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**Industry
Wage Survey**

**Basic Iron and Steel
August 1972**

Bulletin 1839

U.S. Department of Labor
Bureau of Labor Statistics
1975

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U.S. Department of Labor
Peter J. Brennan, Secretary
Bureau of Labor Statistics
Julius Shiskin, Commissioner
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Preface

This bulletin summarizes the results of a Bureau of Labor Statistics survey of wages and supplementary benefits for the basic iron and steel industry in September 1972. A similar study was last conducted in September 1967.

The current study was conducted in the Bureau's Office of Wages and Industrial Relations. Joseph C. Bush of the Division of Occupational Wage Structures prepared the analysis in this bulletin. Field work for the survey was directed by the Associate Assistant Regional Directors for Operations.

Other reports available from the Bureau's program of industry wage surveys, as well as the addresses of the Bureau's regional offices, are listed at the end of this bulletin.

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Basic Iron and Steel, September 1972

Summary

Straight-time earnings of production and related workers in basic iron and steel mills average \$4.79 an hour in September 1972.¹ Ninety-three percent of the 400,562 production workers within scope of the survey earned between \$3.50 and \$6.50; the middle-half of the workers earned between \$4.17 and \$5.30 an hour. Workers in mills having a common job evaluation system, three-fourths of the workers, averaged \$4.84 an hour; this compared with \$4.64 for those in other establishments not having the above system.

Workers paid on an incentive basis, nearly four-fifths of the work force, averaged \$4.98 an hour compared with \$4.09 for time-rated workers. This difference is influenced by the occupational mix of workers in the two categories of wage payment. Among the jobs which separate data were obtained, average (mean) earnings ranged from \$3.56 for janitors, who were mostly time-rated, to \$8.41 for tandem-mill rollers in continuous hot-strip mills, nine-tenths of whom received incentive pay.

At least nine-tenths of the production workers were in mills that provided various types of health and insurance benefits, pension plans, supplemental unemployment benefits, 9 paid holidays annually, regular paid vacations, and extended vacation benefits. A large majority of office workers also received many of the above benefits.

Industry characteristics

Product and processes. The manufacture of basic iron and steel products consists of a series of processes that are closely related and yet quite varied. First, iron ore is reduced to molten iron in blast furnaces. The iron is then converted into steel in open hearth, basic oxygen, or electric steelmaking furnaces. Finally, the steel is rolled into basic products, such as plates, sheets, strips, rods, bars, and structural shapes. These basic products usually are sold for further processing; however, many steel plants also produce finished products, such as wire, pipes, and tubes. Chart 1 indicates the major steelmaking processes and some of the important products of the industry.

Iron and steel plants differ in the number and types of operations they perform. Many of these plants are

fully integrated, that is, they operate coke plants, blast furnaces, steel furnaces, and rolling and finishing mills. Some plants are partially integrated, having steelmaking furnaces and rolling mills or forging shops, but they do operate blast furnaces. Nonintegrated plants include (1) those which operate only blast furnaces or (2) those which engage in rolling and finishing various products from steel, but do not operate either blast furnaces or steelmaking furnaces.

Employment and production. The September 1972 survey was conducted during a period of declining employment, but relatively high production. Employment decreased by 10 percent since the Bureau's last occupation wage study in the industry—from 509,500 production workers in 1967 to 456,700 in 1972,² while steel production rose 5 percent.³ One effect of the contrasting production and employment trends was the nearly 12-percent gain in productivity in the steel industry from 1967 to 1972, as measured by output per production worker man-hour.⁴ This compares with a corresponding increase of nearly 22 percent in output per man-hour for all manufacturing workers.⁵

Steel production by type of furnace has changed dramatically during the 1960's. The relatively new basic oxygen process and the increased use of electric furnaces have opened up new job opportunities while those on open hearths, have decreased. In 1960, 87 percent of the steel production came from open hearths, 3 percent from basic oxygen converters, and 8 percent from electric furnaces. In 1973, the corresponding proportions were 26, 55, and 18.⁶ (See chart 2.)

¹ See appendix B for scope and method of study. Wage data in this bulletin exclude premium pay for overtime and for work on weekends, holidays, and late shifts.

² Based on the Bureau's Employment and Earnings Series.

³ Based on data published by the American Iron and Steel Institute.

⁴ *Indexes of Output Per Man-Hour, Selected Industries*, 1973 Edition, BLS Bulletin 1780.

⁵ Source: Table 34, *Indexes of Output Per Man-Hour, Monthly Labor Review*, February 1974, Bureau of Labor Statistics.

⁶ Op. cit., footnote 3.

Chart 1.

Steelmaking Processes

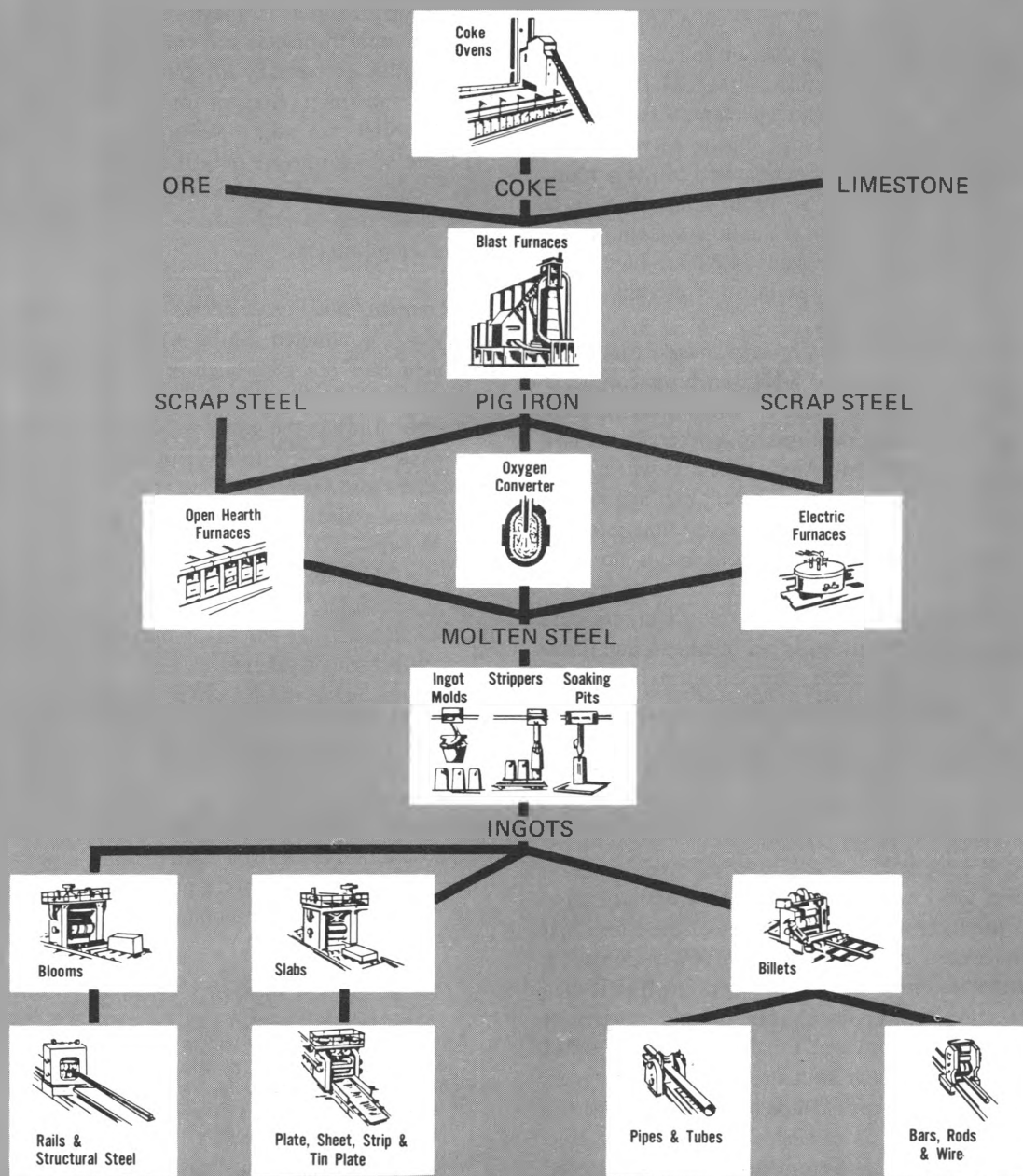
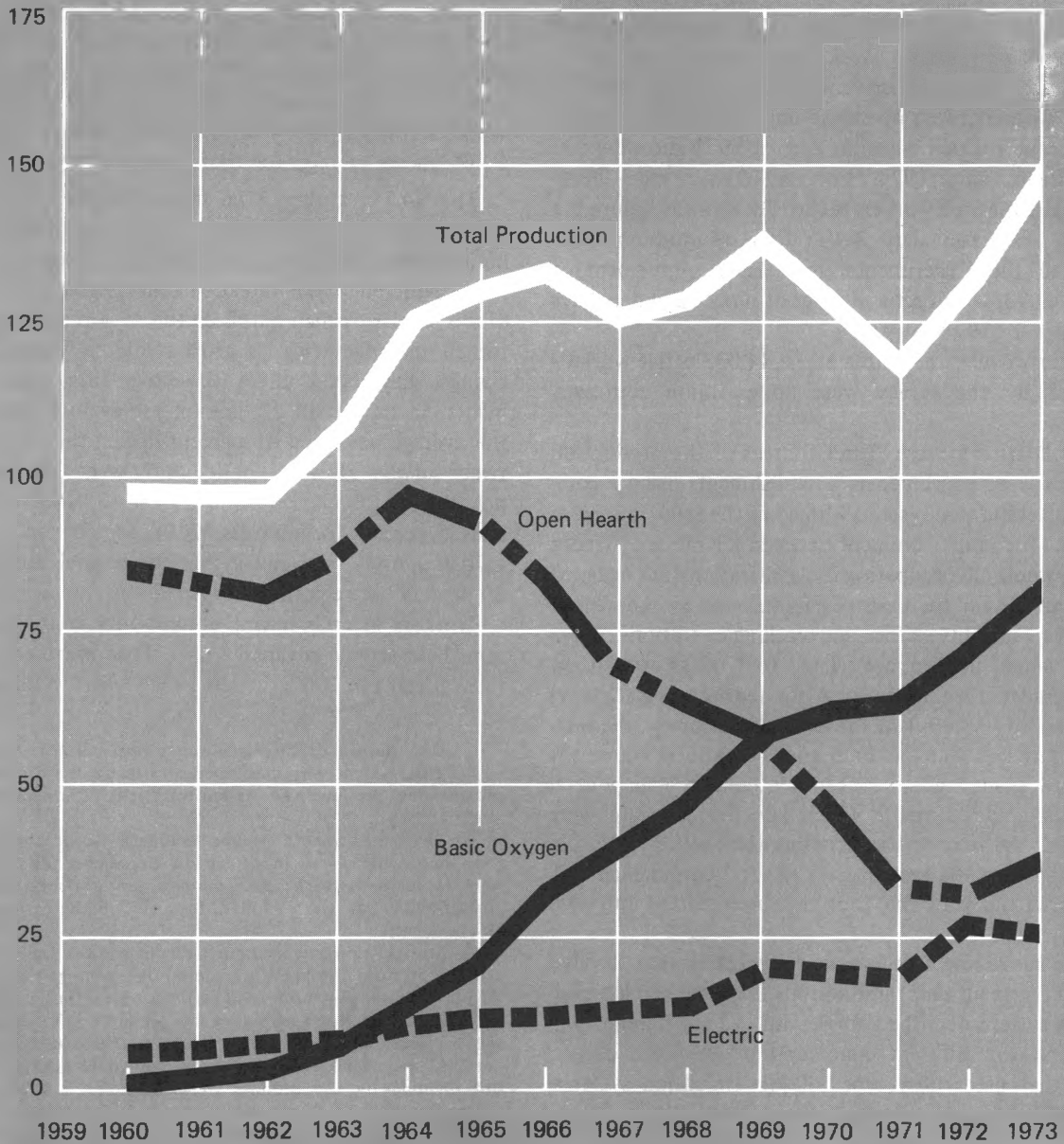


Chart 2.

Steel Production by Major Type of Furnace, 1960-1973

Raw steel production (millions of net tons)



Source of data: American Iron and Steel Institute

Location. Basic iron and steel mills are located in 37 States, but employment is concentrated in only a few States.⁷ Slightly less than three-fourths of the work force were employed in Pennsylvania, Ohio, Indiana, California, and Illinois. Alabama, Maryland, Michigan, and New York having at least 19,000 workers each, were also important steel producing States.

Union contract status. All establishments studied reported collective bargaining agreements covering a majority of their plant workers. The United Steelworkers of America had contracts with plants that employed 95 percent of the industry's work force. During September 1972, basic steel companies, employing a large majority of the workers, were operating under contracts with the Steelworkers which began in August 1971 and were due to expire in August 1974. However, 10 major steel companies and the Steelworkers settled 3½ months before the August 1 expiration date. Both sides attributed the settlement to the Experimental Negotiating Agreement of March 1973, which set a number of procedural deadlines and rules for 1974 bargaining.

Slightly over three-tenths of the 44,033 office workers covered by the survey were under union contracts.

Job evaluation system. Three-fourths of the production workers were employed in establishments using a common job evaluation system, which has the same minimum rate and the same increment between job classes.⁸ Under this system, all occupational classifications are assigned point values on the basis of factors such as experience, skill, responsibility, effort, and working conditions. These point values, in turn, are related to 1 of 33 established labor grades. (See appendix A for the wage schedule relating to this system.) At the time of the survey, the minimum rate was \$3.51 an hour and the uniform increment between grades was 9.4 cents.⁹ Janitors and general laborers, grades 1 and 2, which have the same rate, were found at the base of the structure. Not all of the establishment using the system have the full complement of grades, in the sense that jobs have been slotted into each grade.

The remaining workers were almost equally divided (about 8 percent each) among mills that used the job evaluation system described above, but had a different minimum rate or different increments between job classes; mills that used other types of job evaluation systems; and mills without a formal system.

Method of wage payment. Nearly four-fifths of the production and related workers covered by the study received pay based on some form of wage incentive. The proportions of workers paid on this basis were slightly

over four-fifths in establishments that used the common job evaluation system and slightly less than two-thirds in other establishments.

The majority of the workers in all but five of the occupations studied separately were paid on an incentive basis. The survey occupations typically paid time rates were janitors, laborers, metallurgical analysts, pattern-makers, and test preparers.

Average hourly earnings

Straight-time earnings of production and related workers in basic iron and steel mills averaged \$4.79 an hour in September 1972 (table 1).¹⁰ Workers in mills with a common job evaluation system, three-fourths of the 400,562 workers, earned \$4.84 an hour; this compared with a \$4.64 mean average for those in other establishments.

The \$4.79 earnings level for production workers in September 1972 was 40 percent higher than the \$3.42 an hour recorded in September 1967, when a similar survey was conducted by the Bureau of Labor Statistics.¹¹ Much of this increase, which outpaced the 35 percent registered for all manufacturing, is attributable to general wage changes negotiated under collective bargaining agreements. In mills with a common job evaluation system, the average advanced 41 percent during the 5 years between surveys. However, basic hourly wage scales rose 44 percent for job classes 1 and 2 from (\$2.445 to \$3.51) and 35 percent for job class 32, the top class in 1967. In mills without the common system, wage levels rose nearly 39 percent between the survey periods.

Workers in mills having common job evaluation systems held a wage advantage over those in other mills—from 8 cents in 1967, the last survey year, to 20 cents in

⁷ U.S. Bureau of Census, *County Business Patterns*, 1972.

⁸ This system was developed jointly by the Steelworkers and the steel producers and is known as the "Cooperative Wage Study" (CWS).

⁹ The \$3.51 rate does not include a 1-cent cost-of-living allowance which was in effect on September 1972 for all workers in mills with the common job evaluation system. Cost-of-living pay was included, however, in the earnings data for the survey.

¹⁰ Straight-time average hourly earnings in this bulletin differ in concept from the gross average hourly earnings published in the Bureau's monthly hours and earnings series. Unlike the latter, the estimate presented here excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Average earnings are calculated by summing individual hourly earnings and dividing by the number of individuals; in the monthly series, the sum of the man-hour totals reported by establishments in the industry is divided into the reported payroll totals. The Bureau's monthly series includes certain establishments that are excluded from this survey, such as those having fewer than 250 employees and establishments engaged primarily in manufacturing electrometallurgical products.

¹¹ For an account of the earlier study, see *Industry Wage Survey: Basic Iron and Steel*, March 1967, BLS Bulletin 1602.

1972. This widening gap reflected the changing pay relationships of both time and incentive workers between the two establishment groups. In 1967, their timeworker averages were 1 cent apart while the difference for incentive workers was 14 cents in favor of workers in establishments not having a common job evaluation system. In 1972, timeworkers in common job evaluation system mills averaged 17 cents more than the mean in the other group—\$4.16 an hour compared with \$3.99, and the spread for incentive workers was reduced to 3 cents (\$4.97 for workers in other establishments compared with \$5 in the larger segment).

The increased use of incentives by steel mills also affected the overall pay difference between the two types of plants. In mills with common job evaluation systems, the proportion of workers receiving incentive pay increased from 70 percent in 1967 to 84 percent in 1972; in other establishments, the corresponding figure grew from 49 to 64 percent. Had the proportions of time and incentive workers remained constant between surveys, the difference between the two mill groups would have been 25 cents instead of 20 cents.^{1 2}

Earnings of 95 percent of the workers in all mills ranged from \$3.30 to \$6.50 an hour. The middlehalf range was \$4.17 to \$5.30. This spread of \$1.13 compares with 91 cents for timeworkers and \$1.08 for incentive workers. Differences in individual earnings between the two groups contributed to the wide range for all workers. For example, nearly one-half of the timeworkers, in contrast to one-tenth of the incentive workers, had earnings below \$4 an hour. Less than one-tenth of the timeworkers, compared with slightly over four-tenths of incentive workers, earned \$5 or more.

Terms of the May 1974 contract previously mentioned in the industry characteristics section of this bulletin provided for wage increases of 28 to 34.2 cents an hour on May 1, 1974. In practice, the increases will be greater for incentive workers, because the amounts were included in the "incentive calculation rate," rather than being paid as an hourly additive. (See appendix A for the pay rate on May 1, 1974.) Also, the cost-of-living formula was changed to provide a 1-cent adjustment for each 0.3-point movement in the BLS Consumer Price Index (1967=100), instead of 1 cent for each 0.4 movement (1957-59=100).^{1 3}

Occupational earnings

Wage data were obtained for approximately 100 occupational classifications selected to represent earnings levels for various activities performed by production workers; about three-tenths of the total production employment was found in these occupations. For purposes

of this survey, the jobs were divided into two groups. In the first group, the classification of jobs was limited to workers in specified departments. The three most numerically important jobs in this group and their averages were hookers and scarfers in bloom, slab, and billet mills (\$4.46 and \$5.52 an hour, respectively) and wire drawers in rod and wire mills (\$5.32). The most populous jobs in the second group, which includes workers regardless of department, were millwrights (\$5.41), laborers (\$3.59), and motor inspectors (\$5.40). (See table 2.)

Occupational averages were usually higher in other establishments than those using a common job evaluation system. Notable exceptions were found mostly among maintenance craftsmen. Among the 76 occupations permitting comparisons, the differences in averages between the two groups of establishments typically amounted to less than 10 percent.

For skilled repair and maintenance personnel in establishments that used a common job evaluation system, data were reported separately for workers receiving the top rate for the job and for those receiving lower rates.^{1 4} Average earnings for those at the top rates ranged from \$5.72 for electronic repairmen to \$4.95 for painters. The difference in earnings between top rated and lower rated workers within the same job amounted to 5 percent or less in 16 of the 19 craft occupations where both averages could be published. In three jobs, those receiving less than the top rate averaged more than the top rated journeymen due to the effect of incentive earnings.

Incentive workers covered by the survey usually earned considerably more than timeworkers in the same job (table 3). In 44 of 61 possible comparisons, their wage advantage over timeworkers ranged from 10 to 89 percent.

To better understand the earnings patterns that emerged among incentive paid jobs, the formal pay policy in establishments having a common job evaluation system was examined. These establishments, employing three-fourths of the 400,562 production and related workers covered by the study, divide their in-

^{1 2} Obtained by weighting averages in 1972 by employment in 1967.

^{1 3} For details of the May 1 settlement, see *Current Wage Developments*, May 1974, U.S. Bureau of Labor Statistics.

^{1 4} Establishments have a range of rates for such workers which includes a beginning rate which starts four job classes below the top or standard rate; an intermediate rate which starts two job classes below; and the top or standard rate. Workers who receive the beginning or intermediate rate, although they are qualified journeymen, were classified as receiving a rate lower than the top rate.

centive jobs into three categories: Direct incentive, indirect incentive, and secondary indirect incentive jobs. The groups are differentiated by the extent to which a job, alone or as part of a crew, can affect or control the rate of output or the utilization of equipment. Straight-time pay for incentive workers is computed by applying a percentage, usually based on a group or individual production bonus, to the "incentive calculation rate" before combining with an "hourly additive," which includes cost-of-living adjustments. In each job class, the sum of its incentive calculation rate and hourly additive equals the basic wage scale, as illustrated in appendix A.

Incentive workers classified in the survey by specific department were, for the most part, considered to be on direct or indirect incentives; they usually averaged substantially more above their basic wage scales than those classified regardless of department, such as maintenance workers and general laborers, who were commonly on secondary indirect incentives. As shown in text table 1, three-fourths of the job class averages in specified

departments were at least 20 percent above the basic wage scales. On the other hand, averages for incentive workers in jobs classified regardless of department (the "all departments" group) ranged from 5 to 19 percent above in about nine-tenths of the cases.

These patterns largely reflect guides in major collective bargaining agreements of the industry that call for incentive plans providing opportunities to earn 35 percent above the incentive calculation rate for direct incentive jobs; 23 percent above for indirect incentive jobs; and 12 percent above for secondary indirect incentive jobs. For example, first helpers at electric furnaces and operators of basic oxygen furnaces—both direct incentive jobs—had average incentive payments of 35 and 34 percent, respectively, above their incentive calculation rates at the time of the survey. (See last column of text table 2.) Included among indirect incentive jobs are hookers and millwrights (a maintenance craft assigned to specific production departments); they had incentive payments averaging 24 and 29 percent above

Text table 1. Number of job classes in which incentive earnings exceed basic wage scales¹ by specified percentages for incentive workers in basic iron and steel mills having a common job evaluation system, September 1972

Selected departments or occupations	Total job class averages tabulated in survey ²	Number of job class averages in which earnings exceed basic wage scales by specified percentages								
		0 percent to 4 percent	5 percent to 9 percent	10 percent to 14 percent	15 percent to 19 percent	20 percent to 24 percent	25 percent to 29 percent	30 percent to 34 percent	35 percent to 39 percent	40 percent and over
Selected departments ³ . . .	126		1	16	15	26	15	26	11	16
Basic oxygen furnaces	11						2	8	1	
Bloom, slab, and billet mills	18				2	3	1	4	4	4
Bar mills	12			2	3	4		2		1
Continuous hot-strip mills	21				1	4	3	7	3	3
Cold strip and sheet mills	19			1	1	1	1	5	3	7
All departments ⁴	89	1	19	39	20	10
Electricians (shop) . . .	5	-	-	-	2	3	-	-	-	-
Machinists	6	-	1	3	1	1	-	-	-	-
Millwrights	5	-	-	1	2	2	-	-	-	-
Mobile equipment mechanics	5	1	3	1	-	-	-	-	-	-
First power engineers .	3	-	2	1	-	-	-	-	-	-

¹ A 1-cent cost-of-living allowance was included in the calculations for this table.

² Limited to job class information published in table 3.

³ Includes data for workers in departments not shown separately. Classification of workers in some jobs selected for separate study were limited to specified departments.

⁴ Relates to workers classified in selected jobs regardless of department in which they are employed. Includes data for occupations in addition to those shown separately.

Text table 2. Number and straight-time hourly earnings¹ of incentive workers in selected occupations and job classes in basic iron and steel mills having a common job evaluation system²

Occupation	Job class	Incentive workers		Basic hourly wage scale	Percent earnings exceed basic scale	Incentive calculation rate	Percent incentive bonuses exceed incentive calculation rate ²
		Number of workers	Hourly earnings (mean)				
<i>Selected departments</i> ³							
Keepers (blast furnaces, ore handling, and sinter plants)	14	473	\$5.40	\$4.648	16	\$3.44	22
First helpers (electric furnaces)	24	181	7.02	5.588	26	4.14	35
Furnace operators (basic oxygen furnaces)	23	68	6.87	5.494	25	4.07	34
Steel pourers, first (basic oxygen furnaces)	16	163	6.44	4.836	33	3.58	45
Hookers (bloom, slab, and billet mills)	4	358	4.36	3.708	18	2.74	24
Scarfers (bloom, slab, and billet mills)	7	748	6.01	3.990	51	2.95	68
Assistant bar-mill rollers (bar mills) . .	17	23	5.60	4.930	14	3.65	18
Coil banders (continuous hot-strip mills)	5	120	4.76	3.802	25	2.81	34
Heaters (continuous hot-strip mills) . .	22	36	7.25	5.400	34	4.00	46
Assistant tandem-mill rollers (cold strip and sheet mills)	16	52	6.49	4.836	34	3.58	46
Wire drawers-continuous machine (rod and wire mills)	10	858	5.53	4.272	29	3.16	40
<i>All departments</i> ⁴							
Electricians-wirers (receiving top rate) ⁵	16	236	5.35	4.836	11	3.44	15
Millwrights (receiving top rate) ⁵ . . .	14	2,768	5.61	4.648	21	3.30	29
Laborers (general)	1 or 2	1,470	3.89	3.520	11	2.60	14
Locomotive engineers (general)	13	154	5.30	4.554	16	3.37	22

¹ A 1-cent cost-of-living allowance was included in the calculations of hourly earnings and basic scales.

² Incentive bonuses computed by subtracting basic wage scale from mean hourly earnings.

³ Occupations are limited to workers in the departments indicated in the parentheses.

⁴ Occupations relate to workers in all departments of the establishment.

⁵ The incentive calculation rate for tradesmen and craftsmen is 2 job classes below the rate which is appropriate for the indicated job class.

their incentive calculation rate. Electrician-wirers, an example of the secondary indirect incentive jobs which include maintenance crafts working in central shops, had incentives averaging 15 percent above their incentive calculation rates. The survey, however, also reflects union contract references indicating that incentive earnings vary widely, with some well below and some far above the earnings opportunity guides.

Earnings of individual workers were distributed widely within the same occupation and job class as a result of differences in incentive earnings. In a large number of

instances, the highest hourly earnings exceeded the lowest in the same occupation and job class by \$1 or more. Consequently, a number of workers in comparatively low job classes earned more than some workers in higher job classes. The following tabulation from establishments using the common job evaluation system illustrates the overlap in earnings between coil feeders (job class 5) in continuous hot-strip mills and soaking-pit crane operators (job class 15) in bloom, slab, and billet mills, despite a \$1.02 difference in hourly averages for the two jobs.

Earnings	Number of workers	
	Coil feeders (job class 5)	Soaking-pit crane operators (job class 15)
Under \$4.70	32	
\$4.70 and under \$5.10	34	129
\$5.10 and under \$5.50	25	178
\$5.50 and under \$5.90	9	22
\$5.90 and under \$6.30	9	55
\$6.30 and under \$6.70	1	98
\$6.70 and under \$7.10	6	111
\$7.10 and over	-	102
Total workers	116	695
Average hourly earnings	\$5.08	\$6.10

Establishment practices and supplementary wage benefits

Data also were obtained on certain establishment practices including shift provisions for production workers; work schedules, paid holidays, paid vacations, health, insurance and retirement plans, and other benefits for plant and office workers.

Scheduled weekly hours and overtime pay provisions. Work schedules of 40 hours a week were in effect in establishments employing nearly all of the plant and office workers in September 1972. Virtually all establishments visited provided daily and weekly overtime to production workers. Major union contracts call for overtime pay at the rate of one and one-half times the regular rate of pay for: (1) hours worked in excess of 8 in a workday; (2) hours worked in excess of 40 in a payroll week; (3) hours worked on the sixth or seventh workday (a) in a payroll week during which work was performed on 5 other workdays; or (b) of any 7-consecutive-day period during which the first 5 days were worked, whether or not the period consists of 1 payroll week or parts of 2 payroll weeks. In September 1972, workers under such contracts were paid a premium of 25 percent based on their regular rate of pay (average straight-time hourly earnings for incentive workers) for all hours worked on Sunday which were not paid for on an overtime basis.

Shift differential practices. At the time of the survey, nearly three-tenths of the production workers were employed on second shifts and another one-fifth of the workers on third or other late shifts. More than nine-tenths of the second-shift workers received differentials of 10 cents an hour above day rates; virtually all workers on third or other late shifts received differentials of 15 cents an hour. Workers employed in continuous opera-

tions departments, e.g., blast furnaces and open hearth furnaces, frequently are assigned to rotating shifts; i.e., they work variously on day, evening, and night tours.

Paid holidays. Paid holidays were provided to plant and office workers by all establishments studied. Almost all of the plant workers and seven-tenths of the office workers received 9 days annually; another one-sixth of the office workers received 10 days. Union contracts usually listed the following as paid holidays: New Year's Day, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, the day after Thanksgiving, Christmas Eve, and Christmas Day. Holidays falling on a Sunday were observed the following Monday. For work on a paid holiday, an employee received two and one-fourth times his regular rate of pay.

Annual and extended paid vacations. Annual paid vacations, after qualifying periods of service, were provided to production and office workers by all establishments. Vacation provisions varied among establishments, but at least nine-tenths of the production workers received 1 week's pay after 1 year of service, 2 weeks after 3 years, 3 weeks after 10 years, and 4 weeks after 25 years. Provisions for office workers were slightly more liberal—at least four-fifths received 1 week after 6 months of service, 2 weeks after 1 year, 3 weeks after 10 years, and 4 weeks after 25 years.

Vacation bonuses—lump-sum payments in addition to to vacation pay—applied to nearly nine-tenths of the plant workers and to more than three-fourths, of the office workers. These bonuses, which ranged from \$30 to \$50 at the time of the survey, were granted to all covered workers. The top of the range is paid when vacations are scheduled during unfavorable seasons.

Extended vacations were available to production workers in establishments employing more than nine-tenths of the work force. With relatively few exceptions, extended vacations were granted under a "Savings and Vacation Plan." Under such plans, employers contributed a specified amount to a fund that provides 13 weeks' vacation every 5 years to "Senior Group" employees (one-half of the employees in the work force with longest continuous service) and 3 weeks, in addition to regular vacation every 5 years, for "Junior Group" employees.

Three-fourths of the office workers were employed in establishments providing extended vacations similar to the Savings and Vacation Plan described above. Establishments providing other forms of extended vacations employed another one-tenth of the office workers.

Health, insurance, and retirement plans. Life, hospitalization, basic medical, and surgical insurance were provided by establishments employing all production and nearly all office workers in the study. Virtually all plant and slightly more than seven-eighths of the office workers were provided protection against loss of pay due to sickness and accident. For nearly all of the plant workers, this protection was provided under sickness and accident insurance. Four-fifths of the office workers received sickness and accident insurance and a slight majority were covered by sick leave. Accidental death and dismemberment applied to about two-thirds of the plant and two-fifths of the office workers; and major medical covered nine-tenths of the plant and virtually all of the office force.

Under provisions of agreements between the Steelworkers and major companies in the industry, life insurance benefits for plant workers, which are based on wage rates, ranged from \$8,000 to \$10,500 for active employees and \$2,100 to \$2,350 for retirees. Weekly benefits for the sickness and accident insurance program ranged from \$78 to \$115. The medical insurance plan also covers dependents and provides hospitalization benefits and full payments, on a prevailing fee basis, of covered physicians' services. The major medical insurance plan covered the employee and dependents for 80 percent of medical costs not covered by the basic medical plan, subject to a \$50 deductible.

Pension plans, providing benefits in addition to those under Federal social security, applied to nearly all plant and office workers. Pension plans in major union contracts include provisions for vesting, early retirement, permanent disability, and partial payment to surviving spouse. Retirement severance pay applied to about one-tenth of the workers in each employment group.

Other selected benefits. Technological severance pay was provided by establishments employing slightly more than four-fifths of the production workers and slightly more than two-thirds of the office workers. This benefit provides pay to employees permanently separated from work as a result of the closing of a department or plant, or the introduction of new equipment. Under terms of major union contracts, workers receive between 4 and 8 weeks' pay depending on the length of their continuous service with the company.

Supplemental unemployment benefits were provided by establishments employing more than nine-tenths of the production workers and more than three-fourths of the office workers. Major union contracts provide that plant employees receive partial pay during weeks in which they are laid off or work less than 32 hours.

Earnings protection plans, designed to protect the level of earnings of workers assigned to lower-paying jobs due to technological change, were provided in establishments employing nearly seven-eighths of the production workers and three-tenths of the office workers.

Table 1. Earnings distribution

(Percent distribution of production and related workers in all basic iron and steel establishments by average straight-time hourly earnings and those having common job evaluation systems,¹ United States, September 1972)

Average straight-time hourly earnings ²	All establishments			Establishments having common job evaluation system			Other establishments		
	All workers	Timeworkers	Incentive workers	All workers	Timeworkers	Incentive workers	All workers	Timeworkers	Incentive workers
Under \$3.30 -----	1.9	8.0	0.2	-	-	-	7.6	³ 19.2	1.1
\$3.30 and under \$3.40 -----	.6	2.2	.1	-	-	-	2.3	5.4	.6
\$3.40 and under \$3.50 -----	.6	2.5	.1	-	-	-	2.4	6.0	.4
\$3.50 and under \$3.60 -----	3.3	12.9	.7	3.2	16.8	0.5	3.5	7.6	1.1
\$3.60 and under \$3.70 -----	2.4	6.1	1.4	2.2	6.8	1.2	3.1	5.2	1.9
\$3.70 and under \$3.80 -----	2.3	4.7	1.7	2.4	5.8	1.7	2.2	3.2	1.7
\$3.80 and under \$3.90 -----	3.4	5.4	2.9	3.9	7.5	3.1	2.0	2.5	1.7
\$3.90 and under \$4.00 -----	3.7	5.9	3.1	3.9	8.7	2.9	3.1	2.0	3.8
\$4.00 and under \$4.10 -----	4.7	7.6	3.9	4.7	9.1	3.8	4.7	5.5	4.3
\$4.10 and under \$4.20 -----	4.7	6.1	4.3	5.0	8.1	4.3	3.9	3.2	4.2
\$4.20 and under \$4.30 -----	4.4	4.1	4.4	4.4	4.9	4.3	4.1	3.1	4.7
\$4.30 and under \$4.40 -----	4.5	4.8	4.4	4.2	3.3	4.4	5.5	6.9	4.8
\$4.40 and under \$4.50 -----	4.8	5.3	4.7	4.7	3.7	4.9	5.1	7.5	3.7
\$4.50 and under \$4.60 -----	4.3	3.3	4.6	4.5	3.0	4.8	3.7	3.7	3.7
\$4.60 and under \$4.70 -----	4.4	3.0	4.7	4.5	2.5	4.9	4.0	3.6	4.3
\$4.70 and under \$4.80 -----	3.8	1.9	4.3	4.3	2.7	4.7	2.2	.9	3.0
\$4.80 and under \$4.90 -----	5.1	4.3	5.4	5.8	6.7	5.6	3.2	.8	4.5
\$4.90 and under \$5.00 -----	4.3	3.4	4.6	4.5	3.5	4.7	3.6	3.2	3.8
\$5.00 and under \$5.10 -----	4.1	2.2	4.6	4.3	2.7	4.6	3.3	1.4	4.4
\$5.10 and under \$5.20 -----	4.1	1.4	4.8	4.4	1.3	5.0	3.0	1.6	3.7
\$5.20 and under \$5.30 -----	3.7	1.2	4.4	3.9	1.1	4.5	2.9	1.3	3.8
\$5.30 and under \$5.40 -----	3.4	.3	4.3	3.6	.1	4.2	2.9	.6	4.3
\$5.40 and under \$5.50 -----	3.3	.9	3.9	3.4	.2	4.0	2.9	1.9	3.4
\$5.50 and under \$5.60 -----	2.6	.3	3.2	2.8	.3	3.3	2.0	.4	2.9
\$5.60 and under \$5.70 -----	2.6	.1	3.3	2.6	.1	3.1	2.7	.1	4.2
\$5.70 and under \$5.80 -----	1.9	.2	2.3	1.9	.1	2.2	2.0	.2	2.9
\$5.80 and under \$5.90 -----	1.6	.7	1.9	1.5	.2	1.7	2.0	1.4	2.4
\$5.90 and under \$6.00 -----	1.4	.3	1.6	1.2	.2	1.4	1.7	.5	2.4
\$6.00 and under \$6.10 -----	1.1	.1	1.4	1.1	.1	1.3	1.1	(⁴)	1.7
\$6.10 and under \$6.20 -----	.9	.1	1.1	.9	(⁴)	1.1	.7	.2	1.1
\$6.20 and under \$6.30 -----	.9	.1	1.1	.9	.1	1.1	.8	.3	1.1
\$6.30 and under \$6.40 -----	.8	(⁴)	1.0	.8	.1	.9	.7	-	1.2
\$6.40 and under \$6.50 -----	.6	.2	.7	.6	.1	.7	.6	.4	.7
\$6.50 and over -----	4.0	.3	5.1	4.0	.3	4.7	4.2	.2	6.4
Total -----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers -----	400,562	85,218	315,344	302,104	49,783	252,321	98,458	35,435	63,023
Hourly earnings: ²									
Mean -----	\$4.79	\$4.09	\$4.98	\$4.84	\$4.16	\$4.97	\$4.64	\$3.99	\$5.00
Median -----	4.70	4.07	4.88	4.75	4.08	4.87	4.51	3.95	4.91
Middle range -----	4.17-5.30	3.58-4.49	4.36-5.44	4.20-5.31	3.71-4.53	4.37-5.42	3.96-5.28	3.41-4.46	4.29-5.57

¹ Data are presented separately for establishments having a common job evaluation system, the same minimum hourly rate (\$3.510), and the same increment (9.4 cents) between jobs classes.

² Excludes premium pay for work on weekends, holidays, and late shifts. The mean is computed by totaling the earnings of all workers and dividing by the number of workers. The median designates position—half of the workers surveyed receive more than the rate shown and half receive less. The middle range is defined by 2 rates of

pay; a fourth of the workers earn less than the lower of these rates and a fourth earn more than the highest rate.

³ All workers were at \$3.20 to \$3.30.

⁴ Less than 0.05 percent.

NOTE: Because of rounding, sums of individual items may not equal 100.

Table 2. Occupational earnings

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings	Number of workers receiving straight-time hourly earnings of—																											
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.70	\$8.10	and over				
				\$3.50	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.70	\$8.10	and over					
Selected Departments⁴																															
Coke works and by products																															
Benzol stillman, all establishments		69	\$5.30	-	-	-	-	-	-	4	8	8	18	-	22	9	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		58	5.41	-	-	-	-	-	-	1	-	8	18	-	22	9	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		11	4.72	-	-	-	-	-	-	3	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Door-machine operators, all establishments		567	4.84	-	-	-	-	14	81	57	197	93	109	12	4	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		506	4.86	-	-	-	-	-	76	57	167	89	101	12	4	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments	11	439	4.87	-	-	-	-	-	76	45	148	53	101	12	4	-	-	-	-	-	-	-	-	-	-	-	-	-			
Heaters, all establishments		61	4.66	-	-	-	-	14	5	-	30	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		383	5.65	-	-	-	-	-	-	8	4	28	17	59	78	64	88	25	12	-	-	-	-	-	-	-	-	-			
Other establishments	18	324	5.65	-	-	-	-	-	-	8	-	20	16	46	74	56	88	4	12	-	-	-	-	-	-	-	-	-			
Lidmen, all establishments	19	229	5.69	-	-	-	-	-	-	-	-	20	16	21	68	-	88	4	12	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		49	5.71	-	-	-	-	-	-	-	-	-	-	-	6	43	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		59	5.65	-	-	-	-	-	-	-	4	8	1	13	4	8	-	21	-	-	-	-	-	-	-	-	-	-			
Lidmen, all establishments		542	4.40	-	-	37	24	144	208	38	53	25	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		433	4.41	-	-	17	13	144	155	38	28	25	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments	5	275	4.34	-	-	-	13	119	105	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Pushers, operators, all establishments	6	75	4.41	-	-	17	-	25	-	-	8	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system	7	70	4.54	-	-	-	-	50	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		109	4.37	-	-	20	11	-	53	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Wharfmen, all establishments		510	4.92	-	-	-	-	5	28	103	54	211	70	12	23	4	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		450	4.94	-	-	-	-	-	15	103	54	173	66	12	23	4	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments	11	99	4.99	-	-	-	-	-	-	8	34	21	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Wharfmen, all establishments	12	351	4.92	-	-	-	-	-	15	95	20	152	30	12	23	4	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		60	4.80	-	-	-	-	5	13	-	38	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		261	3.99	-	84	43	52	20	42	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Wharfmen, all establishments		229	3.94	-	84	43	47	12	23	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system	3	219	3.92	-	84	43	47	12	13	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		32	4.30	-	-	-	5	8	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Blast furnaces, ore handling and sinter plant																															
Cinder snapper, all establishments		544	4.62	-	-	12	4	65	109	231	34	35	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		444	4.54	-	-	12	-	48	109	231	34	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments	6	307	4.50	-	-	-	-	48	101	158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
First blowing engineers, all establishments		100	4.95	-	-	-	4	17	-	-	-	35	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		179	5.21	-	-	-	-	-	-	23	13	60	16	23	18	8	-	18	-	-	-	-	-	-	-	-	-	-			
Other establishments	13	149	5.17	-	-	-	-	-	-	15	13	60	16	23	-	4	-	18	-	-	-	-	-	-	-	-	-	-			
Keepers, all establishments		96	5.08	-	-	-	-	-	-	11	-	46	16	19	-	4	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		30	5.35	-	-	-	-	-	-	8	-	-	-	-	18	4	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		635	5.41	-	-	-	-	-	9	17	-	67	152	145	133	57	12	43	-	-	-	-	-	-	-	-	-	-			
Keepers, all establishments		537	5.37	-	-	-	-	-	-	13	-	67	152	115	117	57	12	4	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system	14	474	5.40	-	-	-	-	-	-	1	-	49	152	99	100	57	12	4	-	-	-	-	-	-	-	-	-	-			
Other establishments		98	5.63	-	-	-	-	-	9	4	-	-	-	30	16	-	-	39	-	-	-	-	-	-	-	-	-	-			

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings ¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems, ² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																									
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.50	\$7.70	\$7.90	\$8.10 and over	
Selected Departments⁴—Continued																													
Blast furnaces, ore handling and sinter plant—Continued																													
Keepers helpers, all establishments—		1,551	\$4.78	-	-	20	75	191	191	206	136	275	292	152	13	-	-	-	-	-	-	-	-	-	-	-	-	-	
Establishments having common job evaluation system—		1,124	4.69	-	-	2	71	182	155	175	131	164	204	32	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6	55	4.66	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	7	106	4.52	-	-	-	-	-	84	10	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	8	138	4.74	-	-	-	-	-	24	22	51	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	9	549	4.97	-	-	-	-	13	34	71	68	123	204	32	4	-	-	-	-	-	-	-	-	-	-	-	-		
Other establishments—		427	5.01	-	-	18	4	9	36	31	5	111	88	120	5	-	-	-	-	-	-	-	-	-	-	-	-		
Larrymen, all establishments—		1,011	4.46	-	388	-	-	21	4	76	60	161	153	92	52	4	-	-	-	-	-	-	-	-	-	-	-	-	
Establishments having common job evaluation system—		907	4.36	-	388	-	-	9	4	76	60	149	153	60	4	4	-	-	-	-	-	-	-	-	-	-	-		
	9	42	4.97	-	-	-	-	2	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	10	410	4.95	-	-	-	-	7	3	76	51	109	136	28	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11	49	5.35	-	-	-	-	-	-	-	-	-	17	28	4	-	-	-	-	-	-	-	-	-	-	-	-		
Other establishments—		104	5.28	-	-	-	-	12	-	-	-	12	-	32	48	-	-	-	-	-	-	-	-	-	-	-	-		
Ore-bridge cranimen, all establishments—		314	5.29	-	-	-	-	7	-	13	105	25	28	50	12	6	27	33	-	-	8	-	-	-	-	-	-		
Establishments having common job evaluation system—		254	5.15	-	-	-	-	7	-	13	105	19	28	42	12	6	14	-	-	-	8	-	-	-	-	-	-		
	12	174	4.95	-	-	-	-	-	-	13	105	19	8	25	-	4	-	-	-	-	-	-	-	-	-	-	-		
	13	63	5.58	-	-	-	-	-	-	-	-	-	18	17	12	2	14	-	-	-	-	-	-	-	-	-	-		
Other establishments—		60	5.90	-	-	-	-	-	-	-	-	6	-	8	-	-	13	33	-	-	-	-	-	-	-	-	-		
Sintering-machine operators, all establishments—		154	5.40	-	-	2	3	-	46	3	8	15	38	15	12	4	-	-	-	-	-	-	-	-	-	-	8		
Establishments having common job evaluation system—		135	5.51	-	-	2	-	-	38	3	8	11	34	15	12	4	-	-	-	-	-	-	-	-	-	-	8		
	10	31	5.18	-	-	-	-	-	-	-	-	6	21	4	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other establishments—		19	4.66	-	-	-	3	-	8	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Stock unloaders, all establishments—		333	4.61	-	16	23	31	53	88	28	9	17	32	14	-	6	-	-	-	-	-	-	-	-	16	-	-		
Establishments having common job evaluation system—		296	4.65	-	8	16	30	47	88	27	9	17	32	14	-	-	-	-	-	-	-	-	-	-	16	-	-		
	4	197	4.64	-	-	5	30	41	62	23	4	-	16	-	-	-	-	-	-	-	-	-	-	16	-	-			
	5	19	4.17	-	-	11	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	6	26	4.79	-	-	-	-	6	4	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments—		37	4.30	-	8	7	1	6	8	1	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-		
Open hearth furnaces																													
Charging-machine operators, all establishments—		343	5.83	-	-	-	-	-	-	-	-	11	8	154	-	28	36	40	-	42	16	8	-	-	-	-	-		
Establishments having common job evaluation system—		260	5.78	-	-	-	-	-	-	-	-	11	-	154	-	8	21	-	-	42	16	8	-	-	-	-	-		
	16	260	5.78	-	-	-	-	-	-	-	-	11	-	154	-	8	21	-	-	42	16	8	-	-	-	-	-		
Other establishments—		83	5.99	-	-	-	-	-	-	-	-	-	8	-	-	20	15	40	-	-	-	-	-	-	-	-	-		
First helpers, all establishments—		893	6.73	-	-	-	-	-	-	-	-	-	-	1	102	31	95	98	38	74	60	164	19	109	35	67			
Other establishments—		140	7.05	-	-	-	-	-	-	-	-	-	-	-	1	-	13	-	4	16	44	8	51	3	-	-			
Second helpers, all establishments—		853	5.71	-	-	-	-	-	-	-	106	48	82	87	97	103	154	24	69	13	27	4	8	27	4	-			
Other establishments—		142	5.85	-	-	-	-	-	-	-	-	-	13	-	4	64	44	10	7	-	-	-	-	-	-	-			
Second steel pourers, all establishments—		187	5.74	-	-	-	-	-	-	4	-	8	77	-	4	4	21	40	8	21	-	-	-	-	-	-			
Establishments having common job evaluation system—		131	5.66	-	-	-	-	-	-	4	-	-	77	-	-	-	21	-	8	21	-	-	-	-	-	-			
Electric furnaces																													
First helpers, all establishments—		737	6.34	-	-	96	-	-	35	18	-	-	5	15	3	1	31	65	5	36	110	86	54	120	26	31	-		

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																													
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.70	\$8.10 and over							
Selected Departments ⁴ —Continued																																	
Electric furnaces—Continued																																	
First helpers, all establishments—Continued																																	
Establishments having common job evaluation system		377	\$6.84	-	-	96	-	-	-	-	-	-	5	15	3	1	31	65	5	-	91	30	54	20	26	31							
	22	63	6.05	-	-	-	-	-	-	-	-	-	-	15	-	-	30	9	-	-	9	-	-	-	-	-							
	23	112	7.06	-	-	-	-	-	-	-	-	-	5	-	-	1	1	5	-	-	20	18	40	9	-	12							
	24	183	7.01	-	-	-	-	-	-	-	-	-	-	-	3	-	-	40	-	-	62	12	14	11	26	15							
Other establishments		360	5.81	-	-	96	-	-	35	18	-	-	-	-	-	-	-	-	-	136	19	56	-	100	-	-							
Mouldmen, all establishments		478	5.48	18	18	-	-	9	-	24	10	40	89	4	125	9	-	9	69	18	-	36	-	-	-	-							
Establishments having common job evaluation system		283	5.32	-	-	-	-	9	-	24	10	40	89	4	65	9	-	9	24	-	-	-	-	-	-	-							
	8	40	5.04	-	-	-	-	-	-	2	4	8	26	-	-	-	-	-	-	-	-	-	-	-	-	-							
Other establishments		195	5.71	18	18	-	-	-	-	-	-	-	-	-	60	-	-	-	45	18	-	36	-	-	-	-							
Stopper makers, all establishments		243	3.93	144	-	16	6	4	1	6	3	4	2	5	14	-	20	-	-	-	18	-	-	-	-	-							
Establishments having common job evaluation system		44	4.88	-	-	6	5	-	1	6	3	4	-	3	14	-	2	-	-	-	-	-	-	-	-	-							
	5	28	4.48	-	-	6	5	-	1	6	3	4	-	3	-	-	-	-	-	-	-	-	-	-	-	-							
Basic oxygen furnaces																																	
Furnace operators, all establishments																																	
Establishments having common job evaluation system		172	7.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	13	1	5	49	-	22	32	17							
		155	7.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	13	1	5	45	-	18	32	8							
	22	25	7.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	14	-	-	8	-	-							
	23	68	6.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	1	2	27	-	8	-	4							
	24	17	7.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	4	-	7	-	4	-							
Other establishments		17	8.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	9							
Furnacemen, first, all establishments		151	6.58	-	-	-	-	-	-	-	-	-	6	11	18	7	4	10	16	16	7	-	8	40	8	-							
Establishments having common job evaluation system		127	6.46	-	-	-	-	-	-	-	-	-	6	11	18	7	4	6	16	16	3	-	-	40	-	-							
	14	30	6.08	-	-	-	-	-	-	-	-	-	-	-	8	7	-	-	12	-	3	-	-	-	-	-							
	16	42	6.44	-	-	-	-	-	-	-	-	-	-	2	8	-	4	-	4	16	-	-	8	-	-	-							
Other establishments		24	7.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-							
Ladle cranemen, all establishments		365	6.34	-	-	-	-	-	-	-	-	-	9	21	50	16	68	45	-	75	17	12	-	36	-	16							
Establishments having common job evaluation system		319	6.26	-	-	-	-	-	-	-	-	-	9	21	50	16	60	45	-	71	-	12	-	19	-	16							
	15	64	6.17	-	-	-	-	-	-	-	-	-	-	-	5	-	41	6	-	-	-	12	-	-	-	-							
	16	219	6.38	-	-	-	-	-	-	-	-	-	-	16	45	-	19	39	-	65	-	-	-	19	-	16							
Other establishments		46	6.89	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	4	17	-	-	17	-	-							
Ladle liners, all establishments		219	5.25	-	-	7	16	18	11	37	18	8	21	17	-	3	18	9	-	-	36	-	-	-	-	-							
Establishments having common job evaluation system		186	5.30	-	-	7	16	18	11	25	18	8	-	17	-	3	18	9	-	-	36	-	-	-	-	-							
	9	118	5.56	-	-	-	-	18	11	6	18	8	-	9	-	3	-	9	-	-	36	-	-	-	-	-							
Nozzle setters, all establishments		251	6.22	-	-	-	-	-	-	2	-	18	4	34	40	24	-	4	12	65	-	-	-	48	-	-							
Establishments having common job evaluation system		183	6.12	-	-	-	-	-	-	-	-	18	-	34	40	24	-	4	12	3	-	-	-	48	-	-							
	10	82	5.54	-	-	-	-	-	-	-	-	18	-	30	6	16	-	4	8	-	-	-	-	-	-	-							
Steel pourers, first, all establishments		252	6.67	-	-	-	-	-	-	-	-	-	-	4	18	8	23	33	36	45	12	15	-	26	32	-							
Establishments having common job evaluation system		215	6.65	-	-	-	-	-	-	-	-	-	-	4	18	8	15	25	36	45	4	15	-	13	32	-							
	16	163	6.44	-	-	-	-	-	-	-	-	-	-	4	14	-	15	21	36	45	-	15	-	13	-	-							
Other establishments		37	6.79	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	-	-	8	-	-	13	-	-							
Stopper makers, all establishments		60	4.99	-	-	4	2	3	14	8	2	9	4	-	-	-	-	4	10	-	-	-	-	-	-	-							
Establishments having common job evaluation system		50	5.00	-	-	4	2	3	12	8	2	3	2	-	-	-	-	4	10	-	-	-	-	-	-	-							
	5	41	4.73	-	-	4	2	3	12	7	2	3	2	-	-	-	-	4	2	-	-	-	-	-	-	-							
Other establishments		10	4.93	-	-	-	-	-	-	2	-	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-							

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																									
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.70	\$8.10 and over			
Selected Departments⁴—Continued																													
Foundry																													
Coremakers, all establishments -----		109	\$4.98	-	-	-	2	10	30	21	1	-	6	8	21	1	2	-	2	2	-	-	-	-	3				
Establishments having common job evaluation system -----	14	76	5.26	-	-	-	-	10	-	21	-	-	6	8	21	1	2	-	2	2	-	-	-	-	3	-			
		31	5.27	-	-	-	-	-	-	21	-	-	-	2	-	1	-	-	2	2	-	-	-	-	3	-			
Moulders, all establishments -----		594	5.00	-	-	-	-	-	215	35	126	19	-	47	31	70	15	2	9	4	12	-	2	6	1	-			
Establishments having common job evaluation system -----		367	5.39	-	-	-	-	-	5	34	112	19	-	47	31	70	15	-	9	4	12	-	2	6	1	-			
	12	28	5.06	-	-	-	-	-	5	10	-	1	-	-	12	-	-	-	-	-	-	-	-	-	-	-			
	14	85	5.42	-	-	-	-	-	-	24	4	-	-	1	11	45	-	-	-	-	-	-	-	-	-	-			
	16	232	5.42	-	-	-	-	-	-	-	108	18	-	25	8	24	15	-	9	4	12	-	2	6	1	-			
Bloom, slab, and billet mills																													
Blooming mill rollers, all establishments -----		221	7.79	-	-	-	-	-	-	-	-	-	-	-	6	14	21	7	4	17	3	14	-	21	27	87			
Establishments having common job evaluation system -----	27	185	7.71	-	-	-	-	-	-	-	-	-	-	-	6	14	21	7	3	5	3	14	-	20	26	66			
	28	48	8.39	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	8	7	32			
		31	7.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5	-	6	-	12	3	-			
Other establishments -----		36	8.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	12	-	-	-	1	1	21			
Bottom makers, all establishments -----		270	5.36	-	-	-	6	17	18	53	12	31	4	21	19	28	13	9	-	-	27	-	-	-	12	-			
Establishments having common job evaluation system -----		212	5.23	-	-	-	6	15	18	37	12	31	4	17	3	28	5	9	-	-	27	-	-	-	-	-			
	8	92	5.26	-	-	-	6	9	15	12	7	-	-	-	3	2	1	9	-	-	21	-	-	-	-	-			
	10	78	5.09	-	-	-	6	1	22	5	24	-	-	-	-	10	4	-	-	-	6	-	-	-	-	-			
Other establishments -----		58	5.81	-	-	-	-	2	16	-	-	-	-	4	16	-	8	-	-	-	-	-	-	-	12	-			
Hookers, all establishments -----		1,600	4.53	-	-	180	200	245	299	179	192	77	35	88	67	11	-	-	8	-	-	-	-	3	16	-			
Establishments having common job evaluation system -----		1,385	4.46	-	-	172	176	227	287	179	175	41	26	16	67	-	-	-	-	-	-	-	-	-	16	-			
	4	362	4.35	-	-	16	42	100	138	24	12	22	2	2	4	-	-	-	-	-	-	-	-	-	-	-			
Other establishments -----		215	4.96	-	-	8	24	18	12	-	17	36	9	72	-	11	-	8	-	-	-	-	-	-	-	-			
Manipulators, all establishments -----		308	6.32	-	-	-	-	-	-	5	1	19	-	22	40	51	24	8	7	40	18	20	3	25	14	11			
Establishments having common job evaluation system -----		200	6.35	-	-	-	-	-	-	5	1	15	-	21	24	4	24	8	7	13	18	20	3	23	14	-			
	13	67	6.54	-	-	-	-	-	-	-	-	6	-	14	1	-	8	1	7	6	-	-	-	12	12	-			
	14	52	6.04	-	-	-	-	-	-	1	-	9	-	4	17	4	-	-	-	4	2	-	1	8	2	-			
	15	40	6.36	-	-	-	-	-	-	-	1	-	-	-	-	-	15	3	-	-	4	8	-	3	-	-			
	16	14	6.81	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3	-	8	2	-	-	-			
Other establishments -----		108	6.25	-	-	-	-	-	-	-	-	4	-	1	16	47	-	-	-	27	-	-	-	2	-	11			
Pit recorders, all establishments -----		441	5.28	-	-	3	29	15	43	39	28	68	29	50	22	34	12	9	20	12	-	4	-	24	-	-			
Establishments having common job evaluation system -----		376	5.32	-	-	3	29	7	34	26	28	64	29	30	13	34	12	9	18	12	-	4	-	24	-	-			
	9	108	4.98	-	-	-	-	5	29	26	8	4	1	8	-	11	4	-	12	-	-	-	-	-	-	-			
	10	53	5.13	-	-	-	-	2	2	-	17	7	14	4	-	-	4	1	2	-	-	-	-	-	-	-			
	11	77	6.04	-	-	-	-	2	-	-	3	36	-	-	4	-	-	-	-	-	-	4	-	24	-	-			
	12	42	5.63	-	-	-	-	-	1	-	-	8	5	4	-	12	-	8	4	-	-	-	-	-	-	-			
Other establishments -----		65	5.02	-	-	-	-	8	9	13	-	4	-	20	9	-	-	2	-	-	-	-	-	-	-	-			
Scarfers, all establishments -----		1,386	5.52	-	-	-	220	1	30	44	218	80	124	92	128	121	34	55	30	21	30	16	2	25	15	100			
Establishments having common job evaluation system -----		1,176	5.59	-	-	-	192	1	23	44	218	16	117	74	52	121	34	55	30	11	30	16	2	25	15	100			
	7	936	5.60	-	-	-	188	1	23	41	168	16	114	17	48	60	12	37	25	3	25	16	2	25	15	100			
	8	116	5.56	-	-	-	4	-	-	3	8	-	3	51	4	12	7	10	5	8	1	-	-	-	-	-			
Other establishments -----		210	5.15	-	-	-	28	-	7	-	-	64	7	18	76	-	-	-	-	10	-	-	-	-	-	-			
Soaking-pit crane men, all establishments -----		936	6.05	-	-	-	5	8	-	20	28	114	119	83	28	22	66	40	94	38	131	31	-	43	18	48			

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				Under \$3.50	\$3.50 and under \$3.70	\$3.70-\$3.90	\$3.90-\$4.10	\$4.10-\$4.30	\$4.30-\$4.50	\$4.50-\$4.70	\$4.70-\$4.90	\$4.90-\$5.10	\$5.10-\$5.30	\$5.30-\$5.50	\$5.50-\$5.70	\$5.70-\$5.90	\$5.90-\$6.10	\$6.10-\$6.30	\$6.30-\$6.50	\$6.50-\$6.70	\$6.70-\$6.90	\$6.90-\$7.10	\$7.10-\$7.30	\$7.30-\$7.70	\$7.70-\$8.10	\$8.10 and over																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																								
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.50 and over			
				\$3.50	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.50	\$8.10			
Selected Departments—Continued																												
Bar mills—Continued																												
Chargers, all establishments		443	\$4.91	-	-	12	29	107	80	12	7	3	31	25	2	11	6	-	-	-	-	-	-	-	25			
Establishments having common job evaluation system	6	258	4.69	-	-	12	29	77	26	12	1	1	27	39	25	2	1	6	-	-	-	-	-	-	-			
Other establishments		170	4.43	-	-	12	24	74	22	4	1	1	11	8	11	-	1	1	-	-	-	-	-	-	-			
Roughers, all establishments		185	5.22	-	-	-	-	30	54	-	6	2	4	54	-	-	10	-	-	-	-	-	-	25	-			
Establishments having common job evaluation system		606	5.57	-	-	-	-	-	126	8	16	39	142	9	24	42	86	7	5	39	12	6	-	3	2			
Other establishments	13	400	5.61	-	-	-	-	-	8	16	39	142	9	15	17	80	7	5	39	12	6	-	3	2	-			
Shearmen, all establishments	14	177	5.59	-	-	-	-	-	6	16	30	22	6	4	7	72	5	-	2	2	3	-	-	2	-			
Establishments having common job evaluation system	15	95	5.46	-	-	-	-	-	2	-	9	48	3	10	4	8	1	5	4	-	-	-	1	-	-			
Other establishments		18	6.78	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	6	8	1	-	2	-	-			
Other establishments		206	5.49	-	-	-	-	-	126	-	-	-	-	-	9	25	6	-	-	-	-	-	-	-	40			
Establishments having common job evaluation system		715	4.93	18	-	-	167	1	55	83	92	74	43	17	26	26	17	33	17	6	8	7	-	15	10			
Other establishments	7	428	5.15	-	-	-	5	1	18	80	92	65	43	17	26	20	17	6	17	6	8	7	-	-	-			
Establishments having common job evaluation system	9	10	4.85	-	-	-	5	-	-	-	-	-	3	-	-	-	-	2	-	-	-	-	-	-	-			
Other establishments	10	40	5.06	-	-	-	-	-	24	-	-	-	-	-	8	-	8	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system	11	60	4.87	-	-	-	-	1	21	22	-	11	2	-	-	3	-	-	-	-	-	-	-	-	-			
Other establishments	12	103	5.32	-	-	-	-	-	20	16	28	-	-	3	19	4	3	2	-	8	-	-	-	-	-			
Establishments having common job evaluation system	14	30	5.49	-	-	-	-	-	-	-	-	18	6	-	-	-	-	-	6	-	-	-	-	-	-			
Other establishments		287	4.59	18	-	-	162	-	37	3	-	9	-	-	-	6	-	27	-	-	-	-	15	10	-			
Continuous hot-strip mills																												
Assorters, all establishments		96	5.19	-	4	16	12	14	3	3	5	2	-	-	3	2	-	-	-	-	12	7	8	5	-			
Establishments having common job evaluation system	5	77	5.50	-	-	9	10	8	3	3	5	2	-	-	3	2	-	-	-	-	12	7	8	5	-			
Other establishments		6	4.03	-	-	2	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Coil banders, all establishments		333	4.56	-	12	25	15	56	26	74	49	39	20	8	9	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system	4	267	4.53	-	8	25	15	56	26	26	43	39	20	-	9	-	-	-	-	-	-	-	-	-	-			
Other establishments	5	73	4.34	-	-	10	-	33	15	6	-	7	-	-	2	-	-	-	-	-	-	-	-	-	-			
Coilers, all establishments		120	4.76	-	-	2	-	12	11	16	43	16	20	-	-	-	-	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		66	4.67	-	4	-	-	-	48	6	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-			
Other establishments		224	5.79	-	-	-	3	1	8	11	2	11	11	19	27	17	47	16	13	16	9	5	8	-	-			
Coil feeders, all establishments	6	187	5.70	-	-	-	3	1	8	11	2	11	11	13	26	13	47	16	7	2	3	5	8	-	-			
Establishments having common job evaluation system	7	9	5.22	-	-	-	1	-	2	-	2	-	-	-	1	-	1	2	-	-	-	-	-	-	-			
Other establishments	11	14	5.65	-	-	-	2	1	-	-	-	-	-	2	1	8	-	-	-	-	-	-	-	-	-			
Coil feeders, all establishments	12	66	5.37	-	-	-	-	-	2	9	-	9	2	9	21	6	8	-	-	-	-	-	-	-	-			
Establishments having common job evaluation system		34	6.05	-	-	-	-	-	4	-	-	-	2	-	4	3	6	-	6	14	6	-	-	-	-			
Other establishments		37	6.26	-	-	-	-	-	-	-	-	-	-	-	1	4	-	-	6	-	-	-	-	-	-			
Coil feeders, all establishments		239	5.23	-	-	1	6	14	18	7	31	35	15	40	23	6	19	6	4	8	6	-	-	-	-			
Establishments having common job evaluation system	7	217	5.18	-	-	1	6	14	18	7	29	35	12	37	17	6	15	6	2	6	6	-	-	-	-			
Other establishments		17	5.06	-	-	2	2	-	5	-	-	-	-	-	3	-	5	-	-	-	-	-	-	-	-			
Heaters, all establishments		225	6.85	-	-	-	-	-	-	5	13	-	9	10	17	5	11	-	14	31	13	8	24	27	6			
Establishments having common job evaluation system		190	6.65	-	-	-	-	-	-	1	13	-	9	10	17	5	11	-	10	31	9	4	24	21	25			
Other establishments	21	26	6.29	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	3	12	1	-	-	2	-			
Establishments having common job evaluation system	22	37	7.20	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	8	-	18	-	-			
Other establishments	23	18	7.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	6	-	3			
Roughers, all establishments		35	7.95	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	4	-	6	7			
Establishments having common job evaluation systems		187	6.89	-	-	-	-	-	4	-	1	17	2	5	19	5	6	11	19	29	11	6	7	8	15			
Other establishments	15	162	6.59	-	-	-	-	-	4	-	1	17	2	5	19	5	6	11	19	29	7	6	5	12	8			
Establishments having common job evaluation systems		24	6.52	-	-	-	-	-	-	-	1	-	-	-	-	-	6	1	3	4	3	-	6	-	-			

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																							
				Under \$3.50	\$3.50 and under \$3.70	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.70	\$8.10 and over	
Selected Departments⁴—Continued																											
Continuous hot-strip mills—Continued																											
Roughers, all establishments—Continued																											
Establishments having common job evaluation system—Continued																											
	16	18	\$6.72	-	-	-	-	-	-	-	-	1	-	-	-	-	-	4	1	4	1	3	-	-	4	-	
	17	48	6.05	-	-	-	-	-	-	-	-	12	1	3	8	-	-	-	3	12	1	3	-	5	-	-	
	18	31	6.73	-	-	-	-	-	-	-	-	4	-	-	-	-	-	2	8	9	-	-	-	-	8	-	
Other establishments																											
		25	8.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	3	14	
Strip finishers, all establishments												1	5	6	3	4	11	7	23	20	11	19	-	3	34	12	
Establishments having common job evaluation system																											
		125	6.44	-	-	-	-	-	-	-	1	5	6	-	4	10	7	23	20	11	16	-	-	10	12	-	
	15	36	6.24	-	-	-	-	-	-	-	1	-	-	-	2	3	-	15	12	-	-	-	-	3	-	-	
	16	17	6.39	-	-	-	-	-	-	-	-	-	-	-	-	-	1	8	4	1	3	-	-	-	-	-	
	17	26	6.33	-	-	-	-	-	-	-	-	5	4	-	2	3	-	-	-	4	-	-	-	-	8	-	
	20	29	6.87	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	6	13	-	-	4	4	-	
Other establishments																											
		34	7.21	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-	-	3	-	3	24	-	-	
Strip-mills crane operators, all establishments																											
Establishments having common job evaluation system																											
		443	5.03	-	-	-	5	40	47	25	59	68	55	228	32	36	6	12	-	-	-	-	-	-	-	-	
	8	37	4.98	-	-	-	3	-	4	6	13	3	-	26	20	-	-	12	-	-	-	-	-	-	-	-	
	9	338	5.07	-	-	-	-	40	15	13	33	42	52	109	18	16	-	-	-	-	-	-	-	-	-	-	
Other establishments																											
		174	5.40	-	-	-	4	-	-	-	14	9	-	119	6	16	6	-	-	-	-	-	-	-	-	-	
Tandem-mill rollers, all establishments																											
Establishments having common job evaluation system																											
		84	8.41	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	4	3	5	6	5	2	12	44	
Establishments having common job evaluation system																											
		81	8.39	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	4	3	5	6	5	2	12	41	
Tractor operators, all establishments																											
Establishments having common job evaluation system																											
		247	4.79	-	-	-	13	52	6	65	21	25	25	-	5	30	3	2	-	-	-	-	-	-	-	-	
		147	4.75	-	-	-	13	-	1	65	20	25	16	-	-	2	3	2	-	-	-	-	-	-	-	-	
	7	6	3.99	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8	115	4.81	-	-	-	7	-	1	41	20	25	16	-	-	2	3	-	-	-	-	-	-	-	-	-	
Other establishments																											
		100	4.85	-	-	-	-	52	5	-	1	-	9	-	5	28	-	-	-	-	-	-	-	-	-	-	
Bar and narrow strip finishing mills																											
Chippers, all establishments																											
		52	5.20	-	-	-	2	-	14	-	-	6	12	4	1	-	-	9	4	-	-	-	-	-	-	-	
Cold-saw operators, all establishments																											
Establishments having common job evaluation system																											
		110	4.48	-	-	3	34	9	5	26	18	8	5	-	1	-	1	-	-	-	-	-	-	-	-	-	
Establishments having common job evaluation system																											
		57	4.30	-	-	3	34	4	5	2	-	2	5	-	1	-	1	-	-	-	-	-	-	-	-	-	
Cold strip and sheet mills																											
Assistant tandem-mill rollers, all establishments																											
Establishments having common job evaluation system																											
		152	7.03	-	-	-	-	4	-	1	-	-	-	-	-	18	7	10	14	12	12	3	11	27	5	28	
		119	6.76	-	-	-	-	4	-	1	-	-	-	-	-	18	7	7	11	7	12	3	11	27	5	6	
	15	17	7.09	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	2	-	-	1	-	8	3	-	
	16	52	6.49	-	-	-	-	-	-	-	-	-	-	-	-	18	2	6	-	3	6	-	11	6	-	-	
	17	22	6.70	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	8	3	6	-	-	3	-	-	
Other establishments																											
		33	8.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	-	-	-	-	-	22	
Coil feeders, all establishments																											
Establishments having common job evaluation system																											
		423	5.39	-	8	7	2	9	29	41	47	27	36	32	48	31	24	24	11	12	5	3	12	6	9	-	
Establishments having common job evaluation system																											
	4	359	5.37	-	8	7	2	5	29	29	40	19	36	30	37	23	24	24	8	12	3	3	12	6	2	-	
		42	5.25	-	-	2	-	1	2	3	-	3	14	3	8	-	4	-	-	-	-	-	-	2	-	-	

See footnotes at end of table.

Table 2. Occupational earnings—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and those having common job evaluation systems,² United States, September 1972)

Department, occupation, and establishments classified according to job evaluation system ²	Job class ³	Number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—																								
				Under \$3.50	\$3.50	\$3.70	\$3.90	\$4.10	\$4.30	\$4.50	\$4.70	\$4.90	\$5.10	\$5.30	\$5.50	\$5.70	\$5.90	\$6.10	\$6.30	\$6.50	\$6.70	\$6.90	\$7.10	\$7.30	\$7.50	\$7.70	\$7.90	\$8.10
																												and over
Selected Departments⁴—Continued																												
Cold strip and sheet mills—Continued																												
Coil feeders, all establishments—Continued																												
Establishments having common job evaluation system—Continued	5	116	\$5.08	-	-	4	-	-	24	4	25	9	9	16	8	1	1	8	-	1	3	3	-	-	-	-	-	-
	6	84	5.87	-	-	1	-	4	3	11	-	4	2	-	7	3	14	4	8	5	-	-	12	4	2	-	-	
	7	30	5.52	-	-	-	2	-	-	-	5	-	3	6	1	2	3	1	-	6	-	-	-	-	-	-	-	
	9	28	5.37	-	-	-	-	-	-	9	3	-	-	-	2	9	2	3	-	-	-	-	-	-	-	-	-	
Other establishments—	9	64	5.52	-	-	-	-	4	-	12	7	8	-	3	11	8	-	3	-	2	-	-	-	-	7	-	-	
Continuous annealing line operators, all establishments—		337	6.02	-	-	-	8	-	-	1	-	34	23	51	11	4	91	16	23	20	9	4	3	13	5	21		
Establishments having common job evaluation system—		220	5.82	-	-	-	8	-	-	1	-	34	22	51	4	4	7	16	23	18	5	4	3	13	5	21		
	14	76	5.46	-	-	-	-	-	-	-	-	21	39	4	-	-	12	-	-	-	-	-	-	-	-	-		
	17	25	6.76	-	-	-	-	-	-	-	-	1	-	-	-	-	4	4	-	2	1	-	3	10	-	-		
Flying shearers, all establishments—		209	5.62	-	-	-	3	6	13	10	7	11	28	38	6	11	21	10	17	6	12	2	-	3	2	3		
Establishments having common job evaluation system—		168	5.61	-	-	-	3	6	13	6	3	3	19	38	5	11	14	10	17	6	7	2	-	3	2	-		
	9	18	5.38	-	-	-	6	-	-	-	2	-	-	-	2	4	2	-	-	-	-	-	-	-	2	-		
	10	9	5.72	-	-	-	-	-	-	-	1	-	-	2	3	-	-	3	-	-	-	-	-	-	-	-		
	11	103	5.58	-	-	-	-	-	11	4	-	1	17	30	-	3	10	8	12	-	5	2	-	-	-	-		
	12	21	6.33	-	-	-	-	-	2	-	-	-	-	-	-	4	2	2	6	2	-	-	-	3	-	-		
Other establishments—		41	5.68	-	-	-	-	-	4	4	8	9	-	-	-	-	7	-	-	5	-	-	-	-	-	3		
Strip inspectors, all establishments—		887	5.17	-	-	-	36	66	88	75	67	9	177	152	93	30	27	17	4	2	3	10	6	10	9	6		
Establishments having common job evaluation system—		698	5.11	-	-	-	36	66	84	75	66	9	45	126	83	30	27	13	4	2	-	10	-	10	9	3		
	9	184	4.75	-	-	-	-	30	21	50	34	7	8	8	24	-	2	-	-	-	-	-	-	-	-	-		
	11	196	5.22	-	-	-	-	-	51	16	7	-	-	60	32	9	2	2	4	-	-	6	-	3	2	-		
	12	47	5.75	-	-	-	-	-	2	5	3	2	7	1	15	-	-	-	-	-	4	-	6	-	2	-		
Other establishments—		189	5.38	-	-	-	-	-	4	-	1	-	132	26	10	-	-	4	-	-	3	-	6	-	-	3		
Tandem-mill feeders, all establishments—		446	5.27	-	-	1	4	9	-	10	15	275	11	14	9	23	14	13	6	3	27	2	2	-	6	2		
Establishments having common job evaluation system—		130	5.59	-	-	1	4	9	-	1	11	17	5	14	6	20	8	13	3	3	9	2	2	-	-	2		
	7	23	5.69	-	-	1	-	-	-	-	1	2	2	2	-	6	-	6	3	-	-	-	-	-	-	-		
	8	26	4.79	-	-	-	4	8	-	-	-	8	-	-	6	-	-	-	-	-	-	-	-	-	-	-		
	9	28	5.68	-	-	-	-	1	-	-	9	-	2	-	-	9	-	5	-	-	-	-	-	-	-	2		
Tandem-mill rollers, all establishments—		236	7.69	-	-	-	-	-	-	-	-	5	-	3	-	63	-	-	-	1	4	9	28	8	32	83		
Establishments having common job evaluation system—		124	8.28	-	-	-	-	-	-	-	-	5	-	3	-	-	-	-	-	1	4	2	21	3	26	59		
	13	13	8.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	7	4	-		
Other establishments—		112	7.05	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	7	7	5	6	24		
Tube finishing																												
Cut-off machine operators, all establishments—		1,247	4.64	-	23	25	208	155	203	70	104	152	107	152	39	-	1	-	-	2	1	-	2	3	-	-		
Other establishments—		606	4.80	-	22	-	40	66	124	22	22	68	88	150	-	-	-	-	-	2	-	-	2	-	-	-		
Hydrastatic testers, all establishments—		60	4.67	-	-	-	17	-	3	21	5	1	5	2	2	-	-	4	-	-	-	-	-	-	-	-		
Establishments having common job evaluation system—		48	4.66	-	-	-	9	-	3	21	5	1	5	2	2	-	-	-	-	-	-	-	-	-	-	-		
	6	15	4.45	-	-	-	5	-	-	9	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-		
	7	8	4.97	-	-	-	-	-	2	-	4	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-		
	8	23	4.62	-	-	-	4	-	1	12	1	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-		
Straighteners, all establishments—		322	4.82	-	-	-	14	82	1	58	17	36	10	98	2	-	-	2	-	2	-	-	-	-	-	-		

See footnotes at end of table.

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Footnotes:

- ¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.
- ² Data are presented separately for establishments having a common job evaluation system, the same minimum hourly rate of \$3.510 and the same wage increment (9.4 cents) between job classes.
- ³ Job class data are provided only for establishments having a common job evaluation system, the same minimum hourly rate, and the same wage increment between job classes. Publication is limited to job classes reported by 3 such establishments or more and meeting other publication criteria. Estimates for all establishments and for the overall occupational classification in establishments having a common job evaluation system includes data for all job classes.

- ⁴ Occupations are limited to workers in the departments indicated.
- ⁵ Occupations relate to workers in all departments of the establishment.
- ⁶ Data were reported separately for workers receiving the top rate for the job and for those receiving lower rates. Those establishments having a common job evaluation system have a range of rates for repair and maintenance craftsmen which includes a beginning rate (4 job classes below the top or standard rate), an intermediate rate (2 job classes below), and the top or standard rate. Workers receiving the beginning or intermediate rate (although qualified journeymen) were classified as receiving a rate lower than the top rate.

Table 3. Occupational average by method of wage payment

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems;² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings (mean)
			Mean	Median	Middle range		
<u>Selected Departments⁴</u>							
<u>Coke works and byproducts</u>							
Benzol stillmen, all establishments-----		55	\$5.39	\$5.60	\$5.11-\$5.60	14	\$4.95
Establishments having common job evaluation system -----		52	5.44	5.60	5.17- 5.61	-	-
Door-machine operators, all establishments---		526	4.86	4.87	4.69- 5.08	41	4.59
Establishments having common job evaluation systems -----		484	4.86	4.87	4.64- 5.08	-	-
Heaters, all establishments -----	11	417	4.87	4.87	4.59- 5.13	-	-
Establishments having common job evaluation system -----		359	5.70	5.71	5.48- 5.90	24	4.87
		313	5.68	5.71	5.40- 5.90	-	-
	18	226	5.70	5.68	5.50- 5.95	-	-
	19	49	5.71	5.71	5.71- 5.74	-	-
Other establishments -----		46	5.84	5.79	5.48- 6.12	-	-
Lidmen, all establishments---		490	4.43	4.43	4.24- 4.51	52	4.12
Establishments having common job evaluation system -----		412	4.41	4.42	4.24- 4.51	-	-
	5	275	4.34	4.41	4.24- 4.44	-	-
	6	74	4.42	4.15	4.15- 4.91	-	-
Other establishments -----		78	4.55	4.47	4.43- 4.78	-	-
Pusher operators, all establishments -----		469	4.94	4.96	4.72- 5.08	41	4.70
Establishments having common job evaluation system -----		427	4.94	4.96	4.68- 5.08	-	-
	11	99	4.99	4.08	4.88- 5.17	-	-
	12	328	4.92	4.96	4.66- 5.02	-	-
Wharfmen, all establishments---		244	3.97	3.84	3.68- 4.28	17	4.20
Establishments having common job evaluation system -----		217	3.92	3.80	3.68- 4.04	-	-
	3	217	3.92	3.80	3.68- 4.04	-	-
Other establishments -----		27	4.36	4.45	4.28- 4.45	-	-
<u>Blast furnaces, ore handling and sinter plant</u>							
Cinder snappers, all establishments-----		503	4.65	4.67	4.45- 4.69	41	4.19
Establishments having common job evaluation system -----		424	4.55	4.67	4.43- 4.67	-	-
	6	289	4.51	4.54	4.34- 4.67	-	-
Other establishments -----		79	5.18	5.29	5.07- 5.29	-	-
First blowing engineers, all establishments---		150	5.30	5.21	4.96- 5.60	29	4.71
Establishments having common job evaluation system -----		128	5.25	5.09	4.92- 5.46	21	4.73
	13	85	5.15	5.96	4.96- 5.41	-	-
Other establishments -----		22	5.62	5.61	5.60- 5.63	-	-
Keepers, all establishments -----		601	5.45	5.44	5.20- 5.63	34	4.75
Establishments having common job evaluation system -----		516	5.39	5.39	5.20- 5.59	-	-
	14	473	5.40	5.36	5.20- 5.59	-	-
Other establishments -----		85	5.81	5.60	5.49- 6.15	-	-
Keeper helpers, all establishments -----		1,497	4.80	4.89	4.46- 5.14	54	4.16
Establishments having common job evaluation system -----		1,101	4.70	4.68	4.41- 5.01	-	-
	6	55	4.66	4.67	4.64- 4.67	-	-
	7	106	4.52	4.46	4.46- 4.47	-	-
	8	120	4.77	4.79	4.71- 4.95	-	-
	9	546	4.97	5.01	4.77- 5.23	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Departments</u> ⁴ —Continued							
<u>Blast furnaces, ore handling and sinter plant</u> —Continued							
Larrymen, all establishments -----		574	\$5. 09	\$5. 11	\$4. 29—\$5. 34		
Establishments having common job evaluation system -----		482	5. 02	5. 07	4. 92— 5. 18	-	
	9	40	5. 01	5. 03	4. 96— 5. 06	-	
	10	375	4. 98	5. 07	4. 87— 5. 14	-	
	11	49	5. 35	5. 42	5. 11— 5. 46	-	
Other establishments -----		92	5. 41	5. 51	5. 38— 5. 51	-	
Ore-bridge crane men, all establishments -----		295	5. 32	5. 26	4. 89— 5. 69	-	
Establishments having common job evaluation system -----		241	5. 17	4. 90	4. 82— 5. 46	-	-
	12	161	4. 97	4. 89	4. 82— 5. 04	-	-
	13	63	5. 58	5. 46	5. 26— 5. 77	-	-
Other establishments -----		54	5. 99	6. 12	6. 01— 6. 12	-	-
Sintering-machine operators, all establishments -----		107	5. 85	5. 19	5. 10— 5. 46	47	\$4. 39
Establishments having common job evaluation system -----		95	5. 97	5. 25	5. 13— 5. 49	-	-
	10	31	5. 18	5. 14	5. 13— 5. 25	-	-
Other establishments -----		12	4. 89	-	-	-	-
Stock unloaders, all establishments -----		286	4. 74	4. 45	4. 29— 5. 05	47	3. 81
Establishments having common job evaluation system -----		265	4. 75	4. 45	4. 29— 5. 05	31	3. 84
	4	185	4. 69	4. 44	4. 29— 4. 62	-	-
	6	26	4. 79	5. 05	4. 57— 5. 05	-	-
Other establishments -----		21	4. 72	4. 37	4. 24— 5. 77	-	-
<u>Open hearth furnaces</u>							
Charging-machine operators, all establishments -----		335	5. 85	5. 78	5. 41— 6. 23		
Establishments having common job evaluation system -----		260	5. 78	5. 48	5. 41— 6. 53	-	
	16	260	5. 78	5. 48	5. 41— 6. 53	-	
Other establishments -----		75	6. 07	6. 23	5. 88— 6. 23	-	
First helpers, all establishments -----		781	6. 88	6. 90	6. 29— 7. 35	-	
Other establishments -----		126	7. 14	6. 93	6. 90— 7. 41	-	
Second helpers, all establishments -----		765	5. 82	5. 77	5. 34— 6. 02	-	
Other establishments -----		129	5. 92	5. 90	5. 77— 5. 99	-	
Second steel pourers, all establishments -----		183	5. 75	5. 88	5. 27— 6. 13	-	
Establishments having common job evaluation system -----		131	5. 66	5. 27	5. 27— 6. 04		
<u>Electric furnaces</u>							
First helpers, all establishments -----		606	6. 82	6. 92	6. 65— 7. 34		
Establishments having common job evaluation system -----		360	6. 90	6. 81	6. 13— 7. 29	-	
	23	112	7. 06	7. 14	6. 73— 7. 29	-	
	24	181	7. 02	6. 81	6. 81— 7. 41	-	
Other establishments -----		246	6. 70	6. 96	6. 67— 7. 38	-	
Mouldmen, all establishments -----		440	5. 66	5. 55	5. 16— 6. 37	-	
Establishments having common job evaluation system -----		281	5. 33	5. 26	5. 04— 5. 55	-	-
	8	40	5. 04	5. 10	4. 93— 5. 15	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation systems ⁴	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Departments</u> ⁴ —Continued							
<u>Electric furnaces</u> —Continued							
Stopper makers, all establishments-----		93	\$5.39	\$5.53	\$4.59-\$5.98		
Establishments having common job evaluation system -----	5	38	5.05	5.24	4.62- 5.53	-	
		22	4.67	4.62	4.45- 5.04	-	
<u>Basic oxygen furnaces</u>							
Furnace operators, all establishments-----		172	7.20	7.01	6.49- 7.91		
Establishments having common job evaluation system -----	22	155	7.11	6.98	6.49- 7.84	-	
	23	25	7.23	6.98	6.92- 7.84	-	
	24	68	6.87	6.93	6.36- 7.03	-	
		17	7.46	7.48	7.00- 7.67	-	
Other establishments -----		17	8.09	8.29	7.62- 9.18	-	
Furnacemen, first, all establishments-----		151	6.58	6.59	5.71- 7.48	-	
Establishments having common job evaluation system -----	14	127	6.46	6.42	5.69- 7.41	-	
	16	30	6.08	6.14	5.57- 6.42	-	
		42	6.44	6.59	6.05- 6.64	-	
Other establishments -----		24	7.19	7.16	6.71- 7.95	-	
Ladle crane operators, all establishments -----		365	6.34	6.12	5.79- 6.68		
Establishments having common job evaluation system -----	15	319	6.26	6.11	5.71- 6.62	-	
	16	64	6.17	5.99	5.99- 6.13	-	
		219	6.38	6.26	5.69- 6.64	-	
Other establishments -----		46	6.89	6.87	6.64- 7.42	-	
Ladle liners, all establishments -----		182	5.49	5.21	4.67- 5.92	-	
Establishments having common job evaluation system -----	9	149	5.59	5.47	4.67- 6.20	-	
		104	5.72	5.47	4.89- 7.04	-	
Nozzle setters, all establishments -----		251	6.22	6.18	5.55- 6.61	-	
Establishments having common job evaluation system -----	10	183	6.12	5.68	5.38- 7.54	-	
		82	5.54	5.32	5.32- 5.86	-	
Steel pourers, first, all establishments -----		252	6.67	6.59	6.13- 7.00	-	
Establishments having common job evaluation system -----	16	215	6.65	6.59	6.13- 7.00	-	
		163	6.44	6.43	6.13- 6.68	-	
Other establishments -----		37	6.79	6.84	6.20- 7.66	-	
Stopper makers, all establishments-----		56	5.07	4.78	4.46- 5.50	-	
Establishments having common job evaluation system -----	5	46	5.10	4.57	4.42- 6.27	-	
		37	4.83	4.56	4.42- 4.98	-	
Other establishments -----		10	4.93	-	-	-	
<u>Foundry</u>							
Coremakers, all establishments -----		75	5.20	5.33	4.33- 5.64	34	\$4.49
Moulders, all establishments -----		432	5.07	4.71	4.31- 5.80	-	
Establishments having common job evaluation system -----	12	223	5.76	5.80	5.40- 5.87	-	
	16	23	5.19	5.64	4.68- 5.64	-	
		115	5.97	5.85	5.43- 6.46	-	

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation systems ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
Selected Departments —Continued							
Bloom, slab, and billet mills							
Blooming mill rollers, all establishments -----		202	\$7.83	\$7.91	\$6.61-\$8.67	19	\$7.35
Establishments having common job evaluation system -----		178	7.79	7.91	6.56- 8.67	-	-
	27	47	8.44	8.63	7.98- 8.88	-	-
	28	31	7.09	6.91	6.56- 7.53	-	-
Other establishments -----		24	8.16	7.50	6.61- 9.48	-	-
Bottom makers, all establishments -----		258	5.41	5.31	4.63- 5.84	-	-
Establishments having common job evaluation system -----		200	5.30	4.99	4.63- 5.80	-	-
	8	86	5.35	4.92	4.47- 6.14	-	-
	10 or 16	72	5.16	4.99	4.63- 5.76	-	-
Other establishments -----		58	5.81	5.58	4.62- 5.93	-	-
Hookers, all establishments -----		1,474	4.59	4.45	4.23- 4.82	-	-
Establishments having common job evaluation system -----		1,263	4.53	4.40	4.23- 4.71	-	-
	4	358	4.36	4.31	4.20- 4.42	-	-
Other establishments -----		211	4.97	5.06	4.41- 5.39	-	-
Manipulators, all establishments -----		302	6.35	6.06	5.67- 6.88	-	-
Establishments having common job evaluation system -----		198	6.37	6.29	5.65- 6.94	-	-
	13	67	6.54	6.40	5.45- 7.69	-	-
	14	51	6.06	5.67	5.49- 6.71	-	-
	15	39	6.40	6.06	6.06- 7.08	-	-
	16	14	6.81	-	-	-	-
Other establishments -----		104	6.30	5.80	5.76- 6.52	-	-
Pit recorders, all establishments -----		399	5.40	5.26	4.78- 5.74	-	-
Establishments having common job evaluation system -----		338	5.46	5.26	4.82- 5.80	-	-
	9	105	5.01	4.68	4.49- 5.77	-	-
	10	51	5.17	5.06	4.81- 5.28	-	-
	11	77	6.04	5.10	5.10- 7.67	-	-
	12	41	5.66	5.72	5.21- 6.27	-	-
Other establishments -----		61	5.05	5.41	4.55- 5.45	-	-
Scarfers, all establishments -----		1,166	5.81	5.48	4.87- 6.11	220	3.98
Establishments having common job evaluation system -----		984	5.90	5.49	4.87- 6.20	-	-
	7	748	6.01	5.48	4.87- 6.46	-	-
	8	112	5.61	5.38	5.38- 6.04	-	-
Other establishments -----		182	5.34	5.48	4.90- 5.58	-	-
Soaking-pit cranemen, all establishments -----		904	6.11	6.09	5.24- 6.78	32	4.56
Establishments having common job evaluation system -----		763	6.12	6.27	5.17- 6.80	22	4.55
	13	48	5.97	6.47	4.88- 6.90	-	-
	15	680	6.13	6.10	5.19- 6.83	-	-
Other establishments -----		141	6.04	6.07	5.50- 6.78	-	-
Soaking-pit heaters, all establishments -----		471	6.40	5.99	5.55- 6.92	35	5.47
Establishments having common job evaluation system -----		394	6.17	5.68	5.45- 6.83	23	4.93
	19	93	7.13	6.87	6.54- 7.93	-	-
Other establishments -----		77	7.59	6.92	6.70- 9.31	-	-
Continuous casting mills							
Continuous billet casters, all establishments -----		38	5.88	5.53	5.51- 6.17	-	-
Other establishments -----		34	5.71	5.53	5.51- 5.33	-	-
Continuous slab casters, all establishments -----		30	7.45	7.64	6.80- 8.35	-	-
Ladle controlmen, operators, all establishments -----		35	5.77	6.09	5.34- 6.09	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation system,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Departments ⁴—Continued</u>							
<u>Continuous casting mills—Continued</u>							
Run out operators, all establishments-----		95	\$4.88	\$4.92	\$4.50—\$4.92	-	-
Steel pourers, all establishments-----		86	5.25	5.01	5.01— 5.34	-	-
Strand casters, all establishments-----		202	5.42	5.34	5.26— 5.34	-	-
<u>Plates</u>							
Burning-machine operators, all establishments-----		217	5.44	5.29	4.59— 5.84	31	\$4.17
Establishments having common job evaluation system-----		217	5.44	5.29	4.59— 5.84	26	4.02
	7	39	4.81	4.56	4.52— 4.90	-	-
Plate layerouts, all establishments-----		112	5.42	5.17	4.89— 5.61	-	-
Establishments having common job evaluation system-----		106	5.44	5.17	4.90— 5.66	-	-
	11	26	5.10	4.97	4.86— 5.15	-	-
	12	40	5.52	5.60	5.09— 5.60	-	-
<u>Bar mills</u>							
Assistant bar-mill rollers, all establishments--		284	6.05	6.04	5.41— 6.73	-	-
Establishments having common job evaluation system-----		168	6.29	6.04	5.61— 6.97	-	-
	17	23	5.60	5.45	5.38— 5.87	-	-
	18	19	6.56	6.73	6.05— 6.73	-	-
	20	25	6.97	7.13	6.74— 7.49	-	-
Other establishments-----		116	5.71	5.96	4.48— 6.70	-	-
Bar catchers, all establishments-----		500	5.29	5.01	5.01— 5.74	-	-
Establishments having common job evaluation system-----		279	5.32	5.20	4.99— 5.77	-	-
	12	219	5.39	5.22	5.10— 5.77	-	-
Chargers, all establishments-----		425	4.95	5.43	4.27— 5.35	-	-
Establishments having common job evaluation system-----		240	4.74	4.40	4.19— 5.31	-	-
	6	157	4.48	4.21	4.16— 4.49	-	-
Other establishments-----		185	5.22	5.13	4.30— 5.40	-	-
Roughers, all establishments-----		531	5.64	5.53	4.77— 5.99	-	-
Establishments having common job evaluation system-----		325	5.73	5.83	5.15— 5.99	-	-
	13	176	5.59	5.88	5.06— 5.99	-	-
	14	93	5.48	5.16	5.16— 5.69	-	-
	15	18	6.78	6.81	6.64— 6.83	-	-
Other establishments-----		206	5.49	4.34	4.34— 5.77	-	-
Shearmen, all establishments-----		672	4.99	4.85	4.37— 5.41	43	3.96
Establishments having common job evaluation system-----		403	5.20	4.99	4.75— 5.58	-	-
	9	40	5.06	4.61	4.55— 5.58	-	-
	10	59	4.88	4.71	4.65— 5.14	-	-
	11	103	5.32	5.03	4.82— 5.84	-	-
	14	30	5.49	5.13	5.13— 5.38	-	-
Other establishments-----		269	4.67	3.95	3.95— 4.55	-	-
<u>Continuous hot-strip mills</u>							
Assorters, all establishments-----		58	5.92	6.81	4.47— 702	38	4.07
Establishments having common job evaluation system-----		47	6.36	6.81	5.68— 7.11	30	4.16
Coil banders, all establishments-----		311	4.62	4.60	4.25— 4.68	22	3.66
Establishments having common job evaluation system-----		249	4.59	4.64	4.25— 4.92	18	3.67
	4	63	4.45	4.25	4.25— 4.46	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Department ⁴—Continued</u>							
<u>Continuous hot-strip mills—Continued</u>							
Coil benders, all establishments—Continued	5	120	\$4.76	\$4.81	\$4.57–\$4.93	-	-
Coilers, all establishments -----		216	5.84	5.92	5.47– 6.17	8	\$4.48
Establishments having common job evaluation system -----		179	5.75	5.82	5.39– 6.08	8	4.48
	6	9	5.22	-	-	-	-
	7	14	5.65	-	-	-	-
	11	64	5.40	5.56	4.99– 5.62	-	-
	12	30	6.26	5.98	5.62– 7.08	-	-
Other establishments -----		37	6.26	6.53	5.88– 6.53	-	-
Coil feeders, all establishments -----		238	5.23	5.18	4.82– 5.54	-	-
Establishments having common job evaluation system -----		216	5.19	5.07	4.76– 5.52	-	-
	7	17	5.06	4.56	4.56– 5.97	-	-
Heaters, all establishments -----		188	7.15	7.00	6.53– 7.54	37	5.32
Establishments having common job evaluation system -----		157	6.91	6.82	6.46– 7.49	33	5.41
	21	18	6.72	6.69	6.69– 6.70	-	-
	22	36	7.25	7.12	6.83– 7.12	-	-
	23	17	7.20	7.26	7.01– 7.27	-	-
Other establishments -----		31	8.38	7.59	6.86– 7.69	-	-
Roughers, all establishments -----		165	7.16	6.67	6.18– 7.63	-	-
Establishments having common job evaluation system -----		140	6.86	6.51	6.10– 6.91	-	-
	15	23	6.60	6.53	6.12– 6.99	-	-
	16	17	6.83	6.67	6.32– 6.91	-	-
	17	36	6.42	6.67	5.64– 6.71	-	-
	18	27	6.94	6.51	6.49– 8.00	-	-
Other establishments -----		25	8.83	8.18	7.63–11.31	-	-
Strip finishers, all establishments -----		145	6.71	6.63	6.18– 7.34	14	5.42
Establishments having common job evaluation system -----		111	6.56	6.48	6.18– 6.77	14	5.42
	15	35	6.28	6.18	6.18– 6.31	-	-
	16	17	6.39	6.29	6.21– 6.49	-	-
	17	21	6.67	6.63	5.53– 8.03	-	-
	20	27	7.00	6.77	6.75– 7.32	-	-
Other establishments -----		34	7.21	7.61	7.23– 7.61	-	-
Strip-mill cranemen, all establishments -----		568	5.22	5.35	4.95– 5.46	49	4.16
Establishments having common job evaluation system -----		398	5.12	5.18	4.79– 5.42	45	4.16
	8	34	5.06	4.95	4.88– 5.22	-	-
	9	298	5.19	5.29	5.00– 5.42	-	-
Tandem-mill rollers, all establishments-----		76	8.66	8.34	7.59– 8.98	-	-
Establishments having common job evaluation system -----		73	8.65	8.24	7.59– 8.61	-	-
Tractor operators, all establishments -----		234	4.83	4.59	4.50– 5.16	13	4.04
Establishments having common job evaluation system -----		134	4.82	4.76	4.54– 5.01	13	4.04
	8	108	4.85	4.78	4.54– 5.05	7	4.08
Other establishments -----		100	4.85	4.21	4.19– 5.89	-	-
<u>Bar and narrow strip finishing mills</u>							
Chippers, all establishments -----		49	5.25	5.19	4.43– 6.11	-	-
Cold-saw operators, all establishments -----		72	4.65	4.60	4.60– 4.79	38	4.14
Establishments having common job evaluation system -----		19	4.61	4.41	4.30– 5.22	38	4.14

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Departments</u> ⁴ —Continued							
<u>Cold strip and sheet mills</u>							
Assistant tandem-mill rollers, all establishments -----		148	\$7.10	\$6.95	\$6.36—\$7.50		
Establishments having common job evaluation system -----		115	6.84	6.87	6.11—7.43	-	
	15	17	7.09	7.43	6.36—7.43	-	
	16	52	6.49	6.34	5.88—7.11	-	
	17	22	6.70	6.63	6.46—6.87	-	
Other establishments -----		33	8.01	8.73	6.57—8.73	-	
Coil feeders, all establishments -----		409	5.45	5.35	4.78—5.90	-	
Establishments having common job evaluation system -----		345	5.44	5.35	4.78—5.96	-	
	4	41	5.29	5.14	5.12—5.64	-	
	5	114	5.11	4.98	4.57—5.40	-	
	6	83	5.89	6.03	5.04—6.50	-	
	7	28	5.63	5.47	5.22—6.06	-	
	9	28	5.37	5.65	4.65—5.80	-	
Other establishments -----		64	5.52	5.45	4.81—5.88	-	
Continuous annealing line operators, all establishments -----		303	6.14	6.01	5.47—6.44		
Establishments having common job evaluation system -----		186	5.98	5.96	5.35—6.51	-	-
	14	76	5.46	5.35	5.17—5.47	-	-
	17	25	6.76	7.17	6.17—7.37	-	-
Flying shearers, all establishments -----		189	5.76	5.49	5.22—6.26	20	\$4.30
Establishments having common job evaluation system -----		148	5.78	5.55	5.35—6.27	20	4.30
	9	12	5.98	-	-	-	-
	10	9	5.72	-	-	-	-
	11	92	5.72	5.46	5.31—6.26	-	-
Other establishments -----		41	5.68	5.17	5.02—5.90	-	-
Strip inspectors, all establishments -----		779	5.30	5.29	4.85—5.50	108	4.24
Establishments having common job evaluation system -----		590	5.27	5.35	4.69—5.59	108	4.24
	9	178	4.76	4.51	4.46—5.07	-	-
	11	162	5.40	5.39	4.75—5.62	-	-
	12	43	5.86	5.52	5.25—6.96	-	-
Other establishments -----		189	5.38	5.29	5.13—5.32	-	-
Tandem-mill feeders, all establishments -----		441	5.28	4.92	4.92—5.41	-	-
Establishments having common job evaluation system -----		125	5.65	5.61	5.03—6.20	-	-
	7	23	5.69	5.72	5.23—6.22	-	-
	9	27	5.73	5.80	4.87—6.04	-	-
Tandem-mill rollers, all establishments -----		229	7.77	7.70	5.75—8.77	-	-
Establishments having common job evaluation system -----		117	8.47	8.12	7.52—8.95	-	-
	25	13	8.17	-	-	-	-
Other establishments -----		112	7.05	5.75	5.75—7.76	-	-
<u>Tube finishing</u>							
Hydrastatic testers, all establishments -----		48	4.84	4.62	4.59—5.12		
Establishments having common job evaluation system -----		44	4.71	4.62	4.59—4.87	-	-
	6	15	4.45	4.62	4.03—4.62	-	-
	7	8	4.97	-	-	-	-
	8	19	4.74	4.59	4.59—4.85	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation systems ⁴	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>Selected Departments ⁴—Continued</u>							
<u>Tube finishing—Continued</u>							
Straighteners, all establishments		257	\$4.99	\$4.97	\$4.54—\$5.45	-	
Establishments having common job evaluation system		163	4.75	4.61	4.51— 4.97	-	
	8	18	4.48	4.54	4.29— 4.54	-	
<u>Rod and wire mills</u>							
Bundlers, all establishments.....		238	5.61	5.40	5.21— 6.28	-	
Establishments having common job evaluation system		89	5.36	4.55	3.91— 6.82	-	
	3	15	4.40	4.32	4.24— 4.32	-	
	5	64	5.54	4.55	3.81— 8.14	-	
Other establishments		194	5.73	5.40	5.40— 6.28	-	
Coilers (rod mills) all establishments.....		96	5.44	5.05	4.96— 5.57	-	
Establishments having common job evaluation system		90	5.47	5.05	4.99— 5.57	-	
Nail-machine operators, all establishments.....		491	5.56	5.41	5.03— 5.80	-	
Establishments having common job evaluation system.....		455	5.59	5.46	5.01— 5.99	-	
	11	387	5.53	5.36	5.01— 5.70	-	
Straighten and cup operators, all establishments		287	5.00	4.83	4.42— 5.35	-	
Establishments having common job evaluation system		186	5.06	4.99	4.31— 5.35	-	
	6	14	4.84	-	-	-	
	7	102	5.00	5.01	4.26— 5.35	-	
	9	42	4.62	4.63	4.27— 4.63	-	
Wire drawers (continuous machine) all establishments.....		2,565	5.43	5.36	5.03— 5.73	260	\$4.30
Establishments having common job evaluation system		1,774	5.53	5.42	4.99— 6.13	-	
	8	396	5.41	5.35	4.63— 5.66	-	
	10	858	5.53	5.41	5.04— 6.18	-	
Other establishments		791	5.18	5.36	5.12— 5.36	-	
<u>All Departments ⁵</u>							
<u>Maintenance</u>							
Automobile repairmen, all establishments.....		562	5.27	5.27	5.15— 5.28	-	
Other establishments		104	5.33	5.15	5.15— 5.72	-	
Blacksmiths, all establishments		242	5.46	5.49	5.08— 5.73	89	4.79
Establishments having common job evaluation system		178	5.42	5.44	5.08— 5.58	54	4.88
Receiving top rate ⁶		137	5.44	5.44	5.08— 5.65	48	4.89
	15	50	5.42	5.53	5.08— 5.53	-	
	17	82	5.48	5.44	5.28— 5.66	39	4.93
Receiving lower rate ⁶		41	5.37	5.37	5.09— 5.56	-	
	13	35	5.32	5.37	5.14— 5.53	-	
Other establishments		64	5.56	5.73	4.94— 5.78	35	4.65
Boilermakers, all establishments.....		1,172	5.35	5.32	5.18— 5.49	175	5.04
Establishments having common job evaluation system		1,082	5.35	5.32	5.22— 5.49	-	
Receiving top rate ⁶		973	5.37	5.32	5.28— 5.49	-	
	15	172	5.15	5.08	5.02— 5.22	-	
	17	748	5.45	5.39	5.28— 5.68	-	
Receiving lower rate ⁶		109	5.19	5.16	4.93— 5.31	-	
	13	58	5.09	4.93	4.90— 5.31	-	
	15	23	5.39	5.51	5.22— 5.51	-	

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation systems ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
All Departments ⁵ —Continued							
Maintenance—Continued							
Bricklayers, all establishments-----		1,343	\$5.82	\$5.72	\$5.42—\$6.16	-	-
Establishments having common job evaluation system-----		1,162	5.79	5.67	5.42—5.87	347	\$4.93
Receiving top rate ⁶ -----	17	1,072	5.81	5.72	5.42—6.05	327	4.93
Other establishments-----		843	5.83	5.72	5.42—5.87	309	4.93
Carpenters, all establishments-----		181	6.00	6.02	5.72—6.16	381	5.72
Establishments having common job evaluation system-----		1,053	5.19	5.14	4.88—5.35	396	4.74
Receiving top rate ⁶ -----		963	5.16	5.11	4.88—5.34	231	4.76
Receiving lower rate ⁶ -----	13	824	5.16	5.11	4.88—5.33	211	4.77
Receiving lower rate ⁶ -----	15	240	4.95	4.88	4.83—4.88	-	-
Receiving lower rate ⁶ -----	15	495	5.23	5.16	5.08—5.34	90	4.74
Receiving lower rate ⁶ -----	11	139	5.14	5.13	4.95—5.45	20	4.62
Receiving lower rate ⁶ -----	13	55	4.93	4.95	4.88—5.13	-	-
Receiving lower rate ⁶ -----		26	4.96	4.99	4.94—4.99	6	4.55
Receiving lower rate ⁶ -----		90	5.53	5.67	5.42—5.67	165	4.73
Other establishments-----							
Electricians (armature winders) all establishments-----		395	5.35	5.18	5.18—5.59	114	4.80
Establishments having common job evaluation system-----		344	5.28	5.18	5.07—5.43	103	4.79
Receiving top rate ⁶ -----	14	309	5.30	5.18	5.18—5.43	66	4.88
Receiving top rate ⁶ -----	16	44	5.13	4.98	4.93—5.01	-	-
Receiving lower rate ⁶ -----		253	5.35	5.18	5.18—5.52	45	4.84
Receiving lower rate ⁶ -----	12	35	5.15	5.05	4.74—5.16	-	-
Receiving lower rate ⁶ -----		17	5.38	5.22	4.74—5.96	-	-
Receiving lower rate ⁶ -----		51	5.83	5.59	5.59—5.60	-	-
Electricians (linemen), all establishments-----		377	5.45	5.44	5.23—5.51	65	5.05
Establishments having common job evaluation system-----		272	5.45	5.44	5.38—5.51	33	5.00
Receiving top rate ⁶ -----	16	239	5.49	5.44	5.38—5.51	32	5.02
Receiving top rate ⁶ -----	18	21	5.15	5.11	5.11—5.18	-	-
Receiving lower rate ⁶ -----		209	5.54	5.44	5.43—5.64	29	5.02
Receiving lower rate ⁶ -----	16	33	5.18	5.19	5.19—5.22	-	-
Receiving lower rate ⁶ -----		12	5.21	-	-	-	-
Receiving lower rate ⁶ -----		105	5.44	5.51	5.13—5.56	-	-
Electricians (shop) all establishments-----		935	5.91	5.77	5.18—6.61	857	4.55
Establishments having common job evaluation system-----		476	5.82	5.56	5.18—6.46	503	4.90
Receiving top rate ⁶ -----	14	420	5.86	5.56	5.18—6.65	-	-
Receiving top rate ⁶ -----	16	73	5.54	5.07	5.07—5.46	-	-
Receiving lower rate ⁶ -----		235	5.89	5.48	5.18—7.11	-	-
Receiving lower rate ⁶ -----	10	56	5.52	5.46	5.01—6.06	9	4.58
Receiving lower rate ⁶ -----	12	12	4.93	-	-	-	-
Receiving lower rate ⁶ -----	12	21	5.52	5.46	5.46—5.69	-	-
Receiving lower rate ⁶ -----	14	19	5.77	6.00	5.04—6.44	-	-
Receiving lower rate ⁶ -----		459	5.99	5.82	5.56—6.61	354	4.05
Other establishments-----		2,142	5.58	5.49	5.31—5.82	338	4.93
Electricians (wiremen) all establishments-----							
Establishments having common job evaluation system-----		1,869	5.56	5.48	5.28—5.77	188	4.84
Receiving top rate ⁶ -----	16	1,681	5.55	5.47	5.28—5.77	176	4.85
Receiving top rate ⁶ -----	18	336	5.35	5.11	5.11—5.64	-	-
Receiving lower rate ⁶ -----		1,274	5.63	5.49	5.38—5.81	127	5.02
Receiving lower rate ⁶ -----	14	188	5.62	5.51	5.28—6.24	-	-
Receiving lower rate ⁶ -----	16	79	5.34	5.43	5.28—5.51	-	-
Receiving lower rate ⁶ -----		94	5.94	6.24	5.51—6.24	-	-
Other establishments-----		273	5.77	5.83	5.39—6.13	150	5.04

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation systems ²	Job class ³	Incentive workers				Time workers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>All Departments</u> ⁵ —Continued							
<u>Maintenance</u> —Continued							
Electronic repairers, all establishments-----		869	\$5.84	\$5.77	\$5.58—\$6.15	358	\$5.24
Establishments having common job evaluation system-----		755	5.75	5.70	5.56- 5.90	151	5.31
Receiving top rate ⁶ -----		721	5.76	5.70	5.58- 5.90	75	5.29
	18	184	5.92	5.90	5.49- 6.50	-	-
	20	452	5.77	5.73	5.58- 5.85	-	-
Receiving lower rate ⁶ -----		34	5.59	5.40	5.37- 5.99	-	-
Other establishments-----		114	6.39	6.52	6.15- 6.52	207	5.18
Instrument repairers, all establishments-----		742	5.46	5.49	5.26- 5.60	192	5.22
Establishments having common job evaluation system-----		672	5.45	5.46	5.25- 5.56	136	5.29
Receiving top rate ⁶ -----		622	5.46	5.47	5.28- 5.56	117	4.96
	16	37	5.23	5.25	4.93- 5.35	-	-
	18	498	5.50	5.49	5.45- 5.56	98	5.02
Receiving lower rate ⁶ -----		50	5.22	5.11	5.08- 5.35	-	-
	16	33	5.22	5.08	5.08- 5.35	-	-
Machinists, all establishments-----		4,249	5.63	5.56	5.35- 5.94	1,672	4.78
Establishments having common job evaluation system-----		3,319	5.63	5.55	5.30- 5.95	735	4.93
Receiving top rate ⁶ -----		2,886	5.64	5.56	5.35- 5.95	692	4.95
	16	810	5.35	5.33	5.11- 5.52	-	-
	18	1,881	5.75	5.62	5.47- 6.03	567	5.02
Receiving lower rate ⁶ -----		433	5.53	5.51	5.06- 6.03	43	4.70
	12	38	5.44	5.79	4.74- 5.79	-	-
	14	110	5.08	4.95	4.90- 5.16	27	4.65
	16	75	5.71	5.54	5.36- 6.24	7	4.84
	18	206	5.75	5.67	5.51- 6.03	-	-
Other establishments-----		930	5.62	5.77	5.47- 5.94	937	4.66
Millwrights, all establishments-----		15,437	5.52	5.48	5.20- 5.72	1,940	4.55
Establishments having common job evaluation system-----		12,709	5.50	5.46	5.21- 5.72	997	4.73
Receiving top rate ⁶ -----		10,393	5.50	5.43	5.20- 5.70	859	4.74
	14	2,768	5.61	5.46	5.30- 5.64	-	-
	16	6,242	5.48	5.46	5.21- 5.70	596	4.84
Receiving lower rate ⁶ -----		2,316	5.50	5.49	5.21- 5.78	118	4.60
	10	184	5.28	5.04	4.88- 5.63	-	-
	12	538	5.17	5.19	4.87- 5.37	49	4.46
	14	534	5.41	5.45	5.21- 5.56	45	4.65
Other establishments-----		2,728	5.60	5.66	5.14- 5.82	963	4.37
Millwright helpers, all establishments-----		3,687	4.52	4.50	4.26- 4.71	489	3.85
Establishments having common job evaluation system-----		3,262	4.53	4.51	4.27- 4.71	345	3.94
Receiving top rate ⁶ -----		2,405	4.49	4.41	4.24- 4.73	-	-
	6	2,146	4.46	4.32	4.24- 4.64	-	-
Receiving lower rate ⁶ -----		825	4.61	4.62	4.52- 4.69	-	-
	6	810	4.62	4.67	4.52- 4.71	-	-
Other establishments-----		425	4.50	4.27	4.16- 4.88	-	-
Mobile equipment mechanics, all establishments-----		1,077	5.40	5.39	4.94- 5.65	343	4.74
Establishments having common job evaluation system-----		916	5.36	5.37	4.93- 5.64	200	4.82
Receiving top rate ⁶ -----		837	5.38	5.39	4.93- 5.64	115	4.83
	14	211	5.04	4.93	4.88- 5.00	-	-
	16	440	5.54	5.41	5.36- 5.73	95	4.84
Receiving lower rate ⁶ -----		79	5.04	4.93	4.91- 5.23	85	4.82
	12	16	4.87	4.94	4.58- 5.15	-	-

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic and iron steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>All Departments</u> ⁵ —Continued							
<u>Maintenance</u> —Continued							
Mobile equipment mechanics, all establishments—Continued							
Establishments having common job evaluation system—Continued							
Receiving lower rate ⁶ —Continued							
	14	20	\$5.08	\$5.20	\$4.79—\$5.26	-	-
	16	36	5.04	4.93	4.91—4.95	-	-
Other establishments		161	5.66	5.51	5.26—6.35	143	\$4.61
Motor inspectors, all establishments		6,769	5.47	5.40	5.17—5.71	669	4.72
Establishments having common job evaluation system		6,160	5.46	5.42	5.17—5.69	596	4.71
Receiving top rate ⁶		4,976	5.48	5.42	5.18—5.69	434	4.74
	14	1,281	5.57	5.46	5.24—5.71	-	-
	16	3,204	5.50	5.46	5.20—5.72	294	4.84
Receiving lower rate ⁶		1,184	5.38	5.40	5.04—5.70	162	4.63
	12	291	5.04	5.03	4.81—5.26	62	4.46
	14	253	5.39	5.33	5.11—5.56	37	4.65
	16	535	5.63	5.64	5.48—5.78	-	-
Painters, all establishments		478	5.03	4.94	4.48—5.27	142	4.46
Establishments having common job evaluation system		427	5.02	4.94	4.75—5.27	92	4.38
Receiving top rate ⁶		363	5.05	4.97	4.88—5.27	76	4.48
	11	41	4.96	4.68	4.68—5.30	-	-
	13	285	5.13	5.10	4.88—5.30	58	4.55
Receiving lower rate ⁶		64	4.89	4.84	4.59—5.37	16	3.94
	11	34	5.20	5.27	4.62—5.62	-	-
		51	5.07	4.84	4.84—5.20	50	4.62
Patternmakers, all establishments		57	5.72	5.84	5.53—6.07	77	4.97
Establishments having common job evaluation system		52	5.74	5.93	5.15—6.07	40	5.09
Receiving top rate ⁶		52	5.74	5.93	5.15—6.07	39	5.09
	19	46	5.73	6.00	5.15—6.07	36	5.12
Pipefitters, all establishments		3,384	5.31	5.18	5.03—5.55	375	4.70
Establishments having common job evaluation system		2,527	5.31	5.18	5.02—5.46	281	4.70
Receiving top rate ⁶		2,205	5.34	5.18	5.08—5.47	260	4.72
	13	591	5.30	5.15	4.83—5.33	-	-
	15	1,288	5.30	5.18	5.08—5.46	177	4.74
	16	239	5.77	6.24	5.26—6.24	-	-
Receiving lower rate ⁶		322	5.13	4.93	4.82—5.43	21	4.45
	11	108	4.89	4.89	4.53—5.20	12	4.37
	13	104	5.11	4.99	4.80—5.35	9	4.55
		857	5.32	5.18	5.06—5.67	94	4.67
Other establishments							
Pipefitter helpers, all establishments		420	4.38	4.24	4.18—4.59	41	4.01
Establishments having common job evaluation system		395	4.36	4.23	4.18—4.52	20	3.90
Receiving top rate ⁶		350	4.34	4.23	4.18—4.39	20	3.90
	6	350	4.34	4.23	4.18—4.39	20	3.90
Receiving lower rate ⁶		45	4.50	4.52	4.12—4.89	-	-
	6	45	4.50	4.52	4.12—4.89	-	-
Other establishments		25	4.77	5.19	4.26—5.19	-	-
Riggers, all establishments		1,332	5.27	5.27	5.07—5.42	164	4.97
Establishments having common job evaluation system		1,047	5.23	5.18	5.05—5.39	66	4.97

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Departments, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings (mean)
			Mean	Median	Middle range		
<u>All Departments</u> ⁵ —Continued							
<u>Maintenance</u> —Continued							
Riggers, all establishments— Continued							
Establishments having common job evaluation system—Continued							
Receiving top rate ⁶ -----	14	809	\$5.29	\$5.23	\$5.18—\$5.39	49	\$5.01
	16	120	5.15	5.15	4.93— 5.42	-	-
Receiving lower rate ⁶ -----	16	632	5.36	5.38	5.18— 5.39	-	-
	12	238	5.02	5.07	4.74— 5.18	-	-
	14	97	5.04	5.07	5.05— 5.07	-	-
Other establishments -----	14	83	5.23	5.18	5.18— 5.30	-	-
Roll turners, all establishments -----		285	5.43	5.48	5.27— 5.71	98	4.96
Establishments having common job evaluation system -----		837	5.79	5.66	5.03— 6.48	348	4.55
Receiving top rate ⁶ -----		636	5.69	5.42	5.02— 6.13	186	4.83
	15	550	5.70	5.51	5.02— 5.95	176	4.83
Receiving lower rate ⁶ -----	17	195	5.20	5.02	4.92— 5.02	-	-
	13	331	5.96	5.63	5.28— 6.50	157	4.93
Other establishments -----	13	86	5.66	5.26	4.86— 6.66	-	-
Sheet metal workers, all establishments -----		21	5.34	4.73	4.73— 6.34	-	-
Establishments having common job evaluation system -----		201	6.09	6.30	5.70— 6.50	162	4.22
Receiving top rate ⁶ -----		202	5.40	5.31	5.28— 5.48	68	4.76
	15	166	5.35	5.28	5.28— 5.48	74	4.73
Other establishments -----	17	166	5.35	5.28	5.28— 5.48	-	-
Tool makers, all establishments -----		18	5.19	5.22	5.08— 5.22	-	-
Establishments having common job evaluation system -----		100	5.34	5.28	5.28— 5.44	-	-
Receiving top rate ⁶ -----		36	5.63	5.57	5.43— 5.98	-	-
		107	5.76	5.84	5.57— 6.03	77	5.21
Welders, all establishments -----	20	84	5.70	5.59	5.49— 5.88	-	-
Establishments having common job evaluation system -----		71	5.72	5.85	5.31— 6.03	-	-
Receiving top rate ⁶ -----		42	5.87	5.88	5.59— 6.03	-	-
		4,779	5.41	5.35	5.13— 5.65	1,209	4.37
Other establishments -----		4,000	5.39	5.34	5.14— 5.53	547	4.85
	14	3,245	5.40	5.34	5.17— 5.53	398	4.93
Receiving lower rate ⁶ -----	16	967	5.23	5.14	4.93— 5.38	-	-
	12	1,837	5.41	5.35	5.23— 5.48	352	4.97
		755	5.35	5.27	5.00— 5.56	149	4.63
		249	5.23	5.21	4.94— 5.34	19	4.46
		779	5.50	5.68	5.09— 5.70	662	3.96
<u>General labor</u>							
Janitors, all establishments -----		441	3.86	3.86	3.78— 3.86	2,922	3.52
Establishments having common job evaluation system -----		-	-	-	-	2,012	3.55
Other establishments -----	1 or 2	-	-	-	-	2,004	3.52
Laborers, all establishments -----		108	3.88	3.63	3.63— 4.32	910	3.44
Establishments having common job evaluation system -----		3,433	4.00	3.89	3.75— 4.20	12,005	3.48
Other establishments -----	1 or 2	2,903	3.97	3.86	3.75— 4.18	7,772	3.55
	3	1,470	3.89	3.78	3.68— 4.09	6,792	3.52
	4	670	4.02	3.96	3.88— 4.21	704	3.61
		429	3.92	3.80	3.71— 4.19	165	3.71
		530	4.16	4.32	3.63— 4.63	4,233	3.34

See footnotes at end of table.

Table 3. Occupational average by method of wage payment—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations in all basic iron and steel establishments and in those having common job evaluation systems,² by method of wage payment, United States, September 1972)

Department, occupation, and establishment classified according to job evaluation system ²	Job class ³	Incentive workers				Timeworkers	
		Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
			Mean	Median	Middle range		
<u>All Departments⁵—Continued</u>							
<u>Transportation and yard</u>							
Locomotive crane operators, all establishments -----		728	\$4.83	\$4.69	\$4.39- \$4.99	285	\$4.33
Establishments having common job evaluation system -----		561	4.92	4.69	4.47- 4.99	157	4.36
Other establishments -----	12	306	5.00	4.77	4.69- 5.08	108	4.46
Locomotive engineers (general), all establishments -----		167	4.52	4.31	4.00- 5.05	128	4.30
Establishments having common job evaluation system -----		1,240	5.33	5.29	5.09- 5.57	139	4.85
Other establishments -----	10	906	5.28	5.17	5.08- 5.44	83	5.00
		26	4.48	4.51	4.37- 4.62	-	-
		334	5.48	5.63	5.14- 5.82	56	4.65
<u>Power and fuel</u>							
First power engineers, all establishments -----		258	5.17	4.96	4.79- 5.25	63	4.72
Establishments having common job evaluation system -----		236	5.14	4.96	4.79- 5.22	47	4.73
	12	54	4.92	4.79	4.79- 4.96	-	-
	14	28	4.89	4.75	4.75- 5.09	-	-
	18	28	5.37	5.22	5.22- 5.42	-	-
Other establishments -----		22	5.51	5.60	5.14- 5.61	-	-
<u>Metallurgical and chemical</u>							
Test preparers, all establishments -----		172	4.83	4.83	4.38- 5.15	461	3.91
Establishments having common job evaluation system -----		130	4.62	4.70	4.29- 4.83	-	-
Other establishments -----		42	5.47	5.68	5.16- 5.68	114	3.87
Metallurgical analysts, all establishments -----		292	4.91	4.84	4.47- 5.51	298	4.12
Establishments having common job evaluation system -----		193	4.67-	4.49	4.28- 4.99	180	4.51
	11	80	4.76	4.49	4.48- 5.04	-	-
Other establishments -----		99	5.37	5.51	4.94- 5.96	118	3.53

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. See appendix A for definition of mean, median, and middle range.

² Data are presented separately for establishments having a common job evaluation system, the same minimum hourly rate of \$3.510 and the same wage increment (9.4 cents) between job classes.

³ Job class data are provided only for establishments having a common job evaluation system, the same minimum hourly rate, and the same wage increment between job classes. Publication is limited to job classes reported by 3 such establishments or more and meeting other publication criteria. Estimates for all establishments and for the overall occupational classification in establishments having a common job evaluation system includes data for all job classes.

⁴ Occupations are limited to workers in the departments indicated.

⁵ Occupations relate to workers in all departments of the establishment.

⁶ Data were reported separately for workers receiving the top rate for the job and for those receiving lower rates. Those establishments having a common job evaluation system have a range of rates for repair and maintenance craftsmen which includes a beginning rate (4 job classes below the top or standard rate), an intermediate rate (2 job classes below), and the top or standard rate. Workers receiving the beginning or intermediate rate (although qualified journeymen) were classified as receiving a rate lower than the top rate.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

Appendix A. Common Job Evaluation System Pay Schedule

Hourly wage schedule of production and related workers in basic iron and steel mills having a common job evaluation system, specified dates

Job class	September 1967			September 1972			May 1974		
	Basic wage scale	Incentive		Basic wage scale ¹	Incentive		Basic wage scale ²	Incentive	
		Calculation rate	Hourly additive		Calculation rate	Hourly additive ¹		Calculation rate	Hourly additive ²
1 and 2	\$2.445	\$2.10	\$0.345	\$3.520	\$2.60	\$0.920	\$4.455	\$2.880	\$1.575
3	2.520	2.17	.350	3.614	2.67	.944	4.555	2.952	1.603
4	2.595	2.24	.355	3.708	2.74	.968	4.655	3.024	1.631
5	2.670	2.31	.360	3.802	2.81	.992	4.755	3.096	1.659
6	2.745	2.38	.365	3.896	2.88	1.016	4.855	3.168	1.687
7	2.820	2.45	.370	3.990	2.95	1.040	4.955	3.240	1.715
8	2.895	2.52	.375	4.084	3.02	1.064	5.055	3.312	1.743
9	2.970	2.59	.380	4.178	3.09	1.088	5.155	3.384	1.771
10	3.045	2.66	.385	4.272	3.16	1.112	5.255	3.456	1.799
11	3.120	2.73	.390	4.366	3.23	1.136	5.355	3.528	1.827
12	3.195	2.80	.395	4.460	3.30	1.160	5.455	3.600	1.855
13	3.270	2.87	.400	4.554	3.37	1.184	5.555	3.672	1.883
14	3.345	2.94	.405	4.648	3.44	1.208	5.655	3.744	1.911
15	3.420	3.01	.410	4.742	3.51	1.232	5.755	3.816	1.939
16	3.495	3.08	.415	4.836	3.58	1.256	5.855	3.888	1.967
17	3.570	3.15	.420	4.930	3.65	1.280	5.955	3.960	1.995
18	3.645	3.22	.425	5.024	3.72	1.304	6.055	4.032	2.023
19	3.720	3.29	.430	5.118	3.79	1.328	6.155	4.104	2.051
20	3.795	3.36	.435	5.212	3.86	1.352	6.255	4.176	2.079
21	3.870	3.43	.440	5.306	3.93	1.376	6.355	4.248	2.107
22	3.945	3.50	.445	5.400	4.00	1.400	6.455	4.320	2.135
23	4.020	3.57	.450	5.494	4.07	1.424	6.555	4.392	2.163
24	4.095	3.64	.455	5.588	4.14	1.448	6.655	4.464	2.191
25	4.170	3.71	.460	5.682	4.21	1.472	6.755	4.536	2.219
26	4.245	3.78	.465	5.776	4.28	1.496	6.855	4.608	2.247
27	4.320	3.85	.470	5.870	4.35	1.520	6.955	4.680	2.275
28	4.395	3.92	.475	5.964	4.42	1.544	7.055	4.752	2.303
29	4.470	3.99	.480	6.058	4.49	1.568	7.155	4.824	2.331
30	4.545	4.06	.485	6.152	4.56	1.592	7.255	4.896	2.359
31	4.620	4.13	.490	6.246	4.63	1.616	7.355	4.968	2.387
32	4.695	4.20	.495	6.340	4.70	1.640	7.455	5.040	2.415
33 ³	-	-	-	6.434	4.77	1.664	7.555	5.112	2.443

¹ Includes a 1-cent cost-of-living allowance.

² Includes a 15-cent cost-of-living allowance.

³ Job class 33 was added in 1971.

Appendix B. Scope and Method of Survey

Scope of survey

The survey covered establishments classified in the following industries as defined in the 1967 edition of the *Standard Industrial Classification Manual*, prepared by the U.S. Office of Management and Budget:

1. Blast furnaces (excluding merchant coke ovens), steel works, and rolling mills—part of industry 3312.
2. Steel wire drawing and steel nails and spikes—industry 3315.
3. Cold rolled steel sheet, strip, and bars—industry 3316.
4. Steel pipe and tubes—industry 3317.

Excluded from the survey were: Merchant coke ovens (part of industry 3312), electrometallurgical products (industry 3313); establishments producing solely for use by a parent company not classified in the steel industry; and separate auxiliary units such as central offices.

The establishments studied were selected from those employing 250 workers or more at the time of reference of the data used in compiling the universe lists.

The number of workers actually studied by the Bureau, as well as the number estimated to be within scope of the survey during the payroll period studied, are shown below:

Estimated number of workers within scope of the survey ¹	517,186
Production workers	400,562
Office workers	44,033
Total number of workers actually studied ¹	284,452

Method of study

Data were obtained by personal visits by the Bureau's field staff. The survey was conducted on a sample basis. To obtain appropriate accuracy at minimum cost, a greater proportion of large than of small establishments was studied. In combining the data, however, all establishments were given their appropriate weight. All

estimates are presented, therefore, as relating to all establishments in the industry, excluding only those below the minimum size at the time of reference of the universe data.

Establishment definition

An establishment, for purposes of this study, is defined as a single physical location where industrial operations are performed. An establishment is not necessarily identical with the company, which may consist of one establishment or more. Information was not always available on an establishment basis, however, and in a few instances, two locations or more of the same company were considered as one establishment.

Employment

The estimates of the number of workers within scope of the study are intended as a general guide to the size and composition of the labor force included in the survey, rather than a precise measure of employment.

Production workers

The term "production workers" as used in this bulletin, includes all nonsupervisory workers engaged in nonoffice functions and working foremen (employees with supervisory duties but who normally spend 20 percent or more of their time at tasks similar to those of employees under their supervision). Workers engaged in recordkeeping closely associated with production operations, e.g., plant clerks in production departments, were included. Administrative, executive, professional, technical and office clerical personnel, and force-account construction employees, who are utilized as a separate work force on the firm's own properties, were excluded.

Office workers

The term "office workers" includes working supervisors and nonsupervisory workers performing clerical or related office functions of an establishment in such ad-

¹ Includes executive, professional, and other workers excluded from the production and office worker categories.

ministrative departments as the following: Accounting, advertising, executive, finance, industrial relations, legal, payroll, personnel, public relations, purchasing, sales, and transportation. Executive and professional personnel, salesmen, and workers engaged in recordkeeping closely associated with production operations, e.g., plant clerks in production departments, were excluded.

Occupations selected for study

Occupational classification was based on the standard job titles and codes used by companies having the common job evaluation system, as well as on uniform job descriptions. (See appendix C.) The descriptions served as the basis for classification in other establishments. The occupations were chosen for their numerical importance, their usefulness in collective bargaining, or their representativeness of the entire job scale in the industry.

Wage data

Wage information relates to average straight-time hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems and cost-of-living bonuses, were included as a part of the worker's regular pay but nonproduction bonus payments, such as Christmas or yearend bonuses, were excluded. Workers were considered as being on incentive if during the payroll period scheduled, any of their work was paid on this basis. The hourly earnings of salaried workers were obtained by dividing their straight-time salary by normal rather than actual hours.

Average (mean) hourly rates or earnings for each occupation or other group of workers, such as production workers, timeworkers, or incentive workers, were calculated by weighting each rate or hourly earnings by the number of workers receiving the rate, totaling, and dividing by the number of individuals. The *median* designates position; that is, one-half of the employees surveyed received more than this rate and one-half received less. The *middle range* is defined by two rates of pay; one-fourth of the employees earned less than the lower of these rates and one-fourth earned more than the higher rate.

Shift practices

Data relate to the practices in those establishments operating extra shifts during the payroll period studied.

Supplementary wage provisions

Supplementary benefits were treated statistically on the basis that if formal provisions were applicable to one-half or more of the production workers (or office workers) in an establishment, the benefits were considered applicable to all such workers. Similarly, if fewer than one-half of the workers were covered, the benefit was considered nonexistent in the establishment. Because of length-of-service and other eligibility requirements, the proportion of workers receiving the benefits may be smaller than estimated.

Paid holidays. Paid holiday provisions relate to full-day and half-day holidays provided annually.

Annual paid vacations. The summaries of annual vacation plans are limited to formal arrangements, excluding informal plans, whereby time off with pay is granted at the discretion of the employer or supervisor. Payments not on a time basis were converted; for example, a payment of 2 percent of annual earnings was considered the equivalent of 1 week's pay.

Health, insurance, and retirement plans. Data are presented for health, insurance, and retirement plans for which all or a part of the cost is borne by the employer, excluding programs required by law, such as workmen's compensation and social security. Among the plans included are those underwritten by a commercial insurance company, and those paid directly by the employer from his current operating funds or from a fund set aside for this purpose.

Death benefits are included as a form of life insurance. Sickness and accident insurance is limited to that type of insurance under which predetermined cash payments are made directly to the insured on a weekly or monthly basis during illness or accident disability. Information is presented for all such plans to which the employer contributes at least a part of the cost. However, in New York and New Jersey, where temporary disability insurance laws require employer contributions,¹ plans are included only if the employer (1) contributes more than is required legally or (2) provides the employees with benefits which exceed the requirements of the law.

Paid sick leave plans are limited to formal plans which provide full pay or a proportion of the worker's pay during absence from work because of illness; informal arrangements have been omitted.

Medical insurance refers to plans providing for complete or partial payment of doctors' fees. Such plans may

¹ The temporary disability insurance laws in California and Rhode Island do not require employer contributions.

be underwritten by a commercial insurance company or a nonprofit organization, or they may be a form of self-insurance.

Earnings protection plans. Data relate to formal provisions that provide pay designed to protect the level of earnings for workers assigned to lower paying jobs due to technological changes.

Vacation bonuses. Data relate to formal provisions that provide employees vacation bonuses in addition to regular vacation payments.

Technological severance pay. Data relate to formal provisions for payments to employees permanently separated as a result of force reduction which arises out of the introduction of new equipment or from the closing of a department, plant, or unit. These data do not include retirement severance pay.

Supplemental unemployment benefits. Supplemental unemployment benefit data relate to formal provisions

for supplementing benefits paid under State unemployment systems.

Major medical insurance, sometimes referred to as extended medical or catastrophe insurance, includes plans designed to cover employees for sickness or injury that involve an expense which goes beyond the normal coverage of hospitalization, medical, and surgical plans.

Retirement pensions are limited to plans which provide, upon retirement, regular payments for the remainder of the retiree's life. Data are presented separately for retirement severance pay (one payment or a specified number over a period of time) made to employees upon retirement. Establishments providing retirement severance payments and pensions to employees upon retirement were considered as having both retirement pension and retirement severance pay. Establishments having optional plans which provide employees a choice of either retirement severance payments or pensions were considered as having only retirement pension benefits.

Appendix C. Occupational Descriptions

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

The sources for the following descriptions of occupations selected for separate study were those used in establishments that use the common job evaluation system. The descriptions also were used in other establishments. The alphabetical and numerical code in the right margin is the job code used by establishments that use the common job evaluation system; it is not relevant in other establishments. Jobs under "Selected Departments" were limited to the indicated departments and those under "All Departments" relate to occupations found throughout the plant.

Coke Works and Byproducts

*Standard
job code*

Benzol Stillman	AA-05560
Operates refining and distilling equipment.	
Door-Machine Operator	AA-03050
Operates machine to remove and replace coke oven doors.	
Heater	AA-01800
Heats material to specified temperatures.	
Lidman	AA-02020
Removes and replaces coke oven lids.	
Pusher-Operator	AA-03750
Operates pusher machine to push coke from ovens and to level coal charge.	
Wharfman	AA-06150
Operates wharf gates to feed coke onto cars or belts. Quenches hot spots in coke.	

Blast Furnaces, Ore Handling, and Sinter Plant

*Standard
job code*

Cinder Snapper	AB-05430
Prepares and maintains cinder runner on blast furnace.	
First Blowing Engineer	KA-01320
Operates blowing engines and equipment supplying air to operating units.	
Keeper	AB-01940
Directs and assists in the work activities necessary to the proper operation of a blast furnace casthouse.	
Keeper Helper	AB-01945
Assists in the work activities necessary to the proper operation of a blast furnace casthouse.	
Larryman	AB-01970
Loads and operates larry car to charge material into blast furnaces, coke ovens, etc. May operate skip hoists, scales, record data, etc.	
Ore-Bridge Crane Operator	AB-00890
Operates ore bridge handling various materials to and from ore yard area.	
Sintering-Machine Operator	AB-03910
Operates various controls governing speed of sintering, regulating burners, etc.	
Stock Unloader	AB-06030
Unloads materials or products from railroad cars, trucks, barges, or boats. May use auxiliary equipment, such as vibrators, spuds, conveyors, pumps, etc.	

Open Hearth Furnaces

Charging-Machine Operator	AD-02890
Operates mobile charging or drawing equipment to charge and/or draw material or product into or from furnaces.	
First Helper	AD-01830
Operates open hearth furnace to produce steel.	
Ladle Crane Operator	AD-00940
Operates an Overhead Traveling Ladle crane in transporting molten metal.	
Stocker, Raw Materials	AD-05600
Unloads and stocks raw materials; fills and trims charging boxes with raw materials, scrap, etc.	

Second Helper AD-01840

Assists First Helper in the operation of an Open Hearth Furnace.

Second Steel Pourer AD-04560

Assists First Steel Pourer as directed.

Stockyard Crane Operator AD-00900

Operates overhead traveling stock yard crane to load, unload and transport charging stock and other materials in the stock yard.

Electric Furnaces

First Helper AE-01830

Operates electric arc furnace to produce steel.

Mouldman AE-02580

Prepares moulds and stools to receive molten metal.

Stopper Maker AE-02420

Prepares and assembles stopper rods.

Basic Oxygen Furnaces

Furnace Operator AJ-03500

Operates oxygen furnace to produce steel.

Furnaceman, First AJ-01630

Signals oxygen furnace operator in positioning furnace for charging, slag-off, tapping, and securing tests.

Ladle Crane Operator AJ-00940

Operates andoverhead traveling ladle crane in transporting molten metal for teeming ingots.

Ladle Liner AJ-02040

Lines and relines ladles used in basic oxygen furnaces.

Nozzle Setter AJ-05200

Changes and sets nozzles on ladles.

Steel Pourer, First AJ-04550

Pours or directs the pouring of steel into ingot moulds.

Stopper Maker AJ-02420

Prepares and assembles stopper rods.

Foundry

*Standard
job code*

Coremaker	HA-02210
Makes any type of sand cores to be used in dry or green sand foundry moulds.	
Moulder	HA-02550
Makes green or dry sand moulds, sets cores, and closes moulds for any type of foundry castings. Pours and directs pouring of moulds.	
Blooming Mill Roller	AG-04960
Rolls or directs the rolling and processing of steel to specification; dismantles, adjusts, and maintains mill and processing equipment.	
Bottom Maker	AG-02150
Uses refractory materials, coke breeze, etc., to make and repair bottoms on soaking pits and/or heating or reheating furnaces.	
Hooker	AH-01860
Performs crane hooking, following, and unhooking.	
Manipulator	AG-02480
Operates controls in manipulating ingots into position for entry into various passes of Blooming Mill.	
Pit Recorder	AG-04750
Maintains records of all steel charged into and drawn from Soaking Pits.	
Scarfer	AH-05080
Burns out defects on billets, slabs and blooms with hand scarfing torch. Checks and marks surface defects.	
Soaking-Pit Crane Operator	AG-00990
Operates overhead crane in charging and drawing ingots at soaking pits.	
Soaking-Pit Heater	AG-01800
Heats materials to specified temperatures.	

Continuous Casting Mills

Continuous Billet Caster	AK-00500
Directs and works with casting crew in the set-up operation of a multi-strand billet casting machine.	

Continuous Slab Caster AK-00500

Directs and works with casting crew in preparation of a single-strand slab caster and in casting of molten steel into slabs.

Ladle Control Man AK-06620

Controls flow of molten metal from transfer vessel to the continuous casting process.

Run Out Operator AK-06630

Sets up and operates straightening rolls and cutoff unit to cut billets to specified lengths.

Steel Pourer AK-04550

Pours steel from ladle into moulds and tundish.

Strand Caster AK-06610

Sets up and operates a single strand on a multi-strand billet casting machine to cast molten steel into desired shape.

Plates

Burning-Machine Operator CC-02830

Sets up and operates burning machine to flame cut plates to specified sizes.

Plate Layerout CC-01980

Lays out and marks material for further processing according to prints or specifications.

Bar Mills

Assistant Bar-Mill Roller EA-04970

Assists roller in the direction and rolling of steel and the dismantling, adjustment, and maintenance of mill and processing equipment.

Bar Catcher EA-00520

Uses tongs to catch bar from one roll stand, loop and feed it into next stand.

Charger EA-00570

Charges billets or blooms into heating furnaces.

Rougher EA-04990

Sets up, adjusts and regulates the rolls and guides on a continuous roughing train in a bar mill.

Shearman EA-05290

Sets up and operates shear to cut product to specifications.

Continuous Hot-Strip Mills

Assorter	BH-00070
Manually or by use of mechanical equipment, inspects and classifies sheet and tin products, such as tin, terne, zinc galvanize, or black plate.	
Coil Bander	BA-00190
Wire-ties or bands coils from discharge end of coiling machine on Continuous Hot-Strip Mill.	
Coiler	BA-00780
Operates controls to coil or recoil hot or cold product. May band or tab.	
Coil Feeder	BC-01450
Manually or mechanically feeds material into a processing unit.	
Heater	BA-01800
Heats material to specified temperature.	
Rougher	BA-04990
Roughs or directs the roughing of steel through a roughing stand or stands and the operations of related equipment.	
Strip Finisher	BA-01520
Sets up, adjusts and/or operates finishing roll stand or stands in rolling processes.	
Strip-Mill Crane Operator	BA-00970
Operates EOT crane to provide service for mill crews, maintenance crews, finishing department, and service shops in such work as changing of rolls, removal of cobbles, handling of machine, equipment parts, and construction material in maintenance, installation, and repair. This excludes cranes on which product handling is the predominant work.	
Tandem-Mill Roller	BD-04960
Rolls or directs the rolling and processing of steel to specification; dismantles, adjusts, and maintains mill and processing equipment.	
Tractor Operator	BD-04170
Operates a 3-or 4-wheel tractor equipped with fork, bucket, ram, blade, winch, underslung cradle, or other attachments to transport or tow trailers, tools, material, or equipment.	

Bar and Narrow Strip Finishing Mills.

Batch Pickler Loader	BC-02050
Loads and unloads material for batch pickling.	

Chipper EB-00680

Manually or by use of chipping hammer removes defects from semi-finished product.

Cold-Saw Operator EB-02940

Operates high speed friction cold saw and related mechanical equipment to cut rounds, angles, T-bars, etc.

Sheet Cleaner BC-00730

Sets up and operates the band leveler and scrubbing unit in Pickle House.

Cold Strip and Sheet Mills

Assistant Tandem Mill Roller BD-04970

Assist roller in the direction and rolling of cold steel.

Coil Feeder BF-01450

Charges coils and operates the uncoiler processor unit during the shearing operation on flying shears.

Continuous Annealing Line Operator BE-03310

Operates a continuous annealing line in annealing alloy or carbon steel strip.

Flying Shearman BF-05290

Sets up and operates a flying shear in slitting and end shearing coiled strip steel to sheets.

Strip Inspector BF-0910

Checks thickness, width, length, camber, flatness, surface defects, edge defects, etc., on all material uncoiled and recoiled on the coil house units and makes disposition of material.

Tandem-Mill Feeder BD-01450

Operates uncoiler in charging coils into first stand of three-stand tandem mill.

Tandem-Mill Roller BD-04960

Rolls or directs the rolling and processing of steel to specification.

Tube Finishing

Cut-Off Machine Operator FH-03010

Operates lathe or roll-type machine to cut off, chamfer, trim, bevel, or cut to length.

Hydrastatic Tester FH-90073

Sets up and operates test pump to test strength of pipe wall and coupling joint for leakage under hydrostatic pressure.

Straightener FH-05610

Set up and operates straightening machine and makes necessary machine adjustments to properly straighten pipe.

Rod and Wire Mills

Bundler GE-00410

Bundles coiled wire for shipment.

Coiler (Rod Mill) EC-00780

Operates reeling equipment to coil product.

Nail-Machine Operator GL-03580

Sets up, adjusts and operates nail machines.

Straighten and Cut Operator GC-04030

Operates machine to straighten and cut material.

Wire Drawer (Continuous Machine) GA-01150

Operates one or more continuous wire-drawing machines to draw wire.

Part II. All Works or Departments

Maintenance

Automobile Repairman 04860

Makes all necessary repairs, adjustments, and installations to all trucks and other gasoline powered equipment used throughout the plant.

Blacksmith 00250

Forges, hammer-welds, and heat treats, iron and steel materials in the construction, maintenance and repair of plant equipment.

Boilermaker 02140

Lays out, fabricates, assembles, erects, or makes repairs for all types of structural, boiler and plate work.

Bricklayer 00360

Lays brick and performs masonry work in plant maintenance and construction.

Carpenter 00470

Performs any type of carpentry work in the maintenance and construction of mill and office buildings and equipment.

Electrician (Armature Winder) 01280

Tests, dismantles, repairs, rewinds, and assembles armatures, stators, rotors, commutators and field coils for any size, type and style of electric motors and generators in shop or field.

Electrician (Lineman) 01290

Installs, repairs, and maintains all power transmission lines, transformers, and related equipment in plant maintenance and construction. Works from power towers and power distribution centers.

Electrician (Shop) 01300

Inspects, tests, dismantles and makes mechanical and electrical repairs to all types of electrical equipment within the plant.

Electrician (Wireman) 01310

Works on high tension lines which are 440 volts or more. May also inspect, repair, install, and wire electrical apparatus, devices, and circuits of other voltages.

Electronic Repairman 06600

Installs, repairs, constructs, adjusts, modifies, and services all types of electronic equipment.

Instrument Repairer 04840

Installs, repairs, calibrates, tests, and adjusts any type of integrating, indicating or graphic electrical or mechanical instrument.

Lead Burner 00430

Inspects, dismantles, installs, repairs, fabricates and tests any type of lead lining or parts for process equipment.

Machinist 02100

Sets up and operates all types of machine tools and performs all types of layout, fitting, and assembly work.

Millwright 02530

Inspects, repairs, replaces, installs, adjusts, and maintains all mechanical equipment in major producing departments or in an assigned area.

Millwright Helper 02535

Assists millwright in inspecting, repairing, replacing, installing, adjusting, and maintaining all mechanical equipment in major producing departments or in an assigned area.

Mobile Equipment Mechanic 06660

Inspects, tests, adjusts, dismantles, and replaces unit assemblies or parts, makes complete repairs to gasoline, electric, and diesel powered equipment.

Motor Inspector 01900

Inspects, repairs, replaces, installs, adjusts, and maintains electrical motors and related controls within the plant or in designated areas.

Painter 04330

Performs interior and exterior hand and spray painting for the maintenance and construction of mill and office buildings and equipment.

Patternmaker 02310

Lays out, constructs, and repairs any type of wood pattern and core box used in foundry.

Pipefitter 01570

Lays out, installs, maintains, and repairs all types of pipelines, fittings, and fixtures in plant maintenance and construction.

Pipefitter Helper 01575

Assists pipefitter in the installation, maintenance and repair of all types of pipelines, fittings, and fixtures in plant maintenance and construction.

Rigger 04930

Dismantles, erects, and moves all types of heavy equipment and structures in plant maintenance and construction.

Roll Turner 06010

Operates roll lathe for turning all types of new and used iron, steel, and alloy rolls to finished size, contour and surface for rolling any shape or flat section.

Sheet Metal Worker 05310

Performs any tin or sheet metal work in plant maintenance and construction.

Tool Maker 02460

Makes and repairs tools, jigs, fixtures, gauges, templets, dies, machine parts and instrument parts.

Welder 06120

Performs all kinds of welding, brazing, and cutting on any type of metal.

General Labor

Janitor 01930

Cleans offices, wash houses, sanitary stations, etc.

Laborer 01950

Performs general labor work in or about the plant.

Transportation and Yard

Locomotive Crane Operator 00930

Operates any type of mobile crane to handle or transport tools, material, or equipment.

Locomotive Engineer (General) 01350

Operates a standard gauge diesel electric locomotive in general plant switching to move freight cars on sidings in the plant and on various tracks in the plant area.

Power and Fuel

First Power Engineer 01380

Operates, inspects, and adjusts gas engine, steam or turbogenerators, and auxiliary equipment in powerplant.

Metallurgical and Chemical

Test Preparer 90095

Prepares samples for spectrographic analysis.

Metallurgical Analyst 90059

Collects and analyzes data pertaining to performance of experimental and special heats and prepares special reports.

Industry Wage Studies

The most recent reports providing occupational wage data for industries included in the Bureau's program of industry wage surveys since 1960 are listed below. Copies are for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from any of its regional sales offices,

and from the regional offices of the Bureau of Labor Statistics shown on the inside back cover. Copies that are out of stock are available for reference purposes at leading public, college, or university libraries, or at the Bureau's Washington or regional offices.

Manufacturing

Basic Iron and Steel, 1967. BLS Bulletin 1602¹
Candy and Other Confectionery Products, 1970.
BLS Bulletin 1732
Cigar Manufacturing, 1972. BLS Bulletin 1796
Cigarette Manufacturing, 1971. BLS Bulletin 1748
Fabricated Structural Steel, 1969. BLS Bulletin 1695
Fertilizer Manufacturing, 1971. BLS Bulletin 1763
Flour and Other Grain Mill Products, 1972.
BLS Bulletin 1803
Fluid Milk Industry, 1964. BLS Bulletin 1464¹
Footwear, 1971. BLS Bulletin 1792
Hosiery, 1970. BLS Bulletin 1743
Industrial Chemicals, 1971. BLS Bulletin 1768
Iron and Steel Foundries, 1967. BLS Bulletin 1626¹
Leather Tanning and Finishing, 1968.
BLS Bulletin 1618
Machinery Manufacturing, 1970-71. BLS Bulletin 1754¹
Meat Products, 1969. BLS Bulletin 1677
Men's and Boys' Separate Trousers, 1971.
BLS Bulletin 1752
Men's and Boys' Shirts (Except Work Shirts) and
Nightwear, 1971. BLS Bulletin 1794
Men's and Boys' Suits and Coats, 1970.
BLS Bulletin 1716
Miscellaneous Plastics Products, 1969.
BLS Bulletin 1690
Motor Vehicles and Parts, 1969. BLS Bulletin 1679
Nonferrous Foundries, 1970. BLS Bulletin 1726
Paints and Varnishes, 1970. BLS Bulletin 1739
Paperboard Containers and Boxes, 1970.
BLS Bulletin 1719
Petroleum Refining, 1971. BLS Bulletin 1741
Pressed or Blown Glass and Glassware, 1970.
BLS Bulletin 1713
Pulp, Paper, and Paperboard Mills, 1967.
BLS Bulletin 1608¹
Southern Sawmills and Planing Mills, 1969.
BLS Bulletin 1694

Manufacturing—Continued

Structural Clay Products, 1969. BLS Bulletin 1697
Synthetic Fibers, 1970. BLS Bulletin 1740
Textile Dyeing and Finishing, 1970. BLS Bulletin 1757
Textiles, 1971. BLS Bulletin 1801
West Coast Sawmilling, 1969. BLS Bulletin 1704
Women's and Misses' Coats and Suits, 1970.
BLS Bulletin 1728
Women's and Misses' Dresses, 1971.
BLS Bulletin 1783¹
Wood Household Furniture, Except Upholstered, 1971.
BLS Bulletin 1793
Work Clothing, 1968. BLS Bulletin 1624¹

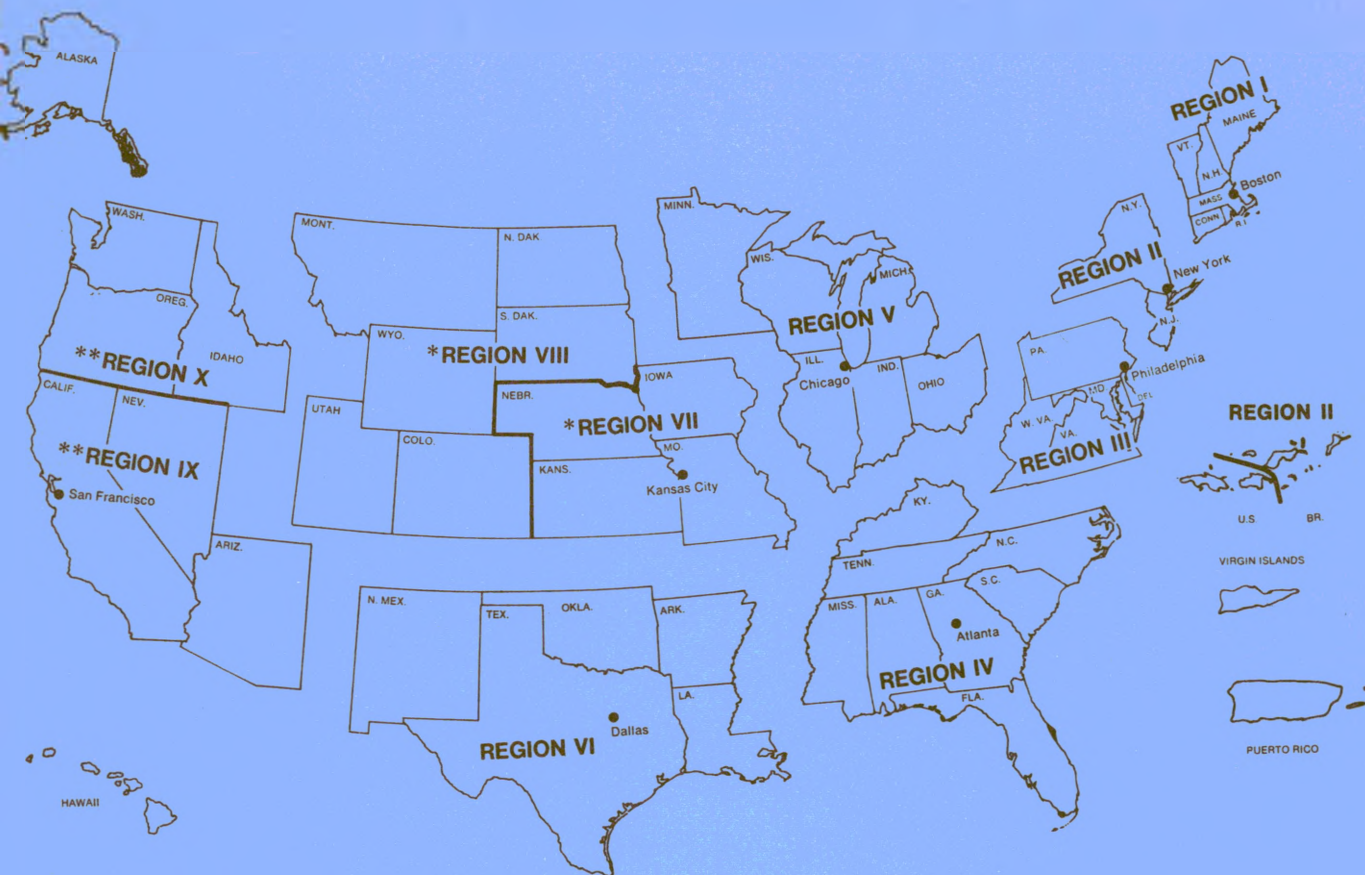
Nonmanufacturing

Appliance Repair Shops, 1972. BLS Bulletin 1838
Auto Dealer Repair Shops, 1969. BLS Bulletin 1689
Banking, 1969. BLS Bulletin 1703
Bituminous Coal Mining, 1967. BLS Bulletin 1583
Communications, 1972. BLS Bulletin 1828
Contract Cleaning Services, 1971. BLS Bulletin 1778
Crude Petroleum and Natural Gas Production, 1972.
BLS Bulletin 1797
Educational Institutions: Nonteaching Employees,
1968-69. BLS Bulletin 1671
Electric and Gas Utilities, 1967. BLS Bulletin 1614
Hospitals, 1972. BLS Bulletin 1829
Laundry and Cleaning Services, 1968.
BLS Bulletin 1645¹
Life Insurance, 1971. BLS Bulletin 1791
Metal Mining, 1972. BLS Bulletin 1820
Motion Picture Theaters, 1966. BLS Bulletin 1542¹
Nursing Homes and Related Facilities, 1967-68.
BLS Bulletin 1638
Scheduled Airlines, 1970. BLS Bulletin 1734
Wages and Tips in Restaurants and Hotels, 1970.
BLS Bulletin 1712

¹ Bulletin out of stock.

BUREAU OF LABOR STATISTICS

REGIONAL OFFICES



Region I

1603 JFK Federal Building
Government Center
Boston, Mass. 02203
Phone: 223-6762 (Area Code 617)

Region II

Suite 3400
1515 Broadway
New York, N.Y. 10036
Phone: 971-5405 (Area Code 212)

Region III

P.O. Box 13309
Philadelphia, Pa. 19101
Phone: 597-1154 (Area Code 215)

Region IV

Suite 540
1371 Peachtree St., NE.
Atlanta, Ga. 30309
Phone: 526-5418 (Area Code 404)

Region V

9th Floor, 230 South Dearborn St.
Chicago, Ill. 60604
Phone: 353-1880 (Area Code 312)

Region VI

1100 Commerce St., Rm. 6B7
Dallas, Tex. 75202
Phone: 749-3516 (Area Code 214)

Regions VII and VIII *

Federal Office Building
911 Walnut St., 15th Floor
Kansas City, Mo. 64106
Phone: 374-2481 (Area Code 816)

Regions IX and X **

450 Golden Gate Ave.
Box 36017
San Francisco, Calif. 94102
Phone: 556-4678 (Area Code 415)

* Regions VII and VIII are serviced by Kansas City
** Regions IX and X are serviced by San Francisco