

UNITED STATES DEPARTMENT OF LABOR  
L. B. Schwellenbach, *Secretary*  
BUREAU OF LABOR STATISTICS  
A. F. Hinrichs, *Acting Commissioner*

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Wage Structure of the Fabricated  
Structural-Steel Industry  
January 1945



*Bulletin No. 866*

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## Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,  
BUREAU OF LABOR STATISTICS,  
Washington, D. C., May 20, 1946.

### THE SECRETARY OF LABOR:

I have the honor to transmit herewith a report on the wage structure of the fabricated structural-steel industry, January 1945. This study was prepared by Joseph W. Bloch, of the Bureau's Wage Analysis Branch. Edyth Bunn was responsible for the section on the labor force.

A. F. HINRICHS, *Acting Commissioner.*

HON. L. B. SCHWELLENBACH,  
*Secretary of Labor.*

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## Contents

	Page
Summary.....	1
Scope of survey.....	1
Characteristics of the industry.....	3
Establishment size and location.....	3
The labor force.....	3
Wage structure.....	4
Average hourly earnings.....	4
Occupational wage rates.....	5
Regional differences in wage rates.....	5
Variation in levels of pay with size of establishment, size of community, and unionization.....	6
Wage practices and sources of supplementary income.....	9
Methods of wage determination.....	9
Work schedules and premium pay.....	9
Nonproduction bonuses.....	10
Vacations, sick leave, and insurance provisions.....	10

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*Bulletin No. 866 of the  
United States Bureau of Labor Statistics*

[Reprinted from the MONTHLY LABOR REVIEW, April 1946]

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## Wage Structure of the Fabricated Structural-Steel Industry, January 1945<sup>1</sup>

### *Summary*

Men employed as plant workers by fabricators of structural steel earned an average of 97 cents an hour in straight-time pay in January 1945. The relatively small number of women plant workers in the industry averaged 91 cents an hour. Approximately 6 percent of the men and 14 percent of the women earned less than 65 cents. Among the occupations that engaged the greatest number of men, class A structural fitters averaged \$1.13 an hour, class B fitters 94 cents, class A lay-out men \$1.19, class A hand welders \$1.11, and class B hand welders \$1.05.

Fabricated structural-steel establishments in the Pacific Coast region paid the highest rates in the industry. Workers in union plants generally received higher wages than workers in nonunion plants. It was also found that wages were higher in the larger cities. For the industry as a whole, no consistent wage difference was found as between large and small plants.

Premium pay for overtime and night work supplemented straight-time earnings. In January 1945, the scheduled workweek for men exceeded 48 hours in most of the plants studied. Less than a fourth of the industry operated more than a single shift; the majority of multiple-shift plants paid a premium rate on the night shifts.

Half of the establishments in the industry reported the payment to plant workers of bonuses not directly related to production, while two-thirds offered paid vacations to plant workers with a year or more of service. Some form of insurance or pension plan covering plant workers was found in 1 out of every 3 establishments.

### *Scope of Survey*

The fabricated structural-steel industry occupies an intermediate position between the rolling mills (which supply the structural shapes and plates) and the manufacturers and builders (who use the shaped or assembled structural parts). Prior to the war the industry devoted the major part of its productive capacity to fabricating steel for buildings and bridges. The demand for plant construction increased

<sup>1</sup> More detailed information on wages in the industry will be presented in 2 mimeographed reports, namely *Wage Structure: Fabricated Structural Steel, 1945* and *Occupational Wage Relationships: Fabricated Structural Steel, 1945*. Wage data by locality are available in the Bureau's regional offices.

with the outbreak of war in Europe and under the defense program; it expanded further after the attack on Pearl Harbor. With the rapid completion of the greater part of the Nation's wartime industrial plant and the restrictions on the use of structural steel for other purposes, a large number of fabricators turned to new types of work; many became engaged in subassembling ships, barges, pontoons and tanks. Other military needs, such as portable bridges and other prefabricated steel structures, also served to make up for the decline in construction. The conversion of so large a part of the industry's productive capacity was accomplished with a relatively small addition to plant equipment; chief among the innovations was an increased use of welding apparatus.

For some years to come, the industry should be busy meeting the accumulated needs for building, bridges, and other heavy construction. For this reason, it was included in the Bureau of Labor Statistics series of Industry Wage Studies. This study, covering wages and wage practices effective early in 1945, is the first to be made on a national scale by the Bureau for the fabricated structural-steel industry.

In January 1945 an estimated 600 establishments with 8 or more employees were engaged in fabricating structural shapes and plates. Altogether, 324 establishments, or more than half of the fabricated structural-steel industry, were selected for study after careful consideration of factors which ordinarily influence wages, such as size of establishment, location, and unionization. Information relating to straight-time average hourly earnings of all plant workers was obtained from company records. A more detailed study was made of earnings in selected occupations.<sup>2</sup> In addition, an analysis was made of those wage practices which affect workers' incomes, whether in small measure through paid sick leave or in significant manner by lengthened workweeks. The data obtained covered about 24,000 workers during a typical pay-roll period in January 1945.<sup>3</sup>

For purposes of depicting geographical variations in wages and wage practices the data are shown according to broad regions. Variations in industry coverage within and among the regions necessitated the application of weighting factors to correct for partial coverage and to provide a balanced picture of the industry. In the presentation of average hourly earnings for all plant workers and for selected occupations, therefore, appropriate weights were used, in effect bringing the number of workers up to the estimated industry level of employment in January 1945. It should be noted, however, that the actual survey coverage was used in the discussion of methods of wage determination and sources of supplementary income.

With the exception of data relating to earnings by occupation, which apply solely to the designated jobs, the information presented herein covers all plant workers, excluding professional, supervisory, and administrative personnel. Apprentices, learners, and handicapped workers were excluded from the occupational wage data but were included in the distributions of plant workers by straight-time hourly earnings. It should be borne in mind that average straight-time

<sup>2</sup> Workers were classified by occupation on the basis of uniform occupational descriptions developed by the Bureau of Labor Statistics. These descriptions are available on request.

<sup>3</sup> In some instances an April 1945 pay-roll period was used.

hourly wages, as presented below, do not include premium overtime or shift-differential pay, nor any additional money income accruing to workers in the form of nonproduction bonuses, vacation or sick-leave pay, paid insurance premiums, etc. They do include direct incentive earnings and cost-of-living bonuses.

### *Characteristics of the Industry*

#### ESTABLISHMENT SIZE AND LOCATION

Although the majority of fabricated structural-steel plants were situated in the Middle Atlantic and Great Lakes regions, sizable portions of the industry were found in other regions, close to the steel-producing centers. The Bureau's present survey revealed that over 80 percent of the establishments in the industry were in communities with populations exceeding 100,000 persons.

At the time of the survey about 6 out of every 10 establishments in the industry employed from 8 to 50 workers, while a third employed 51 to 250 workers. Among the large plants, there were at least 5 which gave employment to over 500 persons.

#### THE LABOR FORCE

Employment in fabricated structural-steel establishments increased markedly during the war years; in January 1945 it was estimated that 47,000 workers were employed. As mentioned previously, many plants had undertaken wartime contracts calling for types of work not normally found in the fabrication of steel for structural purposes; in general, there was an increase in the production of lighter and smaller shapes and a substitution of welded for riveted construction. These changes in turn led to significant modifications in the composition of the labor force and in the occupational structure of the industry.

In January 1945 over half of the industry's workers were engaged in processing jobs. Lay-out, fitting and joining (including welding and riveting) occupied 60 percent of the processing workers, while about 13 percent were employed in shaping and cutting; machining accounted for 7 percent, and finishing for another 7 percent. A small number of foundry and forge shop workers was also found in the industry.

Because of the size and weight of materials, one-fourth of the non-processing plant workers were engaged in material handling. Other important job categories included supervision, maintenance of equipment and plant, custodial work, plant clerical work, and inspection.

Occupational structure was found to vary with size of establishment, as measured by employment. Although the proportion of workers in processing occupations was roughly comparable in the two size groups studied,<sup>4</sup> the distribution of workers within the processing classification was not uniform. Thus, large establishments employed a comparatively smaller percentage of fitters and a higher proportion of welders. In these establishments, also, war contracts for relatively standardized units resulted in a more limited use of highly skilled lay-out men. Typically, maintenance, inspection, material handling, and office work engaged a higher proportion of workers in the larger establishments; on the other hand, working supervisors were relatively more numerous in small plants.

<sup>4</sup> Establishments with 8 to 50 workers and 51 or more workers.

The production of lighter shapes during the war increased the opportunities for the employment of women in this industry. Although fewer than 1,500 women were engaged in plant operations in January 1945, they were performing such jobs as welding, assembling, drill-press and punch-press operating, and many other tasks traditionally considered as man's work. As was to be expected, women were employed more extensively in the larger establishments.

Over 60 percent of the establishments covered in the Bureau's survey operated under terms of trade-union agreements. In most of the union plants, the International Association of Bridge, Structural and Ornamental Iron Workers (AFL) represented the workers, but agreements were also in effect with the United Steel Workers of America (CIO) and other unions affiliated with the AFL and CIO.

### Wage Structure <sup>5</sup>

#### AVERAGE HOURLY EARNINGS

In January 1945, the 41,700 men plant workers employed by structural-steel fabricators earned 97 cents an hour, on the average (table 1). About 6 percent earned less than 65 cents, whereas over 1 out of every 4 earned \$1.10 or more on a straight-time hourly basis.

TABLE 1.—Distribution of Men Plant Workers in Fabricated Structural-Steel Establishments by Straight-Time Average Hourly Earnings,<sup>1</sup> and Region, January 1945

Average hourly earnings	United States <sup>3</sup>	New England	Middle Atlantic	Border States	South-east	Great Lakes	Middle West	South-west	Pacific	
										Percent of workers in each earnings group
Under 40.0 cents.....	0.1						0.1	0.1		
40.0-44.0 cents.....	.2		0.2	1.3	0.7		(?)	.2	0.3	
45.0-49.9 cents.....	.2		(?)	.6	1.2		.1	.9	.1	
50.0-54.9 cents.....	1.3		.1	1.3	8.7		.1	.5	4.2	
55.0-59.9 cents.....	1.7		.6	6.7	8.1		.3	.5	4.6	0.1
60.0-64.9 cents.....	2.3	0.7	.8	5.6	8.1		.4	1.3	11.7	
65.0-69.9 cents.....	2.9	.9	.8	6.3	9.4		1.6	3.6	10.0	
70.0-74.9 cents.....	4.4	1.1	5.6	5.4	5.6		3.2	10.6	7.5	.1
75.0-79.9 cents.....	8.1	1.7	9.5	7.3	7.0		9.3	10.4	11.2	.6
80.0-84.9 cents.....	8.8	15.0	11.4	11.5	4.7		8.7	13.4	8.1	14.7
85.0-89.9 cents.....	10.2	6.1	13.5	11.5	6.5	12.3	9.3	5.9	5.9	1.7
90.0-94.9 cents.....	8.5	6.4	8.2	5.5	5.0	10.8	9.8	7.9	6.0	6.0
95.0-99.9 cents.....	8.7	16.3	6.9	3.4	4.0	10.3	16.7	5.2	9.6	9.6
100.0-104.9 cents.....	8.9	6.4	6.8	6.7	7.9	10.6	14.5	5.3	9.6	9.6
105.0-109.9 cents.....	6.5	15.5	5.7	2.3	7.0	7.6	2.7	4.6	5.0	5.0
110.0-114.9 cents.....	6.4	8.0	5.7	3.6	5.7	7.4	1.2	3.8	10.1	10.1
115.0-119.9 cents.....	4.6	3.3	7.3	4.5	4.0	4.3	1.3	2.2	4.0	4.0
120.0-124.9 cents.....	4.7	5.6	6.5	5.3	3.4	2.5	1.0	2.4	14.6	14.6
125.0-129.9 cents.....	3.4	3.3	2.8	6.6	1.4	1.9	.9	2.9	13.9	13.9
130.0-134.9 cents.....	2.7	1.7	1.6	.2	.3	4.5	.5	1.1	4.7	4.7
135.0-139.9 cents.....	1.6	1.5	.9	.3	.4	1.2	.1	4	9.3	9.3
140.0-144.9 cents.....	.7	.9	.7	.2	.3	.8		(?)	1.9	1.9
145.0-149.9 cents.....	.4	.5	.8		.1	.2			1.0	1.0
150.0-159.9 cents.....	1.2	1.4	1.5	3.4	.3	.6		4	3.7	3.7
160.0-169.9 cents.....	.6	2.5	.4		.1	.5	.3	2	2.5	2.5
170.0-179.9 cents.....	.4	.7	.8	.5	.1	.4	.1	(?)	.4	.4
180.0-189.9 cents.....	.1	.1	.3			.2	.1	(?)	.3	.3
190.0-199.9 cents.....	.1	.3	.1			(?)			.1	.1
200.0 cents and over.....	.2	.1	.5		(?)	.1			.1	.1
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total number of workers.....</b>	<b>41,720</b>	<b>1,618</b>	<b>9,328</b>	<b>2,146</b>	<b>4,107</b>	<b>16,040</b>	<b>1,845</b>	<b>2,903</b>	<b>3,626</b>	<b>3,626</b>
<b>Average hourly earnings<sup>1</sup>.....</b>	<b>\$0.97</b>	<b>\$1.04</b>	<b>\$0.99</b>	<b>\$0.90</b>	<b>\$0.93</b>	<b>\$0.98</b>	<b>\$0.89</b>	<b>\$0.83</b>	<b>\$1.19</b>	<b>\$1.19</b>

<sup>1</sup> Excluding premium pay for overtime and night work.

<sup>2</sup> Less than 0.05 of 1 percent.

<sup>3</sup> Includes data for 2 establishments in Mountain region.

<sup>4</sup> Information regarding minimum establishment entrance rates and job rates, intercity variation in wage rates and detailed data relating to other matters treated briefly in this article are presented in a mimeographed report (Wage Structure: Fabricated Structural Steel, 1945), available from the Bureau on request.

A distribution of the relatively small number of women plant workers employed in the industry indicated that approximately 14 percent earned less than 65 cents an hour. The difference between the earnings of men and those of women workers was relatively small, particularly when viewed in the light of general industrial practices. The approximately 1,300 women plant workers averaged 91 cents an hour, or 6 cents an hour less than the men's average. In the two regions where women were employed in greatest number—Middle Atlantic and Great Lakes—the men's advantage in average earnings was no greater than 1 and 2 cents, respectively. A combined distribution of men and women plant workers would, of course, reflect the overwhelming incidence of men in the industry.

#### OCCUPATIONAL WAGE RATES

In an analysis of occupational wage rates it is not necessary to study all job rates; average earnings for a carefully selected group of occupations will usually serve to illustrate the prevailing occupational wage structure. Moreover, the use of uniform job descriptions in classifying workers and the exclusion of occupations peculiar to only a few plants, types of operation, or products, assure a comparable basis for analyzing wages in different situations.

Table 2 shows average straight-time wage rates for key occupations in each region and for the country as a whole. Wage rates for men in the industry ranged from 62 cents an hour for watchmen to \$1.25 an hour earned by working foremen. Among the occupations that engaged the greatest number of men, class A structural fitters averaged \$1.13 an hour, class B fitters 94 cents, class A lay-out men \$1.19, class A hand welders \$1.11, and class B hand welders \$1.05.

Data were obtained for only two jobs for which women were fairly consistently hired: Class A and class B hand welders. The straight-time wages of women in these occupations exceeded the average shown for men in those jobs by 1 and 4 cents, respectively. Almost all of the women welders were employed in union plants.

The average straight-time hourly earnings of the office workers in selected occupations shown in table 2 do not include premium overtime pay or any of the other increments to real or cash income discussed in a later section of this report.

The small number of men employed in office work in the industry received higher rates of pay, on the average, than women in comparable jobs. Women's earnings varied from 54 cents an hour for office girls to 91 cents an hour for hand bookkeepers. It is interesting to note that, as a group, the average hourly rate of pay of women plant workers (91 cents) equalled that of the highest-paid office job studied.<sup>6</sup>

#### REGIONAL DIFFERENCES IN WAGE RATES <sup>7</sup>

The highest level of earnings in the fabricated structural-steel industry was found in the Pacific region where men averaged \$1.19 in straight-time pay (table 1). Men plant workers in Southeastern and Southwestern establishments, averaging 83 cents, fared the poorest among the regions represented. The largest group of workers earning

<sup>6</sup> Because of problems encountered in classifying office workers, only those occupations in which duties and responsibilities are relatively comparable among establishments were studied.

<sup>7</sup> See footnote on p. 6.

less than 65 cents an hour in the industry was employed in the two southern regions. In the Great Lakes area, where the industry is most heavily concentrated, an average of 98 cents an hour was paid to men plant workers; in New England and Middle Atlantic establishments the averages were slightly higher.

Table 2 contains a regional analysis of occupational wage rates. The wage superiority of the Pacific Coast region is clearly evident, showing the highest averages in almost every occupation, but no precise position can be assigned to the other regions. Establishments in the Middle Atlantic, Great Lakes, and New England regions generally paid the higher rates, while those of plants in the Southeast, Middle West and Southwest were usually low.

#### VARIATION IN LEVELS OF PAY WITH SIZE OF ESTABLISHMENT, SIZE OF COMMUNITY, AND UNIONIZATION

In January 1945 establishments employing more than 50 workers showed no predominant tendency to pay higher rates than plants with fewer employees. In the Southeastern, Great Lakes, and Middle West regions workers in the larger plants had higher average rates in most of the occupations studied, but the contrary was true in Pacific Coast plants. For the industry as a whole, no decided advantage one way or the other was apparent.

Less than a fifth of the establishments covered in the survey were situated in communities with fewer than 100,000 persons. Workers in these plants were at a disadvantage in terms of average hourly rates when compared with workers performing similar jobs in the larger cities. In three of the five regions in which there was a sufficient number of plants in small communities to justify a comparison, men in the larger cities enjoyed a distinct advantage; in the other two regions—Middle Atlantic and Southwest—no consistent difference was observed.

Union establishments, which made up the greater part of the industry, showed higher average wages than did nonunion plants for most of the jobs covered. In only one important production job, class A hand welders, did nonunion exceed union average earnings, but a marked advantage was indicated for union class B welders. Workers in union plants did not consistently receive higher wages in all of the regions; in the Border States, particularly, where there was an equal number of union and nonunion plants, the nonunion plant workers had, on the average, higher wages per hour in most of the occupations studied.

<sup>1</sup> The regions used in this study are as follows: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. *Middle Atlantic*—New Jersey, New York, and Pennsylvania. *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia. *South-east*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota. *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas. *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming. *Pacific*—California, Nevada, Oregon and Washington. Fabricated structural-steel plants were not found in all States.

TABLE 2.—Average Hourly Wage Rates (Straight-Time Hourly Earnings)<sup>1</sup> for Selected Occupations in Fabricated Structural-Steel Establishments, January 1945

Occupation, grade, and sex	United States <sup>2</sup>		New England		Middle Atlantic		Border States		Southeast	
	Number of workers	Average hourly rate <sup>3</sup>	Number of workers	Average hourly rate						
<i>Plant workers</i>										
<b>Men:</b>										
Buckers-up.....	301	\$0.81	14	\$0.85	81	\$0.87	12	\$0.68	20	\$0.71
Carpenters, maintenance.....	64	1.18	9	1.35	14	1.01	12	1.43	1	( <sup>3</sup> )
Crane operators, electric bridge.....	912	.91	12	1.24	331	.92	37	.76	55	.89
Electricians, maintenance.....	192	1.12	2	( <sup>3</sup> )	66	1.09	11	.97	15	1.06
Fitters, structural, class A.....	1,624	1.13	143	1.08	356	1.18	147	1.12	131	.99
Fitters, structural, class B.....	1,661	.94	13	.93	350	1.00	170	.85	136	.82
Guards.....	165	.71	4	( <sup>3</sup> )	21	.69	15	.43	58	.55
Inspectors, class A.....	177	1.12	2	( <sup>3</sup> )	29	1.14	5	( <sup>3</sup> )	15	1.12
Inspectors, class B.....	231	1.01	4	( <sup>3</sup> )	36	.94	2	( <sup>3</sup> )	-----	-----
Inspectors, class C.....	86	.80	-----	-----	7	( <sup>3</sup> )	-----	-----	-----	-----
Janitors.....	343	.68	4	( <sup>3</sup> )	78	.66	7	.49	38	.50
Lay-out men, class A.....	1,125	1.19	74	1.25	303	1.25	106	1.08	126	1.05
Lay-out men, class B.....	511	.99	46	1.15	162	1.01	36	.94	34	.80
Machinists, maintenance.....	206	1.11	6	.97	51	1.09	5	1.10	38	1.09
Maintenance men, general utility.....	374	1.02	20	1.09	68	1.08	15	.90	22	.87
Painters, rough.....	906	.86	16	.97	216	.85	80	.64	148	.97
Power-shear operators, class A.....	290	.99	12	1.06	90	.98	32	1.01	37	.91
Power-shear operators, class B.....	612	.86	2	( <sup>3</sup> )	143	.94	70	.83	78	.70
Riveters, hydraulic.....	170	.86	-----	-----	113	.84	-----	-----	2	( <sup>3</sup> )
Riveters, pneumatic.....	434	.94	9	( <sup>3</sup> )	122	.98	52	.77	30	.94
Stock clerks.....	194	.88	13	.88	24	.97	4	( <sup>3</sup> )	48	.85
Truck drivers.....	540	.87	24	.92	111	.94	66	.77	59	.65
Watchmen.....	452	.62	8	( <sup>3</sup> )	119	.64	25	.46	38	.54
Welders, hand, class A.....	4,659	1.11	282	1.09	906	1.14	313	1.08	350	1.06
Welders, hand, class B.....	3,388	1.05	118	.99	717	1.11	70	1.09	280	.93
Working foremen, processing departments.....	1,380	1.25	61	1.41	157	1.35	67	1.19	132	1.16
<b>Women:</b>										
Welders, hand, class A.....	111	1.12	10	1.08	34	1.06	-----	-----	-----	-----
Welders, hand, class B.....	322	1.09	49	1.00	223	1.14	-----	-----	-----	-----
<i>Office workers</i>										
<b>Men:</b>										
Bookkeepers, hand.....	91	1.09	6	.89	17	1.15	2	( <sup>3</sup> )	3	( <sup>3</sup> )
Clerks, accounting.....	24	.90	-----	-----	3	( <sup>3</sup> )	-----	-----	-----	-----
Clerks, general.....	17	.76	-----	-----	2	( <sup>3</sup> )	4	( <sup>3</sup> )	-----	-----
Clerks, order.....	18	1.06	-----	-----	2	( <sup>3</sup> )	2	( <sup>3</sup> )	1	( <sup>3</sup> )
Clerks, pay-roll.....	25	.90	-----	-----	5	1.10	-----	-----	-----	-----
<b>Women:</b>										
Bookkeepers, hand.....	207	.91	30	.86	72	.90	7	.82	-----	-----
Bookkeeping-machine operators, class A.....	25	.89	-----	-----	3	( <sup>3</sup> )	4	( <sup>3</sup> )	-----	-----
Calculating-machine operators, class A.....	26	.82	-----	-----	5	.85	-----	-----	1	( <sup>3</sup> )
Calculating-machine operators, class B.....	31	.68	-----	-----	2	( <sup>3</sup> )	-----	-----	-----	-----
Clerk-typists.....	159	.64	14	.65	36	.62	4	( <sup>3</sup> )	10	.69
Clerks, accounting.....	55	.83	2	( <sup>3</sup> )	15	.83	6	.74	-----	-----
Clerks, file, class B.....	23	.58	2	( <sup>3</sup> )	6	.70	-----	-----	1	( <sup>3</sup> )
Clerks, general.....	127	.71	9	.53	36	.76	5	.63	6	.67
Clerks, pay-roll.....	135	.74	6	.72	33	.69	3	( <sup>3</sup> )	11	.69
Office girls.....	25	.54	-----	-----	6	.53	-----	-----	6	.52
Stenographers, class A.....	148	.83	10	.80	19	.81	4	( <sup>3</sup> )	23	.73
Stenographers, class B.....	275	.72	9	.69	87	.76	12	.66	7	.69
Switchboard operators.....	19	.69	-----	-----	12	.69	-----	-----	4	( <sup>3</sup> )
Switchboard operator-receptionists.....	120	.69	3	( <sup>3</sup> )	22	.68	6	.63	-----	-----
Typists, copy, class B.....	23	.57	-----	-----	3	( <sup>3</sup> )	-----	-----	1	( <sup>3</sup> )

<sup>1</sup> Excluding premium pay for overtime and night work.

<sup>2</sup> Includes data for two establishments in Mountain region.

<sup>3</sup> Insufficient number of workers to justify presentation of average.

TABLE 2.—Average Hourly Wage Rates (Straight-Time Hourly Earnings)<sup>1</sup> for Selected Occupations in Fabricated Structural-Steel Establishments, January 1945—Continued

Occupation, grade, and sex	Great Lakes		Middle West		Southwest		Pacific	
	Number of workers	Average hourly rate						
<i>Plant workers</i>								
<b>Men:</b>								
Buckers-up.....	101	\$0.83	38	\$0.76	34	\$0.73	1	( <sup>3</sup> )
Carpenters, maintenance.....	19	1.08	2	( <sup>3</sup> )	—	—	7	\$1.29
Crane operators, electric bridge.....	329	.91	52	.82	40	.78	54	1.11
Electricians, maintenance.....	58	1.17	10	1.00	5	1.12	24	1.24
Fitters, structural, class A.....	454	1.11	90	.99	44	1.13	252	1.24
Fitters, structural, class B.....	581	.93	76	.88	87	.84	243	1.07
Guards.....	61	.92	—	—	3	( <sup>3</sup> )	3	( <sup>3</sup> )
Inspectors, class A.....	105	1.12	8	( <sup>3</sup> )	5	( <sup>3</sup> )	8	( <sup>3</sup> )
Inspectors, class B.....	170	1.03	14	.98	5	( <sup>3</sup> )	—	—
Inspectors, class C.....	74	.79	2	( <sup>3</sup> )	3	( <sup>3</sup> )	—	—
Janitors.....	157	.77	24	.50	17	.52	17	.87
Lay-out men, class A.....	317	1.18	50	1.07	37	1.09	95	1.37
Lay-out men, class B.....	127	.97	24	.88	57	.94	24	1.25
Machinists, maintenance.....	63	1.15	26	.94	—	—	17	1.32
Maintenance men, general utility.....	187	1.03	18	.76	29	.97	15	1.26
Painters, rough.....	268	.87	70	.79	47	.73	59	1.07
Power-shear operators, class A.....	67	1.00	12	.90	20	.91	19	1.18
Power-shear operators, class B.....	220	.89	50	.84	28	.75	21	1.07
Riveters, hydraulic.....	50	.92	—	—	5	( <sup>3</sup> )	—	—
Riveters, pneumatic.....	129	.97	48	.91	33	.89	11	1.17
Stock clerks.....	67	.89	12	.81	13	.76	12	1.09
Truck drivers.....	155	.91	26	.81	38	.71	55	1.07
Watchmen.....	192	.65	26	.53	24	.54	20	.85
Welders, hand, class A.....	1,835	1.07	172	1.04	193	1.14	600	1.27
Welders, hand, class B.....	1,563	1.08	274	.92	250	.96	116	1.17
Working foremen, processing departments.....	549	1.22	101	1.03	99	1.13	203	1.43
<b>Women:</b>								
Welders, hand, class A.....	46	1.16	—	—	2	( <sup>3</sup> )	19	1.20
Welders, hand, class B.....	40	.96	—	—	10	.84	—	—
<i>Office workers</i>								
<b>Men:</b>								
Bookkeepers, hand.....	23	1.15	14	1.02	15	1.06	11	1.16
Clerks, accounting.....	4	( <sup>3</sup> )	14	.81	1	( <sup>3</sup> )	2	( <sup>3</sup> )
Clerks, general.....	3	( <sup>3</sup> )	6	.78	2	( <sup>3</sup> )	—	—
Clerks, order.....	5	1.43	—	—	6	.91	2	( <sup>3</sup> )
Clerks, pay-roll.....	5	1.05	10	.72	5	.91	—	—
<b>Women:</b>								
Bookkeepers, hand.....	64	.90	8	1.14	3	( <sup>3</sup> )	18	.90
Bookkeeping-machine operators, class A.....	18	.90	—	—	—	—	—	—
Calculating-machine operators, class A.....	18	.81	—	—	—	—	2	( <sup>3</sup> )
Calculating-machine operators, class B.....	27	.69	2	( <sup>3</sup> )	—	—	—	—
Clerk-typists.....	71	.62	4	( <sup>3</sup> )	9	.67	11	.75
Clerks, accounting.....	13	.72	2	( <sup>3</sup> )	4	( <sup>3</sup> )	9	1.03
Clerks, file, class B.....	8	.54	4	( <sup>3</sup> )	2	( <sup>3</sup> )	—	—
Clerks, general.....	56	.72	6	.63	7	.72	2	( <sup>3</sup> )
Clerks, pay-roll.....	56	.74	2	( <sup>3</sup> )	6	.81	17	.90
Office girls.....	9	.53	2	( <sup>3</sup> )	—	—	2	( <sup>3</sup> )
Stenographers, class A.....	56	.87	8	.81	22	.75	5	1.02
Stenographers, class B.....	118	.68	20	.71	4	( <sup>3</sup> )	14	.80
Switchboard operators.....	2	( <sup>3</sup> )	—	—	1	( <sup>3</sup> )	—	—
Switchboard operator-receptionists.....	58	.70	12	.61	8	.61	11	.78
Typists, copy, class B.....	17	.54	—	—	—	—	2	( <sup>3</sup> )

<sup>1</sup> Excluding premium pay for overtime and night work.

<sup>2</sup> Includes data for two establishments in Mountain region.

<sup>3</sup> Insufficient number of workers to justify presentation of average.

## *Wage Practices and Sources of Supplementary Income*

In wage negotiation interest is usually centered on wage rates; to employers they represent a critical element of labor cost, while to trade-unions they are considered the key to workers' income. To both groups, however, "fringe issues" involving methods of wage payment and the various ways in which workers' income may be supplemented are of considerable interest. Because of wartime stabilization of wage rates, many of these "fringe issues" gained in importance since they served as inducements to hold personnel and to attract new workers, besides offering a means of adding to the total income and well-being of workers.

### METHODS OF WAGE DETERMINATION

An incentive-wage system, whereby workers were compensated according to individual or group productivity, was rarely used by fabricated structural-steel plants; only 14 of the 324 establishments surveyed reported a significant proportion of their workers on an incentive-pay basis in January 1945. Where found, the incentive was usually a production bonus. The ratio of union establishments to nonunion establishments with incentive systems was similar to that for the industry as a whole.<sup>8</sup> As might be expected, a greater proportion of the larger establishments had adopted incentive-wage plans. About 7 percent of the industry's plant personnel worked on an incentive-pay basis, most of these workers being employed in large establishments.

The wartime stabilization program gave impetus to the formalization of rates within individual establishments. At the time of the Bureau's survey three-fourths of the industry had formal rate structures, incorporating in most instances a recognized range of rates for each job rather than a single established job rate; the other establishments related the wage rates to the individual worker rather than to the job.

### WORK SCHEDULES AND PREMIUM PAY

Although this survey did not attempt to measure gross earnings, data are presented relating to the payment of shift differentials (a form of supplementary income) and to scheduled weekly hours of work, which form one of the chief determinants of weekly pay and were an important source of premium pay during the war years.

A study of normal weekly hours for first-shift workers in January 1945 indicated that schedules for men in all but a small number of plants called for at least 48 hours of work per week; in the majority of instances more than 48 hours were reported. Women also remained on the job for a considerable number of overtime hours, working 48 hours or more a week in all but 5 of the plants in which they were employed.

Although the present survey was made during a period of high employment in the industry, less than a fourth of the plants operated more than a single shift. Slightly more than 10 percent of the indus-

<sup>8</sup> 9 of the 14 establishments with incentive-wage systems were union plants.

try's labor force worked on the second shift, while the third shift accounted for another 1 percent. Second-shift workers in most multiple-shift plants were rewarded with extra pay, usually in the form of 5 cents an hour added to their base rates. Among the 7 establishments in which a third shift was maintained, only 1 plant did not pay a premium to these night workers.

#### NONPRODUCTION BONUSES

Half of the establishments in the industry reported the payment of nonproduction bonuses to plant workers; a bonus at Christmas was the most common type of extra payment. In an effort to arrive at an approximate figure which would indicate to what extent workers benefited by these additions, information was obtained regarding the amount of money paid out and a rough apportionment was made to show the net effect, over the year, upon average hourly earnings in the industry. The net addition to workers' average hourly earnings created by nonproduction bonuses of all types amounted to 1 cent. Office workers fared slightly better than plant workers with respect to nonproduction bonuses. (Nonproduction bonuses were not included in the data on straight-time hourly earnings presented earlier in this report.)

#### VACATIONS, SICK LEAVE, AND INSURANCE PROVISIONS

Paid vacations were offered to plant workers with a year or more of service by almost two-thirds of the establishments studied. Except in a few instances the vacation period was 1 week. Vacation policies for office workers were more liberal.

Formal provisions for paid sick leave were not common for plant personnel; only 4 establishments paid workers for a limited number of days of illness. Office workers in 13 establishments were covered by a formal sick-leave policy.

Slightly more than a third of the 324 establishments surveyed maintained some form of insurance or pension plan covering plant workers. In most of these establishments workers had life-insurance policies paid for in whole or in part by the employer, while health (or accident) insurance policies were in effect in 50 plants. Retirement-pension plans were rarely encountered. Office workers were covered by insurance in approximately the same measure as plant workers.