.10	$1.10 and under $1.20	$1.20 and under $1.30	$1.30 and under $1.40	$1.40 and under $1.50	$1.50 and under $1.75	$1.75 and under $2	$2 and over
Assemblers, frame, male:																					
Illinois	3	19	$0.609					1	7	8	3										
Indiana	6	106	.821				2	2	8	7	10	31	45	1							
Michigan	14	539	.807						14	71	197	145	86	25		1					
New Jersey	2	47	.740							3	42	2									
New York	4	35	.675					5	11	3	7	4	5								
Ohio	10	185	.765				1	1	11	56	49	41	16	9				1			
Pennsylvania	5	164	.576					39	64	43	12	6									
Wisconsin	3	20	.602				6	3	4	1			6								
Total	47	1,115	.753				9	51	119	192	320	229	158	35		1		1			
Assemblers, motor, male:																					
Illinois	4	127	.718					12	24	10	39	33	9								
Indiana	10	242	.727			1	1	21	32	36	51	91	8	1							
Michigan	18	3,025	.770					9	226	424	946	1,181	205	23	7	1	1	1			1
New Jersey	4	188	.812					8	17	41	35	24	23	19	12	6	1	1	1		
New York	6	258	.711					1	36	87	82	45	3	2	2						
Ohio	11	710	.693				5	40	143	188	209	97	27	1							
Pennsylvania	4	135	.636					8	45	47	27	8									
Wisconsin	4	166	.694			2	6	19	24	29	37	47	2								
Total	61	4,851	.747			3	12	118	547	862	1,426	1,526	277	46	21	7	2	2	1		1
Automatic operators, lathe and screw-machine, male:																					
Illinois	6	75	.650				1	9	16	24	16	6	3								
Indiana	10	312	.667				5	33	78	68	71	39	16	2							
Michigan	22	1,451	.813				1	8	24	204	330	562	265	43	12	2					
New Jersey	3	49	.840					2	2	9	11	8	7	3	5	2					
New York	8	339	.699					11	64	93	111	42	11	2	4	1					
Ohio	7	241	.802					6	22	31	52	74	44	7	5						
Pennsylvania	4	110	.593				1	15	51	18	18	7									
Wisconsin	5	45	.644			1	2	4	7	15	12	2	2								
Total	65	2,622	.764			1	10	88	264	462	621	740	348	57	26	5					

Drill-press operators, male:																				
Illinois	7	215	.621				3	31	68	55	34	21	3							
Indiana	12	538	.636		1	1	13	106	123	135	67	51	32	8	1					
Michigan	24	5,594	.743			2	4	160	556	1,315	1,641	1,423	343	108	31	9	2			
New Jersey	4	150	.735				2	16	19	23	33	39	16	2						
New York	9	428	.652				6	42	98	130	105	35	10	1	1					
Ohio	15	901	.720				1	22	138	254	275	166	38	5		1	1			
Pennsylvania	7	450	.555				10	149	156	93	33	7	1	1						
Wisconsin	6	412	.642			2	33	68	91	82	86	39	10	1						
Total	84	8,688	.712		1	5	72	594	1,249	2,087	2,274	1,781	453	126	33	10	3			
Drill-press operators, female:																				
Indiana	2	16	.531			4		3	3	2	3		1							
Michigan	9	59	.604				3	19	12	11	3	9		2						
New Jersey	2	6	.660					1		2	2	1								
New York	2	10	.483				3	3	2	2										
Illinois and Ohio *	2	8	.480				2	2	4											
Total	17	99	.573			4	8	28	21	17	8	10	1	2						
Grinding-machine operators, male:																				
Illinois	7	129	.653					12	35	40	20	17	5							
Indiana	7	343	.655					25	119	90	64	28	11	5	1					
Michigan	24	3,461	.793				6	31	169	608	979	1,010	461	149	19	10	8	1	7	3
New Jersey	2	114	.791					5	11	22	25	24	15	5	6	1				
New York	7	515	.712					22	92	120	141	100	36	3		1				
Ohio	10	506	.806				1	8	37	75	125	145	62	40	11	2				
Pennsylvania	7	202	.596				3	36	71	51	28	9	3	1						
Wisconsin	5	152	.715				10	17	16	20	33	39	11	5		1				
Total	69	5,422	.765				20	156	550	1,026	1,415	1,372	604	208	37	15	8	1	7	3
Inspectors, male:																				
Illinois	9	158	.656					16	47	37	31	17	5	2	3					
Indiana	11	486	.580				3	33	260	165	12	7	4	2						
Michigan	28	4,544	.711				7	174	400	1,716	1,062	744	304	100	29	4	2			2
New Jersey	6	249	.697				1	14	36	69	71	48	8	2						
New York	13	713	.623				2	38	238	295	88	27	7	17	1					
Ohio	13	982	.708					11	116	368	333	94	35	16	5	3		1		
Pennsylvania	7	362	.576				2	48	198	73	22	17		2						
Wisconsin	6	182	.558			3	11	29	64	60	9	5	1							
Total	93	7,676	.682			3	26	363	1,359	2,783	1,628	959	364	141	38	7	2	1		2
Inspectors, female:																				
Indiana	2	35	.313			7	27	1												
Michigan	15	347	.364			1	261	81	4											
Ohio	2	19	.429				2	17												
Pennsylvania	2	22	.349				20	2												
Illinois, New York, and Wisconsin*	3	14	.340			1	10	3												
Total	24	437	.361			9	320	104	4											

TABLE C.—AVERAGE AND CLASSIFIED EARNINGS PER HOUR IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose average earnings per hour were—																
				Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under $1	$1 and under $1.10	$1.10 and under $1.20	$1.20 and under $1.30	$1.30 and under $1.40	$1.40 and under $1.50	$1.50 and under $1.75	$1.75 and under $2	$2 and over
Laborers, male:																				
Illinois	9	337	$0.487			1	19	205	67	26	19									
Indiana	12	1,074	.472			9	187	590	129	47	70	35	7							
Michigan	29	10,200	.604	1	2	2	75	2,177	3,356	1,725	1,198	1,499	147	15	2	1				
New Jersey	6	807	.553				2	281	224	178	102	15	1	2		2				
New York	14	1,185	.522			3	19	355	611	170	14	4	3	3	2	1				
Ohio	13	1,783	.558		1		26	714	449	303	205	47	28	8	2					
Pennsylvania	8	807	.450				141	497	148	18	2		1							
Wisconsin	6	399	.511			3	37	213	60	36	17	33								
Total	97	16,592	.570	1	3	18	506	5,032	5,044	2,503	1,627	1,633	187	28	6	4				
Laborers, female:																				
Indiana	2	12	.388		1	1	7		3											
Michigan	9	79	.395				38	36	5											
Ohio	2	14	.463					14												
Total	13	105	.403		1	1	45	50	8											
Lathe operators, male:																				
Illinois	6	111	.644					7	33	36	24	11								
Indiana	6	253	.701					11	48	68	67	52	6	1						
Michigan	24	3,888	.782			1	2	26	149	699	1,227	1,246	439	80	15	3	1			
New Jersey	4	309	.762				2	13	30	68	83	51	45	12	2	1	2			
New York	10	468	.711					19	59	120	165	86	18	1						
Ohio	12	724	.809				1	10	38	84	202	242	116	23	5	3				
Pennsylvania	5	239	.620				2	18	89	76	48	4	1	1						
Wisconsin	5	268	.673				27	22	27	56	97	29	8	1	1					
Total	72	6,260	.762			1	34	126	473	1,207	1,913	1,721	633	119	23	7	3			
Letterers, stripers, and varnishers, male:																				
Illinois	2	34	.941								4	11	4	10	5					
Indiana	9	111	.822					2	3	6	52	18	10	13	4	1	1		1	
Michigan	18	471	1.017					1	6	39	47	61	58	85	74	30	26	13	28	1	2
New Jersey	4	36	.932							9	8	3	9	1	1	1		1	3		

New York	9	120	.936					1	9	8	20	14	8	24	19	11	3	1	1	1
Wisconsin	3	14	.966							1	1	4	2	2	3	1				
Ohio and Pennsylvania*	11	204	1.098						2	9	16	9	30	49	16	27	26	15	3	2
Total	56	990	.996					4	20	72	148	120	121	184	122	71	56	30	35	5	2
Machinists, male:																				
Illinois	6	82	.638					3	25	37	11	4		2						
Indiana	4	89	.705						10	30	41	7	1							
Michigan	26	2,463	.847					1	40	153	593	857	490	250	67	7	1	3	1	
New Jersey	5	54	.764							9	32	11	1	1						
New York	12	326	.715					2	14	97	166	39	6	1	1					
Ohio	11	302	.765					1	25	52	119	75	13	13	2	2				
Pennsylvania	6	223	.678					4	36	116	51	9	3	3	1					
Wisconsin	3	65	.719					1	3	19	28	12	1	1						
Total	73	3,604	.806					12	153	513	1,041	1,014	515	271	71	9	1	3	1	
Milling-machine operators, male:																				
Illinois	7	84	.645					7	26	26	14	10	1							
Indiana	8	208	.635			1	1	31	58	48	41	22	6							
Michigan	25	2,216	.775			1	3	57	135	390	682	630	210	81	19	3	5			
New Jersey	3	109	.748				1	10	12	20	29	18	13	6						
New York	7	180	.680				5	7	30	60	52	20	6							
Ohio	12	421	.734				3	19	36	115	128	89	23	6	2					
Pennsylvania	7	209	.570				1	55	82	49	18	3	1							
Wisconsin	5	122	.656				11	10	21	23	39	12	5	1						
Total	74	3,549	.737			2	25	196	400	731	1,003	804	265	94	21	3	5			
Sewing-machine operators, male:																				
Michigan	5	329	.715					1	20	125	70	109	4							
New Jersey	2	16	.763							3	8	4	1							
New York	4	10	.728							6	1	2		1						
Illinois, Indiana, and Ohio*	3	23	.725							9	5	9								
Total	14	378	.718					1	20	143	84	124	5	1						
Sewing-machine operators, female:																				
Illinois	3	11	.400			2	3	6												
Indiana	7	117	.492		2	8	28	25	23	22	5	3	1							
Michigan	16	653	.471		1	3	204	189	175	72	4	4	1							
New Jersey	2	72	.445				25	20	27											
New York	7	38	.487				2	20	11	5										
Ohio	8	165	.480			9	24	75	33	13	10	1								
Pennsylvania	2	18	.461				8	3	4	3										
Wisconsin	3	39	.471		3	2	5	9	17	2	1									
Total	48	1,113	.472		6	24	299	347	290	117	20	8	2							

TABLE C.—AVERAGE AND CLASSIFIED EARNINGS PER HOUR IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average earnings per hour	Number of employees whose average earnings per hour were—																	
				Under 20 cents	20 and under 25 cents	25 and under 30 cents	30 and under 40 cents	40 and under 50 cents	50 and under 60 cents	60 and under 70 cents	70 and under 80 cents	80 and under 90 cents	90 cents and under $1	$1 and under $1.10	$1.10 and under $1.20	$1.20 and under $1.30	$1.30 and under $1.40	$1.40 and under $1.50	$1.50 and under $1.75	$1.75 and under $2	$2 and over
Tool and die makers, male:																					
Illinois	7	103	$0.754						3	25	46	22	4	2	1						
Indiana	10	149	.739						8	43	57	32	8		1						
Michigan	26	2,451	.920				2	2	22	64	270	724	750	386	148	44	11	7	15	5	1
New Jersey	5	123	.788						1	13	46	55	5	1	1						
New York	9	297	.770				2	2	3	32	131	91	32	4							
Ohio	11	390	.870						2	36	104	141	82	4	2	3	1		3	7	5
Pennsylvania	6	114	.678						7	69	34	4									
Wisconsin	6	62	.675				2	2	8	15	27	6	2								
Total	80	3,689	.875				6	6	54	297	715	1,075	883	397	153	48	12	7	18	12	6
Top builders, male:																					
Illinois	4	129	.733			1		3	11	52	16	30	11	3	1	1					
Indiana	9	261	.837				1	4	20	24	74	44	41	49	3		1				
Michigan	20	2,367	.807	1	2	2	12	78	235	247	500	609	502	136	31	9		3			
New Jersey	4	332	.773					9	26	40	120	86	48	2			1				
New York	9	287	.862				1	5	14	46	40	47	60	52	15	7					
Ohio	11	499	.877			1		1	13	52	113	84	94	124	16	1					
Pennsylvania	4	45	.645					6	10	21	4	2	1		1						
Wisconsin	3	495	.753		1	3	8	22	25	76	182	137	35	2	4						
Total	64	4,415	.808	1	3	7	22	128	354	558	1,049	1,039	792	368	71	18	2	3			
Top builders, female:																					
Indiana	3	27	.503				7	5	11	4											
Michigan	8	119	.473				21	71	19	7				1							
New Jersey and New York*	3	9	.511					4	4			1									
Total	14	155	.481				28	80	34	11		1		1							
Trim bench hands, male:																					
Illinois	3	22	.684				2	1	4	3	4	6	2								
Indiana	7	43	.726				2	4	6	7	6	10	5	3							
Michigan	7	65	.752						3	21	13	21	6	1							
New Jersey	3	33	.679					1	2	17	8	5									

Ohio	5	273	.770				2	12	25	48	44	103	23	14	2							
Wisconsin	3	5	.731					1		1	2	1										
New York and Pennsylvania*	7	32	.785				1	1	6	5	4	1	8	5		1						
Total	35	473	.754				7	20	46	102	81	147	44	23	2	1						
Trim bench hands, female:																						
Indiana	2	34	.544					4	4	18	8											
Michigan	11	266	.484	2	4	11	43	96	79	27	3	1										
New York	3	15	.591				2	4	3	3	3											
Ohio	4	121	.456			13	29	40	22	14	3											
Wisconsin	3	16	.386	2	2	1	3	7	1													
Illinois, New Jersey, and Pennsylvania*	3	22	.441			1	7	8	5	1												
Total	26	474	.479	4	6	26	88	159	128	53	9	1										

TABLE D.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Number of employees whose full-time per week was—													
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Assemblers, axle, male:																	
Illinois	3	53	53.7				7			4			42				
Indiana	7	109	51.2							83			26				
Michigan	15	1,147	50.9				134		6	828			12	166			1
New York	4	171	49.5				44		8	119							
Pennsylvania	3	34	49.9				1			33							
Wisconsin	3	71	50.7							61			9	1			
New Jersey and Ohio *	10	337	48.0		63	1	164		13	95		1					
Total	45	1,922	50.3		63	1	350		27	1,223		1	89	167			1
Assemblers, body, frame, male:																	
Illinois	3	172	50.0				60			80		32					
Indiana	7	625	50.7			30				481			114				
Michigan	11	1,039	51.1				85			629		325					
New Jersey	3	389	48.8				204		154	31							
New York	9	287	51.7				43	6	7	125		75			31		
Ohio	9	280	49.7		2		163		6	17	69		23				
Pennsylvania	4	109	49.6				22			87							
Wisconsin	3	190	55.0										190				
Total	49	3,091	50.8		2	30	577	6	167	1,450	69	432	327		31		
Assemblers, chassis, male:																	
Illinois	5	168	49.2				60		35	73							
Indiana	7	167	49.4			53				80			34				
Michigan	16	1,461	49.9				241		83	1,070			67				
New Jersey	2	112	48.8				70			42							
New York	6	273	51.4				21	42	42	65		79			24		
Ohio	11	458	48.9		35		194		12	200		5	12				
Pennsylvania	3	131	50.0				3			128							
Wisconsin	4	132	52.2							73			59				
Total	54	2,902	49.9		35	53	589	42	172	1,731		84	172		24		

Assemblers, frame, male:																	
Illinois	3	19	49.7						12	7							
Indiana	6	106	50.3			8				84			14				
Michigan	14	539	50.0				67		1	449			22				
New Jersey	2	47	49.6				9			38							
New York	4	35	53.2						10	6		11			8		
Ohio	10	185	48.3		17		117		4	43		1	3				
Pennsylvania	5	164	51.1				16			111			34				3
Wisconsin	3	20	53.5							6			14				
Total	47	1,115	50.0		17	8	209		27	744		12	87		8		3
Assemblers, motor, male:																	
Illinois	4	127	52.0						3	56	68						
Indiana	10	242	51.0							193			49				
Michigan	18	3,025	49.5				893		117	1,962	29		10	12			2
New Jersey	4	188	48.2							188							
New York	6	258	50.4				55	90	12	10		90				1	
Ohio	11	710	48.9		77	23	219		15	341			35				
Pennsylvania	4	135	52.9				7			51			74			3	
Wisconsin	4	166	52.3							89			75	2			
Total	61	4,851	49.8		77	23	1,174	90	147	2,890	97	90	243	14		4	2
Automatic operators (lathe and screw machine), male:																	
Illinois	6	75	52.8						8	13	43		11				
Indiana	10	312	50.7							269			42			1	
Michigan	22	1,451	49.4				749		12	591	26		8	64			1
New Jersey	3	49	50.0							49							
New York	8	339	50.3				153	30		91		33			1	31	
Ohio	7	241	47.9		54	10	115			45	10		5			2	
Pennsylvania	4	110	50.7				9			91			5				5
Wisconsin	5	45	53.2							19			22	3		1	
Total	65	2,622	49.7		54	10	1,026	30	20	1,168	79	33	93	67	1	35	6
Drill press operators, male:																	
Illinois	7	215	52.5						22	66	65		62				
Indiana	12	538	50.8							460			70			8	
Michigan	24	5,594	50.3				1,559		92	3,298	95		145	345			60
New Jersey	4	150	50.1							148				2			
New York	9	428	50.5				111	50		161		81			5	20	
Ohio	15	901	47.4		283	86	274		28	182	16	1	27			4	
Pennsylvania	7	450	52.7				17			251	33		86			36	27
Wisconsin	6	412	53.4							182			130	99		1	
Total	84	8,688	50.3		283	86	1,961	50	142	4,748	209	82	520	446	5	69	87

TABLE D.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Number of employees whose full-time per week was—													
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Drill press operators, female:																	
Indiana	2	16	50.0							16							
Michigan	9	59	49.5				15			44							
New Jersey	2	6	50.0							6							
New York	2	10	49.2				8					2					
Illinois and Ohio*	2	8	52.9								8						
Total	17	99	49.8				23			66	8	2					
Grinding-machine operators, male:																	
Illinois	7	129	52.7						6	43	44		36				
Indiana	7	343	50.6							299			44				
Michigan	24	3,461	50.2				957		34	2,144	30		41	230			25
New Jersey	2	114	50.0							114							
New York	7	515	50.3				164	84		168		56				43	
Ohio	10	506	46.9		170	60	199		13	49	4	1	6			4	
Pennsylvania	7	202	53.4				5			89	6		73			24	5
Wisconsin	5	152	52.1							96			46	7		3	
Total	69	5,422	50.1		170	60	1,325	84	53	3,002	84	57	246	237		74	30
Inspectors, male:																	
Illinois	9	158	51.9				17		8	61	19	2	51				
Indiana	11	486	49.4			34				424			28				
Michigan	28	4,544	50.1				1,089		128	2,962	21	58	40	222		7	17
New Jersey	6	249	51.1				16		57	143				3		30	
New York	13	713	50.4				211	95	20	221		97	34		4	31	
Ohio	13	982	48.6		138	13	422		11	323	38	1	20			6	
Pennsylvania	7	362	52.2				4			134	142		67			8	7
Wisconsin	6	182	52.7							91			80	9		2	
Total	93	7,676	50.1		138	47	1,759	95	224	4,359	220	158	330	234	4	84	24

Inspectors, female:																	
Indiana	2	35	50.0							35							
Michigan	15	347	49.8				40		18	286		3					
Ohio	2	19	46.0		11		8										
Pennsylvania	2	22	50.8					8			14						
Illinois, New York, and Wisconsin *	3	14	48.7				11			2	1						
Total	24	437	49.6		11		59	8	18	323	15	3					
Laborers, Male:																	
Illinois	9	337	52.1				17		23	136	2	39	120				
Indiana	12	1,074	50.9			6				870			198				
Michigan	29	10,200	50.1				3,019		420	5,726	16	71	[1] 260	238	5	400	50
New Jersey	6	807	50.0				143		168	464				18	3	2	9
New York	14	1,185	51.3				159	127	105	433		257	49		31	9	24
Ohio	13	1,783	48.9	5	245	6	775		23	500	82	3	125			15	4
Pennsylvania	8	807	53.9				24			409	249		114			6	5
Wisconsin	6	399	53.4							127			270	1			1
Total	97	16,592	50.4	5	245	12	4,128	127	739	8,665	349	370	[1] 1,136	252	39	432	93
Laborers, female:																	
Indiana	2	12	50.8							10			2				
Michigan	9	79	51.4						8	58		7				2	4
Ohio	?	14	42.8	12	1					1							
Total	13	105	50.2	12	1				8	69		7	2			2	4
Lathe operators, male:																	
Illinois	6	111	52.1						18	36	30		27				
Indiana	6	253	51.0							202			51				
Michigan	24	3,888	50.1				1,243		19	2,215	51		84	240		1	35
New Jersey	4	309	50.1							306				3			
New York	10	468	50.5				120	94		135		79	11		3	26	
Ohio	12	724	46.4		340	118	115		24	86	27	1	13				
Pennsylvania	5	239	52.1				10			154	5		49			9	12
Wisconsin	5	268	53.1							130			93	33		12	
Total	72	6,260	50.0		340	118	1,488	94	61	3,264	113	80	328	276	3	48	47
Letterers, stripers, and varnishers, male:																	
Illinois	2	34	50.0						2	32							
Indiana	9	111	50.9			1				88			22				
Michigan	18	471	50.0				36		19	403			12			1	
New Jersey	4	36	48.6				24		3	9							
New York	9	120	52.4				22	7	2	7		78			4		
Wisconsin	3	14	51.8							9			5				
Ohio and Pennsylvania*	11	204	48.6		16		113		6	56	12		1				
Total	56	990	50.1		16	1	195	7	32	604	12	78	40		4	1	

[1] Including 10 at 56 hours.

TABLE D.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Number of employees whose full-time per week was—												
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Machinists, male:																	
Illinois	6	82	52.1						1	46	5		30				
Indiana	4	89	50.5							80			9				
Michigan	26	2,463	49.8				1,011		34	1,178	17	1	66	117		28	11
New Jersey	5	54	50.1				3		8	*41				2			
New York	12	326	50.3				111	62	3	*86		31	4		3	26	
Ohio	11	302	48.2		42	12	211		6	9	2		8			12	
Pennsylvania	6	223	51.9				6			51	136		26			4	
Wisconsin	3	65	51.3							51			8	6			
Total	73	3,604	50.0		42	12	1,342	62	52	1,542	160	32	151	125	3	70	11
Milling-machine operators, male:																	
Illinois	7	84	51.2						11	48	16		9				
Indiana	8	208	51.3							161			40			7	
Michigan	25	2,216	50.4				581		33	1,346	28		42	157			29
New Jersey	3	109	50.0							109							
New York	7	180	51.0				34	32		43		66				5	
Ohio	12	421	47.6		133	41	122		18	74	8	1	12			12	
Pennsylvania	7	209	52.8				9			126	13		29			10	22
Wisconsin	5	122	53.4							52			48	19		3	
Total	74	3,549	50.4		133	41	746	32	62	1,959	65	67	180	176		37	51
Sewing-machine operators, male:																	
Michigan	5	329	48.4				305			4		20					
New Jersey	2	16	48.1				15		1								
New York	4	10	49.3				4	4				2					
Illinois, Indiana, and Ohio*	3	23	48.1				22			1							
Total	14	378	48.4				346	4	1	5		22					

Sewing-machine operators, female:																
Illinois	3	11	50.0						8	2		1				
Indiana	7	117	50.0			16				83			18			
Michigan	16	653	51.7				[2]17		52	294		261	29			
New Jersey	2	72	49.7						48	24						
New York	7	38	51.3				3		10	10		15				
Ohio	8	165	48.6		4		98	20		38	5					
Pennsylvania	2	18	49.7					4		14						
Wisconsin	3	39	47.8			24				8			7			
Total	48	1,113	50.7		4	40	[2]118	24	118	473	5	277	54			
Tool and die makers, male:																
Illinois	7	103	52.0						18	29	53		3			
Indiana	10	149	51.2							114			35			
Michigan	26	2,451	49.8		28		655		100	1,524	18		55	47		24
New Jersey	5	123	51.1							105				18		
New York	9	297	50.9				93	28		87		31	37		2	19
Ohio	11	390	49.4		31		232		2	76	1	1	17			30
Pennsylvania	6	114	52.6				7			60	8		23			11
Wisconsin	6	62	54.8							4			57			1
Total	80	3,689	50.2		59		987	28	120	1,999	80	32	227	65	2	61
Top builders, male:																
Illinois	4	129	50.1				60		11	25		33				
Indiana	9	261	51.0			19				169			73			
Michigan	20	2,367	50.1				245		102	1,814		166	40			
New Jersey	4	332	49.0				129		161	42						
New York	9	287	51.4				37	17	24	37		117			5	
Ohio	11	499	49.3		5		283		5	124	62	1	19			
Pennsylvania	4	45	49.8				4			41						
Wisconsin	3	495	54.6							44			451			
Total	64	4,415	50.6		5	19	758	17	303	2,346	62	317	583		5	
Top builders, female:																
Indiana	3	27	50.0							27						
Michigan	8	119	51.8				1			65		52	1			
New Jersey and New York*	3	9	50.9							7		2				
Total	14	155	51.4				1			99		54	1			

[2] Including 3 employees at 47½ hours.

TABLE D.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of employees	Average full-time hours per week	Number of employees whose full-time per week was—													
				Under 44½ hours	44½ hours	45 hours	48 hours	Over 48 and under 49½ hours	49½ hours	50 hours	Over 50 and under 54 hours	54 hours	55 hours	57½ hours	Over 57½ and under 60 hours	60 hours	Over 60 hours
Trim bench hands, male:																	
Illinois	3	22	49.6				12			6		4					
Indiana	7	43	51.6			5				19			19				
Michigan	7	65	48.8				42			22		1					
New Jersey	3	33	48.2				29			4							
Ohio	5	273	48.9				160		1	108	4		2				
Wisconsin	3	5	53.0							2			3				
New York and Pennsylvania*	7	32	50.2				1	3	1	25		1			1		
Total	35	473	49.2			5	244	3	2	186	4	6	22		1		
Trim bench hands, female:																	
Indiana	2	34	49.6			6				25			3				
Michigan	11	266	50.1			3	[3] 1		27	224		11					
New York	3	15	52.0				1			6		8					
Ohio	4	121	48.7				83			32	6						
Wisconsin	3	16	47.5			11				2			3				
Illinois, New Jersey, and Pennsylvania*	3	22	49.6						16	6							
Total	26	474	49.7			20	[4] 85		43	295	6	19	6				

[3] At 47½ hours.

[4] Including 1 employee at 47½ hours.

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked—																				
				Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Assemblers, axle, male—1 week:																								
Indiana	6	102	48.5				1	2	1	4	32	48	14											
Michigan	4	279	47.8	1	1	1		3	2	12	84	160	13	2										
New York	4	171	47.8				1	3	3	20	30	99	8	7										
Ohio	4	161	46.2		1	2		3	4	6	56	86	2	1										
Pennsylvania	3	34	50.2					1			6	25	2											
Illinois and New Jersey *	2	15	47.6								5	10												
Total	23	762	47.7	1	2	3	2	12	10	42	213	428	39	10										
Assemblers, axle, male—2 weeks or half month:																								
Michigan	11	868	103.6			11	3	9	10	8	5	13	13	12	15	33	89	124	139	221	44	29	83	7
Ohio	5	165	95.2		1	3		1	2	3	3	6	2	1	6	8	19	30	52	8	8	11		1
Wisconsin	3	71	120.2			1		1	3			1				1	4	1	3	5	18	8	10	15
Illinois and Indiana *	3	56	107.8						1				1			1	6	5	17	17	7	1		
Total	22	1,160	103.6		1	15	3	11	16	11	8	20	16	13	21	43	118	160	211	251	77	49	93	23
Assemblers, body frame, male—1 week:																								
Indiana	6	601	50.6			1	2	8	9	23	91	330	132	5										
New Jersey	3	389	51.1		1	3	1	2	5	17	80	147	102	30	1									
New York	9	287	50.4		2			4	4	28	30	159	44	15	1									
Ohio	4	183	37.6		1	3	2	26	40	22	33	55	1											
Pennsylvania	4	109	48.5						1	3	32	69	4											
Illinois and Michigan *	2	91	42.5	1	1	1		7	12	16	18	21	10	2		1		1						
Total	28	1,660	48.7	1	5	8	5	47	71	109	284	781	293	52	2	1		1						

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked—																				
				Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Assemblers, body frame, male—2 weeks or half month:																								
Michigan	10	980	82.6	18	18	38	18	27	33	27	28	27	25	22	25	71	75	176	226	59	44	19	3	1
Ohio	5	97	86.6				2	1	2		2	2	5	3	4	14	31	17	8	6				
Wisconsin	3	190	95.3			3		8	3	1	8	3		3	4	8	26	26	33	39	24	1		
Illinois and Indiana *	3	164	93.5			1			2	3	1	5	2	7	5	13	30	41	40	11	2	1		
Total	21	1,431	85.8	18	18	42	20	36	40	31	39	37	32	35	38	106	162	260	307	115	70	21	3	1
Assemblers, chassis, male—1 week:																								
Illinois	3	54	48.0							1	19	34												
Indiana	6	159	46.9					2	5	18	68	32	33	1										
Michigan	3	357	45.1	1	2	2	1	1	15	18	130	185	1											
New Jersey	2	112	45.4					2	6	4	65	31	3	1										
New York	6	273	46.3		1	3		3	9	59	57	127	14											
Ohio	6	252	47.1			2	1	2	5	16	100	110	10	6										
Pennsylvania	2	128	46.8					1	3	14	59	48	3											
Total	28	1,335	46.2	1	3	7	2	11	44	130	498	567	64	8										
Assemblers, chassis, male—2 weeks or half month:																								
Illinois	2	114	102.0			1							2		2	3	44	16	11	17	11	6	1	
Michigan	13	1,104	89.7	3	5	9	31	8	10	7	12	46	22	26	38	190	137	183	231	52	84	10		
Ohio	5	206	92.2	1	4	6	6	4	2	6	2	1	5	2	5	9	16	26	50	36	16	7	2	
Wisconsin	4	132	119.5			2			3		2					1	1	6	10	14	36	45	2	10
Indiana and Pennsylvania *	2	11	101.0									1					3	1	2	4				
Total	26	1,567	93.5	4	9	18	37	12	15	13	16	48	29	28	45	203	201	232	304	123	147	68	5	10
Assemblers, frame, male—1 week:																								
Illinois	3	19	48.8								2	17												
Indiana	6	106	46.2				2	2	1	3	56	35	7											
Michigan	3	174	45.6			1			4	9	116	44												
New Jersey	2	47	45.7							6	33	7	1											

New York	4	35	46.1		1			1		7	3	22	1											
Ohio	5	124	46.9				1	6	4	3	28	75	7											
Pennsylvania	3	121	48.2	1				3	3	3	23	84	4											
Total	26	626	46.6	1	1	1	3	12	12	31	261	284	20											
Assemblers, frame, male—2 weeks or half month:																								
Michigan	11	365	99.2		2	3	2	7	1	3	4	4	10	7	13	30	22	54	92	20	76	15		
Ohio	5	61	105.7								2					2	6	7	30	4	7	1	1	1
Pennsylvania	2	43	93.8						1		1	1		5	4	5	6	5	6	4	3		1	1
Wisconsin	3	20	113.0											1		1			6	5	5	1	1	
Total	21	489	100.1		2	3	2	7	2	3	7	5	10	13	17	38	34	66	134	33	91	17	3	2
Assemblers, motor, male—1 week:																								
Illinois	3	59	51.3						1	5	2	37	12	2										
Indiana	9	228	53.5				2	2	3	14	107	83	17											
Michigan	3	449	47.0			4	1	1	6	22	189	205	13	3	2	2	1							
New Jersey	4	188	53.2					1	2	2	27	95	48	13										
New York	6	258	46.3		2			1	4	25	104	110	12											
Ohio	5	235	47.1			1	2	9	8	17	46	119	25	8										
Pennsylvania	2	52	48.2			1				2	5	43	1											
Total	32	1,469	48.9		2	6	3	14	23	76	387	716	194	43	2	2	1							
Assemblers, motor, male—2 weeks or half month:																								
Michigan	15	2,576	97.8	2	6	23	4	14	12	27	28	35	49	45	74	191	267	708	500	306	225	37	15	8
Ohio	6	475	92.1		3	11	6	15	11	4	10	10	7	12	17	36	51	83	117	15	37	9	4	17
Pennsylvania	2	83	118.4					2	1		2	1		2	1	5	3	4	5	3	5	13	26	10
Wisconsin	4	166	120.5				1	3		1	2	2	1	2	1	4	3	5	20	7	45	12	21	36
Illinois and Indiana *	2	82	101.7						3	1		3		2	1	1	2	3	51	10	2	3		
Total	29	3,382	98.7	2	9	34	11	34	27	33	42	51	57	63	94	237	326	803	693	341	314	74	66	71
Automatic operators (lathe and screw-machine), male—1 week:																								
Illinois	3	20	48.0		1				1	1	3	11	2	1										
Indiana	10	312	52.5		1			5	4	11	34	176	50	12	15	4								
Michigan	5	189	47.1		2	1		3	4	12	53	87	27											
New Jersey	3	49	53.4				2				4	22	10	11										
New York	8	339	46.5	1				3	7	26	102	189	11											
Ohio	2	119	52.4						4	3	12	52	46	2										
Pennsylvania	3	105	49.5				1	2		4	21	70	3	4										
Total	34	1,133	49.5	1	4	1	3	13	20	57	229	607	149	30	15	4								

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked— Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Automatic operators (lathe and screw-machine), male—2 weeks or half month:																								
Illinois	3	55	103.5	----	----	----	----	1	----	----	1	----	----	1	1	3	4	4	31	3	2	2	1	1
Michigan	17	1,262	99.1	----	1	1	2	11	11	12	14	11	16	20	32	95	182	372	200	78	79	59	33	33
Wisconsin	5	45	119.2	----	----	----	----	----	----	----	2	----	1	----	----	----	----	3	6	5	7	12	8	1
Ohio and Pennsylvania *	6	127	96.7	----	----	----	----	1	1	2	2	3	----	5	2	4	32	15	39	16	3	1	----	1
Total	31	1,489	99.6	----	1	1	2	13	12	14	19	14	17	26	35	102	218	394	276	102	91	74	42	36
Drill-press operators, male—1 week:																								
Illinois	4	72	49.4	----	----	----	----	2	1	5	8	42	14	----	----	----	----	----	----	----	----	----	----	----
Indiana	11	529	50.0	1	4	3	2	9	14	21	92	249	102	28	2	2	----	----	----	----	----	----	----	----
Michigan	5	849	47.3	2	2	14	9	25	17	41	198	393	135	9	3	----	----	1	----	----	----	----	----	----
New Jersey	4	150	53.1	----	----	3	----	2	1	3	10	66	54	11	----	----	----	----	----	----	----	----	----	----
New York	9	428	47.6	----	----	----	----	12	7	26	92	271	18	2	----	----	----	----	----	----	----	----	----	----
Ohio	6	298	48.1	----	2	5	2	8	11	12	41	154	58	5	----	----	----	----	----	----	----	----	----	----
Pennsylvania	4	324	51.5	1	----	1	----	5	2	14	38	227	12	23	1	----	----	----	----	----	----	----	----	----
Total	43	2,650	48.9	4	8	26	13	63	53	122	479	1,402	393	78	6	2	----	1	----	----	----	----	----	----
Drill-press operators, male—2 weeks or half month:																								
Michigan	19	4,745	98.1	6	21	39	32	57	54	50	61	81	85	106	164	261	505	1,006	911	518	406	228	123	36
Ohio	9	603	97.0	1	4	5	3	4	5	10	8	11	15	10	16	19	42	120	212	86	16	7	5	4
Pennsylvania	3	126	114.5	----	----	----	1	2	----	1	1	2	----	1	6	5	5	4	10	19	37	13	9	10
Wisconsin	6	412	108.1	----	4	13	3	10	4	14	7	8	6	10	6	6	8	12	33	31	80	63	61	33
Illinois and Indiana *	4	152	105.4	----	----	----	----	1	----	1	2	----	----	2	6	5	4	20	69	24	11	4	3	----
Total	41	6,038	99.2	7	29	57	39	74	63	76	79	102	106	129	198	296	564	1,162	1,235	678	550	310	201	83

Drill-press operators, female—1 week:																							
Indiana	2	16	45.9		1				1	1	2	9	2										
Michigan	4	22	47.6						1	2	4	15											
New Jersey	2	6	50.2								2	3	1										
New York	2	10	42.9							2	6	2											
Total	10	54	46.5		1				2	5	14	29	3										
Drill-press operators, female—2 weeks or half month:																							
Michigan	5	37	95.8						1					1		2	9	20	2	1	1		
Illinois and Ohio *	2	8	89.9						1							1	2	2	2				
Total	7	45	94.7						2					1		3	11	22	4	1	1		
Grinding-machine operators, male—1 week:																							
Illinois	4	46	50.6			1			1	1	7	23	13										
Indiana	7	343	50.9	2	3	1	2	4	5	22	51	162	54	32	4	1							
Michigan	5	630	49.2		1	2	1	6	14	40	152	294	96	22	2								
New Jersey	2	114	55.9						2	3	11	41	30	25	2								
New York	7	515	47.4			1	2	5	5	34	137	299	27	3	2								
Ohio	3	209	51.5					7	7	13	12	96	56	16		2							
Pennsylvania	4	104	50.5			1	2			2	17	73	6	3									
Total	32	1,961	49.7	2	4	6	7	22	34	115	387	988	282	101	10	3							
Grinding-machine operators, male—2 weeks or half month:																							
Illinois	3	83	103.0							2	1		2	3	2	1	1	10	42	9	10		
Michigan	19	2,831	102.3	2	9	15	8	21	27	19	30	33	29	40	55	124	300	597	604	389	277	127	81	44
Ohio	7	297	101.1		1			3	2	2	2	3	10	5	3	14	16	72	83	51	19	6	3	2
Pennsylvania	3	98	115.6					1			2	2	2	1	4	5	3	4	4	18	21	9	10	12
Wisconsin	5	152	121.3		1		2		2	1	3		1	1		2		5	14	18	31	30	19	22
Total	37	3,461	103.4	2	11	15	10	25	31	24	38	38	44	50	64	146	320	688	747	485	358	172	113	80
Inspectors, male—1 week:																							
Illinois	5	35	51.9					2		1	1	21	8	1	1								
Indiana	10	485	51.1	1	2	5	5		11	14	83	233	96	25	5	5							
Michigan	6	877	50.5	1	1	4	2	10	17	40	154	23	162	44	18	1							
New Jersey	6	249	58.1			1		5	2	5	26	57	78	45	24	6							
New York	13	713	49.0					4	8	27	173	430	53	14	4								
Ohio	4	501	52.6		2		3	7	9	14	32	259	125	34	13	3							
Pennsylvania	5	287	53.7			2	1	3	3	6	26	160	60	20	6								
Total	49	3,147	51.5	2	5	12	11	31	50	107	495	1,583	582	183	71	15							

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked— Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Inspectors, male—2 weeks or half month:																								
Michigan	22	3,667	102.5	----	3	10	7	36	17	21	25	30	51	57	95	208	372	836	910	394	234	158	125	78
Ohio	9	481	103.4	----	----	1	4	6	2	7	8	5	7	6	9	18	30	103	132	48	25	30	24	16
Pennsylvania	2	75	120.9	----	----	2	----	1	----	----	1	----	----	----	1	3	----	2	3	10	18	13	9	12
Wisconsin	6	182	119.7	----	----	----	----	5	----	2	1	2	1	2	1	1	3	3	15	24	54	30	19	19
Illinois and Indiana *	5	124	111.2	----	----	----	----	----	1	----	----	----	1	----	----	1	6	18	50	24	11	6	2	4
Total	44	4,529	103.8	----	3	13	11	48	20	30	35	37	60	65	106	231	411	962	1,110	500	342	237	179	129
Inspectors, female—1 week:																								
Indiana	2	35	49.0	----	----	----	----	----	1	----	6	28	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	6	90	46.4	----	----	2	----	1	2	7	18	60	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	2	22	48.2	----	----	----	----	1	----	----	3	18	----	----	----	----	----	----	----	----	----	----	----	----
New York and Ohio *	2	19	45.7	----	----	----	----	----	----	1	10	8	----	----	----	----	----	----	----	----	----	----	----	----
Total	12	166	47.1	----	----	2	----	2	3	8	37	114	----	----	----	----	----	----	----	----	----	----	----	----
Inspectors, female—2 weeks or half month:																								
Michigan	9	257	96.2	----	1	1	----	----	4	3	----	5	1	4	8	15	47	59	105	4	----	----	----	----
Illinois, Ohio, and Wisconsin *	3	14	90.9	----	----	----	----	1	----	----	1	----	----	----	1	----	----	7	4	----	----	----	----	----
Total	12	271	95.9	----	1	1	----	1	4	3	1	5	1	4	9	15	47	66	109	4	----	----	----	----
Laborers, male—1 week:																								
Illinois	5	89	53.5	----	----	1	----	2	2	2	6	33	38	3	2	----	----	----	----	----	----	----	----	----
Indiana	11	1,031	52.0	2	7	10	10	20	19	24	110	473	276	60	18	1	1	----	----	----	----	----	----	----
Michigan	7	1,765	51.6	6	5	14	15	38	91	94	248	592	360	194	86	18	2	2	----	----	----	----	----	----
New Jersey	6	807	55.6	1	1	5	10	18	22	27	79	235	196	122	64	27	----	----	----	----	----	----	----	----
New York	14	1,185	50.3	1	4	7	7	11	23	66	199	671	113	52	28	1	2	----	----	----	----	----	----	----
Ohio	4	932	50.4	1	2	7	12	20	37	39	86	437	229	50	8	4	----	----	----	----	----	----	----	----
Pennsylvania	5	681	54.4	----	1	----	----	6	7	19	73	307	176	77	12	3	----	----	----	----	----	----	----	----
Total	52	6,490	52.1	11	20	44	54	115	201	271	801	2,748	1,388	558	218	54	5	2	----	----	----	----	----	----

Laborers, male—2 weeks or half month:																								
Michigan	22	8,435	100.3	13	25	63	40	158	135	101	136	162	155	157	257	454	905	1,687	1,117	848	718	459	356	489
Ohio	9	851	95.0	3	4	13	4	22	22	8	26	14	17	17	20	32	40	169	273	74	30	18	20	25
Pennsylvania	3	126	111.6	----	----	2	----	2	----	----	1	1	2	----	10	7	4	8	13	18	22	17	9	10
Wisconsin	6	399	112.3	----	1	3	3	12	4	4	4	7	6	5	7	5	13	13	48	68	82	49	19	46
Illinois and Indiana *	5	291	109.9	----	----	1	----	----	2	1	1	----	1	4	3	10	13	34	86	64	41	18	6	6
Total	45	10,102	100.8	16	30	82	47	194	163	114	168	184	181	183	297	508	975	1,911	1,537	1,072	893	561	410	576
Laborers, female—1 week:																								
Indiana	2	12	49.0	----	----	1	----	----	----	----	3	5	3	----	----	----	----	----	----	----	----	----	----	----
Laborers, female—2 weeks or half month:																								
Michigan	9	79	91.5	----	----	2	----	1	1	----	4	2	----	1	5	7	12	14	19	6	1	4	----	----
Ohio	2	14	89.1	----	----	----	----	----	----	----	----	----	----	2	1	----	10	----	1	----	----	----	----	----
Total	11	93	91.1	----	----	2	----	1	1	----	4	2	----	3	6	7	22	14	20	6	1	4	----	----
Lathe operators, male—1 week:																								
Illinois	4	54	51.1	----	----	----	----	----	2	2	2	36	11	1	----	----	----	----	----	----	----	----	----	----
Indiana	6	253	53.2	----	----	----	2	----	4	7	26	144	50	12	6	2	----	----	----	----	----	----	----	----
Michigan	6	819	47.8	----	2	6	5	13	23	55	215	361	121	14	4	----	----	----	----	----	----	----	----	----
New Jersey	4	309	51.8	----	----	1	----	1	4	13	43	157	69	18	3	----	----	----	----	----	----	----	----	----
New York	10	468	47.6	----	----	----	1	5	7	20	118	306	10	1	----	----	----	----	----	----	----	----	----	----
Ohio	5	134	50.3	----	----	----	1	----	5	9	11	76	29	3	----	----	----	----	----	----	----	----	----	----
Pennsylvania	4	181	52.0	----	----	----	----	1	3	5	18	135	8	11	----	----	----	----	----	----	----	----	----	----
Total	39	2,218	49.5	----	2	7	9	20	48	111	433	1,215	298	60	13	2	----	----	----	----	----	----	----	----
Lathe operators, male—2 weeks or half month:																								
Illinois	2	57	106.4	----	----	----	1	----	----	----	----	2	----	----	1	2	2	8	20	9	6	5	1	----
Michigan	18	3,069	101.5	1	2	17	4	27	27	28	32	38	44	57	70	136	331	673	667	326	291	160	109	29
Wisconsin	5	268	116.6	----	2	1	2	4	6	3	4	1	1	2	----	5	5	8	19	38	50	68	23	26
Ohio and Pennsylvania *	8	648	104.1	----	----	6	----	6	3	4	4	6	11	7	6	9	40	107	231	122	52	15	8	11
Total	33	4,042	103.0	1	4	24	7	37	36	35	40	47	56	66	77	152	378	796	937	495	399	248	141	66
Letterers, stripers, and varnishers, male—1 week:																								
Indiana	8	105	50.7	----	----	1	2	----	2	2	12	68	10	4	4	----	----	----	----	----	----	----	----	----
Michigan	4	98	37.1	----	2	5	4	12	14	10	11	37	1	1	1	----	----	----	----	----	----	----	----	----
New Jersey	4	36	52.3	----	----	----	----	----	----	----	3	25	4	3	----	1	----	----	----	----	----	----	----	----
New York	9	120	43.3	----	----	2	----	4	11	29	20	50	3	----	1	----	----	----	----	----	----	----	----	----
Ohio	3	136	46.9	----	----	----	----	3	3	11	46	59	13	1	----	----	----	----	----	----	----	----	----	----
Illinois and Pennsylvania*	2	18	56.7	----	----	----	----	----	----	1	----	12	3	----	----	2	----	----	----	----	----	----	----	----
Total	30	513	45.7	----	2	8	6	19	30	53	92	251	34	9	6	3	----	----	----	----	----	----	----	----

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked— Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Letterers, stripers, and varnishers, male—2 weeks or half month:																								
Michigan	14	373	93.1	1	4	----	1	5	3	4	9	8	18	18	29	38	33	52	60	40	21	23	5	1
Ohio	7	52	93.9	----	----	----	----	4	----	----	----	----	----	1	3	5	7	11	13	3	3	----	2	----
Wisconsin	3	14	106.1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	2	3	5	2	1	----	----
Illinois and Indiana*	2	38	103.0	----	----	1	----	1	----	----	----	----	2	2	----	3	----	2	6	13	5	3	----	----
Total	26	477	94.4	1	5	1	1	10	3	4	9	8	20	21	32	46	40	67	82	61	31	27	7	1
Machinists, male—1 week:																								
Illinois	3	41	51.5	----	----	----	----	1	1	3	4	17	13	2	----	----	----	----	----	----	----	----	----	----
Indiana	4	89	57.2	----	2	----	----	----	1	1	5	32	24	18	4	1	----	----	1	----	----	----	----	----
Michigan	6	432	52.8	----	1	1	1	3	4	17	47	207	92	43	16	----	----	----	----	----	----	----	----	----
New Jersey	5	54	58.6	----	----	----	----	----	----	----	5	21	10	12	6	----	----	----	----	----	----	----	----	----
New York	12	326	51.3	----	1	----	1	3	2	11	38	196	64	6	3	1	----	----	----	----	----	----	----	----
Ohio	4	229	55.7	----	----	1	----	2	5	3	24	76	69	38	9	2	----	----	----	----	----	----	----	----
Pennsylvania	4	193	55.2	----	----	----	----	4	3	4	11	72	69	21	5	4	----	----	----	----	----	----	----	----
Total	38	1,364	53.8	----	4	2	2	13	16	39	134	621	341	140	43	8	----	----	1	----	----	----	----	----
Machinists, male—2 weeks or half month:																								
Illinois	3	41	108.4	----	----	----	----	----	----	2	----	----	----	----	----	1	4	3	16	3	8	3	----	1
Michigan	20	2,031	103.0	1	1	13	2	12	10	13	12	18	26	27	47	113	272	546	278	234	136	103	83	84
Ohio	7	73	103.3	----	----	----	----	1	----	----	1	1	----	1	1	3	2	19	26	12	3	3	----	----
Pennsylvania	2	30	134.2	----	----	----	----	----	----	----	----	----	----	1	----	----	----	----	----	4	10	6	2	7
Wisconsin	3	65	122.8	----	----	----	----	----	----	2	----	2	----	1	----	3	----	1	7	2	6	21	10	10
Total	35	2,240	104.1	1	1	13	2	13	10	17	13	21	26	30	48	120	278	569	327	255	163	136	95	102
Milling-machine operators, male—1 week:																								
Illinois	4	54	51.4	----	----	----	1	----	----	2	4	35	11	1	----	----	----	----	----	----	----	----	----	----
Indiana	8	208	52.0	----	1	----	----	1	4	5	38	99	46	12	1	1	----	----	----	----	----	----	----	----
Michigan	6	376	47.9	3	3	4	----	7	7	23	78	183	62	5	1	----	----	----	----	----	----	----	----	----
New Jersey	3	109	55.4	----	----	1	----	1	----	----	9	50	28	16	4	----	----	----	----	----	----	----	----	----
New York	7	180	48.1	----	----	3	----	4	2	5	37	124	5	----	----	----	----	----	----	----	----	----	----	----

Ohio	5	143	51.3			1		4	4	8	10	67	42	6	1										
Pennsylvania	4	169	53.3							4	16	124	7	18											
Total	37	1,239	50.6	3	4	9	1	17	17	47	192	682	201	58	7	1									
Milling-machine operators, male — 2 weeks or half month:																									
Illinois	3	30	106.5										1		1		1	1	19	3	4				
Michigan	19	1,840	99.8	1	4	9	6	24	15	18	25	28	25	31	50	109	192	419	363	222	116	94	72	17	
Ohio	7	278	98.4		3	1		3	3	4	5	8	6		8	8	23	45	94	42	12	3	7	3	
Pennsylvania	3	40	113.2											1	2	3	3	2	3	9	8	5	3	1	
Wisconsin	5	122	122.4						2	1				1	1	1	1	5	17	7	29	32	17	8	
Total	37	2,310	101.1	1	7	10	6	27	20	23	30	36	32	33	62	121	220	472	496	283	169	134	99	29	
Sewing-machine operators, male—1 week:																									
New Jersey	2	16	48.4							1	2	12		1											
New York	4	10	48.0							1	3	5	1												
Indiana, Michigan, and Ohio *	3	4	49.5									4													
Total	9	30	48.4							2	5	21	1	1											
Sewing-machine operators, male — 2 weeks or half month:																									
Illinois and Michigan *	5	348	97.9		1	1		4	3	4	5	4	4	2	10	23	41	98	70	40	27	10		1	
Sewing-machine operators, female — 1 week:																									
Illinois	2	9	40.4				1		1	1	2	4													
Indiana	6	113	46.6	1	1	1		3	1	2	44	50	8	2											
Michigan	4	77	33.7	7	6	2	2	8	4	6	17	24	1												
New Jersey	2	72	50.0					2	3	6	18	19	19	5											
New York	7	38	39.0				1		7	18	6	6													
Ohio	3	112	42.9		1		1	1	7	31	24	47													
Pennsylvania	2	18	49.8								3	15													
Total	26	439	43.3	8	8	3	5	14	23	64	114	165	28	7											
Sewing-machine operators, female—2 weeks or half month:																									
Michigan	12	576	83.4		7	1	6	22	16	15	6	21	14	25	28	57	131	110	89	28					
Ohio	5	53	80.6		1		1	2	1	2		7		2		8	6	14	3	2	2				
Wisconsin	3	39	86.4		1			1		1					4	6	13	7	6						
Illinois and Indiana *	2	6	95.8											1		1		1	3						
Total	22	674	83.5		9	1	7	25	17	18	6	28	14	28	32	72	152	132	101	30	2				

TABLE E.—AVERAGE AND CLASSIFIED HOURS ACTUALLY WORKED BY EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average hours actually worked in pay period	Number of employees who during pay period worked—																				
				Under 4 hrs.	4 and under 8 hrs.	8 and under 12 hrs.	12 and under 16 hrs.	16 and under 24 hrs.	24 and under 32 hrs.	32 and under 40 hrs.	40 and under 48 hrs.	48 and under 56 hrs.	56 and under 64 hrs.	64 and under 72 hrs.	72 and under 80 hrs.	80 and under 88 hrs.	88 and under 96 hrs.	96 and under 104 hrs.	104 and under 112 hrs.	112 and under 120 hrs.	120 and under 128 hrs.	128 and under 136 hrs.	136 and under 144 hrs.	144 hrs. and over
Tool and die makers, male—1 week:																								
Illinois	4	41	55.3	----	----	----	----	1	----	----	2	24	8	4	2	----	----	----	----	----	----	----	----	----
Indiana	10	149	55.0	----	----	1	----	1	1	1	19	77	21	16	10	2	----	----	----	----	----	----	----	----
Michigan	7	465	53.2	1	1	4	1	8	5	25	56	178	99	60	26	1	----	----	----	----	----	----	----	----
New Jersey	5	123	52.7	----	1	1	1	6	1	3	9	49	29	18	5	----	----	----	----	----	----	----	----	----
New York	9	297	53.5	----	----	1	----	1	3	9	17	169	70	27	----	----	----	----	----	----	----	----	----	----
Ohio	4	272	55.4	----	----	----	----	4	5	7	26	99	66	63	2	----	----	----	----	----	----	----	----	----
Pennsylvania	4	80	51.9	----	----	----	----	3	----	5	9	49	5	8	1	----	----	----	----	----	----	----	----	----
Total	43	1,427	53.8	1	2	7	2	24	15	50	138	645	298	196	46	3	----	----	----	----	----	----	----	----
Tool and die makers, male—2 weeks or half month:																								
Illinois	3	62	106.4	----	----	----	----	----	----	----	----	----	----	1	2	1	5	12	25	7	8	1	----	----
Michigan	19	1,986	105.8	2	3	14	4	13	19	11	18	23	29	26	38	111	188	323	422	228	169	127	93	125
Ohio	7	118	102.8	----	----	----	2	2	1	----	2	2	2	1	----	2	9	41	13	6	15	14	3	3
Pennsylvania	2	34	121.4	----	----	----	3	----	----	----	----	----	----	----	----	1	1	----	----	1	5	9	10	4
Wisconsin	6	62	121.3	----	----	----	----	----	----	----	----	----	1	----	----	1	4	----	4	19	11	10	9	3
Total	37	2,262	106.3	2	3	14	9	15	20	11	20	25	32	28	40	116	207	376	464	261	208	161	115	135
Top builders, male—1 week:																								
Illinois	2	44	49.5	----	----	----	1	----	1	3	7	22	10	----	----	----	----	----	----	----	----	----	----	----
Indiana	8	239	51.4	1	----	----	1	1	4	9	53	81	84	5	----	----	----	----	----	----	----	----	----	----
Michigan	6	190	37.7	----	1	4	6	18	44	29	37	32	14	4	1	----	----	----	----	----	----	----	----	----
New Jersey	4	332	51.8	----	3	----	2	6	9	15	39	128	89	38	3	----	----	----	----	----	----	----	----	----
New York	9	287	45.3	----	1	1	4	9	30	47	52	96	38	9	----	----	----	----	----	----	----	----	----	----
Ohio	4	354	46.6	----	2	----	1	5	8	27	88	202	21	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	4	45	50.2	----	----	1	----	----	----	2	4	33	5	----	----	----	----	----	----	----	----	----	----	----
Total	37	1,491	47.4	1	7	6	15	39	96	132	280	594	261	56	4	----	----	----	----	----	----	----	----	----

Top builders, male—2 weeks or half month:																								
Michigan	14	2,177	87.9	5	21	25	24	45	30	41	64	70	74	95	199	296	214	269	243	171	140	85	35	31
Ohio	7	145	91.7	----	----	1	1	1	1	----	1	3	6	5	13	16	22	41	20	7	5	1	1	----
Wisconsin	3	495	88.7	----	----	2	----	6	7	4	6	5	24	31	84	39	41	136	74	18	17	1	----	----
Illinois and Indiana*	3	107	97.6	----	----	----	----	----	----	----	1	4	----	2	3	9	22	25	30	5	5	1	----	----
Total	27	2,924	88.6	5	21	28	25	52	38	45	72	82	104	133	299	360	299	471	367	201	167	88	36	31
Top builders, female—1 week:																								
Indiana	3	27	46.6	----	----	1	----	1	----	----	6	18	1	----	----	----	----	----	----	----	----	----	----	----
Michigan	3	28	22.1	1	2	1	2	16	3	----	2	1	----	----	----	----	----	----	----	----	----	----	----	----
New Jersey and New York*	3	9	42.9	----	----	----	----	----	1	1	7	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	9	64	35.4	1	2	2	2	17	4	1	15	19	1	----	----	----	----	----	----	----	----	----	----	----
Top builders, female—2 weeks or half month:																								
Michigan	5	91	87.3	----	----	1	----	1	2	1	3	1	1	3	11	12	15	14	25	1	----	----	----	----
Trim bench hands, male—1 week:																								
Indiana	6	41	48.9	----	----	----	----	1	----	1	13	22	4	----	----	----	----	----	----	----	----	----	----	----
New Jersey	3	33	48.9	----	----	----	----	----	----	2	4	25	2	----	----	----	----	----	----	----	----	----	----	----
New York	6	11	49.6	----	----	----	1	----	----	----	1	6	3	----	----	----	----	----	----	----	----	----	----	----
Ohio	3	245	45.8	2	----	----	1	3	14	19	47	150	9	----	----	----	----	----	----	----	----	----	----	----
Illinois and Pennsylvania*	2	25	50.5	----	----	----	----	----	----	----	3	22	----	----	----	----	----	----	----	----	----	----	----	----
Total	20	355	46.9	2	----	----	1	5	14	22	68	225	18	----	----	----	----	----	----	----	----	----	----	----
Trim bench hands, male—2 weeks or half month:																								
Michigan	7	65	100.7	----	----	----	1	1	----	----	----	1	----	----	4	9	4	10	14	10	9	2	----	----
Ohio	2	28	70.6	----	1	1	1	1	----	2	1	3	4	----	1	1	3	5	----	1	3	----	----	----
Wisconsin	3	5	85.4	----	----	----	----	1	----	----	----	----	----	----	----	----	----	2	2	----	----	----	----	----
Illinois and Indiana*	3	20	98.6	----	----	1	----	----	----	----	----	----	----	----	----	----	3	6	6	4	----	----	----	----
Total	15	118	92.6	----	1	2	2	3	----	2	1	4	4	----	5	10	10	23	22	15	12	2	----	----
Trim bench hands, female—1 week:																								
Michigan	3	38	26.2	2	3	3	3	9	4	3	6	5	----	----	----	----	----	----	----	----	----	----	----	----
New York	3	15	45.2	----	----	----	----	----	1	6	2	6	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	2	109	45.1	----	1	----	1	3	2	11	29	62	----	----	----	----	----	----	----	----	----	----	----	----
Indiana, New Jersey, and Pennsylvania*	3	49	53.9	----	----	----	----	----	----	2	10	10	23	4	----	----	----	----	----	----	----	----	----	----
Total	11	211	43.7	2	4	3	4	12	7	22	47	83	23	4	----	----	----	----	----	----	----	----	----	----
Trim bench hands, female—2 weeks or half month:																								
Michigan	8	228	92.2	----	----	2	----	2	8	1	7	2	7	8	8	16	34	49	49	34	1	----	----	----
Ohio	2	12	85.0	----	----	----	----	----	----	----	----	2	----	1	1	3	1	2	2	----	----	----	----	----
Wisconsin	3	16	80.1	----	----	----	1	1	----	----	----	----	----	----	----	7	5	1	1	----	----	----	----	----
Illinois and Indiana*	2	7	88.1	----	----	----	----	----	----	----	----	----	1	1	----	1	1	1	2	----	----	----	----	----
Total	15	263	91.1	----	----	2	1	3	8	1	7	4	8	10	9	27	41	53	54	34	1	----	----	----

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE

[The asterisk (*) denotes a combination of figures to avoid showing data for one establishment in any one State]

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																							
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Assemblers, axle, male—1 week:																											
Indiana	6	102	$33.99	----	2	1	1	2	12	7	6	47	20	4	----	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	4	279	37.61	2	1	1	1	3	6	26	51	74	69	36	6	3	----	----	----	----	----	----	----	----	----	----	----
New York	4	171	30.31	----	1	3	1	5	25	49	55	22	3	7	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	4	161	33.37	1	2	----	5	5	6	12	47	65	14	1	3	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	3	34	30.01	----	----	1	----	----	3	14	9	7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Illinois and New Jersey *	2	15	33.56	----	----	----	----	----	----	4	5	5	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	23	762	34.17	3	6	6	8	15	52	112	173	220	107	48	9	3	----	----	----	----	----	----	----	----	----	----	----
Assemblers, axle, male—2 weeks or half month:																											
Michigan	11	868	77.17	----	9	9	9	6	5	6	12	7	11	13	23	40	32	43	66	96	214	203	55	8	1	----	----
Ohio	5	165	70.17	1	3	1	1	2	1	7	3	2	2	8	7	12	7	11	9	17	44	19	6	2	----	----	----
Wisconsin	3	71	85.14	1	1	2	1	----	1	----	----	----	1	6	1	4	2	4	2	1	5	9	9	14	3	3	----	1
Illinois and Indiana *	3	56	69.23	----	----	1	----	----	----	----	1	----	1	4	1	5	4	3	13	12	11	----	----	----	----	----	----
Total	22	1,160	76.28	2	13	13	11	8	7	13	16	9	15	31	32	61	45	61	90	126	274	231	70	24	4	3	----	1
Assemblers, body frame, male—1 week:																											
Indiana	6	601	36.14	----	3	5	13	26	40	69	93	135	119	34	49	13	2	----	----	----	----	----	----	----	----	----	----
New Jersey	3	389	36.30	1	4	1	5	5	13	34	88	114	64	34	17	7	1	1	----	----	----	----	----	----	----	----	----
New York	9	287	38.84	2	----	----	6	2	27	53	29	42	33	32	33	12	5	6	1	3	1	----	----	----	----	----	----
Ohio	4	183	28.12	----	2	4	13	19	20	51	31	25	17	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	4	109	35.62	----	----	----	----	1	7	21	24	25	16	9	6	----	----	----	----	----	----	----	----	----	----	----	----
Illinois and Michigan *	2	91	33.23	1	----	5	2	4	8	15	16	14	15	6	3	----	----	1	----	1	----	----	----	----	----	----	----
Total	28	1,660	35.56	4	9	15	39	57	115	243	281	355	264	116	108	32	8	8	1	4	1	----	----	----	----	----	----

Assemblers, body frame, male—2 weeks or half month:																												
Michigan	10	980	61.42	31	49	31	19	23	33	33	21	18	37	21	31	112	40	44	57	77	128	77	33	27	24	10	2	2
Ohio	5	97	65.44	1	----	1	1	2	1	2	1	1	----	6	7	4	7	30	11	5	8	3	2	3	1	----	----	----
Wisconsin	3	190	65.81	1	2	5	5	1	5	5	3	2	1	4	3	10	19	25	20	25	38	13	3	----	----	----	----	----
Illinois and Indiana *	3	164	76.91	----	----	1	1	----	5	----	----	2	3	7	4	12	13	11	14	12	34	23	12	6	1	1	2	----
Total	21	1,431	64.05	33	51	38	26	26	44	40	25	23	41	38	45	138	79	110	102	119	208	116	50	36	26	11	4	2
Assemblers, chassis, male—1 week:																												
Illinois	3	54	29.16	----	----	----	----	1	6	25	18	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	6	159	30.58	----	----	1	1	7	29	38	46	20	17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	3	357	36.11	2	4	----	4	5	14	15	133	64	71	39	5	1	----	----	----	----	----	----	----	----	----	----	----	----
New Jersey	2	112	32.56	----	----	----	4	1	5	13	48	30	8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New York	6	273	29.34	1	2	1	3	6	47	96	63	40	6	7	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	6	252	31.15	----	3	3	----	8	20	86	69	34	22	3	4	----	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	2	128	28.14	----	----	1	1	3	15	76	25	5	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	28	1,335	31.79	3	9	6	13	31	136	349	402	200	126	49	10	1	----	----	----	----	----	----	----	----	----	----	----	----
Assemblers, chassis, male—2 weeks or half month:																												
Illinois	2	114	69.98	----	1	----	----	----	----	----	----	2	----	5	3	18	13	15	19	13	18	4	2	1	----	----	----	----
Michigan	13	1,104	64.56	7	22	21	8	7	8	10	40	27	39	36	65	87	121	120	96	116	160	103	10	----	----	1	----	----
Ohio	5	206	58.97	5	10	5	3	2	5	2	4	4	6	14	14	21	18	14	24	11	28	12	4	----	----	----	----	----
Wisconsin	4	132	76.16	----	2	----	----	----	4	----	1	----	7	7	14	13	8	7	3	4	10	26	12	5	4	4	1	----
Indiana and Pennsylvania*	2	11	53.69	----	----	----	----	----	----	----	1	----	----	1	4	1	4	----	----	----	----	----	----	----	----	----	----	----
Total	26	1,567	65.12	12	35	26	11	9	17	12	46	33	52	63	100	140	164	156	142	144	216	145	28	6	4	5	1	----
Assemblers, frame, male—1 week:																												
Illinois	3	19	29.73	----	----	----	----	2	2	10	5	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	6	106	37.96	----	----	2	1	2	3	8	10	23	49	7	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	3	174	39.35	----	1	----	1	----	2	7	19	74	39	23	8	----	----	----	----	----	----	----	----	----	----	----	----	----
New Jersey	2	47	33.83	----	----	----	----	----	----	6	32	8	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New York	4	35	31.16	1	----	1	----	3	7	7	2	4	6	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	5	124	35.11	----	1	4	2	2	3	11	47	24	13	9	4	4	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	8	121	27.29	1	----	2	2	7	25	44	31	9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	26	626	34.78	2	2	9	6	14	42	93	146	144	108	43	13	4	----	----	----	----	----	----	----	----	----	----	----	----
Assemblers, frame, male—2 weeks or half month:																												
Michigan	11	365	77.43	2	3	5	4	1	1	4	3	2	7	6	14	8	27	41	13	36	68	80	22	3	2	13	----	----
Ohio	5	61	84.69	----	----	----	----	----	1	----	1	1	----	----	1	1	6	5	7	4	16	4	4	5	2	1	----	2
Pennsylvania	2	43	56.67	----	----	----	----	1	2	----	5	4	3	1	1	6	4	4	5	2	3	2	----	----	----	----	----	----
Wisconsin	3	20	68.03	----	----	----	----	----	1	----	----	----	3	3	3	1	2	1	----	----	----	----	2	4	----	----	----	----
Total	21	489	76.13	2	3	5	4	2	5	4	9	7	13	10	19	16	39	51	25	42	87	86	28	12	4	14	----	2

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																								
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Assemblers, motor, male—1 week:																												
Illinois	3	59	$31.96	----	----	----	1	4	10	17	8	6	7	3	2	1	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	9	228	39.43	----	1	1	1	2	23	25	17	18	50	68	21	1	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	3	449	39.26	----	3	2	1	3	9	15	112	111	127	42	13	----	3	4	3	----	----	1	----	----	----	----	----	----
New Jersey	4	188	43.22	----	----	----	1	3	10	15	25	23	28	28	23	11	10	7	2	2	----	----	----	----	----	----	----	----
New York	6	258	32.96	2	----	1	3	4	27	56	66	39	45	15	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	5	235	35.26	----	4	2	5	5	11	13	51	89	31	21	2	1	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	2	52	26.66	----	1	----	----	----	11	30	9	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	32	1,469	37.31	2	9	6	12	21	101	171	288	287	288	177	61	14	13	11	5	2	----	1	----	----	----	----	----	----
Assemblers, motor, male—2 weeks or half month:																												
Michigan	15	2,576	74.10	8	20	10	13	11	18	27	25	34	35	57	84	128	258	191	229	237	733	362	69	22	4	1	----	----
Ohio	6	475	61.33	3	18	7	9	8	5	17	5	16	13	26	50	28	32	38	45	41	70	28	14	2	----	----	----	----
Pennsylvania	2	83	81.43	----	----	----	2	1	1	----	2	2	1	2	1	2	1	6	8	3	13	21	11	1	5	----	----	----
Wisconsin	4	166	83.55	----	1	3	----	1	3	1	2	3	2	9	14	4	6	9	4	5	31	6	18	16	24	4	----	----
Illinois and Indiana *	2	82	77.84	----	----	----	2	1	1	1	1	3	2	----	1	1	1	3	1	7	39	14	4	----	----	----	----	----
Total	29	3,382	73.04	11	39	20	26	22	28	46	35	58	53	94	150	163	298	247	287	293	886	431	116	41	33	5	----	----
Automatic operators (lathe and screw machine), male—1 week:																												
Illinois	3	20	30.33	1	----	----	2	2	4	4	5	1	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	10	312	35.03	1	----	6	2	9	34	49	50	58	55	29	11	6	2	----	----	----	----	----	----	----	----	----	----	----
Michigan	5	189	43.03	2	----	1	2	----	4	7	13	19	65	38	21	16	----	1	----	----	----	----	----	----	----	----	----	----
New Jersey	3	49	44.84	----	----	1	----	2	----	3	7	6	6	9	5	3	2	1	3	----	1	----	----	----	----	----	----	----
New York	8	339	32.51	1	----	1	5	12	35	70	91	67	41	10	4	1	1	----	----	----	----	----	----	----	----	----	----	----
Ohio	2	119	41.74	----	----	----	1	3	4	5	11	17	34	13	24	7	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	3	105	29.05	----	----	2	1	3	20	36	20	18	4	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	34	1,133	36.10	5	----	11	11	31	99	174	196	190	206	101	65	33	5	2	3	----	1	----	----	----	----	----	----	----

Automatic operators (lathe and screw machine), male—2 weeks or half month:																											
Illinois	3	55	67.97			1				2		2	2	3	4	3	5	5	7	8	6	4	3				
Michigan	17	1,262	79.08	1	1	5	11	7	11	6	8	18	14	21	28	44	67	78	142	172	306	167	76	29	18	18	12	2
Wisconsin	5	45	76.69						2		1	1	1	3	2	3	3	2	3	4	5	6	5	2	1	1		
Ohio and Pennsylvania *	6	127	77.58			1		1	3	2		3	3	5	3	6	9	18	6	10	15	18	13	2	7	2		
Total	31	1,489	78.47	1	1	7	11	8	16	10	9	24	20	32	37	56	84	103	158	194	332	195	97	33	26	21	12	2
Drill-press operators, male—1 week:																											
Illinois	4	72	28.53			1	2	4	8	28	22	5	2														
Indiana	11	529	31.95	4	6	6	14	25	88	94	91	82	51	34	26	7	1										
Michigan	5	849	38.93	4	20	12	11	22	24	71	98	155	196	111	73	28	15	7	1	1							
New Jersey	4	150	39.05	1	2		3	4	13	16	11	17	35	23	13	5	4	3									
New York	9	428	31.04			7	13	14	57	97	112	67	46	10	4	1											
Ohio	6	298	35.90	3	5	6	4	8	17	30	55	61	53	34	12	6	3	1									
Pennsylvania	4	324	28.55	1	1	4	5	9	67	128	63	22	16	6	2												
Total	43	2,650	34.38	13	34	36	52	86	274	464	452	409	399	218	130	47	23	11	1	1							
Drill-press operators, male—2 weeks or half month:																											
Michigan	19	4,745	71.48	26	55	45	56	30	51	46	79	86	91	100	154	248	358	394	553	621	991	451	167	74	40	11	13	5
Ohio	9	603	68.55	5	8	3	3	3	10	5	10	11	16	17	21	39	48	86	80	62	108	44	14	8	2			
Pennsylvania	3	126	63.75		1	1	1	1	2	2		6	5	12	10	12	9	9	18	11	19	3	2	2				
Wisconsin	6	412	69.35	7	12	9	10	10	11	11	9	8	10	15	16	17	22	28	24	15	54	46	38	25	6	6	3	
Illinois and Indiana *	4	152	66.72			1			1	2	6		6	10	10	14	19	17	13	15	28	9	1					
Total	41	6,038	70.77	38	76	59	70	44	75	66	104	111	128	154	211	330	456	534	688	724	1200	553	222	109	48	17	16	5
Drill-press operators, female—1 week:																											
Indiana	2	16	24.37	1		1	4		2	2	3	2		1													
Michigan	4	22	27.56			1		1	4	9	6		1														
New Jersey	2	6	33.11					1		1	1	1	1	1													
New York	2	10	20.71				3	2	2	2		1															
Total	10	54	25.96	1		2	7	4	8	14	10	4	2	2													
Drill-press operators, female—2 weeks or half month:																											
Michigan	5	37	59.27			1						2	7	8	4			2	3	2	6	1		1			
Illinois and Ohio *	2	8	43.25			1						1	2	1	2	1											
Total	7	45	56.43			2						3	9	9	6	1		2	3	2	6	1		1			
Grinding-machine operators, male—1 week:																											
Illinois	4	46	32.44		1			2	5	6	16	10	3	2	1												
Indiana	7	343	33.32	5	2	3	7	13	25	78	62	55	47	30	13	3											
Michigan	5	630	41.41	1	3		2	8	21	39	62	117	164	108	54	35	11	4		1							
New Jersey	2	114	44.22					3	7	5	13	17	18	14	11	15	4	3	2	1		1					
New York	7	515	33.71	1	1	4	2	9	57	101	112	107	86	20	8	5	1	1									
Ohio	3	209	40.84			3	3	7	13	14	27	34	32	25	24	15	6	3		1	2						
Pennsylvania	4	104	29.87		3		1	1	14	37	27	14	4	3													
Total	32	1,961	37.25	7	10	10	15	43	142	280	319	354	354	202	111	73	22	11	2	3	2	1					

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																								
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Grinding-machine operators, male—2 weeks or half month:																												
Illinois	3	83	$67.88					1	1	3	2	2	1	4	5	5	8	14	9	5	8	13	2					
Michigan	19	2,831	79.98	9	17	16	18	18	22	17	21	25	36	36	63	114	134	193	253	327	690	423	195	91	45	30	19	19
Ohio	7	297	82.33	1		2	2	1	2		1	1	6	12	7	8	9	17	27	24	73	46	24	22	6	4	1	1
Pennsylvania	3	98	69.48			1			1	2	4		2	8	10	6	9	13	2	8	12	10	8	2				
Wisconsin	5	152	86.77	1	2		2		2	2	2	2	3	7	7	3	5	6	9	2	19	19	18	17	16	6	1	1
Total	37	3,461	79.90	11	19	19	22	20	28	24	30	30	48	67	92	136	165	243	300	366	802	511	247	132	67	40	21	21
Inspectors, male—1 week:																												
Illinois	5	35	32.57			1	1		2	12	6	7	4		1	1												
Indiana	10	485	29.59	4	4	6	9	6	69	155	132	67	18	12	2		1											
Michigan	6	877	37.28	2	4	4	10	12	28	80	279	170	97	82	41	40	13	7	5	2	1							
New Jersey	6	249	40.48		1	2	3	2	16	19	33	45	40	39	21	16	6	4	2									
New York	13	713	50.54			4	8	20	121	238	173	69	40	17	7	5	6	4	1									
Ohio	4	501	37.47	1	1	6	5	6	9	60	126	122	73	36	24	16	13	1	1		1							
Pennsylvania	5	287	30.43		3	1	3	6	38	111	66	26	16	10	4	1	2											
Total	49	3,147	34.17	7	13	24	39	52	283	675	815	506	288	196	100	79	41	16	9	2	2							
Inspectors, male—2 weeks or half month:																												
Michigan	22	3,667	72.12	1	11	19	26	20	17	26	28	45	81	150	206	236	295	398	502	370	691	274	140	66	29	22	7	7
Ohio	9	481	72.71		4	3	5	2	5	8	7	9	4	12	20	27	38	37	50	79	80	50	23	12	3		1	2
Pennsylvania	2	75	73.97		2			1	1			1		1	4	3	8	11	10	8	8	8	1	8				
Wisconsin	6	182	66.82		2	2		3	2	1	5	3	5	10	10	10	22	18	22	21	28	10	5	1		2		
Illinois and Indiana*	5	124	73.96				1			1			1	3	10	15	9	9	21	15	19	8	3	6	2		1	
Total	44	4,529	72.05	1	19	24	32	26	25	36	40	58	91	176	250	291	372	473	605	493	826	350	172	93	34	24	9	9
Inspectors, female—1 week:																												
Indiana	2	35	15.33		1	2	17	14	1																			
Michigan	6	90	16.12	2	1	2	32	45	8																			

Pennsylvania	2	22	16.85		1		6	14	1																				
New York and Ohio *	2	19	16.92				7	6	6																				
Total	12	166	16.14	2	3	4	62	79	16																				
Inspectors, female—2 weeks or half month:																													
Michigan	9	257	35.52	2	1	3	4	1	10	18	63	98	39	12	4	2													
Illinois, Ohio, and Wisconsin *	3	14	37.77		1			1			3	1	1	7															
Total	12	271	35.63	2	2	3	4	2	10	18	66	99	40	19	4	2													
Laborers, male—1 week:																													
Illinois	5	89	25.11		1	4	3	5	32	23	14	4	3																
Indiana	11	1,031	24.65	18	21	20	43	132	390	201	84	62	34	18	8														
Michigan	7	1,765	29.62	11	25	36	87	84	310	393	354	199	135	64	47	9	8	3											
New Jersey	6	807	30.78	2	15	14	25	17	86	203	216	118	69	30	7	2	2		1										
New York	14	1,185	26.27	6	14	12	32	93	370	390	163	56	24	10	8	3	3		1										
Ohio	4	932	28.74	5	21	21	26	87	176	221	141	104	78	32	13	4	1	2											
Pennsylvania	5	681	24.50	1	2	9	16	78	274	222	66	9	1	1	2														
Total	52	6,490	27.64	43	99	116	232	496	1638	1653	1038	552	344	155	85	18	14	5	2										
Laborers, male—2 weeks or half month:																													
Michigan	22	8,435	61.17	49	105	119	146	108	158	130	152	224	421	561	674	714	845	716	969	884	948	367	94	36	11	3		1	
Ohio	9	851	51.77	10	18	23	16	12	25	25	28	33	70	101	106	61	108	84	51	29	27	14	5	2	1	1	1		
Pennsylvania	3	126	49.66	1	3			1	2		9	9	11	25	18	24	10	6	5	1	1								
Wisconsin	6	399	57.33	1	8	13	3	4	8	10	12	21	41	49	52	43	29	18	12	21	17	1	1	7	6	22			
Illinois and Indiana *	5	291	53.14		1	1	2	1	1	2	9	14	40	56	47	46	26	16	8	11	8	1					1		
Total	45	10,102	59.85	61	135	156	167	126	194	167	210	301	583	792	897	888	1018	840	1045	946	1001	383	100	45	18	26	2	1	
Laborers, female—1 week:																													
Indiana	2	12	19.01	1			6	2			2	1																	
Laborers, female—2 weeks or half month:																													
Michigan	9	79	36.12	2	1		5	1		6	13	28	7	9	2	5													
Ohio	2	14	41.28							1	1	1	10		1														
Total	11	93	36.90	2	1		5	1		7	14	29	17	9	3	5													
Lathe operators, male—1 week:																													
Illinois	4	54	33.47				1	3	1	8	19	16	5	1															
Indiana	6	253	37.32			2	1	7	13	33	48	32	64	42	6	2	1	1	1										
Michigan	6	819	39.36	1	8	4	10	13	28	44	106	192	209	114	55	21	7	5	1	1									
New Jersey	4	309	39.42				3	6	20	24	62	54	55	33	25	11	6	7	1	2									
New York	10	468	33.87		1	2	7	11	29	75	120	132	77	12	1		1												
Ohio	5	134	40.29		1		2	4	9	6	25	17	23	24	11	3	4	3	2										
Pennsylvania	4	181	31.50			1	2	7	15	45	67	26	13	4	1														
Total	39	2,218	37.25	1	10	9	26	51	115	235	447	469	446	230	99	37	19	16	5	3									

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																							
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Lathe operators, male—2 weeks or half month:																											
Illinois	2	57	$67.31	----	----	1	----	----	1	----	----	1	1	2	5	6	8	3	7	8	13	1	----	----	----	----	----
Michigan	18	3,069	78.25	1	13	19	25	19	16	34	31	32	41	48	73	90	170	180	314	389	776	401	243	99	38	11	6	----
Wisconsin	5	268	78.52	2	4	4	3	2	4	5	5	1	8	9	12	11	12	8	12	14	41	42	37	16	10	5	----	1
Ohio and Pennsylvania *	8	648	82.93	----	6	----	3	6	5	3	4	8	4	8	7	13	26	29	62	68	172	113	51	37	17	5	1	----
Total	33	4,042	78.87	3	23	24	31	27	26	42	40	42	54	67	97	120	216	220	395	479	1002	557	331	152	65	21	7	1
Letterers, stripers, and varnishers, male—1 week:																											
Indiana	8	105	41.93	----	----	----	1	3	2	3	9	39	11	13	13	5	4	1	1	----	----	----	----	----	----	----	----
Michigan	4	98	38.64	----	----	4	3	3	11	8	14	11	11	11	10	4	1	2	----	----	4	1	----	----	----	----	----
New Jersey	4	36	48.73	----	----	----	----	----	----	2	7	8	6	4	1	2	1	----	----	----	1	1	2	----	1	----	----
New York	9	120	40.54	----	1	----	3	2	6	11	16	23	24	12	8	6	3	2	1	1	----	----	----	1	----	----	----
Ohio	3	136	54.47	----	----	----	----	1	2	3	7	4	18	17	21	13	20	15	4	7	----	4	----	----	----	----	----
Illinois and Pennsylvania *	2	18	47.86	----	----	----	----	----	----	1	----	5	7	----	----	2	1	----	----	----	2	----	----	----	----	----	----
Total	30	513	44.99	----	1	4	7	9	21	28	53	90	77	57	53	32	30	20	6	8	7	6	2	1	1	----	----
Letterers, stripers, and varnishers, male—2 weeks or half month:																											
Michigan	14	373	94.21	1	3	1	5	1	2	----	3	4	7	13	15	11	23	22	8	14	33	34	27	56	32	22	17	19
Ohio	7	52	95.56	----	----	1	1	2	----	----	----	----	----	----	1	----	1	2	1	4	4	16	7	3	3	----	3	3
Wisconsin	3	14	102.50	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	1	----	2	1	----	4	3	2	----	----
Illinois and Indiana *	2	38	92.37	----	----	1	1	----	----	----	----	----	----	----	1	1	----	----	2	2	9	7	3	7	1	2	1	----
Total	26	477	94.45	1	4	3	7	3	2	----	3	4	7	13	17	12	24	24	12	20	48	58	37	70	39	26	21	22
Machinists, male—1 week:																											
Illinois	3	41	33.44	----	----	----	2	2	4	6	8	7	7	4	----	1	----	----	----	----	----	----	----	----	----	----	----
Indiana	4	89	40.32	----	2	----	----	----	3	6	16	17	16	19	3	4	----	1	2	----	----	----	----	----	----	----	----
Michigan	6	432	44.02	----	1	2	1	4	4	10	34	114	87	56	44	36	19	12	5	2	1	----	----	----	----	----	----
New Jersey	5	54	44.82	----	----	----	----	----	----	1	6	15	8	5	10	7	1	1	----	----	----	----	----	----	----	----	----

New York	12	326	36.70	1	1	1	1	3	5	24	74	127	58	19	7	4	1											
Ohio	4	229	41.33			1		4	10	18	26	36	47	41	31	10	3		2									
Pennsylvania	4	193	38.00			2	3	2	4	19	44	49	34	16	10	3	5	2										
Total	38	1,364	40.44	1	4	6	7	15	30	84	208	365	257	160	105	65	29	16	9	2	1							
Machinists, male—2 weeks or half month:																												
Illinois	3	41	67.90						1	1				2	2	7	7	6	3	5	4	1	1					1
Michigan	20	2,031	87.54	1	11	5	4	9	14	8	9	5	21	23	26	34	55	89	147	172	500	367	257	130	74	44	16	10
Ohio	7	73	86.61					1		1	1			1	1	1	3	6	7	14	7	7	12	5	3	1	1	1
Pennsylvania	2	30	82.01										1			1	1	1	1	9	10	2	2	2				
Wisconsin	3	65	88.32					1	1		1	1		1	3	3	1	2	1	3	8	17	13	5	2	1	1	
Total	35	2,240	87.10	1	11	5	4	11	16	10	11	6	22	27	32	46	67	104	159	203	529	394	285	142	79	46	18	12
Milling-machine operators, male—1 week:																												
Illinois	4	54	31.49		1				6	12	23	9	3															
Indiana	8	208	33.03	1		2	3	5	31	48	33	28	35	14	4	3		1										
Michigan	6	376	41.26	5	3	6	1	5	15	15	49	57	84	49	41	21	11	8	4	1	1							
New Jersey	3	109	41.43		1	1		1	10	9	12	15	16	20	6	7	6	3	1	1								
New York	7	180	32.72		3	4	1	5	15	26	44	51	27	3	1													
Ohio	5	143	38.15		4		1	7	7	14	24	21	23	19	14	4	1	2	2									
Pennsylvania	4	169	30.61				1	2	26	55	50	21	11	2	1													
Total	37	1,239	36.41	6	12	13	7	25	110	179	235	202	199	107	67	35	18	14	7	2	1							
Milling-machine operators male—2 weeks or half month:																												
Illinois	3	30	74.85											1	3	3	1	2	5	3	6	5	1					
Michigan	19	1,840	75.63	6	13	16	10	16	21	15	21	25	27	38	58	64	112	127	202	225	414	227	131	46	11	12		3
Ohio	7	278	71.74	3	1	2	2	2	2	5	8	2	5	5	11	12	20	22	46	44	44	20	10	4	7	1		
Pennsylvania	3	40	62.84							1	1	1	3	5	1	6	4	5	2	5	2	4						
Wisconsin	5	122	80.34				1	1	1		2	4	3	5	5	5	9	6	8	8	17	16	16	8	3	3	1	
Total	37	2,310	75.18	9	14	18	13	19	24	21	32	32	38	54	78	90	146	162	263	285	483	272	158	58	21	16	1	3
Sewing-machine operators, male—1 week:																												
New Jersey	2	16	36.94						1	1	2	10	1				1											
New York	4	10	34.96						1	4	1	1		3														
Indiana, Michigan, and Ohio*	3	4	33.44						1		1	2																
Total	9	30	35.82						3	5	4	13	1	3			1											
Sewing-machine operators, male—2 weeks or half month:																												
Illinois and Michigan*	5	348	70.19		2	1	4	2		7	6	2	4	9	20	19	41	41	40	42	60	31	14	2	1			

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																								
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Sewing-machine operators, female—1 week:																												
Illinois	2	9	$15.74	----	2	1	----	4	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	6	113	23.25	3	1	3	17	17	23	23	15	10	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Michigan	4	77	19.11	13	4	5	8	8	10	16	7	3	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New Jersey	2	72	22.23	----	1	4	5	14	27	11	10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New York	7	38	19.02	----	----	2	6	18	8	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	3	112	19.47	1	3	4	17	37	38	9	2	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Pennsylvania	2	18	22.95	----	----	----	1	8	2	4	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	26	439	20.86	17	11	19	54	106	110	67	37	14	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Sewing-machine operators, female—2 weeks or half month:																												
Michigan	12	576	38.20	8	32	15	14	14	31	62	70	54	69	82	25	46	23	12	12	5	2	----	----	----	----	----	----	----
Ohio	5	53	43.16	1	3	----	1	2	5	2	3	2	4	5	9	5	7	2	2	----	----	----	----	----	----	----	----	----
Wisconsin	3	39	40.71	1	----	1	1	----	3	3	1	9	4	3	6	6	1	----	----	----	----	----	----	----	----	----	----	----
Illinois and Indiana*	2	6	32.43	----	----	----	----	----	----	1	5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	22	674	38.68	10	35	16	16	16	39	68	79	65	77	90	40	57	31	14	14	5	2	----	----	----	----	----	----	----
Tool and die makers, male—1 week:																												
Illinois	4	41	42.66	----	----	1	----	----	----	2	2	13	2	13	5	3	----	----	----	----	----	----	----	----	----	----	----	----
Indiana	10	149	40.61	----	----	1	1	----	4	11	32	36	24	18	5	6	3	6	2	----	----	----	----	----	----	----	----	----
Michigan	7	465	48.27	1	2	2	4	6	6	13	27	47	89	66	61	42	43	28	16	8	3	----	1	----	----	----	----	----
New Jersey	5	123	41.54	1	----	2	3	3	3	4	13	28	16	59	14	11	3	2	2	----	----	----	----	----	----	----	----	----
New York	9	297	41.21	----	1	----	----	2	8	8	20	108	55	18	27	7	2	----	----	----	----	----	----	----	----	----	----	----
Ohio	4	272	50.80	----	----	----	----	2	2	4	9	13	31	57	25	42	39	26	4	4	2	3	3	1	1	----	1	----	3
Pennsylvania	4	80	35.65	----	----	1	2	----	4	5	20	31	10	3	3	----	1	----	----	----	----	----	----	----	----	----	----	----
Total	43	1,427	45.01	2	3	7	12	13	29	52	127	294	253	202	157	108	78	40	24	10	6	3	2	1	----	1	----	3

Tool and die makers—male, 2 weeks or half month:																											
Illinois	3	62	78.94										1		1	3	5	14	7	8	9	5	6	1	2		
Michigan	19	1,986	97.70	3	5	14	8	8	12	14	12	11	12	14	21	29	24	41	81	104	362	355	280	190	127	98	62	99
Ohio	7	118	78.26			4		1		1	1	2	1	2		6	10	5	16	11	29	11	7	6	4		1	
Pennsylvania	2	34	79.66			3										1	2		2	2	12	9	3					
Wisconsin	6	62	81.92										2	1	2	2	6	4	5	4	19	8	3	4	1		1	
Total	37	2,262	95.47	3	5	21	8	9	12	15	13	13	16	17	24	41	47	64	111	129	431	388	299	201	134	98	64	99
Top builders, male—1 week:																											
Illinois	2	44	35.08		1			1	6	6	3	12	14				1										
Indiana	8	239	43.57	1		1	1	1	12	20	35	31	23	33	12	54	13	2									
Michigan	6	190	34.71		2	6	6	7	29	32	23	23	19	17	6	8	9	2	1								
New Jersey	4	332	40.07	2	2	5	2	8	11	19	48	77	42	30	57	15	9	5									
New York	9	287	39.03		3	1	6	4	25	62	39	32	22	19	23	15	17	14	4	1							
Ohio	4	354	41.82	1	1	2	1	7	9	15	37	74	52	98	28	25	4										
Pennsylvania	4	45	32.37		1			1	5	10	11	12	3	1		1											
Total	37	1,491	39.78	4	10	15	16	29	97	164	196	261	175	198	126	118	53	23	5	1							
Top builders, male—2 weeks or half month:																											
Michigan	14	2,177	70.06	26	41	31	33	20	24	44	43	65	123	114	99	106	112	135	198	136	291	194	148	88	61	23	5	17
Ohio	7	145	75.77		1	1	1	1		1	2	4	2	2	6	4	8	10	15	16	47	15	4	3		1	1	
Wisconsin	3	495	66.82	2	2	3	4	7	5	13	12	6	13	14	22	36	90	52	36	47	69	48	12	2				
Illinois and Indiana *	3	107	72.36							1	3	1	1	6	4	7	15	12	9	10	22	9	4	1	2			
Total	27	2,924	69.88	28	44	35	38	28	29	59	60	76	139	136	131	153	225	209	258	209	429	266	168	94	63	24	6	17
Top builders, female—1 week:																											
Indiana	3	27	23.44		1	1	1	7	4	7	6																
Michigan	3	28	12.88	3	3	6	13		2						1												
New Jersey and New York *	3	9	21.85					3	5	1																	
Total	9	64	18.60	3	4	7	14	10	11	8	6				1												
Top builders, female—2 weeks or half month:																											
Michigan	5	91	38.38	1	3	1	1	1	4	3	18	12	17	12	17	1											
Trim bench hands, male—1 week:																											
Indiana	6	41	35.53		1		1	1	1	9	3	8	11	3	3												
New Jersey	3	33	33.19						2	4	13	11	2		1												
New York	6	11	37.89			1			1	2	2	1		1		1	2										
Ohio	3	245	35.90	2		2	5	6	18	26	29	63	60	23	10	1											
Illinois and Pennsylvania *	2	25	38.84						2	5	5	2		8	1	2											
Total	20	355	35.88	2	1	3	6	7	24	46	52	85	73	35	15	4	2										

TABLE F.—AVERAGE AND CLASSIFIED ACTUAL EARNINGS OF EMPLOYEES IN 18 SPECIFIED OCCUPATIONS, 1925, BY SEX, PAY PERIOD, AND STATE—Continued

Occupation, sex, pay period, and State	Number of establishments	Number of employees	Average earnings actually received in pay period	Number of employees who during pay period earned—																								
				Under $4	$4 and under $8	$8 and under $12	$12 and under $16	$16 and under $20	$20 and under $25	$25 and under $30	$30 and under $35	$35 and under $40	$40 and under $45	$45 and under $50	$50 and under $55	$55 and under $60	$60 and under $65	$65 and under $70	$70 and under $75	$75 and under $80	$80 and under $90	$90 and under $100	$100 and under $110	$110 and under $120	$120 and under $130	$130 and under $140	$140 and under $150	$150 and over
Trim bench hands, male—2 weeks or half month:																												
Michigan	7	65	75.81	----	----	----	2	----	----	----	1	----	2	1	----	2	6	7	10	7	12	7	7	----	1	----	----	----
Ohio	2	28	45.18	1	2	1	----	----	2	3	1	3	----	3	1	4	3	----	----	----	2	2	----	----	----	----	----	----
Wisconsin	3	5	62.46	----	1	----	----	----	----	----	----	----	----	----	----	----	----	1	----	2	1	----	----	----	----	----	----	----
Illinois and Indiana *	3	20	69.10	----	1	----	----	----	----	----	1	2	----	----	3	----	----	----	4	1	3	3	2	----	----	----	----	----
Total	15	118	66.84	1	4	1	2	----	2	3	3	5	2	4	4	6	9	8	14	10	18	12	9	----	1	----	----	----
Trim bench hands, female—1 week:																												
Michigan	3	38	15.35	5	7	7	2	3	4	6	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New York	3	15	26.69	----	----	1	2	3	3	----	2	1	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ohio	2	109	20.36	1	2	6	16	32	27	15	9	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Indiana, New Jersey, and Pennsylvania *	3	49	28.23	----	----	2	1	1	9	21	5	10	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Total	11	211	21.74	6	9	16	21	39	43	42	20	12	3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Trim bench hands, female—2 weeks or half month:																												
Michigan	8	228	43.03	2	4	4	8	4	9	18	13	18	29	54	19	17	10	11	6	1	----	1	----	----	----	----	----	----
Ohio	2	12	42.97	----	----	----	----	----	1	----	1	3	3	2	----	----	2	----	----	----	----	----	----	----	----	----	----	----
Wisconsin	3	16	30.88	2	----	----	----	1	1	1	5	3	1	1	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Illinois and Indiana *	2	7	31.47	----	----	----	----	1	1	2	1	1	----	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----
Total	15	263	41.98	4	4	4	8	6	12	21	20	25	33	57	20	18	12	11	6	1	----	1	----	----	----	----	----	----

APPENDIX

GENERAL PLAN IN ORDER OF CONSTRUCTION

The motor vehicle industry has an extremely large number of crafts or occupations. Some automobile companies manufacture nearly all the parts they build into their cars and buy but few parts or accessories. Some make fewer parts and buy many parts, and still other companies buy all the units and merely assemble them and put the car on the market.[1] As a result of these practices one motor vehicle plant may differ radically in organization from any other plant.

Chart III (p. 92) shows in a general way the "flow" of materials from the stock rooms to the finished car. The lines ending horizontally and starting from department No. 2, "machine tool maintenance, tools, and dies," indicate that the tools and dies manufactured in this department are for use in departments Nos. 4, 6, and 12, but do not enter into the finished product. Tool maintenance is sometimes referred to as the "heart of the industry."

The chart does not purport to show the organization of any one plant. It is only intended to convey in a broad way the routing of materials from the stock rooms through the various processes and departments to the completion and storage of the finished car. Each of the departments on the chart is in fact subdivided by the larger plants for manufacturing and accounting purposes. On the other hand, there are but few individual plants that have all of the departments indicated on the chart.

CLASSIFICATION AND DEFINITION OF OCCUPATION TERMS

There is as yet no general standardization of occupation terms and operations in the motor vehicle industry. To a considerable extent different plants use different occupation terms for the same operation or the same term for different occupations.

The occupations in the industry were classified on the basis of the duties of each individual worker. Where it was practicable a simple specific item of work was given an occupation term. The term applied by the bureau clearly indicates the work. For example, "Dingmen," "Door hangers," etc.

In some shops all of the jobs or operations of a recognized occupation or trade were performed by one employee but in the larger plants each separate phase of the work was performed by a specialist. In this case all of the work of the occupation or trade was grouped under the same occupation term. For example, "Metal finishers."

In some departments there are certain items of work where the duties are similar though not exactly alike and the duties are sufficiently comparable to warrant grouping all of the workers under a fairly definite occupation term. For instance, in body frame assembly one employee may assemble one section of the body frame, another the roof rails and ribs to form the top, and still another

[1] See p. 24 for kinds of plants covered in this survey.

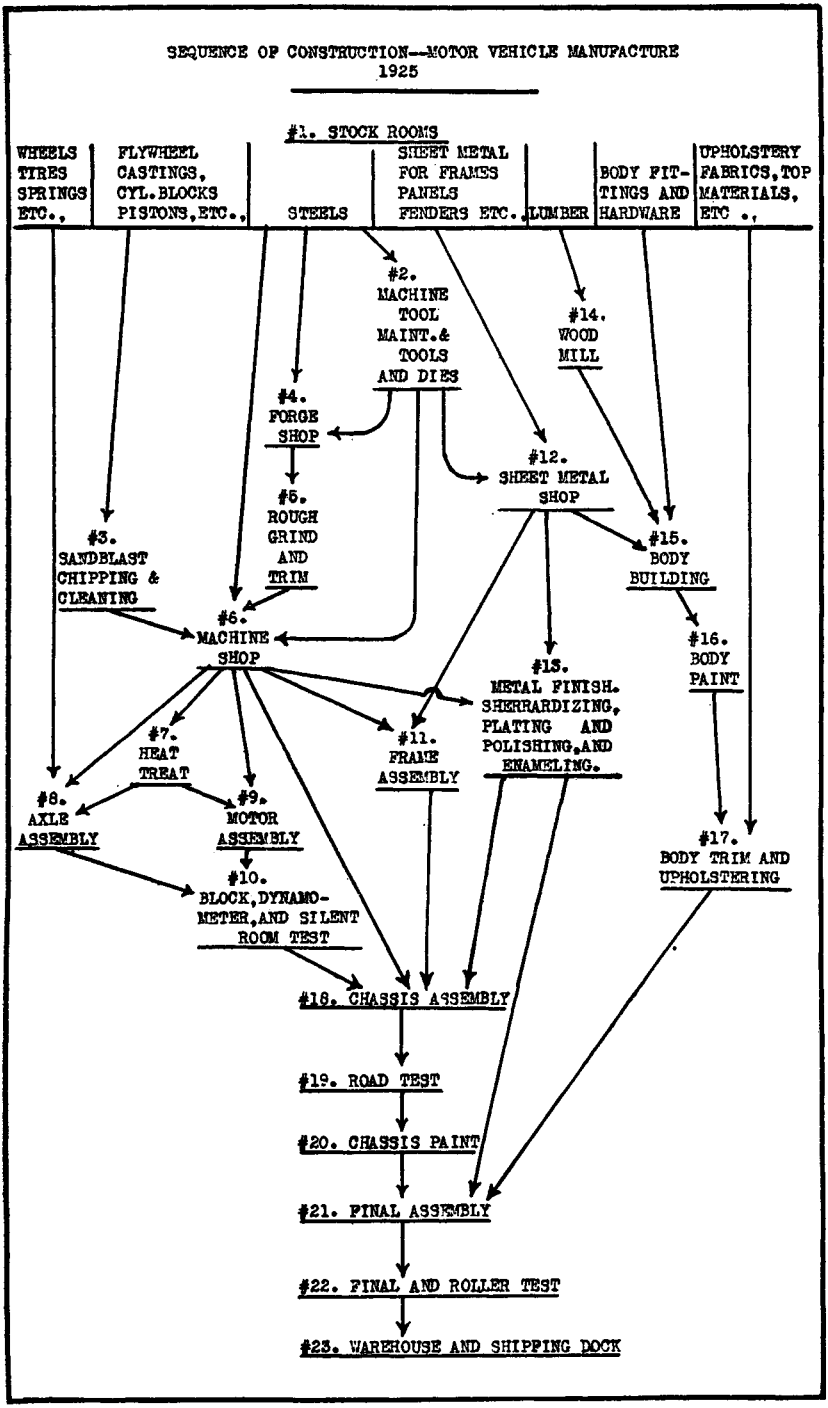

CHART III

may bring all sections together to form the complete body frame. The figures for all these employees were included in "Assemblers, body frame." A similar example is "Assemblers, motor."

Also in other cases where the work performed in different departments was of a kindred nature, and the duties of the employees were of a sufficient likeness to warrant the inclusion, the figures for such employees of different departments were included in the same group. This method of grouping was applied in the case of the skilled or semiskilled labor in forge shops and heat treat departments, where such workers were classified as "Forge shop helpers." It will be observed that the employees in this group earned an average wage 25 per cent higher than the helpers in other departments classified as "Helpers."

It was not possible in some instances to apply short, concise terms that would indicate the class of employees included in some of the 56 occupation groups for which figures are presented. Because of the lack of better terms in such instances a general term was used by the bureau which may indicate to some extent the different occupations or jobs included in such groups. Details of the inclusions in such cases may be obtained by referring to the list of factory terms with definitions, etc., pages 100 to 114.

The name of each occupation term as reported by each plant and as classified by the bureau is as presented in two separate lists, one entitled "Classification by Bureau of Labor Statistics of factory terms used in the industry, by department," pages 94 to 100, and the other entitled "Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found," pages 100 to 114.

To illustrate, the term "body trucker," which is shown in column 1 (p. 94) of the list of factory occupation terms, is classed in column 2 with "laborers." The term is found in departments Nos. 1, 15, 16, and 17. Turning to page 102 under "Definition of factory occupation terms," it is seen that the term body trucker is classed with laborers and that it is necessary to turn to "laborers," page 108, to see the definition.

The term "bench hand" is found one or more times in departments Nos. 2, 6, 12, and 15 in the list of factory occupation terms. The first one on the list in department No. 2 (p. 94) is classed with "tool and die makers" and this bench hand is defined on page 101 as one "who assembles, fits, and adjusts cutting tools." The other bench hand in department No. 2 is classed with "machinists," and this bench hand is defined on page 101 as one "who works at a bench repairing machine tools and also usually operates any machine necessary in the making of new parts or the repair of old parts of the various machine tools." Bench hand in department No. 6 (p. 96) is classed with "bench hands" in department No. 12 (p. 96), with "sheet-metal workers," and in department No. 15 (p. 97) with "assemblers, body frame." For definitions of bench hands in these several departments see page 101.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department

[For sequence of construction by departments, see p. —]

Factory term	As classified by bureau
Department No. 1.—Stock Room	
Body trucker	Laborers.
Box maker	Other employees.
Casting inspector	Inspectors.
Checker	Other employees.
Crane operator	Crane operators.
Door tender	Other employees.
Dry-kiln man	Do.
Electric-truck driver	Do.
Elevator operator	Do.
Follow-up man	Do.
Handy man	Do.
Inspector	Inspectors.
Jitney driver	Other employees.
Laborer	Laborers.
Locomotive craneman	Other skilled occupations.
Lumber cleaner	Laborers.
Receiving clerk	Other employees.
Stock counter	Laborers.
Stock cutter	Other employees
Stockman	Do.
Sweeper	Laborers.
Tool checker	Inspectors.
Tool inspector	Do.
Tractor driver	Other employees.
Truck helper	Laborers.
Truck oiler	Do.
Department No. 2.—Machine Tool Maintenance and Tools and Dies	
Acetylene welder	Welders and braziers.
Apprentice	Apprentices.
Belt man	Other employees.
Bench hand	Tool and die makers.
Do	Machinists.
Blacksmith	Blacksmiths.
Brazier	Welders and braziers.
Chip man	Laborers.
Chipper	Do.
Cutter grinder	Grinding-machine operators.
Die maker	Tool and die makers.
Die repair man	Do.
Die sinker	Do.
Gauge grinder	Grinding-machine operators.
Gauge maker	Tool and die makers.
Helper	Helpers.
Inspector	Inspectors.
Jig maker	Tool and die makers.
Job setter	Other employees.
Keller operator	Tool and die makers.
Machine repairman	Machinists.
Machinist	Do.
Milling-machine operator.	Milling-machine operators.
Millwright	Other skilled occupations.
Oiler	Other employees.
Profiler	Milling-machine operators.
Shaper operator	Planer and shaper operators.
Stock chaser	Other employees.
Stockman	Do.
Straightener	Straighteners.
Sweeper	Laborers.
Tinsmith	Other skilled occupations.
Tool adjuster	Tool and die makers.
Tool carrier	Other employees.
Tool checker	Inspectors.
Tool-crib attendant	Other employees.
Tool dresser	Blacksmiths.
Tool grinder	Grinding-machine operators.
Tool hardener	Blacksmiths.
Tool inspector	Inspectors.
Toolmaker	Tool and die makers.
Tool repairman	Do.
Tool stamper	Bench hands.
Tool-trouble man	Tool and die makers.
Trim die maker	Do.
Welder	Welders and braziers.
Department No. 3.—Sand blast, chipping and cleaning	
Air-hammer man	Sand blasters, etc.
Casting cleaner	Do.
Casting inspector	Inspectors.
Chipper	Sand blasters, etc.
Laborer	Laborers.
Lug cutter	Sand blasters, etc.
Rattler operator	Do.
Rough grinder	Do.
Sand blaster	Do.
Scratch-brush man	Do.
Trucker	Laborers.
Tumbler	Sand blasters, etc.
Wire-brush operator	Do.
Department No. 4.—Drop forge shop	
Apprentice	Apprentices.
Blacksmith	Blacksmiths.
Blacksmith's helper	Forge-shop helpers.
Bradley hammerman	Blacksmiths.
Brazier	Do.
Bulldozer	Forge-shop helpers.
Cold header	Do.
Crane operator	Crane operators.
Die-machine operator	Forge-shop helpers.
Die setter	Blacksmiths.
Drop forger	Do.
Drop-forger's helper	Forge-shop helper.
Flanger	Blacksmiths.
Furnace helper	Forge-shop helpers.
Furnace man	Do.
Hammersmith	Blacksmiths.
Hammersmith's helper	Forge-shop helpers.
Hand straightener	Do.
Heater	Do.
Hot bender	Blacksmiths.
Hot fitter	Do.
Hot trimmer	Do.
Inspector	Inspectors.
Job setter	Other employees.
Machine setter	Blacksmiths.
Press straightener	Forge-shop helpers.
Rough grinder	Sand blasters, etc.
Safety man	Other employees.
Sample checker	Inspectors.
Scrap baler	Laborers.
Scrap man	Do.
Scratch-brush man	Sand blasters, etc.
Shearman	Forge-shop helpers.
Shrinker	Blacksmiths.
Spring maker	Do.
Stock chaser	Other employees.
Stock cutter	Forge-shop helpers.
Striker	Do.
Tool dresser	Blacksmiths.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 4.—Drop forge shop—Continued	
Tool-salvage man	Hardeners.
Trimmer setter	Blacksmiths.
Trucker	Laborers.
Upsetter	Blacksmiths.
Welder	Do.
Do	Welders and braziers.
Wire-brush operator	Sand blasters, etc.
Department No. 5.—Rough grind and trim	
Air-hammer man	Sand blasters, etc.
Buffer	Do.
Chipper	Do.
Cold trimmer	Do.
Disc grinder	Do.
Inspector	Inspectors.
Job setter	Other employees.
Lug cutter	Sand blasters, etc.
Rough grinder	Do.
Sand blaster	Do.
Scrap man	Laborers.
Scratch-brush man	Sand blasters, etc
Snagger	Do.
Trucker	Laborers.
Wire-brush operator	Sand blasters, etc.,
Department No. 6.—Machine shop	
Acetylene welder	Welders and braziers.
Apprentice	Apprentices.
Automatic-drill operator.	Drill-press operators.
Automatic-lathe operator.	Automatic operators (lathe and screw machine).
Automatic operator	Do.
Axle grinder	Grinding-machine operators.
Babbitter	Other employees.
Bench hand	Bench hands.
Bench repair man	Do.
Bolt-cutter operator	Other employees.
Boring-mill operator	Boring-mill operators.
Brazier	Welders and braziers.
Broacher	Bench hands.
Do	Punch-press operators.
Bullard operator	Boring-mill operators.
Centering-machine operator.	Drill-press operators.
Centerless-grinder operator.	Grinding-machine operators.
Chip man	Laborers.
Chipper	Do.
Crank polisher	Grinding-machine operators.
Crank-shaft lapper	Do.
Crank-shaft plugger	Bench-hands.
Cylinder grinder	Grinding-machine operators.
Cylinder honer	Do.
Drill-press operator	Drill-press operators.
Electric-arc man	Welders and braziers.
External grinder	Grinding-machine operators.
Filer	Bench hands.
Finished-parts inspector.	Inspectors.
Finish grinder	Grinding-machine operators.
Gear-hobber operator	Gear-cutter operators.
Gear lapper	Grinding-machine operators.
Gear matcher	Inspectors.
Gear roller	Do.
Gear-shaper operator	Gear-cutter operators.
Gear washer	Laborers.
Generator operator	Gear-cutter operators.
Gisholt operator	Lathe operators.
Grinding-machine operator.	Grinding-machine operators.
Hand reamer	Bench hands.
Hand-screw operator	Lathe operators.
Inspector	Inspectors.
Internal grinder	Grinding-machine operators.
Job setter	Machinists.
Do	Other employees.
Keyseater	Milling-machine operators.
Lathe operator	Lathe operators.
Do	Automatic operators (lathe and screw machine).
Layout man	Other skilled occupations.
Line-bearing grinder	Grinding-machine operators.
Low-swing operator	Lathe operators.
Machine hand	Other employees.
Machine repair man	Machinists.
Machine setter	Do.
Machinist	Do.
Marker	Other skilled occupations.
Milling-machine operator.	Milling-machine operators.
Millwright	Other skilled occupations.
Mult-au-matic operator	Automatic operators (lathe and screw machine).
Multiple-spindle operator.	Drill-press operators.
Oil separator	Laborers.
Parker rust proofer	Other employees.
Pickler	Do.
Planer operator	Planer and shaper operators.
Pressman	Punch-press operators.
Profiler	Milling-machine operators.
Radial operator	Drill-press operators.
Reamer operator	Boring-mill operators.
Do	Drill-press operators.
Repair man	Machinists.
Rough cam-shaft grinder.	Grinding-machine operators.
Rough crank-shaft grinder.	Do.
Scleroscope man	Inspectors.
Scraper	Bench hands.
Scrap man	Laborers.
Screw machine operator	Automatic operators (lathe and screw machine).
Do	Lathe operators.
Shaper operator	Planer and shaper operators.
Silent-room tester	Testers, motor and transmission.
Slotter	Milling-machine operator.
Spindle spotter	Drill-press operators.
Spliner operator	Milling-machine operators.
Spot facer	Drill-press operators.
Stock chaser	Other employees.
Stockman	Do.
Stock washer	Laborers.
Straddle-mill operator	Milling-machine operators.
Straightener	Straighteners.
Surface grinder	Grinding-machine operators.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 6.—Machine shop—Continued	
Swaging-machine operator	Other employees.
Sweeper	Laborers.
Tapping-machine operator	Drill-press operators.
Thread-miller operator	Milling-machine operators.
Tool carrier	Other employees.
Tool-crib attendant	Do.
Tool setter	Machinists.
Trucker	Laborers.
Turret-lathe operator	Lathe operators.
Weigher	Other employees.
Welder	Welders and braziers.
Wheel grinder	Grinding-machine operators.
Wrist-pin grinder	Do.
Department No. 7.—Heat treat	
Annealer	Hardeners.
Apprentice	Apprentices.
Brazier	Welders and braziers.
Bricklayer	Other skilled occupations.
Brinell tester	Inspectors.
Carbonizer	Hardeners.
Casehardener	Do.
Cyanide-pot tender	Do.
Die hardener	Do.
Furnace helper	Forge shop helpers.
Furnace loader	Do.
Furnace tender	Hardeners.
Hardener	Do.
Heat treater	Do.
Helper	Helpers.
Inspector	Inspectors.
Job setter	Other employees.
Laborer	Laborers.
Pre-heater	Forge shop helpers.
Pyrometer man	Other skilled occupations.
Sclerosc0pe man	Inspectors.
Scratch-brush man	Sand blasters, etc.
Spotter	Other employees.
Straightener	Straighteners.
Switchboard operator	Other skilled occupations.
Trucker	Laborers.
Wire-brush operator	Sand blasters, etc.
Department No. 8.—Axle assembly	
Air-motor operator	Assemblers, axle.
Air-press operator	Do.
Axle assembler	Do.
Axle puller	Do.
Axle-shaft assembler	Do.
Brake adjuster	Do.
Brake assembler	Do.
Brake-drum man	Do.
Carrier assembler	Do.
Differential assembler	Do.
Gang leader	Other employees.
Hydraulic-press man	Assemblers, axle.
Inspector	Inspectors.
Job setter	Other employees.
Laborer	Laborers.
Press operator	Assemblers, axle.
Riveter	Do.
Silent-room tester	Testers, motor and transmission.
Stockman	Other employees.
Sub-assembler	Assemblers, axle.
Trucker	Laborers.
Tubular riveter	Assemblers, axle.
Wheel gangman	Do.
Department No. 9.—Motor assembly	
Bearing reamer	Assemblers, motor.
Bearing scraper	Do.
Carburetor assembler	Do.
Clutch assembler	Do.
Crank-shaft assembler	Do.
Engine builder	Do.
Gang leader	Other employees.
Gear assembler	Assemblers, motor.
Inspector	Inspectors.
Job setter	Other employees.
Motor assembler	Assemblers, motor.
Motor repair man	Do.
Oil-pump assembler	Do.
Pedal assembler	Do.
Rod hanger	Do.
Silent-room tester	Testers, motor and transmission.
Small-parts assembler	Assemblers, motor.
Stockman	Other employees.
Stud driver	Assemblers, motor.
Transmission assembler	Do.
Trucker	Laborers.
Department No. 10.—Block dynamometer and silent room test	
Axle tester	Testers, motor and transmission.
Block tester	Do.
Differential tester	Do.
Dynamometer tester	Do.
Helper	Helpers.
Inspector	Inspectors.
Motor adjuster	Testers, motor and transmission.
Motor repair man	Do.
Motor tester	Do.
Silent-room tester	Do.
Tappet adjuster	Do.
Transmission tester	Do.
Trucker	Laborers.
Department No. 11.—Frame assembly	
Air-hammer man	Assemblers, frame.
Bucker	Do.
Frame assembler	Do.
Gang leader	Other employees.
Hanger riveter	Assemblers, frame.
Inspector	Inspectors.
Riveter	Assemblers, frame.
Riveter's helper	Laborers.
Stockman	Other employees.
Trucker	Laborers.
Department No. 12.—Sheet metal shop	
Acetylene welder	Welders and braziers.
Acetylene welder's helper	Helpers.
Aluminum finisher	Metal finishers.
Apprentice	Apprentices.
Band-saw operator	Sheet-metal workers.
Bench hand	Do.
Bench wireman	Do.
Board hammerman	Bumpers.
Brazier	Welders and braziers.
Bumper	Bumpers.
Butt welder	Welders, spot and butt.
Core assembler	Sheet-metal workers.
Core dipper	Do.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 12.—Sheet metal shop—Continued	
Core stringer	Assemblers, axle.
Crane operator	Crane operators.
Crimping-press operator.	Sheet-metal workers.
Curling-machine operator.	Do.
Die setter	Die setters, sheet metal.
Double seamer	Sheet-metal workers.
Electric-arc man	Welders and braziers.
Fender finisher	Metal finishers.
Filer	Do.
Fin-machine operator	Sheet-metal workers.
Flanger	Do.
Galvanizer	Platers.
Hood shaper	Sheet-metal workers.
Hydraulic-press operator.	Punch-press operators.
Inspector	Inspectors.
Job setter	Other employees.
Layout man	Other skilled occupations.
Magee operator	Sheet-metal workers.
Marker	Other skilled occupations.
Metal finisher	Metal finishers.
Metal trimmer	Sheet-metal workers
Pickler	Other employees.
Power-hammer man	Bumpers.
Pressman	Punch-press operators.
Punch-press operator	Do.
Radiator assembler	Sheet-metal workers.
Radiator tester	Do.
Riveter	Do.
Rotary-shear operator	Do.
Scrap baler	Laborers.
Scrap man	Do.
Shearman	Sheet-metal workers.
Sheet-metal worker	Do.
Snipper	Do.
Solderer	Do.
Spot welder	Welders, spot and butt.
Square-shear operator	Sheet-metal workers.
Stock chaser	Other employees.
Stockman	Do.
Trucker	Laborers.
Tube pusher	Sheet-metal workers.
Welder	Welders and braziers.
Wireman	Sheet-metal workers.
Department No. 13.—Fender and hood finish and enamel	
Aluminum finisher	Metal finishers.
Apprentice	Apprentices.
Bonnet filer	Metal finishers.
Bonnet finisher	Do.
Buffer	Polishers and buffers.
Bumper	Metal finishers.
Conveyor man	Laborers.
Copper plater	Platers.
Dent man	Ding men.
Ding man	Do.
Dipper	Painters, general.
Dry sander	Sanders and rough-stuff rubbers.
Enameler	Painters, general.
Enamel rubber	Varnish rubbers.
Fender finisher	Metal finishers.
Filer	Do.
Grinder	Do.
Inspector	Inspectors.
Job setter	Other employees.
Metal finisher	Metal finishers.
Nickel plater	Other skilled occupations.
Do	Platers.
Plater	Do.
Polisher	Polishers and buffers.
Rub-deck man	Laborers.
Sherrardizer	Sand blasters, etc.
Solderer	Metal finishers.
Stockman	Laborers.
Trucker	Do.
Vat man	Platers.
Zinc plater	Do.
Department No. 14.—Wood mill	
Band-saw operator	Wood-working machine operators.
Dado operator	Do.
Dovetail operator	Do.
Dresser	Do.
Gainer operator	Do.
Handy man	Laborers.
Inspector	Inspectors.
Jointer operator	Wood-working machine operators.
Linderman operator	Do.
Miter-saw operator	Do.
Mortiser	Do.
Pattern maker	Other skilled occupations.
Planer operator	Wood-working machine operators.
Rabbet operator	Do.
Rip sawyer	Do.
Saw filer	Other skilled occupations.
Sawyer	Wood-working machine operators.
Shaper operator	Do.
Steering-wheel groover	Do.
Sticker operator	Do.
Stock chaser	Other employees.
Stock cutter	Wood-working machine operators.
Stockman	Other employees.
Do	Laborers.
Sweeper	Do.
Swing-saw operator	Wood-working machine operators.
Tenoner hand	Do.
Trucker	Laborers.
Woodworker	Wood-working machine operators.
Department No. 15.—Body building	
Aluminum finisher	Metal finishers.
Antisqueak man	Assemblers, body frame.
Belt molder	Molders (belt and drip).
Bench hand	Assemblers, body frame.
Big jig framer	Do.
Body mover	Laborers.
Body repair man	Assemblers, body frame.
Body trucker	Laborers.
Bumper	Bumpers.
Carpenter	Other skilled occupations.
Cowl paneler	Metal panelers.
Door finisher	Metal finishers.
Door fitter	Door hangers.
Door-frame assembler	Assemblers, body frame.
Door hanger	Door hangers.
Door-hanging instructor.	Other skilled occupations.
Door-lock man	Assemblers, final.
Drip molder	Molders (belt and drip).
Final assembler	Assemblers, final.
Floor-board assembler	Assemblers, body frame.
Form builder	Other skilled occupations.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 15.—Body building—Continued	
Frame dresser	Assemblers, body frame.
Framer	Do.
Gang leader	Other employees.
Glass grinder	Other skilled occupations.
Glass polisher	Do.
Glazier	Do.
Glue man	Laborers.
Grinder	Metal finishers.
Handy man	Laborers.
Hinge man	Assemblers, final.
Inspector	Inspectors.
Jig maker	Other skilled occupations.
Job setter	Other employees.
Metal finisher	Metal finishers.
Molder	Molders (belt and drip).
Paneler	Metal panelers.
Power-hammer man	Bumpers.
Rear-quarter paneler	Metal panelers.
Section framer	Assemblers, body frame.
Solderer	Metal finishers.
Stock chaser	Other employees.
Stockman	Do.
Do	Laborers.
Sweeper	Do.
Top builder	Assemblers, body frame.
Top slatter	Do.
Trim-rail man	Metal panelers.
Trucker	Laborers.
Visor trimmer	Top builders.
Woodworker	Assemblers, body frame.
Department No. 16.—Body paint	
Air-brush man	Paint sprayers.
Black-off man	Painters, general.
Body cleaner	Laborers.
Body finisher	Letterers, stripers, and varnishers.
Body inspector	Inspectors.
Body mover	Laborers.
Body polisher	Lacquer rubbers.
Body repair man	Letterers, stripers, and varnishers.
Body trucker	Laborers.
Body varnisher	Painters, general.
Do	Letterers, stripers, and varnishers.
Body washer	Laborers.
Bonnet striper	Letterers, stripers, and varnishers.
Brushman	Painters, general.
Color mixer	Do.
Color painter	Do.
Color varnisher	Letterers, stripers, and varnishers.
Cowl painter	Painters, general.
Dent man	Ding man.
Deoxidine man	Painters, general.
Ding man	Ding men.
Dipper	Painters, general.
Door-jamb rubber	Varnish rubbers.
Dry sander	Sanders and rough-stuff rubbers.
Duco rubber	Lacquer rubbers.
Enameler	Painters, general.
Enamel rubber	Varnish rubbers.
Final touch-up man	Letterers, stripers, and varnishers.
Finish repair man	Do.
Finish rubber	Varnish rubbers.
Finish varnisher	Letterers, stripers, and varnishers.
Flocote man	Painters, general.
Grainer	Letterers, stripers, and varnishers.
Inspector	Inspectors.
Lacquer rubber	Lacquer rubbers.
Lead rubber	Sanders and rough-stuff rubbers.
Letterer	Letterers, stripers, and varnishers.
Lye-tank man	Painters, general.
Molding painter	Do.
Monogram man	Letterers, stripers, and varnishers.
Murcote rubber	Lacquer rubbers.
Oil sander	Sanders and rough-stuff rubbers.
Painter	Painters, general.
Paint repairer	Do.
Paint sprayer	Paint sprayers.
Parko rubber	Lacquer rubbers.
Prime-coat rubber	Sanders and rough-stuff rubbers.
Primer	Painters, general.
Putty glazer	Do.
Rough-stuff rubber	Sanders and rough-stuff rubbers.
Sander	Do.
Show-job painter	Letterers, stripers, and varnishers.
Spot puttier	Painters, general.
Spot rubber	Varnish rubbers.
Spray man	Paint sprayers.
Steel-wool man	Sanders and rough-stuff rubbers.
Stockman	Other employees.
Stock washer	Laborers.
Striper	Letters, stripers, and varnishers.
Touch-up man	Painters, general.
Do	Letterers, stripers, and varnishers.
Do	Varnish rubbers.
Trucker	Laborers.
Varnish finisher	Letterers, stripers, and varnishers.
Varnish repair man	Do.
Varnish rubber	Varnish rubbers.
Wash-tank man	Laborers.
Water sander	Sanders and rough-stuff rubbers.
Waxer	Lacquer rubbers.
Wheel filler	Painters, general.
Wheel finisher	Letterers, stripers, and varnishers.
Wheel striper	Do.
Department No. 17.—Body trim and upholstering	
Arm-rest trimmer	Top builders.
Back hanger	Do.
Body fitter	Do.
Body mover	Laborers.
Body packer	Top builders.
Body repair man	Do.
Body trimmer	Do.
Body trucker	Laborers.
Bow assembler	Top builders.
Bow setter	Do.
Bow trimmer	Do.
Carpet cutter	Cutters, cloth and leather.
Carpet fitter	Top builders.
Chop-knife operator	Cutters, cloth and leather.
Curtain fitter	Top builders.
Curtain hanger	Assemblers, final.
Cushion builder	Top builders.
Cushion crimper	Do.
Cushion-press operator	Do.
Cushion stuffer	Do.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 17.—Body trim and upholstering—Continued	
Cutter	Cutters, cloth and leather.
Door-panel assembler	Top builders.
Door trimmer	Do.
Electric knife operator	Cutters, cloth and leather.
Final assembler	Assemblers, final.
Do	Top builders.
Flat worker	Do.
Garnish molder	Assemblers final.
Hair picker	Top builders.
Hand stitcher	Trim-bench hands.
Head-lining man	Top builders.
Helper	Helpers.
Inspector	Inspectors.
Job setter	Other employees.
Leather cutter	Cutters, cloth and leather.
Leather sorter	Inspectors.
Molder	Top builders.
Paster	Trim-bench hands.
Power-machine operator.	Sewing-machine operators.
Seat assembler	Top builders.
Seat builder	Do.
Seat trimmer	Do.
Sewing-machine operator.	Sewing-machine operators.
Soft-top man	Top builders.
Stock cutter	Cutters, cloth and leather.
Stockman	Other employees.
Sweeper	Laborers.
Top assembler	Top builders.
Top builder	Do.
Trim-bench hand	Trim-bench hands.
Trim inspector	Inspectors.
Trimmer	Top builders.
Trim repair man	Do.
Visor trimmer	Do.
Department No. 18.—Chassis assembly	
Axle assembler	Assembler, chassis.
Cable assembler	Do.
Chassis assembler	Do.
Chassis inspector	Inspectors.
Chassis repair man	Assemblers, chassis.
Crane operator	Crane operators.
Frame assembler	Assemblers, chassis.
Frame handler	Laborers.
Gang leader	Other employees.
Gas-tank assembler	Assemblers, chassis.
Inspector	Inspectors.
Motor assembler	Assemblers, chassis.
Pipe fitter	Do.
Radiator assembler	Do.
Steering-gear assembler.	Do.
Trucker	Laborers.
Department No. 19.—Road test	
Driver	Testers, final and road.
Final repair man	Assemblers, final.
Final tester	Testers, final and road.
Road tester	Do.
Tuner	Do.
Department No. 20.—Chassis paint	
Air-brush man	Paint sprayers.
Black-off man	Painters, general.
Brushman	Do.
Chassis sprayer	Paint sprayers.
Color painter	Painters, general.
Inspector	Inspectors.
Painter	Painters, general.
Paint repairer	Do.
Paint sprayer	Paint sprayers.
Putty glazer	Painters, general.
Spray man	Paint sprayers.
Touch-up man	Painters, general.
Wheel filler	Do.
Department No. 21.—Final assembly	
Battery man	Assemblers, final.
Bench assembler	Do.
Black-off man	Painters, general.
Body assembler	Assemblers, final.
Body cleaner	Laborers.
Body fitter	Assemblers, final.
Body inspector	Inspectors.
Body mounter	Assemblers, final.
Body repair man	Do.
Do	Letterers, stripers, and varnishers.
Body setter	Assemblers, final.
Body washer	Laborers.
Bonnet fitter	Assemblers, final.
Brake bleeder	Do.
Car driver	Other employees.
Carrier assembler	Assemblers, final.
Car washer	Laborers.
Crane operator	Crane operators.
Cushion builder	Top builders.
Dash assembler	Assemblers, final.
Door hanger	Door hangers.
Door opener	Other employees.
Doper	Laborers.
Driver	Other employees.
Electrician	Assemblers, final.
Electric-trouble man	Do.
Fender assembler	Do.
Final assembler	Do.
Floor-board fitter	Do.
Gang leader	Other employees.
Glass assembler	Assemblers, final.
Handy man	Do.
Hardware man	Do.
Head-lamp assembler	Do.
Heater man	Do.
Hinge man	Do.
Inspector	Inspectors.
Instrument-board man	Assemblers, final.
Job setter	Other employees.
Light adjuster	Assemblers, final.
Motor flusher	Laborers.
Painter	Painters, general.
Paint repairer	Do.
Panman	Assemblers, final.
Polisher	Polishers and buffers.
Regulator man	Assemblers, final.
Running-board bolter	Do.
Scuff-plate man	Do.
Small-parts assembler	Do.
Soft-top man	Top builders.
Stockman	Laborers.
Switch-panel man	Assemblers, final.
Top assembler	Top builders.
Touch-up man	Painters, general.
Do	Letterers, stripers, and varnishers.
Trucker	Laborers.
Ventilator man	Assemblers, final.
Wind-breaker assembler.	Do.
Window washer	Laborers.

Classification by Bureau of Labor Statistics of factory terms used in the industry, by department—Continued

Factory term	As classified by bureau
Department No. 21.—Final assembly—Continued	
Wind-shield assembler	Assemblers, final.
Wire assembler	Do.
Wire stripper	Do.
Department No. 22.—Final and roller test	
Body inspector	Inspectors.
Car driver	Other employees.
Car tester	Testers, final and road.
Dent man	Ding men.
Ding man	Do.
Door tender	Other employees.
Driver	Do.
Final inspector	Inspectors.
Final repair man	Assemblers, final.
Final tester	Testers, final and road.
Final touch-up man	Letterers, stripers, and varnishers.
Finished-car inspector	Inspectors.
Finish repair man	Letterers, stripers, and varnishers.
Overland driver	Testers, final and road.
Road tester	Do.
Roller man	Do.
Squeak man	Do.
Tuner	Do.
Department No. 23.—Warehouse and shipping dock	
Boxer	Other employees.
Box maker	Do.
Car loader	Laborers.
Crater	Other employees.
Door tender	Do.
Electric-truck driver	Do.
Elevator operator	Do.
Handy man	Do.
Inspector	Inspectors.
Jitney driver	Other employees.
Laborer	Laborers.
Locomotive craneman	Other skilled occupation.
Motor flusher	Laborers.
Nailer	Other employees.
Packer	Do.
Shipping clerk	Do.
Stenciler	Do.
Stock counter	Laborers.
Stockman	Do.
Tractor driver	Other employees.
Trucker	Laborers.
Truck helper	Do.
Truck oiler	Do.
Warehouseman	Other employees.
Yardman	Laborers.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Acetylene welder (*see* Welder)	Welders and braziers	2, 6, 12.
Acetylene welder's helper (*see* Helper)	Helpers	12.
Air-brush man (*see* Paint sprayer)	Paint sprayers	16, 20.
Air-hammer man (*see* Frame assembler)	Assemblers, frame	11.
Air-hammer man: Uses a pneumatic hammer and chisel to remove lugs or surplus metal from castings.	Sand blasters, etc	3, 5.
Air-motor operator: Assembles axle parts, using an air motor to tighten the bolts and nuts more speedily.	Assemblers, axle	8.
Air-press operator (*see* Press operator)	do	8.
Aluminum finisher (*see* Metal finisher)	Metal finishers	12, 13, 15.
Annealer: Reduces the brittleness and increases the toughness in metals by heating them to a critical point and then cooling slowly in lime, oil, or other insulating material.	Hardeners	7.
Antisqueak man: Applies a material between the body frame and the panels to prevent squeaks.	Assemblers, body frame	15.
Apprentice: An employee serving a specific period of time to learn tool making, the machinists' trade, body framing, or any other of the recognized trades found in the industry.	Apprentices	2, 4, 6, 7, 12, 13.
Arm-rest trimmer: Upholsters the arm rests	Top builders	17.
Automatic-drill operator: Runs a drill press which automatically releases the feed and returns to its original position when the operation is finished.	Drill-press operators	6.
Automatic-lathe operator: Runs Fay, Gisholt, Pratt & Whitney, or automatics of other makes. One operator often has as many as 6 machines running at the same time. The name of the machine is not proof that it is of the automatic type.	Automatic operators (lathe and screw machine).	6.
Automatic operator (*see* Mult-au-matic operator)	Automatic operators (lathe and screw machine).	6.
Axle assembler: Puts together the parts comprising the front axle or attaches the spring clips and support plates to the rear axle housing, assembles the differential, puts in and adjusts the axle shafts, and attaches the springs.	Assemblers, axle	8.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Axle assembler (*see* Chassis assembler)	Assemblers, chassis	18.
Axle grinder: Grinds the races for roller bearings on the axle shafts	Grinding-machine operators	6.
Axle puller: Removes and replaces any axle shaft found defective after the rear axle has been assembled.	Assemblers, axle	8.
Axle shaft assembler: Pushes the rear axle shafts into the housing and forces the splined ends into the intermediate side gears.	do	8.
Axle tester: Examines the adjustment of the differential gears by means of operating them under belt power and listening for unusual noises when they are functioning.	Testers, motor and transmission.	10.
Babbitter: Tends the babbitt melting furnace and pours the molten metal to make bearing bushings.	Other employees	6.
Back hanger: Fits the leather or fabric seat backs to the body, puts in the filling, and tacks the backs to the body.	Top builders	17.
Band-saw operator: Who cuts irregularly-shaped pieces of wood used in body building.	Woodworking - machine operators.	14.
Band-saw operator: Who operates a band saw which cuts sheet-metal stock of irregular pattern.	Sheet-metal workers	12.
Battery man: Puts the storage battery into its carrier and connects the cable terminals to it.	Assemblers, final	21.
Bearing reamer: Dresses the cam-shaft and the crank-shaft bearings with a reamer preparatory to assembling the shafts.	Assemblers, motor	9.
Bearing scraper: Fits crank shafts, connecting rods, etc., by scraping the high spots from the inner bearing surface.	do	9.
Belt man: Repairs belts and cares for the transmission shafting	Other employees	2.
Belt molder: Attaches the molding which covers the joints between upper and lower panels of the body.	Molders (belt and drip)	15
Bench assembler: Puts together small parts at a bench	Assemblers, final	21.
Bench hand: Who assembles, fits, and adjusts cutting tools	Tool and die makers	2.
Bench hand: Who does hand wiring, shaping, flanging, and other similar sheet-metal work at a bench.	Sheet-metal workers	12.
Bench hand: Who glues, assembles, and repairs body frame parts at a bench.	Assemblers, body frame	15.
Bench hand: Who works at a bench repairing machine tools and also usually operates any machine necessary in the making of new parts or the repair of old parts of any of the various machine tools.	Machinists	2.
Bench hand: Who performs specialized metal-working operations at a bench, such as metal filing, bearing scraping, fitting, plugging, hand reaming, hand broaching, etc., in the process of fitting parts, but who does not ordinarily assemble the parts.	Bench hands	6.
Bench repair man. (Usually same as Bench hand)	do	6.
Bench wireman (*see* Bench hand; also Wireman)	Sheet-metal workers	12.
Big jig framer: Uses a jig to put together all of the subsections of a body frame.	Assemblers, body frame	15.
Black-off man (*see* Touch-up man)	Painters, general	16, 20, 21.
Blacksmith: Forges with a hand hammer. (In some shops Blacksmiths are required to perform one or more of the following operations in addition to hand forging: Operate hammers, set dies, drop forge, make flanges, do bending, hot fitting and trimming, dress tools, weld, braze, etc.	Blacksmiths	2, 4.
Blacksmith's helper: Swings a hammer under the direction of the smith, looks after the fire, cuts and arranges stock, and renders general assistance to the blacksmith.	Forge-shop helpers	4.
Block tester: Examines and tests motors for possible defects by mounting on a block and operating for a specified length of time, using city gas usually as fuel.	Testers, motor and transmission.	10.
Board hammerman (*see* Bumper)	Bumpers	12.
Body assembler (*see* Final assembler)	Assemblers, final	21.
Body cleaner (*see* Laborer)	Laborers	16, 21.
Body finisher (*see* Finish varnisher)	Letterers, stripers, and varnishers.	16.
Body fitter: Trims and fits upholstery to the interior of the new body.	Top builders	17.
Body fitter (*see* Final assembler)	Assemblers, final	21.
Body inspector: Examines the final assembly of the body hardware and inspects all other fixtures, or examines the varnished body for defects in the finish.	Inspectors	16, 21, 22.
Body mounter (*see* Final assembler)	Assemblers, final	21.
Body mover (*see* Laborer)	Laborers	15, 16, 17.
Body packer: Stuffs the body upholstering	Top builders	17.
Body polisher (*see* Lacquer rubber)	Lacquer rubbers	16.
Body repair man: Who makes good any defective work in the final assembly of the car.	Assemblers, final	21.
Body repair man: Who touches up scratched or marred varnish or enamel finish, so that it will pass final inspection.	Letterers, stripers, and varnishers.	16, 21.
Body repair man: Who repairs defective upholstery so that it will pass inspection.	Top builders	17.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Body repair man: Who repairs or replaces any defective part of the body frame.	Assemblers, body frame	15.
Body setter (*see* Final assembler)	Assemblers, final	21.
Body trimmer: Installs the trim or finish to the interior of the car	Top builders	17.
Body trucker (*see* Laborer)	Laborers	1, 15, 16, 17.
Body varnisher: Applies the first coats of varnish to the body, wheels, etc., and often called flocote man.	Painters, general	16.
Body varnisher: Applies the finish coats of varnish to the body, wheels, etc., usually known as varnish finisher.	Letterers, stripers, and varnishers.	16.
Body washer (*see* Body cleaner)	Laborers	16, 21.
Bolt-cutter operator: Runs a machine that cuts the threads on bolts	Other employees	6.
Bonnet filer (*see* Metal finisher)	Metal finishers	13.
Bonnet finisher (*see* Metal finisher)	do	13.
Bonnet fitter (*see* Final assembler)	Assemblers, final	21.
Bonnet striper (*see* Striper)	Letterers, stripers, and varnishers.	16.
Boring-mill operator: Runs either a vertical machine known as a boring mill or a horizontal boring machine.	Boring-mill operators	6.
Bow assembler: Fastens together the several bows which form the top support on open models.	Top builders	17.
Bow setter: Attaches the top bows to the body top irons making them ready for the top covering material.	do	17.
Bow trimmer: Trims bows by covering them with the same kind of material as is used for the top lining.	do	17.
Boxer: Packs boxes or crates ready for shipment	Other employees	23.
Box maker: Makes boxes to be used in shipment of materials often using salvaged lumber.	do	1, 23.
Bradley hammerman (*see* Hammersmith)	Blacksmiths	4.
Brake adjuster: Sets the brake lining adjustments so that upon the application of the brakes the pressure will be alike on all braked wheels.	Assemblers, axle	8.
Brake assembler (*see* Subassembler)	do	8.
Brake bleeder: Drains the fluid from the hydraulic brake system	Assemblers, final	21.
Brake-drum man: Attaches brake drums to the wheels	Assemblers, axle	8.
Brazier: Heats brass and other metals in a forge and joins them by means of a flux, usually spelter.	Blacksmiths	4.
Brazier (*see* Welder)	Welders and braziers	2, 6, 7, 12
Bricklayer: Repairs the brickwork in the heat-treating furnaces	Other skilled occupations	7.
Brinell tester: Examines the hardness of heat-treated metals by pressing a 10-millimeter metal ball of known hardness into the surface under a known pressure, the depth of the impression indicating the exact hardness.	Inspectors	7.
Broacher (*see* Bench hand)	Bench hands	6.
Broacher (*see* Pressman)	Punch-press operators	6.
Brushman: Uses a hand brush in painting parts of the chassis, body, etc.	Painters, general	16, 20.
Bucker: Holds the end of a "dolly bar" against the head of a hot rivet while the riveter or hammerman forms a head on the other end with a pneumatic hammer.	Assemblers, frame	11.
Buffer (*see* Polisher)	Polishers and buffers	13.
Buffer (*see* Scratch-brush man)	Sand blasters, etc	5.
Bullard operator: Runs a vertical nonautomatic machine which does turning and boring operations.	Boring-mill operators	6.
Bulldozer: Operates a machine which automatically heads up bolts, rivets, and other articles of the same nature, using the metal either hot or cold.	Forge-shop helpers	4.
Bumper (*see* Metal finisher)	Metal finishers	13.
Bumper: Usually uses a power hammer, but sometimes in salvage work hand tools are used in bumping out or shaping sheet-metal panels, fenders, etc., from sheet-metal stock.	Bumpers	12, 15.
Butt welder: Operates an electric machine in which the edges of sheet-metal parts or the ends of steel rods are brought together. These edges and ends become electric terminals. The resistance offered raises the joint to a fusing temperature.	Welders, spot and butt	12.
Cable assembler: Runs the cable from the battery to the starting motor.	Assemblers, chassis	18.
Carbonizer: Hardens the wearing surfaces of running parts such as gear teeth, ball races, etc., by heating the parts in the presence of potassium cyanide, bone meal, charcoal, or other carbonized material and usually quenching in water.	Hardeners	7.
Carbureter assembler: Attaches the carbureter to the intake manifold.	Assemblers, motor	9.
Car driver: Takes the finished car from the final assembly line to the storage shed, the final test, or the loading dock.	Other employees	21, 22.
Car loader (*see* Laborer)	Laborers	23.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Carpenter: Does various kinds of repair work, usually in a nonproductive capacity.	Other skilled occupations	15.
Carpet cutter (*see* Cutter)	Cutters, cloth and leather	17.
Carpet fitter: Puts in the snaps and fastens the carpet to them	Top builders	17.
Carrier assembler: Who attaches the spare tire carrier	Assemblers, final	21.
Carrier assembler: Who assembles the differential into and then joins the rear axle housing.	Assemblers, axle	8.
Car tester (*see* Final tester)	Testers, final and road	22.
Car washer (*see* Body cleaner)	Laborers	21.
Case hardener (*see* Carbonizer)	Hardeners	7.
Casting cleaners: Uses scratch brush, sand blast, pickling solution, or tumbler to prepare castings for machining by removing sand or scale from the surface.	Sand blasters, etc	3.
Casting inspector (*see* Inspectors)	Inspectors	1, 3.
Centering machine operator: Drills the centers of stock for placing on the centers of a lathe, grinding machine, or other machine tool.	Drill-press operators	6.
Centerless grinder operator: Runs a precision grinding machine which grinds cylindrical pieces which can not be ground on centers.	Grinding-machine operators.	6.
Chassis assembler: Assembles the steering gear, motor, axles, wheels, gas tank, radiator, and minor chassis parts into the chassis frame.	Assemblers, chassis	18.
Chassis inspector: Determines if all parts of the chassis are assembled according to specifications.	Inspectors	18.
Chassis repair man: Makes good any defective work or part of the chassis so it will pass inspection.	Assemblers, chassis	18.
Chassis sprayer: Paints the chassis as it passes into the final assembly by using a paint-spray machine.	Paint sprayers	20.
Checker: Checks the quantity of material received in shipments	Other employees	1.
Chip man: Removes the metal chips cut by the various machines and trucks them to the salvage department, where oil is salvaged, or to the scrap bins for shipment.	Laborers	2, 6.
Chipper (*see* Chip man.)	do	2, 6.
Chipper: Uses an air hammer or hand hammer and cold chisel in chipping unnecessary lugs or metal from castings or forgings before they are machined.	Sand blasters, etc	3, 5.
Chop-knife operator (*see* Cutter)	Cutters, cloth, and leather.	17.
Clutch assembler: Attaches the clutch unit to the motor	Assemblers, motor	9.
Cold header (*see* Bulldozer)	Forge-shop helpers	4.
Cold trimmer: Uses a trim press or a pneumatic chisel to remove the fins from forgings.	Sand blasters, etc	5.
Color mixer: Mixes paint, giving it the proper color and consistency.	Painters, general	16.
Color painter (*see* Brushman)	do	16, 20.
Color varnisher: Is skilled in applying the color varnish to give the car its final color.	Letters, stripers, and varnishers.	16.
Conveyor man (*see* Laborer)	Laborers	13.
Copperplater: Plates gears and other parts that are to be casehardened with copper. The copper is then removed from the wearing surfaces before undergoing the hardening process. Thus only the wearing surfaces are hardened, as the plated surface is not affected by the process, and also sometimes copperplates parts which are afterwards nickel plated over the copper.	Platers	13.
Core assembler: Takes the proper number of fins and tubes or the proper number of crimped strips in the case of the cellular type radiator and assembles them in a form ready for the core dipper.	Sheet-metal workers	12.
Core dipper: Dips the assembled radiator core into a vat of molten solder to close the joints or dips the soldered core into water to determine where it may leak by using air pressure, bubbles showing the presence of leaks. These leaks are then soldered with a torch.	do	12.
Core stringer (*see* Core assembler)	do	12.
Cowl painter (*see* Brushman)	Painters, general	16.
Cowl paneler (*see* Paneler)	Metal panelers	15.
Crane operator: Runs electric overhead cranes used to place heavy forging dies, drop-hammer parts, etc., in the forge shop, stamping dies, etc., in the sheet-metal shop; or one on the assembly lines by which the body or the motor is lowered at the proper time, or one in the stock room to move raw material.	Crane operators	1, 4, 12, 18, 21.
Crank polisher (*see* Finish grinder)	Grinding-machine operators.	6.
Crank-shaft assembler (*see* Motor assembler)	Assemblers, motor	9.
Crank-shaft lapper: Grinds crank shafts to a running fit by mounting them on a special machine which simulates actual running conditions and causing them to wear by using a very fine abrasive.	Grinding-machine operators.	6.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Crank-shaft plugger: Taps and plugs the unnecessary openings which have to be drilled to permit forced lubrication of the bearings.	Bench hands	6.
Crater (*see* Boxer)	Other employees	23.
Crimping-press operator: Tends a press which crimps metal ribbon used in making cellular radiator cores.	Sheet-metal workers	12.
Curling-machine operator: Runs a machine used in shaping bow sockets.	do	12.
Curtain fitter: Fits the side and back curtains	Top builders	17.
Curtain hanger: Hangs the shades in closed models	Assemblers, final	17.
Cushion builder: Builds up the cushion on the cushion frame and springs.	Top builders	17, 21.
Cushion crimper: Crimps the leather for the seat cover and the back.	do	17.
Cushion-press operator: Runs a press used to give the springs proper compression when covered.	do	17.
Cushion stuffer: Arranges the moss or other stuffing in the padding of the seat and back cushions.	do	17.
Cutter: Operates chop knife, electric knife, or other cloth and leather cutting devices to cut the material for cushions, backs, curtains, and tops.	Cutters, cloth and leather	17.
Cutter grinder: Grinds cutting tools to exact size, giving them proper clearance.	Grinding-machine operators.	2.
Cyanide-pot tender (*see* Carbonizer)	Hardeners	7.
Cylinder grinder: Runs a machine which grinds the motor cylinders to a smooth and even polish.	Grinding-machine operators.	6.
Cylinder honer: Runs a machine which polishes the walls of four or six cylinders simultaneously.	do	6.
Dado operator (*see* Gainer operator)	Woodworking-machine operators.	14.
Dash assembler (*see* Final assembler)	Assemblers, final	21.
Dent man (*see* Ding man)	Ding men	13, 16, 22.
Deoxidine man: Cleans metals by a patent process, preparatory to painting.	Painters, general	16.
Die hardener (*see* Furnace tender)	Hardeners	7.
Die-machine operator: Runs a machine which stamps out small forgings and shapes them in dies.	Forge-shop helpers	4.
Die maker: Makes dies used on punch presses, rivet machines, bulldozers, etc., or repairs them if necessary.	Tool and die makers	2.
Die repair man (*see* Die maker)	do	2.
Die setter: Who aligns forging dies on drop hammers, trim presses, forging machines, etc.	Blacksmiths	4.
Die setter: Who sets up and aligns dies on sheet-metal presses, making them ready for the operator.	Die setters, sheet metal	12.
Die sinker: Makes forging dies and templates and is especially skilled in the use of routing and profiling tools.	Tool and die makers	2.
Differential assembler (*see* Carrier assembler)	Assemblers, axle	8.
Differential tester (*see* Axle tester)	Testers, motor and transmission.	10.
Ding man: Uses a wooden or padded mallet or other hand tools on fenders, hoods, and other enameled parts to remove imperfections which show up after enameling or varnishing.	Ding men	13, 16, 22.
Dipper: Paints wooden parts by dipping in a vat of paint or finishes sheet metal parts by dipping in varnish or enamel.	Painters, general	13, 16.
Disc grinder: Smooths small flat surfaces by holding the object against the side of a disc grinder.	Sand blasters, etc	5.
Door finisher (*see* Metal finisher)	Metal finishers	15.
Door fitter (*see* Door hanger)	Door hangers	15.
Door frame assembler (*see* Section framer)	Assemblers, body frame	15.
Door hanger: Aligns and hangs the doors of the car so they will swing properly between the hinge and lock pillars.	Door hangers	15, 21.
Door-hanging instructor: Teaches new employees the art of properly hanging the body doors.	Other skilled occupations	15.
Door-jamb rubber (*see* Varnish rubber)	Varnish rubbers	16.
Door-lock man (*see* Hardware man)	Assemblers, final	15.
Door opener (*see* Door tender)	Other employees	21.
Door-panel assemblers (*see* Flat worker)	Top builders	17.
Door tender: Opens and closes the doors of buildings for the passage of cars and trucks.	Other employees	1, 22, 23.
Door trimmer (*see* Flat worker)	Top builders	17.
Doper: Operates a grease gun to lubricate all of the bearings of the newly assembled car.	Laborers	21.
Double seamer: Operates a seaming machine which joins the edges of two pieces of sheet metal in a double seam.	Sheet metal workers	12.
Dovetail operator: Runs a woodworking machine that makes dovetail cuts.	Woodworking-machine operators.	14.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Dresser: Uses a woodworking machine or hand tools in smoothing or "dressing" wooden body parts.	Wood-working-machine operators.	14.
Drill-press operator: Runs a gang drill, radial drill, or any other type of drill press.	Drill-press operators	6.
Drip molder (*see* Molder)	Molders, (belt and drip)	15.
Driver (*see* Final tester)	Testers, final and road	19.
Driver or drive-away man (*see* Car driver)	Other employees	21, 22.
Drop forger: Shapes forgings with a power hammer and dies	Blacksmiths	4.
Drop forger's helper: Heats stock in a furnace and passes it to the drop forger, helps manipulate large ingots, and keeps the scale off the forging with a wire brush or compressed air.	Forge-shop helpers	4.
Dry-kiln man: Loads the kiln with lumber, looks after the heat of the kiln, and takes out the treated lumber.	Other employees	1.
Dry sander (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	13, 16.
Duco rubber (*see* Lacquer rubbers)	Lacquer rubbers	16.
Dynamometer tester: Tests the power developed by the new motors by connecting a motor to a dynamo, which when driven by the motor indicates the power the motor develops.	Testers, motor and transmission.	10.
Electric-arc man (*see* Welders)	Welders and braziers	6, 12.
Electrician: Assembles the switches and the wiring assemblies for lights.	Assemblers, final	21.
Electric-knife operator (*see* Cutter)	Cutters, cloth and leather	17.
Electric-trouble man: Repairs the defects in the wiring of the lights or ignition.	Assemblers, final	21.
Electric-truck driver: Operates an industrial truck to move stock to and from the storerooms and other departments.	Other employees	1, 23.
Elevator operator: Runs freight and passenger elevators	do	1, 23.
Enameler: Enamels metal parts	Painters, general	13, 16.
Enamel rubber (*see* Varnish rubber)	Varnish rubbers	13, 16.
Engine builder: Puts together the complete motor, fitting and assembling all of its parts.	Assemblers, motor	9.
External grinder (*see* Grinding-machine operator)	Grinding-machine operators.	6.
Fender assembler: Attaches the fenders to the frame, body, and fender irons.	Assemblers, final	21.
Fender finisher (*see* Metal finishers)	Metal finishers	12, 13.
Filer (*see* Metal finishers)	do	12, 13.
Filer (*see* Bench hands)	Bench hands	6.
Final assembler: Who mounts the body on the chassis, assembles the dash, hood, windshield, instrument board, fenders, headlight, floor boards, running boards, glass, hardware, and other fittings of same nature that are necessary in the finishing of any particular model.	Assemblers, final	15, 17, 21.
Final assembler: Who does the final trimming or upholstering operations.	Top builders	17.
Final inspector: Examines the car when it is completely assembled to see that no article of equipment is missing, that there are no mars or scratches on the body, and that the car is ready to be sold in so far as can be determined by visual inspection.	Inspectors	22.
Final repair man: Makes such minor repairs or adjustments of the motor, chassis, or any other part of the car as is found necessary by the final test or inspection in order that the car may be ready for the sales department.	Assemblers, final	19, 22.
Final tester: Operates the finished car on rollers, drives it overland, or determines in other ways if there are any body squeaks, noises in the motor, or if the wheels are correctly aligned, or if there is any sort of adjustment necessary before the car is ready for sale.	Testers, final and road	19, 22.
Final touch-up man (*see* Finish repair man)	Letterers, stripers, and varnishers.	16, 22.
Finished-car inspector (*see* Final inspector)	Inspectors	22
Finished parts inspector: Examines the parts as they come from the machines to see that they are machined according to specifications.	do	6.
Finish grinder: Grinds bearings, cams, etc., to the specified size, at the same time giving them a very high polish, after the rough grinder has ground them to within one or two thousandths of the required size.	Grinding machine operators.	6.
Finish repair man: Touches up scratches or mars in the varnish or enamel finish so it will pass final inspection.	Letterers, stripers, and varnishers.	16, 22.
Finish rubber: Performs the last and finest varnish rubbing operation on fenders, hoods, and bodies.	Varnish rubbers	16.
Finish varnisher: Applies the finish coats of varnish which follow the color coats.	Letterers, stripers, and varnishers.	16.
Fin-machine operator: Runs a machine which punches, cuts off, and turns the edges of fins for radiators.	Sheet-metal workers	12.
Flanger: Who makes flanges on sheet-metal parts	do	12.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Flanger: Who forges steel flanges with power hammer and dies or by using hand tools.	Blacksmiths	4.
Flat worker: Puts in head lining, upholsters the door panels, quarter assemblies, or other flat surfaces.	Top builders	17.
Flocote man: Flows the paint or varnish over the surface of the body with a special arrangement which allows the surplus to drip off into troughs from which it is easily recovered.	Painters, general	16.
Floor-board assembler: Matches the boards for the different models, cleats them together, and screws them in place.	Assemblers, body frame	15.
Floor-board fitter: After the car is assembled, puts the loose floor boards in place.	Assemblers, final	21.
Follow-up man (*see* Stock chaser)	Other employees	1.
Form builder (*see* Jig maker)	Other skilled occupations	15.
Frame assembler: Who places the chassis on the bucks and sometimes assists in assembling the axles and the springs to it.	Assemblers, chassis	18.
Frame assembler: Who rivets together the side and cross members of the chassis frame, the running board hanger to the side members, and sometimes the spare tire carrier and gas-tank hangers to the rear cross member.	Assemblers, frame	11.
Frame dresser (*see* Body dresser)	Assemblers, body frame	15.
Frame handler: Unloads the frames for the chassis assembly line	Laborers	18.
Framer: Assembles, the body sills, pillars, headers, roof rails, ribs, or other parts to form only sections of the body frame; or assembles these sections to form the complete body skeleton.	Assemblers, body frame	15.
Furnace helper: Puts material to be hardened into the carbonizing furnaces and removes it after the process.	Forge-shop helpers	4, 7.
Furnace loader (*see* Furnace helper)	do	7.
Furnace man (*see* Drop forger's helper)	do	4.
Furnace tender: Supervises the heat-treating furnaces, regulates the temperature, instructs loaders or helpers as to when to load or unload the furnace, and is in general responsible for the proper hardening of the metals.	Hardeners	7.
Gainer operator: Runs a woodworking machine which cuts grooves. It is sometimes equipped with a dado head for more intricate grooving.	Woodworking - machine operators.	14.
Galvanizer: Dips the metals to be galvanized in the solutions and removes them at the proper time.	Platers	12.
Gang leader: Is more than an average workman, appointed to set the pace for a group of men all working on a common unit; sometimes has some supervisory capacity.	Other employees	8, 9, 11, 15, 18, 21.
Garnish molder: Screws the inside window moldings fast to the body pillars.	Assemblers, final	17.
Gas-tank assembler (*see* Chassis assembler)	Assemblers, chassis	18.
Gauge grinder: Grinds to exact size such gauges as are used in checking the size of machined parts.	Grinding-machine operators.	2.
Gauge maker: Makes snap, pin, plug gauges, etc	Tool and die makers	2.
Gear assembler: Assembles either the transmission or the timing gears.	Assemblers, motor	9.
Gear-hobber operator: Runs a machine which cuts the teeth in worm gears.	Gear-cutter operators	6.
Gear lapper: Grinds gears by running them together with an abrasive.	Grinding-machine operators.	6.
Gear matcher: Mates gears which mesh satisfactorily and wires them together so they can be assembled in combination.	Inspectors	6.
Gear roller: Tests the trueness of gears by runnnig or "rolling" them enmesh with a master gear.	do	6.
Gear-shaper operator: Runs a machine which cuts the teeth in spur gears.	Gear-cutter operators	6.
Gear washer: Washes the oil and grit from gears after they are ground or lapped.	Laborers	6.
Generator operator: Runs a machine which cuts the helical teeth on bevel gears.	Gear cutter operators	6.
Gisholt operator: Runs a Gisholt turret lathe. (Note.—The term "Gisholt operator" is used almost universally in connection with the Gisholt turret lathe even though other machines are made by the same company.)	Lathe operators	6.
Glass assembler (*see* Final assembler)	Assemblers, final	21.
Glass grinder (*see* Glazier)	Other skilled occupations	15.
Glass polisher (*see* Glazier)	do	15.
Glazier: Cuts the plate glass to size, grinds the bevel on the edges, and polishes the glass if necessary.	do	15.
Glue man: Prepares the glue that is used in assembling the parts of the body frame and keeps it ready at all times.	Laborers	15.
Grainer: Gives interior finish any desired grained effect	Letterers, stripers, and varnishers.	16.
Grinder (*see* Metal finisher)	Metal finishers	13, 15.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Grinding-machine operator: Runs one of the many designs of grinding machines which are usually known by the particular sort of grinding which they are designed to do, as surface, external, internal, etc.	Grinding-machine operators.	6.
Hair picker: Operates a machine which fluffs the hair used in upholstering seats and cushions.	Top builders	17.
Hammersmith: Operates power hammers in forging and is able to shape forgings without the aid of dies.	Blacksmiths	4.
Hammersmith's helper (*see* Drop forger's helper)	Forge-shop helpers	4.
Hand reamer (*see* Bench hands)	Bench hands	6.
Hand-screw operator: Runs a nonautomatic screw machine	Lathe operators	6.
Hand stitcher (*see* Trim bench hands)	Trim bench hands	17.
Hand straightener: Uses a hammer or a hand press to straighten forgings, rods, or other metals that are to be machined.	Forge-shop helpers	4.
Handy man (*see* Laborer)	Laborers	14, 15.
Handy man: Who can fill in and take anyone's place along the assembly lines.	Assemblers, final	21.
Handy man: Who may be expected to do all manners of work from common labor to work requiring considerable skill.	Other employees	1, 23.
Hanger riveter (*see* Frame assembler)	Assemblers, frame	11.
Hardener (*see* Carbonizer)	Hardeners	7.
Hardware man (*see* Final assembler)	Assemblers, final	21.
Head-lamp assembler: Mounts the headlights on their brackets	do	21.
Head lining man (*see* Flat worker)	Top builders	17.
Heater (*see* Drop forger's helper)	Forge-shop helpers	4.
Heater man: Installs the heating arrangements in the floor of the bodies.	Assemblers, final	21.
Heat treater: Often applied to the annealer, case hardener, furnace tender, or other employees responsible for the heat treatment of metals.	Hardeners	7.
Helper: Assists machine operators and repair men in the machining departments; millwrights, machine-tool repair men, tool-makers, die makers, and welders in the tool making and machine-tool repairing department; inspectors, machine operators, top builders, and trimmers in the upholstering departments; and furnace tenders in the heat-treat department.	Helpers	2, 7, 10, 17
Hinge man (*see* Final assembler)	Assemblers, final	15, 21.
Hood shaper: Either bends the hood over a form to shape it or uses an "Artz" press which shapes it by stretching it over a form or die.	Sheet-metal workers	12.
Hot bender: Shapes heated metal or forgings by bending	Blacksmiths	4.
Hot fitter (*see* Shrinker)	do	4.
Hot trimmer: Uses a drop hammer and die to cut the fins from forgings.	do	4.
Hydraulic-pressman (*see* Press operator)	Assemblers, axle	8.
Hydraulic-press operator (*see* Pressman)	Punch-press operators	12.
Inspector: Inspects stock at the various stages of machining; examines sheet metal stampings, wiring, seaming, and finishing; examines tools and cutters in the tool room; inspects discarded material for salvage purposes; examines the various stages of assembly; examines forgings; the various stages of body finishing as the metal finishing, priming, glazing, painting, varnishing, enameling, or rubbing, and also the shipments received and the material to be shipped in the shipping and the receiving departments. Universal accuracy throughout the industry depends on thorough inspection at every stage of manufacture.	Inspectors	All.
Instrument-board man (*see* Final assembler)	Assemblers, final	21.
Internal grinder (*see* Grinding-machine operator)	Grinding-machine operators.	6.
Jig maker: Who is a toolmaker specialized in making jigs	Tool and die makers	2.
Jig maker: Who builds wooden forms in which the assembled sections of a body frame are brought together, aligned, and the final assembly is made.	Other skilled occupations	15.
Jitney driver: Runs a small gasoline-driven truck which pulls trailers, loaded or empty, from one department to another. They are often referred to as "cootie" drivers.	Other employees	1, 23.
Job setter: Is a leader or subforeman found in most productive departments who sometimes sets a pace for the gang as well as doing some supervising.	do	2, 4, 5, 6, 7, 8, 9, 12, 13, 15, 17, 21.
Job setter (*see* Machine setter)	Machinists	6.
Jointer operator: Runs a woodworking machine known as a jointer.	Woodworking-machine operators.	14.
Keller operator: Operates a special die-making machine	Tool and die makers	2.
Keyseater: Runs a machine which cuts keyways	Milling-machine operators.	6.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Laborer: In this industry usually acquires skill in performing one or more simple tasks. The laborer loads and unloads stock; unpacks, counts, and distributes stock to the bins and trucks it from one department to another; moves, cleans, and washes bodies in the trim and the paint departments; works about the wash tank, wipes washed material, rubs it with sandpaper, and takes it to the conveyor to be enameled; sweeps up and wheels chips from the machine departments; cleans up and takes care of scrap in the mill and body-building department; and in general does work wherever necessary requiring little basic experience.	Laborers	All.
Lacquer rubber: Uses a wax or paste in rubbing a lacquer finish to fill and polish it.	Lacquer rubbers	16.
Lathe operator: Who runs a nonautomatic engine or turret lathe	Lathe operators	6.
Lathe operator: Who runs an automatic lathe	Automatic operators (lathe and screw machine).	6.
Layout man: Marks with a scriber sheet-metal parts which are to be sheared, joined, trimmed, or undergo any other operation which requires a layout.	Other skilled occupations	6, 12.
Lead rubber (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Leather cutter (*see* Cutter)	Cutters, cloth and leather	17.
Leather sorter: Examines leather for quality before it is cut into backs and seats, or inspects the scrap for salvage purposes.	Inspectors	17.
Letterer: Is skilled in painting the name of a company, the monogram, or the initials of a buyer on the doors, sides, or other parts of the car.	Letterers, stripers, and varnishers.	16.
Light adjuster: Adjusts the lights to the proper focus on the finished car.	Assemblers, final	21.
Linderman operator: Runs a woodworking machine which tongues, grooves, and glues the edges of boards together to form a wider piece.	Woodworking-machine operators.	14.
Line-bearing grinder (*see* Grinding-machine operator)	Grinding-machine operators.	6.
Locomotive craneman: Runs a locomotive crane used in the yard to unload or load coal, stock, or other material.	Other skilled occupations	1, 23.
Low-swing operator (*see* Lathe operator)	Lathe operators	6.
Lug cutter (*see* Air-hammer man)	Sand blasters, etc	3, 5.
Lumber cleaner: Cleans lumber for salvage purposes	Laborers	1.
Lye-tank man: Puts sheet-metal parts through a lye solution to remove grease or paint and to cleanse the part so thoroughly that it can be refinished.	Painters, general	16.
Machine hand: In many shops is an employee who is being tried out on the different machine tools to determine his adeptness. In other shops the term is synonymous with machine operator.	Other employees	6.
Machine repairman: Tears down, makes necessary repairs, sets up, and adjusts any kind of machine tool needing repair.	Machinists	2, 6.
Machine setter: Who sets and adjusts the cutting tool for the machining of a specific part, making the machine ready for the operator to run.	do	6.
Machine setter: Who sets up dies on forging machines	Blacksmiths	4.
Machinists: A skilled and experienced workman who, working from blue prints and specifications, uses various machine tools in the production of accurate metal parts; but more often in this industry an employee who repairs, adjusts, or sets machine tools to be operated by other employees.	Machinists	2, 6.
Magee operator: Runs a Magee wiring machine which turns and runs a wire into the edges of sheet metal parts such as the fenders.	Sheet-metal workers	12.
Marker (*see* Layout man)	Other skilled occupations	6, 12.
Metal finisher: Bumps out dents in the surface or fills them with solder; grinds, files, and polishes the surface of fenders, body panels, bonnet, or hood preparatory to the varnishing or the enameling of the same. In some plants this work is specialized and one employee performs but one of the above operations.	Metal finishers	12, 13, 15
Metal trimmer (*see* Shearman)	Sheet-metal workers	12.
Milling-machine operator: Runs any of the various types of milling machines.	Milling-machine operators.	2, 6.
Millwright: Is an experienced power-transmission man who is capable of up setting and aligning machinery under unfavorable conditions.	Other skilled occupations	2, 6.
Miter-saw operator: Runs a saw in the wood mill to cut mitered stock for body frame parts.	Woodworking-machine operators.	14.
Molder: Who nails the drip molding around the top edge of closed models and the belt molding over the seams at the top of the lower-quarter panels of both open and closed models.	Molders (belt and drip)	15.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Molder: Who tacks the break-over strips along the doors, the leather or fabric moldings along seat backs and other parts of the inside upholstery, to cover seams, etc.	Top builders	17.
Molding painter: Specializes in painting the belt and other outside moldings, especially where it is to be a different color than the rest of the body.	Painters, general	16.
Monogram man (*see* Letterer)	Letterers, stripers, and varnishers.	16.
Mortiser: Operates a machine which cuts a recess or a mortise into a piece of wood for the reception of the tenon of another piece.	Woodworking-machine operators.	14.
Motor adjuster: Inspects the motor and adjusts it on the block test, sometimes dismantling the motor to make sure the bearings are satisfactory.	Testers, motor and transmission.	10.
Motor assembler: Puts the crank shaft, cam shaft, connecting rods, time gears, valves, oil pump, or other parts of the motor into the block; also assembles the transmission gear set as part of the motor unit.	Assemblers, motor	9.
Motor assembler (*see* Chassis assembler)	Assemblers, chassis	18.
Motor flusher: Washes out the crank case of the motor with a flushing oil before the car goes to the shipping room.	Laborers	21, 23.
Motor repair man: Who makes any additional adjustments to the motor in order that it will pass the block and dynamometer tests.	Testers, motor and transmission.	10.
Motor repair man: Who does the necessary repair work in the assembly of the motor.	Assemblers, motor	9.
Motor tester (*see* Motor adjuster)	Testers, motor and transmission.	10.
Mult-au-matic operator: Runs an automatic machine which performs similar operations to an automatic lathe but is of a vertical type.	Automatic operators (lathe and screw-machine).	6.
Multiple-spindle operator: Runs a machine (sometimes known as a gang drill) designed to drill several holes at a time.	Drill-press operators	6.
Murcote rubber (*see* Lacquer rubber)	Lacquer rubbers	16.
Nailer (*see* Boxer)	Other employees	23.
Nickel plater: Who is responsible for the copper amd nickel plating of such parts as the radiator shell, steering wheel column, hardware, etc.	Other skilled occupations	13.
Nickel plater (*see* Plater)	Platers	13.
Oiler: Oils shaft bearings, motors, and other parts of the factory power-transmission equipment.	Other employees	2.
Oil-pump assembler (*see* Motor assembler)	Assemblers, motor	9.
Oil sander (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Oil separator: Runs a centrifugal machine which throws the oil off and recovers it from the metal chips that come from machine tools which use oil to make high-speed cutting possible.	Laborers	6.
Overland driver (*see* Final tester)	Testers, final and road	22.
Packer (*see* Boxer)	Other employees	23.
Painter: Paints the chassis or parts of the running gear which can not well be sprayed.	Painters, general	16, 20, 21.
Paint repairer (*see* Touch-up man)	do	16, 20, 21.
Paint sprayer: Uses a paint-spray machine to cover the body, chassis, or parts of the car with paint, varnish, or lacquer.	Paint sprayers	16, 20.
Paneler: Attaches the sheet-metal covering to the body frame. In large plants the work is specialized, each employee attaching but one section, as the rear-quarter panel, door panel, cowl panel, etc.	Metal panelers	15.
Panman: Hangs the drip or splash pan	Assemblers, final	21.
Parker rust proofer: Treats metals by a patent process to preserve them and keep them from rusting.	Other employees	6.
Parko rubber (*see* Lacquer rubber)	Lacquer rubbers	16.
Paster (*see* Trim bench hand)	Trim bench hands	17.
Pattern maker: Makes wood or metal patterns which are models for making castings or forgings.	Other skilled occupations	14.
Pedal assembler: Attaches the pedals to the clutch unit	Assemblers, motor	9.
Pickler: Dips metal parts into a pickling solution to remove grease, scale, stain, etc.	Other employees	6, 12.
Pipe fitter: Installs gasoline feed pipe from the tank to motor	Assemblers, chassis	18.
Planer operator: Who runs a machine known as a planer in the machine shop.	Planer and shaper operators.	6.
Planer operator: Who runs a planer in the wood mill	Woodworking-machine operators.	14.
Plater: Is a vat man who immerses in the plating solution and removes therefrom metal parts to be plated with copper or nickel, usually at the direction of the plater in charge who is a skilled man. The vat man is sometimes known as "plater's helper".	Platers	13.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Polisher: Uses a grinding wheel to polish metals to be plated or a buffing wheel to buff the plated parts; sometimes a final polish is given after the assembly of the part.	Polishers and buffers	13, 21.
Power-hammer man (*see* Bumper.)	Bumpers	12, 15.
Power-machine operator (*see* Sewing-machine operator)	Sewing-machine operators.	17.
Preheater: Uses a furnace or forge to heat parts previous to placing them in a hot heat-treating furnace.	Forge-shop helpers	7.
Pressman: Operates toggle and hydraulic presses in the making of sheet-metal stampings, or in power broaching.	Punch-press operators	6, 12.
Press operator: Uses a hand or power press to force tightly fitting parts into place, such as the wheel hubs, bearing sleeves, etc.	Assemblers, axle	8.
Press straightener (*see* Hand straightener)	Forge-shop helpers	4.
Prime-coat rubber (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Primer: Applies the first or prime coat of paint	Painters, general	16.
Profiler: Runs a milling machine which is designed to follow a profile to shape several thin flat pieces at the same time.	Milling-machine operators.	2, 6.
Punch-press operator (*see* Pressman)	Punch-press operators	12.
Putty glazer: Smooths up rough places and builds up an even surface on the body so it will take a high finish.	Painters, general	16, 20.
Pyrometer man: Keeps in repair the electric furnaces which show the degree of heat in the heat-treating furnaces.	Other skilled occupations	7.
Rabbet operator: Runs a woodworking machine which cuts recesses in the edge of a piece of stock for the reception of the lip of another piece.	Woodworking-machine operators.	14.
Radial operator (*see* Drill-press operator)	Drill-press operators	6.
Radiator assembler: Who puts together the fins and tubes, crimped strips, tank, shell, and other parts of the radiator.	Sheet-metal workers	12.
Radiator assembler (*see* Chassis assembler)	Assemblers, chassis	18.
Radiator tester (*see* Core dipper)	Sheet-metal workers	12.
Rattler operator (*see* Tumbler)	Sand blasters, etc	3.
Reamer operator: Who operates a "Moline hole hog" or similar machine to ream or take the finish cut out of the bored cylinders.	Boring-mill operators	6.
Reamer operator: Who does small reaming operations on a drill press.	Drill-press operators	6.
Rear-quarter paneler (*see* Paneler)	Metal panelers	15.
Receiving clerk: Checks shipments to see if orders are as specified	Other employees	1.
Regulator man (*see* Final assembler)	Assemblers, final	21.
Repair man: Repairs defective work on machined parts, being required to do any necessary operation in the course of the repair.	Machinists	6.
Rip sawyer (*see* Stock cutter)	Woodworking-machine operators.	14.
Riveter: Who uses a high-speed hammer or a rivet press to attach spring seats, rivet together the carrier and housing tubes, the propeller housing tubes, etc.	Assemblers, axle	8.
Riveter: Who uses soft rivets and a rivet press to join sheet metal parts.	Sheet-metal workers	12.
Riveter (*see* Frame assembler)	Assemblers, frame	11.
Riveter's helper (*See* Bucker)	do	11.
Road tester (*See* Final tester)	Testers, final and road	19, 22.
Rod hanger: Assembles the connecting rods and the bearing caps on the crank shaft.	Assemblers, motor	9.
Roller man (*see* Final tester)	Testers, final and road	22.
Rotary-shear operator (*see* Shear man)	Sheet-metal workers	12.
Rough cam-shaft grinder (*see* Finish grinder)	Grinding-machine operators.	6.
Rough crank-shaft grinder (*see* Finish grinder)	do	6.
Rough grinder: Who uses a disc grinder, or a portable emery wheel, to smooth the rough surfaces of forgings or castings where fins and lugs have been chipped off so the article can be machined.	Sand blasters, etc	3, 4, 5.
Rough-stuff rubber: Uses sandpaper to clean and roughen surfaces to be painted and other coarse abrasives either dry or with water, oil, or other liquids to perform the first operations of rubbing down the different coats of paint and varnish.	Sanders and rough-stuff rubbers.	16.
Rub-deck man: Works along the rub-deck cleaning grease, spots, finger marks, etc., and drying sheet-metal parts before they are enameled.	Laborers	13.
Running-board bolter (*see* Final assembler)	Assemblers, final	21.
Safety man: Is responsible for the installation of necessary safety devices and the carrying out of safety regulations.	Other employees	4.
Sample checker: Inspects by the sample method, e. g., every tenth piece is inspected instead of each individual piece.	Inspectors	4.
Sand blaster: Uses a sand blast to remove or cut grease, dirt, rust, scale, etc., from the surface of metals which are to be painted or machined. In some shops the same person may be required to do one or more of the operations, sand blasting, rough grinding, chipping, trimming forgings, snagging, cutting lugs, etc.	Sand blasters, etc	3, 5.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Sander (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Saw filer: Sharpens saws for the woodworkers	Other skilled occupations	14.
Sawyer (*see* Stock cutter)	Woodworking-machine operators.	14,
Scleroscopeman: Operates an instrument which indicates the hardness of metals by the rebound of a small hammer in the instrument.	Inspectors	6, 7.
Scrap baler: Puts the scrap collected by the scrap men into a baling press and bales it for shipment to steel mills or foundries.	Laborers	4, 12.
Scraper (*see* Bench hand)	Bench hands	6.
Scrap man: Collects and removes to the baling machine or the scrap dump the cuttings from the trim presses or the punch presses or the chips from the machine shop.	Laborers	4, 5, 6, 12.
Scratch-brush man: Uses a wire brush (more often power driven) to clean the scale from forgings so they can be machined, or to remove sand from castings or the scale from heat-treated parts.	Sand blasters, etc	3, 4, 5, 7.
Screw-machine operator: Who operates a hand-screw machine	Lathe operators	6.
Screw-machine operator: Who operates an automatic screw machine.	Automatic operators (lathe and screw machine).	6.
Scuff-plate man (*see* Final assembler)	Assemblers, final	21.
Seat assembler: Puts together the parts of the front or the rear seat upholstering.	Top builders	17.
Seat builder: Usually builds up the upholstering on the auxiliary seats.	Top builders	17.
Seat trimmer: Puts the upholstery trimming on the seats	do	17.
Section framer: Puts the parts of one section of the body frame together, as the door pillars, header, and belts to form the door frame.	Assemblers, body frame	15.
Sewing-machine operator: Runs a foot or power-driven machine to sew curtains, visions, kick pads, side arms, trim panels, seat covers, bags, bow-pad covers, and other upholstery materials.	Sewing-machine operators.	17.
Shaper operator: Who runs a machine in the wood mill known as a shaper.	Woodworking-machine operators.	14.
Shaper operator: Who runs a machine in the machine shop or the machine repair department known as a shaper.	Planer and shaper operators.	2, 6.
Shearman: Who guides fenders or other sheet-metal parts through a rotary shear to make circular or irregular cuts, or makes straight cuts with a square shear.	Sheet-metal workers	12.
Shearman: Who shears stock to length for the forge shop	Forge-shop helpers	4.
Sheet-metal worker: Is a term applied to any of the employees of the sheet-metal departments, but in this survey designates only sheet-metal workers not included in a separate classification.	Sheet-metal workers	12.
Sherrardizer: Runs a tumbler equipped with an electrical heating device in which small parts such as bolts, nuts, etc., are covered with a coating of tin which prevents rust.	Sand blasters, etc	13.
Shipping clerk: Checks and keeps records of all material shipped	Other employees	23.
Show-job painter: Does extra fine work in finishing cars for show purposes.	Letterers, strippers, and varnishers.	16.
Shrinker: Fits two pieces of metal together by shrinking one over the other. The outer piece is of such size that heating expands it sufficiently to just go over the cold inner piece. Thus as the outer piece cools and contracts it creates an enormous squeeze, and the friction thus produced holds the parts rigidly together.	Blacksmiths	4.
Silent-room tester: Uses a stethoscope or sound rod in the silent rooms to test time gears, transmission gears, differential gears, etc., for noise.	Testers, motor, and transmission.	6, 8, 9, 10.
Slotter: Runs a machine which cuts slots or splines in a bored hole such as the slots in the intermediate differential gears for the reception of the splined end of the axle saft.	Milling-machine operators.	6.
Small-parts assembler: Who puts together small integral parts of the motor.	Assemblers, motor	9.
Small-parts assembler: Who works at a bench and puts together small parts of the body hardware or fixtures.	Assemblers, final	21.
Snagger (*see* Casting cleaner)	Sand blasters, etc	5.
Snipper: Uses snips to cut off the end of the wire which projects from the seams of fenders, etc., as they come from the wiring machine.	Sheet-metal workers	12.
Soft-top man (*see* Top assembler)	Top builders	17, 21.
Solderer: Who solders the leaks in newly assembled radiators or dips the assembly into a vat of solder to join the edges and close the seams (*see* Core dipper).	Sheet-metal workers	12.
Solderer: Who glazes bodies in the process of metal finishing to make an even surface (*see* Metal finisher).	Metal finishers	13, 15.
Spindle spotter: Uses a single spindle machine to either spot face drilled holes or to start (spot) holes to be drilled on a multiple spindle machine.	Drill-press operators	6.
Spliner operator: Runs a machine which cuts the splines on such parts as the axle shaft.	Milling-machine operators.	6.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Spot facer (*see* Spindle spotter)	Drill-press operators	6.
Spot puttier (*see* Putty glazer)	Painters, general	16.
Spot rubber (*see* Touch-up man)	Varnish rubbers	16.
Spotter: Grinds a smooth surface on each piece of hardened metal that is to be tested by the Brinell test.	Other employees	7.
Spot welder: Runs a machine having two electric terminals which can be brought together. When two pieces of sheet metal are brought between these terminals and the machine is tripped a strong induced current causes sufficient heat from the resistance offered by the sheet metal to fuse the pieces at the spot where the terminals touch the metal.	Welders, spot and butt	12.
Spray man (*see* Paint sprayer)	Paint sprayers	16, 20.
Spring maker: Shapes the steel for the spring leaves and shapes the eyes on the ends of the main leaf for the shackle bolt.	Blacksmiths	4.
Square-shear operator (*see* Shearman)	Sheet-metal workers	12.
Squeak man (*see* Final tester)	Testers, final and road	22.
Steel-wool man (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Steering-gear assembler (*see* Chassis assembler)	Assemblers, chassis	18.
Steering-wheel groover: Runs a special machine which cuts the thumb groove in the wheel.	Woodworking-machine operators.	14.
Stenciler: Addresses shipments by using print and stencils	Other employees	23.
Sticker operator: Runs a woodworking machine which dresses moldings.	Woodworking - machine operators.	14.
Stock chaser: Follows up the number of pieces produced in each department so the production can be timed and the correct number to make a specified number of assemblies will be finished by the time they are needed. May also go outside the factory to trace and speed up delivery of delayed stock.	Other employees	2, 4, 6, 12 14, 15.
Stock counter (*see* Laborer)	Laborers	1, 23.
Stock cutter: Who runs a swing saw in cutting to length or a rip saw to cut to width the stock for the body frame.	Woodworking - machine operators.	14.
Stock cutter: Who runs a cold saw in the store room to cut steel stock to length.	Other employees	1.
Stock cutter (*see* Cutter)	Cutters, cloth and leather	17.
Stock cutter (*see* Shearman)	Forge-shop helpers	4.
Stockman: Has charge of the tools, dies, etc., in the tool room; supplies in the paint department; trimming and upholstering in the body building departments or in the general store rooms.	Other employees	1, 2, 6, 8, 9, 12, 14, 15, 16, 17.
Stockman or Stock handler: Sometimes applied to stock movers (*see* Laborer).	Laborers	All.
Stock washer (*see* Laborer)	Laborers	6, 16.
Straddle-mill operator: Runs a milling machine which straddles the stock and faces both sides at the same time.	Milling-machine operator	6.
Straightener: Straightens finely machined parts such as the cam shaft, crank shaft, connecting rods, axle shafts, and other similar parts that have warped slightly in heat treating.	Straighteners	2, 6, 7.
Strikers (*see* Blacksmith's helper)	Forge-shop helpers	4.
Striper: Paints colored stripes around or on the body, wheels, fenders, or other part of the car.	Letterers, stripers, and varnishers.	16.
Stud driver: Screws the studs into the cylinder block which secure the head, crank case, gear cover, etc.	Assemblers, motor	9.
Sub-assembler: Assembles various units of the rear axle, such as the brakes, toggles, pinions, differential assembly, etc.	Assemblers, axle	8.
Surface grinder (*see* Grinding-machine operator)	Grinding-machine operators.	6.
Swaging-machine operator: Runs a machine which shapes metal by forcing it into a form or die, usually by rapid blows.	Other employees	6.
Sweeper (*see* Laborer)	Laborers	All.
Swing-saw operator (*see* Stock cutter)	Woodworking-machine operators.	14.
Switchboard operator: Cares for the switchboard which controls heat in the electric furnaces.	Other skilled occupations	7.
Switch-panel man: Same as instrument board man (*see* Final assemblers).	Assemblers, final	21.
Tappet adjuster: Adjusts the valve tappets properly	Testers, motor and transmission.	10.
Tapping-machine operator: Runs a drill press equipped with taps to cut the threads into drilled holes.	Drill-press operators	6.
Tenoner hand: Runs a machine which cuts a tenon on the end of a piece of wood to fit in the mortise of another piece.	Woodworking-machine operators.	14.
Thread-miller operator: Runs a milling machine adapted to milling a thread or worm on a piece of stock.	Milling - machine operators.	6.
Tinsmith: Makes light sheet metal parts, safety devices, etc	Other skilled occupations	2.
Tool adjuster (*see* Bench hands)	Tool and die makers	2.

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Tool carrier: Trucks or carries cutting tools from the tool crib to the machine operators or vice versa. (Usually boys.)	Other employees	2, 6.
Tool checker (*see* Tool inspector)	Inspectors	1, 2.
Tool-crib attendant: Cares for the cutting tools and other equipment used by the toolmakers and the machine operators.	Other employees	2, 6.
Tool dresser: Dresses cold chisels, lathe tools, and similar tools by heating them in a forge, shaping them on the anvil, and hardening them by quenching when they have reached the proper heat.	Blacksmiths	2, 4.
Tool grinder (*see* Cutter grinder)	Grinding-machine operators.	2.
Tool hardener (*see* Tool dresser)	Blacksmiths	2.
Tool inspector: Examines cutting tools and precision instruments for size adaptability or examines machine tools to determine necessary repairs.	Inspectors	1, 2.
Toolmaker: Makes and repairs cutting tools, such as reamers, milling cutters, twist drills, boring tools, facers; also dies, jigs, and other things of like nature. In shops where the operations in the tool room are not specialized the toolmakers operate various machines as necessary.	Tool and die makers	2.
Tool repairman (*see* Toolmaker)	do	2.
Tool-salvage man: Anneals the tool steel in worn out tools which can be used in the making or repair of other tools.	Hardeners	4.
Tool setter (*see* Machine setter)	Machinists	6.
Tool stamper: Stamps the sizes, names, etc.. on tools with small dies at a bench.	Bench hands	2.
Tool-troubleman: Determines why cutting tools do not cut as they should and specifies repairs to be made.	Tool and die makers	2.
Top assembler: Puts the bows together and tacks the top deck material in place.	Top builders	17, 21.
Top builder: Who assembles the roof rails and ribs	Assemblers, body frame	15.
Top builder: Who performs the operations of upholstering or building the top of open cars.	Top builders	17.
Top slatter: Puts on the slats which support the top material on a closed model.	Assemblers, body frame	15.
Touch-up man: Who repairs painted parts which have been scarred	Painters, general	16, 20, 21.
Touch-up man: Who refinishes any imperfection in the finish of the completed car.	Letterers, stripers, and varnishers.	16, 21.
Touch-up man: Who rubs down small spots which are insufficiently smooth to take the desired finish.	Varnish rubbers	16.
Tractor driver: Runs a tractor which hauls materials on trailers about the plant.	Other employees	1, 23.
Transmission assembler (*see* Motor assembler)	Assemblers, motor	9.
Transmission tester: Tests the transmission-gear set for defects	Testers, motor and transmission.	10.
Trim-bench hand: Works at a bench and assembles sections of the upholstery by hand stitching, pasting pockets, etc., before they are applied by the trimmer or top builder.	Trim bench hands	17.
Trim die maker (*see* Die maker)	Tool and die makers	2.
Trim inspector (*see* Inspector)	Inspectors	17.
Trimmer: Performs the trim or final operations of upholstering	Top builders	17.
Trimmer setter (*see* Die setter)	Blacksmiths	4.
Trim-rail man: Panels the back of the front seat in open cars	Metal panelers	15.
Trim repair man: Repairs any part of the trim or the upholstery of the body.	Top builders	17.
Trucker (*see* Laborer)	Laborers	All.
Truck helper: Assists tractor or electric industrial truck drivers in loading and unloading material.	do	1, 23.
Truck oiler: Keeps hand and electric industrial trucks greased	do	1, 23.
Tube pusher (*see* Core assembler)	Sheet-metal workers	12.
Tubular riveter (*see* Riveter)	Assemblers, axle	8.
Tumbler: Operates a revolving cylinder which is partially filled with castings and small sharp pieces of hard iron. The pieces of iron cut and wear the sand and scale off the castings and leaves them smooth for machining.	Sand blasters, etc	3.
Tuner: Tunes up the motor by adjusting the carburetor or timing ignition.	Testers, final and road	19, 22.
Turret-lathe operator: Runs a lathe which has a device called a turret to hold several tools, each one being adjusted to perform an operation in sequence. The operator starts the machine by setting the turret for the first cut, and then as each cut is finished he rotates the turret to bring the proper tool for each succeeding cut into place.	Lathe operators	6.
Upsetter: Usually uses a drop hammer to shorten the axial length or "upset" a forging.	Blacksmiths	4

Factory terms with definitions, classification by Bureau of Labor Statistics, and departments in which terms are found—Continued

Factory term and definition	Classified by bureau as—	Department No. in which term is found
Varnish finisher (*see* Finish varnisher)	Letterers, stripers, and varnishers.	16.
Varnish repair man (*see* Touch-up man)	do	16.
Varnish rubber: Uses a fine abrasive with oil or water to rub and polish the surface of varnish or enamel.	Varnish rubbers	16.
Vat man (*see* Plater)	Platers	13.
Ventilator man: Assembles the ventilator into the cowl	Assemblers, final	21.
Visor trimmer: Covers the metal frame of the visor with artificial leather or other material.	Top builders	15, 17.
Warehouse man: Is employed in the warehouse in various capacities	Other employees	23.
Wash-tank man (*see* Laborer)	Laborers	16.
Water sander (*see* Rough-stuff rubber)	Sanders and rough-stuff rubbers.	16.
Waxer (*see* Lacquer rubber)	Lacquer rubbers	16.
Weigher: Weighs pistons, connecting rods, etc., to keep them within specified weight.	Other employees	6.
Welder: Who joins pieces of steel by heating in a forge and using borax to make them fuse.	Blacksmiths	4.
Welder: Who uses a hand torch or an electric arc to weld or braze, by hand, parts of the product or broken cast iron, steel, and aluminum stock, machine-tool parts, or similar parts in the maintenance of equipment.	Welders and braziers	2, 4, 6, 12.
Wheel filler (*see* Putty glazer)	Painters, general	16, 20.
Wheel finisher (*see* Finish varnisher)	Letterers, stripers, and varnishers.	16.
Wheel gangman: Performs the various operations necessary in the assembly of truck axles and wheels.	Assemblers, axle	8.
Wheel grinder: Performs the necessary grinding operations on the flywheel.	Grinding-machine operators.	6.
Wheel striper (*see* Striper)	Letterers, stripers, and varnishers.	16.
Wind-breaker assembler: Attaches the sheet-metal apron which usually covers the front ends of the chassis frame and extends across beneath the radiator.	Assemblers, final	21.
Window washer (*see* Body cleaner)	Laborers	21.
Wind-shield assembler (*see* Final assembler)	Assemblers, final	21.
Wire assembler: Puts together the combinations of electric wires used in wiring for lights and ignition.	do	21.
Wire-brush operator (*see* Scratch-brush operator)	Sand blasters, etc	3, 4, 5, 7.
Wireman: Guides the edge of a fender or other sheet-metal part through a machine which turns the edge of the part over a wire making a wired seam. Some small parts are wired at a bench on a hand machine (*see* Magee operator).	Sheet-metal workers	12.
Wire stripper: Scrapes the insulation from the ends of lighting and ignition wires so the terminal clips can be soldered on.	Assemblers, final	21.
Woodworker: Is a term applied to any woodworking-machine operator who machines the wooden parts for the body frame.	Woodworking-machine operators.	14.
Woodworker: Who performs various operations in the building of the wooden body frame.	Assemblers, body frame	15.
Wrist-pin grinder (*see* Centerless grinder operator)	Grinding-machine operators.	6.
Yardman: Works about the yard loading scrap, wheeling materials, or doing any other work necessary to keep the yard cleared.	Laborers	23.
Zinc plater (*see* Plater)	Platers	13.

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of routine surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1921, as well as the bulletins published since that date will be furnished on application. Bulletin marked thus (*) are out of print.

Wholesale Prices.

No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
No. 415. Wholesale prices, 1890 to 1925.

Retail Prices and Cost of Living.

*No. 121. Sugar prices, from refiner to consumer. [1913.]
*No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
*No. 164. Butter prices, from producer to consumer. [1914.]
No. 170. Foreign food prices as affected by the war. [1915.]
No. 357. Cost of living in the United States. [1924.]
No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
No. 418. Retail prices, 1890 to 1925.

Wages and Hours of Labor.

*No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
*No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
No. 163. Wages and hours of labor in the building and repairing of steam-railroad cars, 1907 to 1913.
*No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
No. 204. Street-railway employment in the United States. [1917.]
No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
No. 265. Industrial survey in selected industries in the United States, 1919.
No. 297. Wages and hours of labor in the petroleum industry, 1920.
No. 348. Wages and hours of labor in the automobile industry, 1922.
No. 356. Productivity costs in the common-brick industry. [1924.]
No. 358. Wages and hours of labor in the automobile-tire industry, 1923.
No. 360. Time and labor costs in manufacturing 100 pairs of shoes. [1924.]
No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
No. 371. Wages and hours of labor in the cotton-goods manufacturing, 1924.
No. 374. Wages and hours of labor in the boot and shoe industry, 1907 to 1924.
No. 376. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1924.
No. 377. Wages and hours of labor in woolen and worsted goods manufacturing, 1924.
No. 381. Wages and hours of labor in the iron and steel industry, 1907 to 1924.
No. 394. Wages and hours of labor in metalliferous mines, 1924.
No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry, 1925.
No. 412. Wages, hours, and productivity in the pottery industry, 1925.
No. 413. Wages and hours of labor in the lumber industry in the United States, 1925.
No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
No. 421. Wages and hours of labor in the slaughtering and meat-packing industry, 1925.
No. 422. Wages and hours of labor in foundries and machine shops, 1925.
No. 431. Union scale of wages and hours of labor, May 15, 1926.
No. 434. Wages and hours of labor in the men's-clothing industry, 1911 to 1926.

Employment and Unemployment.

*No. 109. Statistics of unemployment and the work of employment offices in the United States. [1913.]
No. 172. Unemployment in New York City, N. Y. [1915.]
*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
*No. 195. Unemployment in the United States. [1916.]
No. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, Minn., January, 1916.
*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
No. 206. The British system of labor exchanges. [1916.]
*No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
No. 235. Employment system of the Lake Carriers' Association. [1918.]
*No. 241. Public employment offices in the United States. [1918.]
No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9–11, 1918.
No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

Proceedings of Annual Meetings of International Association of Public Employment Services.

No. 192. First, Chicago, December 19 and 20, 1923; Second, Indianapolis, September 24 and 25, 1914; Third, Detroit, July 1 and 2, 1915.
No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
No. 311. Ninth, Buffalo, N. Y., September 7–9, 1921.
No. 337. Tenth, Washington, D. C., September 11–13, 1922.
No. 355. Eleventh, Toronto, Canada, September 4–7, 1923.
No. 400. Twelfth, Chicago, Ill., May 19–23, 1924.
No. 414. Thirteenth, Rochester, N. Y., September 15–17, 1925.

Women and Children in Industry.

No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
*No. 117. Prohibition of night work of young persons. [1913.]
*No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
*No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
*No. 122. Employment of women in power laundries in Milwaukee. [1913.]
No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
*No. 167. Mininum-wage legislation in the United States and foreign countries. [1915.]
*No. 175. Summary of the report on conditions of woman and child wage earners in the United States. [1915.]
*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
*No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
*No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
*No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
No. 253. Women in lead industries. [1919.]

Workmen's Insurance and Compensation (including laws relating thereto).

*No. 101. Care of tuberculous wage earners in Germany. [1912.]
*No. 102. British national insurance act, 1911.
*No. 103. Sickness and accident insurance law of Switzerland. [1912.]
No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
*No. 155. Compensation for accidents to employees of the United States. [1914.]
No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5–9, 1916.
No. 243. Workmen's compensation legislation in the United States and foreign countries. 1917 and 1918.
No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
No. 312. National health insurance in Great Britain, 1911 to 1920.
No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
No. 423. Workmen's compensation legislation of the United States and Canada. [1926.]

Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.

*No. 210. Third, Columbus, Ohio, April 25–28, 1916.
No. 248. Fourth, Boston, Mass., August 21–25, 1917.
No. 264. Fifth, Madison, Wis., September 24–27, 1918.
*No. 273. Sixth, Toronto, Canada, September 23–26, 1919.
No. 281. Seventh, San Francisco, Calif., September 20–24, 1920.
No. 304. Eighth, Chicago, Ill., September 19–23, 1921.
No. 333. Ninth, Baltimore, Md., October 9–13, 1922.
No. 359. Tenth, St. Paul, Minn., September 24–26, 1923.
No. 385. Eleventh, Halifax, Nova Scotia, August 26–28, 1924.
No. 395. Index to proceedings, 1914–1924.
No. 406. Twelfth, Salt Lake City, Utah, August 17–20, 1925.
No. 432. Thirteenth, Hartford, Conn., September 14–17, 1926.

Industrial Accidents and Hygiene.

*No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
No. 120. Hygiene in the painters' trade. [1913.]
*No. 127. Dangers to workers from dust and fumes, and methods of protection. [1913.]
*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
*No. 157. Industrial accident statistics. [1915.]
*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
*No. 179. Industrial poisons used in the rubber industry. [1915.]
No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
*No. 201. Report of committee on statistics and compensation-insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
*No. 207. Causes of death by occupation. [1917.]
*No. 209. Hygiene of the printing trades. [1917.]
No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
No. 221. Hours, fatigue, and health in British munition factories. [1917.]
No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
No. 234. Safety movement in the iron and steel industry, 1907 to 1917
*No. 236. Effect of the air hammer on the hands of stonecutters. [1918.]
No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee. [1919.]
*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
No. 256. Accidents and accident prevention in machine building. [1919.]
No. 267. Anthrax as an occupational disease. [1920.]
No. 276. Standardization of industrial accident statistics. [1920.]
No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
No. 291. Carbon monoxide poisoning. [1921.]
No. 293. The problem of dust phthisis in the granite-stone indutry. [1922.]
No. 298. Causes and prevention of accidents in the iron and steel industry, 1916 to 1919.
No. 306. Occupational hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
No. 339. Statistics of industrial accidents in the United States. [1923.]
No. 392. Survey of hygienic conditions in the printing trades. [1925,]

No. 405. Phosphorus necrosis in the manufacture of fireworks and the preparation of phosphorus. [1926.]
No. 425. Record of industrial accidents in the United States to 1925.
No. 426. Deaths from lead poisoning. [1926.]
No. 427. Health survey in the printing trades, 1922 to 1925.
No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14–16, 1926.

Conciliation and Arbitration (including strikes and lockouts).

*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
*No. 133. Report of the industrial council of the British Board of Trade in its inquiry into industrial agreements. [1913.]
*No. 139. Michigan copper district strike. [1914.]
No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
*No. 191. Collective bargaining in the anthracite coal industry. [1916.]
*No. 198. Collective agreements in the men's clothing industry. [1916.]
No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
No. 255. Joint industrial councils in Great Britain. [1919.]
No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
No. 402. Collective bargaining by actors. [1926.]
No. 419. Trade agreements, 1925.

Labor Laws of the United States (including decisions of courts relating to labor).

No. 211. Labor laws and their administration in the Pacific States. [1917.]
No. 229. Wage-payment legislation in the United States. [1917.]
No. 285. Minimum-wage legislation in the United States. [1921.]
No. 321. Labor laws that have been declared unconstitutional. [1922.]
No. 322. Kansas Court of Industrial Relations. [1923.]
No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
No. 408. Labor laws relating to payment of wages. [1926.]
No. 417. Decisions of courts and opinions affecting labor, 1925.
No. 434. Labor legislation of 1926.

Foreign Labor Laws.

*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]

Vocational and Workers' Education.

*No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
*No. 162. Vocational education survey of Richmond, Va. [1915.]
No. 199. Vocational education survey of Minneapolis, Minn. [1916.]
No. 271. Adult working-class education in Great Britain and the United States. [1920.]

Safety Codes.

No. 331. Code of lighting factories, mills, and other work places.
No. 336. Safety code for the protection of industrial workers in foundries.
No. 350. Specifications of laboratory tests for approval of electric headlighting devices for motor vehicles.
No. 351. Safety code for the construction, care, and use of ladders.
No. 364. Safety code for mechanical power-transmission apparatus.
No. 375. Safety code for laundry machinery and operation.
No. 378. Safety code for woodworking plants.
No. 382. Code of lighting school buildings.
No. 410. Safety code for paper and pulp mills.
No. 430. Safety code for power presses and foot and hand presses.
No. 433. Safety code for prevention of dust explosions.
No. 436. Safety code for the use, care, and protection of abrasive wheels.

Industrial Relations and Labor Conditions.

No. 237. Industrial unrest in Great Britain. [1917.]
No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
No. 349. Industrial relations in the West Coast lumber industry. [1923.]
No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
No. 380. Postwar labor conditions in Germany.
No. 383. Works council movement in Germany. [1925.]
No. 384. Labor conditions in the shoe industry in Massachusetts, 1920 to 1924.
No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

Welfare Work.

*No. 123. Employer's welfare work. [1913.]
No. 222. Welfare work in British munitions factories. [1917.]
*No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]

Cooperation.

No. 313. Consumers' cooperative societies in the United States in 1920.
No. 314. Cooperative credit societies in America and in foreign countries. [1922.]
No. 437. Cooperative movement in the United States in 1925 (other than agricultural).

Housing.

*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
No. 263. Housing by employees in the United States. [1920.]
No. 295. Building operations in representative cities in 1920.
No. 424. Building permits in the principal cities of the United States, 1925.

Proceedings of Annual Conventions of the Association of Government Labor Officials of the United States and Canada.

No. 266. Seventh, Seattle, Wash., July 12–15, 1920.
No. 307. Eighth, New Orleans, La., May 2–6, 1921.
*No. 323. Ninth, Harrisburg, Pa., May 22–26, 1922.
No. 352. Tenth, Richmond, Va., May 1–4, 1923.
No. 389. Eleventh, Chicago, Ill., May 19–23, 1924.
No. 411. Twelfth, Salt Lake City, Utah, August 13–15, 1925.
No. 429. Thirteenth, Columbus, Ohio, June 7–10, 1926.

Miscellaneous Series.

*No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
No. 208. Profit sharing in the United States. [1916.]
No. 242. Food situation in central Europe, 1917.
No. 254. International labor legislation and the society of nations. [1919.]
No. 268. Historical survey of international action affecting labor. [1920.]
No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
No. 299. Personnel research agencies. A guide to organized research in employment management, industrial relations, training, and working conditions. [1921.]
No. 319. The Bureau of Labor Statistics: Its history, activities, and organizations.
No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics.
No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
No. 346. Humanity in government. [1923.]
No. 372. Convict labor in 1923.
No. 386. The cost of American almshouses. [1925.]
No. 398. Growth of legal-aid work in the United States. [1926.]
No. 401. Family allowances in foreign countries. [1926.]
No. 420. Handbook of American trade-unions. [1926.]
No. 437. Cooperative movement in the United States in 1925 (other than agricultural).