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Industry Wage Survey: Basic Iron and Steel 1978-79



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U.S. Department of Labor
Ray Marshall, Secretary
Bureau of Labor Statistics
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Preface

This bulletin summarizes the results of a February 1978 Bureau of Labor Statistics survey of occupational wages, establishment practices, and supplementary benefits in the basic iron and steel industry. It also provides major wage and benefit changes that have taken place between the February 1978 survey and November 1979, when this report was prepared.

Summary 79-10, providing data on occupational earnings from the survey, was issued earlier. Copies are available from the Bureau of Labor Statistics, Washington, D.C. 20212, or any of its regional offices.

This 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 Assistant Regional Commissioners for Operations.

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

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Contents

	<i>Page</i>
Summary	1
Recent wage and benefit changes	1
Industry characteristics	2
Employment and production	2
Products and processes	2
Location	5
Union contract status	5
Job evaluation system	5
Method of wage payment	5
Average hourly earnings	5
Occupational earnings	6
Establishment practices and supplementary wage benefits	7
Scheduled weekly hours and overtime pay provisions	7
Shift differential practices	7
Paid holidays	7
Annual and extended paid vacations	8
Health, insurance, and retirement benefits	8
Other selected benefits	8
Text tables:	
1. Basic hourly wage rates and pay relatives for workers in selected occupations in steel mills with common job and pay systems	1
2. Number of job classes in which incentive earnings exceeded basic wage rates by specified percentages for incentive workers in basic iron and steel mills with common job and pay systems	7
Reference tables:	
1. Earnings distribution	9
2. Occupational hourly earnings by method of wage payment	10
Charts:	
1. Steelmaking process	3
2. Steel production by major type of furnace, 1960–1978	4
Appendixes:	
A. Common job and pay system schedule	22
B. Scope and method of survey	23
C. Occupational descriptions	26

Basic Iron and Steel, 1978-79

Summary

Straight-time pay in basic iron and steel mills averaged \$8.32 an hour in February 1978—up 74 percent since the Bureau of Labor Statistics 1972 survey of the industry.¹ Over the same period, average earnings of production workers in manufacturing rose 51 percent. Slightly over two-thirds of the 345,000 production workers covered by a 1978 Bureau steel study were in mills using a common job and pay system. Pay levels in mills under this system averaged \$8.45 an hour, compared to \$8.03 in other establishments.

Individual straight-time earnings for 94 percent of the production workers ranged from \$6.60 to \$10.80 an hour in February 1978. The middle 50 percent of the workers earned between \$7.58 and \$9.04 an hour. Workers paid on an incentive basis, accounting for four-fifths of the work force, averaged \$8.59 an hour, compared with \$7.20 for time-rated workers.

Among the 100 occupational classifications selected to represent earnings levels for various activities performed by steelworkers, pay levels ranged from \$12.89 an hour for tandem-mill rollers in continuous hot-strip mills to \$6.55 for wire drawers on continuous machines in rod and wire mills (mostly found in mills not under a common job and pay system). The two most populous jobs surveyed and their hourly pay levels were millwright, who is the primary mechanic maintaining steel machinery (\$8.91), and laborer (\$6.67).

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, 10 paid holidays annually, regular paid vacations, and extended vacation benefits.

Recent wage and benefit changes

Between the February 1978 survey period and November 1979, basic hourly wage rates for workers covered by the United Steelworkers of America (USA) agreements with the major steel companies—the Coordinating Committee Steel Companies—rose 17 to 23 percent, depending on the job class.² The 21-month increase included three 10-cent-an-hour general advances, and seven cost-of-living adjustments totaling \$1.26. Over the same period, wages in manufacturing rose 15 percent.

As a result of uniform cents-per-hour increases, the spread in the wage rate structure for union steelworkers has narrowed substantially in recent years. The wage rate for tandem-mill rollers in job class 32, for example, was 42 percent more than laborers (job class 1) in November 1979 compared with a 50-percent differential in February 1978 and an 80-percent spread in September 1972 (text table 1).

The February 1978 survey results incorporate first-year provisions of the current USA labor-management agreements. Subsequent to the survey, contract-stipulated improvements in employee benefits for steelworkers took effect, as follows:

1. An eleventh paid holiday—United Nations Day (fourth Monday in October)—was added in 1979.

¹ See appendix B for scope and method of study. For results of the 1972 survey, see *Industry Wage Survey: Basic Iron and Steel, September 1972*, BLS Bulletin 1839 (1975).

² See *Current Wage Developments*, U.S. Department of Labor, Bureau of Labor Statistics, various 1978 and 1979 issues.

Text table 1. Basic hourly wage rates and pay relatives for workers in selected occupations in steel mills with common job and pay systems

Occupation	Typical job class	Basic wage rates ¹			Pay relatives (laborers in job class 1 = 100)		
		September 1972	February 1978	November 1979	September 1972	February 1978	November 1979
Laborers	1	\$3.520	\$6.705	\$8.265	100	100	100
Chargers (bar mills)	6	3.896	7.149	8.733	111	107	106
Locomotive engineers	11	4.366	7.704	9.318	124	115	113
Millwrights	16	4.836	8.259	9.903	137	123	120
First helpers (open hearth)	27	5.870	9.480	11.190	167	141	135
Tandem-mill rollers	32	6.340	10.035	11.775	180	154	142

¹ Includes cost-of-living adjustments.

2. A new vision care program that provides for periodic examinations and reduced costs for lenses and frames began on August 19, 1979.
3. Sickness and accident benefit payments rose approximately 15-1/2 percent between February 1978 and November 1979. In late 1979, sickness and accident payments to eligible employees ranged from \$153 to \$211 a week.
4. Major medical coverage for active workers rose to \$50,000 (was \$25,000) lifetime and \$30,000 (was \$15,000) annually, effective August 1979. At the same time, coverage for certain hospital and physician service benefits was extended; e.g., in the area of emergency and outpatient care, and diagnostic X-rays.
5. Pension benefits increased for surviving spouses, prior retirees, and new pensioners. For the latter group, the new minimum pension as of August 1979 (in addition to social security) was \$427.50, up from \$395.50 for a steelworker with 30 years of service. Retirees also were granted increased life insurance and medical care protection.

Industry characteristics

Employment and production. Steel employment continued to decline while production rose between the Bureau's 1972 and 1978 industry wage studies. The number of production workers fell by about 50,000, to about 345,000 in February 1978. (Total production worker hours, however, remained basically unchanged.) Steel output, at 137 million tons,³ was, in contrast, 7 percent higher in 1978 than in 1972. Increased output coupled with stable hours resulted in 7-percent gain in productivity in the steel industry from 1972 to 1978, as measured by output per production worker hour.⁴ This was, however, below the modest rise in productivity (12 percent) for all manufacturing workers over the same period.

Despite higher domestic production, the U.S. share of the world's steel output was lower in 1978 (17.5 percent) than in 1972 (19.2 percent) and in 1965 (26.0 percent).⁵ Steel imports on the U.S. market, moreover, have increased to the point where about 50,000 workers in 1977 and 12,700 in 1978 were certified as unemployed due to the effects of such imports. U.S. steelworkers have received, between 1975 and 1978, a total of \$157 million in payments under the Trade Act of 1974 as partial compensation for the loss of their jobs.⁶

Steel industry leaders have pointed out that the low rate of return on investment (2.8 percent in 1978 and 4.4 percent in 1972) has hindered steel companies from raising sufficient capital to modernize plants built at the end of World War II and to meet new environmental standards.⁷

Price increases (95 percent) for steel mill products accounted for almost all of the increase in steel com-

pany revenues between 1972 (\$22.5 billion) and 1978 (\$47 billion).

Products 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.⁸

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 not 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.

Steel production by type of furnace has changed dramatically during the 1960's and 1970's. The basic oxygen process and the increased use of electric furnaces have opened up new job opportunities while jobs 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 1978, the corresponding percentages were 15, 61, and 23 (chart 2). The shortened production time with basic oxygen converters is an important reason for the switchover—a basic oxygen furnace makes over 300 tons of steel in 45 minutes while an open hearth furnace takes 5 to 8 hours.

Strand casting, a recent technological development, produces a continuous ribbon of steel. This process eliminates ingot teeming (filling), stripping, soaking, and rolling in the production of slabs and billets.

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

⁴Based on data published by BLS Office of Productivity and Technology.

⁵American Iron and Steel Institute.

⁶Based on data published by the Bureau of International Labor Affairs, U.S. Department of Labor.

⁷See *Proceedings: Steel Industry Economics Seminar, January 17-19, 1979* (Graduate School of Business Administration, University of Washington, Seattle, Washington).

⁸For a more detailed explanation of the steelmaking process, see *The Making of Steel*, Washington, D.C., American Iron and Steel Institute, 1978.

Chart 1.

Steelmaking Process

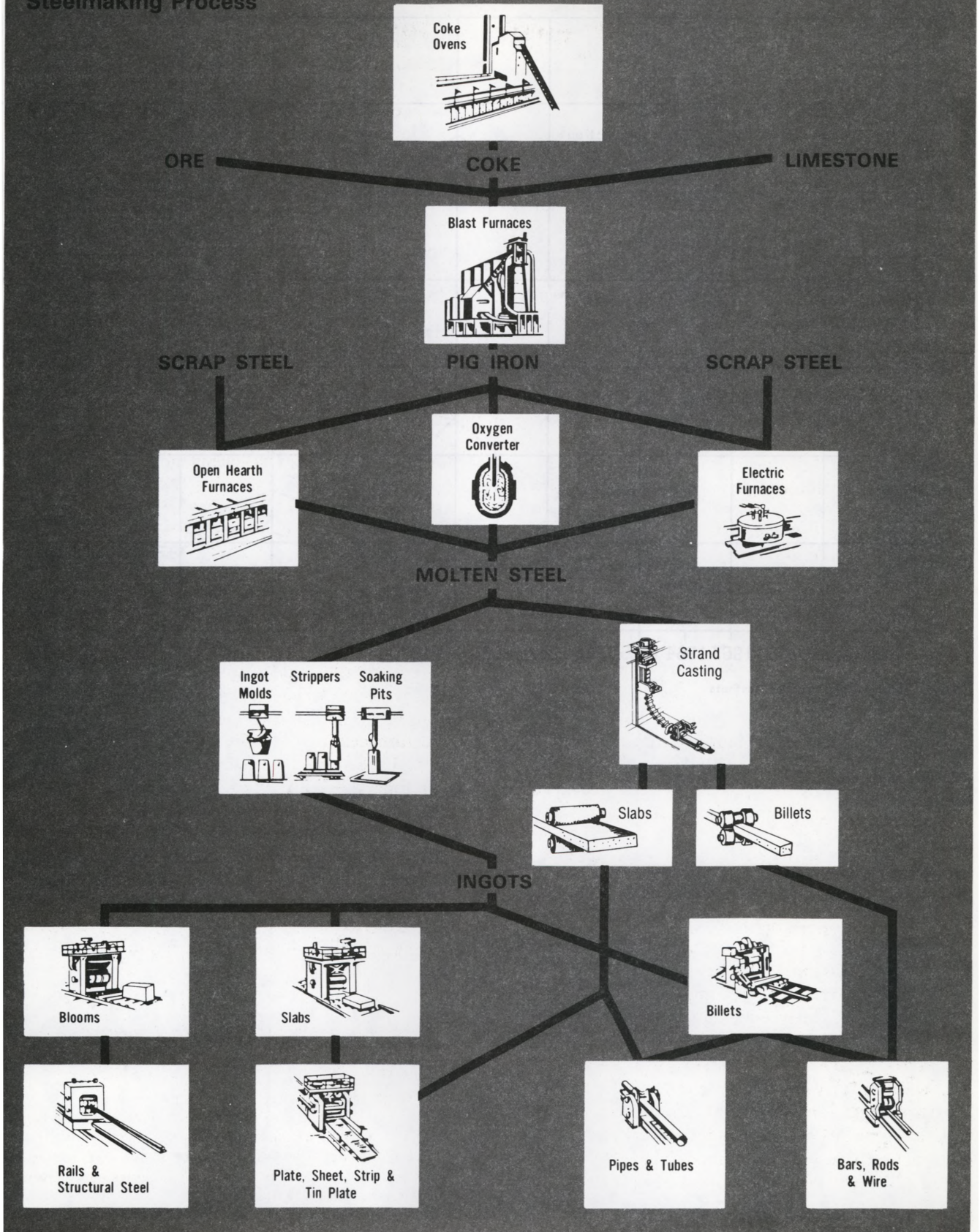
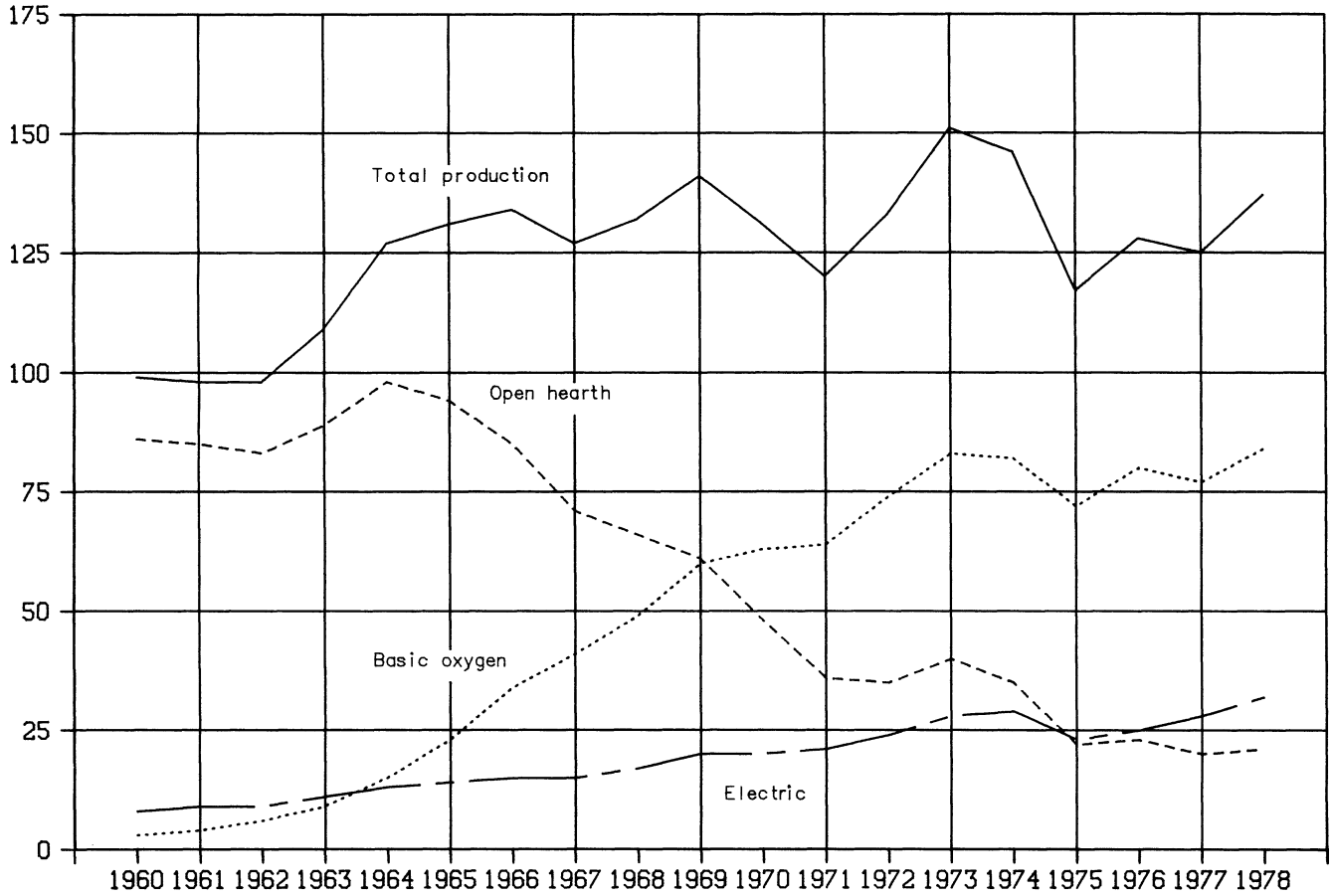


Chart 2. Steel production by major type of furnace, 1960-1978

Raw steel production (millions of net tons)



Source: American Iron and Steel Institute

Location. Although steel mills are found in over 30 States, production is concentrated in relatively few. In 1978, 5 States accounted for seven-tenths of U.S. raw steel production: Pennsylvania (20 percent), Indiana (18 percent), Ohio (15 percent), Illinois (9 percent), and Michigan (8 percent).⁹ Similarly, steel employment was concentrated in these States, and to a lesser extent in Alabama, California, Maryland, and New York.

Union contract status. Nearly all establishments studied reported that collective bargaining agreements covered a majority of their plant workers. The USA had contracts with plants that employed 94 percent of the industry's work force. During February 1978, major basic steel companies were operating under contracts with the USA which began in August 1977 and were due to expire in August 1980. If the 1977 procedures are followed, however, several major companies and the Steelworkers will try to settle on new contract terms well before the August 1980 expiration date. Both sides attributed the early settlement in 1977 to the "Experimental Negotiating Agreement," which set a number of procedural deadlines and rules.

Job evaluation system. Slightly over two-thirds 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. 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 34 established labor grades. (See appendix A for the wage schedule relating to the system.) At the time of the 1978 survey, the minimum rate was \$6.705 an hour and the uniform increment between grades was 11.1 cents. Janitors and general laborers, grades 1 and 2, which have the same rate, were found at the bottom of the wage structure. Not all of the establishments using the system have the full complement of grades.

About one-tenth of the production workers were in plants that used the job evaluation system described above, but had different minimum rates and/or different increments between job classes. Mills with other types of formal job evaluation systems had approximately one-fifth of the work force, and mills without a formal system, less than 5 percent.

Method of wage payment. Four-fifths of the production and related workers covered by the study received pay based on some form of wage incentive; seven-eighths in establishments that used the common job evaluation system and two-thirds in other establishments. The majority of the workers in all but seven of the occupations studied separately were paid on an incentive basis. The survey occupations that were typically time rated were

janitor, laborer, toolmaker, wire-drawer, assistant bar-mill roller, strand caster, and run-out operator.

Average hourly earnings

Straight-time earnings of 345,000 production and related workers in basic iron and steel mills averaged \$8.32 an hour in February 1978¹⁰ (table 1). This was 74 percent higher than the \$4.79 average that was recorded in the Bureau's September 1972 study. By comparison, earnings of all production workers in manufacturing rose 51 percent¹¹ between these dates, while consumer prices increased by 49 percent.¹²

Much of the 74-percent increase in average earnings is attributable to general wage changes negotiated under union contracts.¹³ In mills with common job and pay systems, the average went up 75 percent between September 1972 and February 1978. Increases by job class varied widely during the same period, however—from 91 percent (\$3.52 to \$6.71) for job classes 1 and 2 to 59 percent for job class 34, the top class. (See appendix A for wage rates.) In mills without the common job and pay system, wage levels rose 73 percent.

Steelworkers in establishments with the common job and pay system averaged \$8.45 an hour in February 1978 compared to \$8.03 for those in other establishments. Timeworkers in the former group held a 81-cent advantage over their counterparts in other steel mills. However, for incentive workers, the situation was reversed—a 7-cent advantage to workers not under the common job and pay system.

Individual earnings of 90 percent of the production workers ranged from \$6.60 to \$10 an hour. The middle 50 percent of the workers earned between \$7.58 and \$9.04 an hour—a relatively narrow band. The dispersion index for production workers was 18, among the

⁹ American Iron and Steel Institute.

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 worker-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 Based on the BLS Hourly Earnings Index.

¹² Based on the BLS Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

¹³ Steelworkers under common job and pay systems received two major types of wage changes between 1972 and 1978: (1) General increases granted annually, and (2) cost-of-living adjustments each quarter. Also contributing to the large wage changes were increases in rates used for incentive calculations and adjustments to the size of the increments between job classes.

lowest of those recorded for a manufacturing industry included in the Bureau's Industry Wage Survey program.¹⁴

The primary reason for this concentration of earnings is the degree of uniformity built into the nationwide job evaluation system in force for a large majority of the workers. Although four-fifths of the workers had incentive pay in February 1978, they were primarily under a group-bonus plan which limits variations in earnings among individual workers. Most of the total earnings variation for timeworkers was due to the way they were distributed among steel mills with different pay levels; for incentive workers, in contrast, dispersion of earnings was overwhelming—the result of the earnings ranges for occupations within establishments.

Occupational earnings

Wage data were obtained for approximately 100 occupational classifications selected to represent earnings levels for various activities performed by production workers; these occupations accounted for approximately one-third of the total production work force (table 2). For purposes of this survey, the jobs were divided into two groups. In the first group, jobs classifications were limited to workers in selected departments. The three most numerically important jobs in this group and their February 1978 averages were wire drawer on continuous machines in rod and wire mills (\$6.55 an hour), cut-off machine operator in tube mills (\$7.75), and keeper helper in blast furnaces (\$8.29). The most populous jobs in the second group, which included workers regardless of department, were millwright (\$8.91 an hour), laborer (\$6.67), and motor inspector (\$9.01).

For skilled repair and maintenance personnel in establishments that used the common job and pay system, data were reported separately for workers receiving the top rate for the job and for those receiving lower rates.¹⁵ Average earnings for those at the top rates ranged from \$9.50 an hour for electronic repairmen to \$8.57 for painters. The difference in earnings between top rated and lower rated workers within the same job amounted to 7 percent or less in 18 of the 21 craft occupations where other averages could be published. For millwrights, 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 almost always earned more than timeworkers in the same job. For most of the 41 occupational classifications permitting comparison, the differential fell between 5 percent and 40 percent. A similar spread was noted in the 1972 survey.

To understand better the earnings patterns that emerged among incentive-paid jobs, the formal pay policy in establishments under a common job and pay system was examined. These establishments, employing

two-thirds of the 345,000 production and related workers covered by the study, divide their incentive jobs into three categories: Direct incentive, indirect incentive, and secondary indirect incentive jobs. The groups are differentiated by the extent to which a worker, 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 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 rate, 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 rates 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 2, four-fifths of the job class averages in specified departments were at least 15 percent above the basic wage rates. On the other hand, averages for incentive workers in jobs classified regardless of department (the "all departments" group) ranged from 5 percent to 9 percent above in nearly three-fifths of the cases. Only one-seventh of the job class averages were 30 percent or more above the basic rates in specified departments in 1978 compared with three-sevenths of those in 1972.

These patterns reflect, to some degree, 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. 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 guide.

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 \$2 or more. Consequently, a number of workers in comparatively low job classes earned more than some workers

¹⁴ The dispersion index is computed by dividing the difference between the first and third quartiles by the median.

¹⁵ 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.

Text table 2. Number of job classes in which incentive earnings exceeded basic wage rates¹ by specified percentages for incentive workers in basic iron and steel mills with common job and pay systems

Department or occupation	Total number of job class averages tabulated	Number of job class averages in which earnings exceed basic wage scales by specified percentages								
		0 to 4 percent	5 to 9 percent	10 to 14 percent	15 to 19 percent	20 to 24 percent	25 to 29 percent	30 to 34 percent	35 to 39 percent	40 percent and over
Selected departments ³	133	1	8	20	27	38	20	7	4	8
Basic oxygen furnaces	13	—	—	1	4	6	2	—	—	—
Bloom-slab and billet mills	20	—	—	3	5	5	2	—	1	4
Bar mills	8	—	2	4	2	—	—	—	—	—
Continuous hot-strip mills	21	1	1	—	5	8	4	1	1	—
Cold-strip and sheet mills	17	—	—	—	2	5	3	3	1	3
All departments ⁴	86	4	50	26	5	1	—	—	—	—
Electricians (shop)	4	—	2	2	—	—	—	—	—	—
Machinists	3	—	—	3	—	—	—	—	—	—
Millwrights	4	—	1	2	1	—	—	—	—	—
Mobile equipment mechanics	3	—	3	—	—	—	—	—	—	—
First power engineers	4	—	4	—	—	—	—	—	—	—

¹Includes cost-of-living pay.

²Limited to job class information published in table 2.

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

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

in higher job classes. The following tabulation for establishments using common job and pay systems, illustrates the overlap in earnings between scarfers (job class 7) and wire drawers (job class 9) despite a \$1.35 difference in hourly averages between the two jobs.

	Number of workers	
	Scarfers Job class 7	Wire drawers (continuous machines) Job class 9
Under \$8.00	12	52
\$8.00 and under \$8.50	39	4
\$8.50 and under \$9.00	5	79
\$9.00 and under \$9.50	11	32
\$9.50 and under \$10.00	45	62
\$10.00 and under \$10.50	21	4
\$10.50 and under \$11.00	4	10
\$11.00 and under \$11.50	33	10
\$11.50 and under \$12.00	13	—
\$12.00 and over	57	—
Total workers	240	253
Average hourly earnings	\$10.43	\$9.08

Establishment practices and supplementary wage benefits

Data also were obtained on certain establishment practices including overtime, shift work, and work schedules, as well as on provisions for paid holidays, paid vacations, health insurance and retirement plans, and other benefits for plant 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 plantworkers in February 1978. 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; and (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 February 1978, workers under such contracts were paid a premium of 50 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, slightly over one-fourth of the production workers were employed on second shifts and another one-fifth, on third or other late shifts. More than nine-tenths of the second-shift workers received differentials of 20 cents an hour above day rates; virtually all workers on third or other late shifts received differentials of 30 cents an hour. About 3 of every 5 steelworkers were assigned to rotating shifts, where day, evening, and night tours are variously worked; most of these workers staffed departments that must be in continuous operation; e.g., blast and open hearth furnaces. A large majority of the remaining were found on fixed day shifts.

Paid holidays. Paid holidays (mostly 10 days annually) were provided to plant workers by all establishments studied. Union contracts usually listed the following as paid holidays: New Year's Day, Washington's Birthday, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, the day after Thanksgiving, Christmas Eve, and Christmas Day. Holidays that

fall on a Sunday were observed the following Monday. For work on a paid holiday, employees received two and one-half times their regular rate of pay.

Annual and extended paid vacations. Annual paid vacations, after qualifying periods of service, were provided to production workers by all establishments. Typical vacation provisions at selected periods of service were 1 week's pay after 1 year of service, 2 weeks after 3 years, 3 weeks after 10 years, 4 weeks after 17 years, and 5 weeks after 25 years.

Vacation bonuses—lump-sum payments in addition to vacation pay—applied to nearly nine-tenths of the plantworkers. These bonuses, which ranged from \$30 to \$75 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 seven-eighths 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 provided 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.

Health, insurance, and retirement benefits. Nearly all steel production workers were provided benefits through life, sickness and accident, hospitalization, surgical, basic medical, and major medical insurance programs. In nearly all instances, employers paid all of the cost of these programs.

Under provisions found in the major union contracts in the industry, basic life insurance for active plantworkers ranged from \$10,000 to \$12,500, depending on wage rates, and for retirees, from \$2,100 to \$3,000 in February 1978. Weekly benefits under the sickness and accident plan ranged from \$131 to \$183 at that time. The duration of sickness and accident insurance benefits for those with less than 2 years of service was 26

weeks; for those with 2 to 19 years, 52 weeks; and with 20 years or more, 104 weeks. The medical insurance plan also covered dependents and provided 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 and annual/lifetime limits.

Pension plans, providing benefits in addition to those under Federal social security, applied to nearly all plantworkers. The pension formula in major contracts was based on years of service and earnings in the last year of service; it granted a worker with last-year earnings of \$25,000 a monthly pension of \$438 for 20 years of service and \$656, for 30 years, as of February 1978. Pension plans in the major steel companies also included provisions for vesting, early retirement, permanent disability, and partial payments to widows and widowers.

Other selected benefits. Technological severance pay was provided by establishments employing slightly less than four-fifths of the production 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. Major union contracts provide that plant employees receive pay during weeks in which a worker is eligible for State unemployment benefits.

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.

Table 1. Earnings distribution

(Percent of production workers in basic iron and steel establishments, February 1978)

Hourly earnings ¹	All establishments			Establishments under common job and pay systems ²			Establishments not under common job and pay systems		
	All workers	Time-workers	Incentive workers	All workers	Time-workers	Incentive workers	All workers	Time-workers	Incentive workers
Under \$4.00	0.4	2.2	(³)	-	-	-	1.4	4.0	0.1
\$4.00 and under \$4.20 .....	.3	1.5	(³)	-	-	-	1.0	2.7	.1
\$4.20 and under \$4.40 .....	.2	1.2	(³)	-	-	-	.8	2.1	.1
\$4.40 and under \$4.60 .....	.2	.7	(³)	-	-	-	.5	1.3	.1
\$4.60 and under \$4.80 .....	.2	.6	(³)	-	-	-	.5	1.0	.2
\$4.80 and under \$5.00 .....	.3	.9	0.1	-	-	-	.8	1.6	.4
\$5.00 and under \$5.20 .....	.4	1.7	.1	-	-	-	1.2	3.0	.3
\$5.20 and under \$5.40 .....	.1	.6	(³)	-	-	-	.4	1.0	.1
\$5.40 and under \$5.60 .....	.2	1.0	(³)	-	-	-	.7	1.9	.1
\$5.60 and under \$5.80 .....	.2	1.0	(³)	-	-	-	.7	1.8	.1
\$5.80 and under \$6.00 .....	.2	.9	(³)	-	-	-	.6	1.6	.1
\$6.00 and under \$6.20 .....	.3	1.2	.1	-	-	-	.8	2.0	.2
\$6.20 and under \$6.40 .....	.4	1.7	.1	-	-	-	1.3	3.1	.3
\$6.40 and under \$6.60 .....	.5	1.9	.2	-	-	-	1.5	3.4	.6
\$6.60 and under \$6.80	4.4	13.3	2.2	4.5	17.4	2.6	4.5	10.2	1.6
\$6.80 and under \$7.00	4.0	11.6	2.2	3.3	9.8	2.3	5.6	13.1	1.8
\$7.00 and under \$7.20	3.4	7.8	2.3	3.2	7.9	2.4	3.9	7.7	1.9
\$7.20 and under \$7.40	4.0	7.8	3.0	3.9	9.4	3.1	4.2	6.6	3.0
\$7.40 and under \$7.60	5.9	8.1	5.3	5.8	9.3	5.3	5.9	7.1	5.3
\$7.60 and under \$7.80	5.8	5.8	5.8	5.8	6.8	5.6	5.8	4.9	6.2
\$7.80 and under \$8.00	6.5	5.3	6.8	6.9	7.0	6.9	5.7	3.9	6.6
\$8.00 and under \$8.20	7.9	5.2	8.6	8.6	5.8	9.0	6.5	4.7	7.5
\$8.20 and under \$8.40	7.1	4.9	7.6	7.7	8.5	7.6	5.6	1.9	7.5
\$8.40 and under \$8.60	7.3	3.4	8.3	8.3	5.6	8.7	5.4	1.6	7.3
\$8.60 and under \$8.80	7.0	1.7	8.2	7.9	3.0	8.6	5.0	.7	7.2
\$8.80 and under \$9.00	6.4	1.9	7.5	7.4	3.0	8.0	4.2	1.0	5.9
\$9.00 and under \$9.20	5.8	1.8	6.8	6.4	3.0	6.9	4.5	.8	6.3
\$9.20 and under \$9.40	5.2	1.1	6.3	5.7	1.5	6.3	4.4	.7	6.2
\$9.40 and under \$9.60	4.4	.6	5.4	4.3	.8	4.9	4.6	.4	6.7
\$9.60 and under \$9.80	2.7	.4	3.3	2.5	.1	2.8	3.2	.7	4.5
\$9.80 and under \$10.00	2.2	.3	2.6	2.2	.1	2.5	2.1	.5	3.0
\$10.00 and under \$10.40	2.3	1.0	2.6	2.2	.2	2.5	2.5	1.6	3.0
\$10.40 and under \$10.80	1.3	.4	1.5	1.3	.4	1.4	1.3	.5	1.7
\$10.80 and under \$11.20 .....	.9	.2	1.0	.8	.2	.9	1.0	.3	1.4
\$11.20 and under \$11.60 .....	.5	.1	.5	.4	.1	.5	.5	.1	.7
\$11.60 and under \$12.00 .....	.3	(³)	.4	.3	(³)	.3	.5	.1	.7
\$12.00 and over .....	.9	.2	1.0	.8	(³)	.9	1.1	.4	1.4
Number of workers	345,163	68,130	277,033	233,539	30,314	203,225	111,624	37,816	73,808
Hourly earnings:									
Mean	\$8.32	\$7.20	\$8.59	\$8.45	\$7.65	\$8.57	\$8.03	\$6.84	\$8.64
Median	8.32	7.21	8.54	8.41	7.51	8.52	8.07	6.95	8.57
Middle range:									
First quartile	7.58	6.73	7.90	7.75	6.91	7.91	7.16	6.25	7.88
Third quartile	9.04	7.90	9.18	9.05	8.26	9.12	9.03	7.59	9.33

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes establishments under common job and pay systems, that is, with the same minimum hourly rate (\$6.705 an hour) and the same increment (11.1 cents) between job classes.

³ Less than 0.05 percent.

NOTE: Because of rounding, sums of individual items may not equal 100. Dashes indicate no data.

Table 2. Occupational hourly earnings by method of wage payment

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
COKE WORKS AND BYPRODUCTS										
DCOR-MACHINE OPERATORS.....	592	\$8.25	\$8.22	\$8.16- \$8.47	530	\$8.35	\$8.29	\$8.16- \$8.47	62	\$7.37
UNDER COMMON JOB AND PAY SYSTEM..	407	8.30	8.32	8.16- 8.63	372	8.40	8.32	8.16- 8.63	-	-
JOB CLASS 11.....	230	8.50	8.42	8.29- 8.63	229	8.50	8.42	8.29- 8.63	-	-
HEATERS.....	419	9.18	9.29	8.90- 9.44	370	9.28	9.29	8.90- 9.48	49	8.40
UNDER COMMON JOB AND PAY SYSTEM..	274	9.30	9.35	9.04- 9.74	240	9.42	9.35	9.13- 9.88	34	8.48
JOB CLASS 17.....	27	9.68	9.88	9.04- 9.88	27	9.68	9.88	9.04- 9.88	-	-
JOB CLASS 18.....	209	9.26	9.35	9.13- 9.54	175	9.42	9.35	9.23- 9.54	34	8.48
NOT UNDER COMMON JOB AND PAY SYSTEM.....	145	8.93	8.90	8.46- 9.29	130	9.02	8.90	8.90- 9.29	-	-
LIDMEN.....	516	7.77	7.76	7.58- 8.05	468	7.86	7.82	7.58- 8.05	-	-
UNDER COMMON JOB AND PAY SYSTEM..	361	7.88	7.82	7.67- 8.05	343	7.92	8.00	7.72- 8.08	-	-
JOB CLASS 05.....	161	7.99	8.03	7.72- 8.24	161	7.99	8.03	7.72- 8.24	-	-
JOB CLASS 06.....	70	7.76	8.00	7.18- 8.45	53	7.96	8.00	7.18- 8.45	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	155	7.52	7.58	7.58- 7.72	-	-	-	-	-	-
PUSHER OPERATORS.....	383	8.48	8.44	8.20- 8.77	340	8.58	8.60	8.31- 8.82	-	-
UNDER COMMON JOB AND PAY SYSTEM..	224	8.58	8.60	8.37- 8.82	208	8.64	8.60	8.44- 8.82	16	7.75
JOB CLASS 11.....	73	8.64	8.82	8.37- 9.06	57	8.89	8.82	8.62- 9.25	16	7.75
JOB CLASS 12.....	151	8.55	8.60	8.44- 8.76	151	8.55	8.60	8.44- 8.76	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	159	8.33	8.31	8.20- 8.75	132	8.47	8.31	8.20- 8.75	-	-
WHARFMEN.....	253	7.26	7.24	6.98- 7.48	205	7.33	7.29	7.14- 7.52	-	-
UNDER COMMON JOB AND PAY SYSTEM..	166	7.25	7.24	6.94- 7.48	154	7.27	7.24	6.98- 7.48	-	-
JOB CLASS 03.....	154	7.25	7.24	6.93- 7.48	142	7.28	7.29	6.98- 7.48	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	87	7.30	7.25	7.07- 7.52	51	7.50	7.38	7.25- 7.65	-	-
BLAST FURNACES, ORE HANDLING, AND SINTER PLANT										
CINDER SNAPPERS.....	422	8.21	8.16	8.00- 8.25	407	8.25	8.17	8.00- 8.25	-	-
UNDER COMMON JOB AND PAY SYSTEM..	270	8.23	8.16	7.93- 8.36	270	8.23	8.16	7.93- 8.36	-	-
JOB CLASS 06.....	165	8.21	8.04	7.93- 8.46	165	8.21	8.04	7.93- 8.46	-	-
JOB CLASS 09.....	77	8.28	8.10	7.90- 8.17	77	8.28	8.10	7.90- 8.17	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	152	8.17	8.25	8.09- 8.25	137	8.27	8.25	8.09- 8.25	-	-
FIRST BLOWING ENGINEERS.....	234	9.17	8.94	8.35- 9.50	207	8.81	8.88	8.34- 9.50	-	-
UNDER COMMON JOB AND PAY SYSTEM..	157	9.05	8.39	8.34- 9.30	130	8.46	8.36	8.27- 8.43	-	-
JOB CLASS 13.....	63	8.40	8.39	8.35- 8.39	63	8.40	8.39	8.35- 8.39	-	-
JOB CLASS 14.....	20	9.11	9.30	8.88- 9.30	20	9.11	9.30	8.88- 9.30	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	77	9.40	9.50	9.38- 9.50	77	9.40	9.50	9.38- 9.50	-	-
KEEPERS.....	545	9.12	9.12	8.75- 9.39	529	9.16	9.12	8.81- 9.39	-	-
UNDER COMMON JOB AND PAY SYSTEM..	360	9.17	9.12	8.82- 9.40	359	9.18	9.12	8.82- 9.40	-	-
JOB CLASS 14.....	341	9.16	9.12	8.82- 9.40	340	9.17	9.12	8.82- 9.40	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	185	9.02	9.05	8.75- 9.29	170	9.12	9.05	8.75- 9.29	-	-
KEEPER HELPERS.....	1,272	8.29	8.36	7.93- 8.62	1,257	8.31	8.36	7.96- 8.62	-	-
UNDER COMMON JOB AND PAY SYSTEM..	785	8.38	8.42	8.12- 8.71	785	8.38	8.42	8.12- 8.71	-	-
JOB CLASS 04.....	78	7.59	7.54	7.49- 7.69	78	7.59	7.54	7.49- 7.69	-	-
JOB CLASS 06.....	61	8.51	8.65	8.20- 8.65	61	8.51	8.65	8.20- 8.65	-	-
JOB CLASS 07.....	121	8.15	8.08	7.93- 8.29	121	8.15	8.08	7.93- 8.29	-	-
JOB CLASS 09.....	348	8.67	8.71	8.42- 8.79	348	8.67	8.71	8.42- 8.79	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	487	8.14	8.33	7.64- 8.49	472	8.18	8.33	7.64- 8.49	-	-
LARRYMEN.....	488	8.60	8.55	8.35- 8.93	449	8.70	8.57	8.47- 8.95	-	-
UNDER COMMON JOB AND PAY SYSTEM..	302	8.74	8.77	8.35- 9.01	302	8.74	8.77	8.35- 9.01	-	-
JOB CLASS 10.....	165	8.67	8.66	8.35- 8.95	165	8.67	8.66	8.35- 8.95	-	-
JOB CLASS 11.....	65	9.09	9.14	8.93- 9.23	65	9.09	9.14	8.93- 9.23	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	186	8.37	8.54	7.94- 8.57	147	8.62	8.54	8.54- 8.57	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
BLAST FURNACES, ORE HANDLING, AND SINTER PLANT--CONTINUED										
ORE-BRIDGE CRANEMEN.....	329	\$8.66	\$8.76	\$8.31- \$9.04	329	\$8.66	\$8.76	\$8.31- \$9.04	-	-
UNDER COMMON JOB AND PAY SYSTEM..	218	8.51	8.32	8.20- 9.00	218	8.51	8.32	8.20- 9.00	-	-
JOB CLASS 12.....	159	8.30	8.31	8.09- 8.50	159	8.30	8.31	8.09- 8.50	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	111	8.95	9.04	8.78- 9.04	111	8.95	9.04	8.78- 9.04	-	-
SINTERING-MACHINE OPERATORS.....	174	8.55	8.50	8.04- 8.83	168	8.57	8.58	8.19- 8.83	-	-
UNDER COMMON JOB AND PAY SYSTEM..	142	8.55	8.58	7.97- 8.86	136	8.57	8.58	7.97- 8.86	-	-
JOB CLASS 10.....	22	8.55	8.73	7.88- 9.07	22	8.55	8.73	7.88- 9.07	-	-
JOB CLASS 12.....	43	8.66	8.72	8.68- 8.86	43	8.66	8.72	8.68- 8.86	-	-
JOB CLASS 14.....	23	9.05	9.71	8.24- 9.71	-	-	-	-	-	-
STOCK UNLOADERS.....	621	7.45	7.36	7.15- 7.70	549	7.52	7.43	7.18- 7.86	72	\$6.92
UNDER COMMON JOB AND PAY SYSTEM..	491	7.51	7.31	7.15- 7.93	455	7.54	7.47	7.18- 7.94	-	-
JOB CLASS 03.....	14	7.30	-	-	14	7.30	-	-	-	-
JOB CLASS 04.....	286	7.32	7.18	7.08- 7.51	270	7.34	7.18	7.08- 7.51	-	-
JOB CLASS 07.....	18	7.48	7.43	7.26- 7.75	15	7.52	7.43	7.26- 7.75	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	130	7.22	7.36	6.73- 7.43	94	7.41	7.43	7.29- 7.43	-	-
OPEN HEARTH FURNACES										
CHARGING-MACHINE OPERATORS.....	264	9.83	9.84	9.50- 10.66	213	10.17	10.38	9.56- 10.78	-	-
UNDER COMMON JOB AND PAY SYSTEM..	193	9.86	9.84	8.91- 10.78	157	10.23	9.84	9.84- 10.98	-	-
JOB CLASS 16.....	138	9.61	9.84	8.26- 9.84	102	10.09	9.84	9.84- 10.41	-	-
JOB CLASS 17.....	43	10.44	11.04	8.91- 11.14	43	10.44	11.04	8.91- 11.14	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	71	9.76	9.50	9.50- 10.38	-	-	-	-	-	-
FIRST HELPERS.....	481	11.58	11.87	10.56- 12.37	418	11.88	11.87	11.27- 12.39	-	-
UNDER COMMON JOB AND PAY SYSTEM..	287	12.21	12.34	11.30- 13.01	286	12.22	12.34	11.30- 13.01	-	-
JOB CLASS 27.....	169	12.35	12.38	12.34- 13.01	169	12.35	12.38	12.34- 13.01	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	194	10.66	10.29	9.66- 11.87	132	11.14	11.27	10.29- 11.87	-	-
LADLE CRANEMEN.....	337	9.84	10.02	9.11- 10.60	286	10.09	10.29	9.13- 10.72	-	-
UNDER COMMON JOB AND PAY SYSTEM..	246	9.95	10.28	9.11- 10.78	210	10.24	10.51	9.51- 10.79	-	-
JOB CLASS 13.....	48	10.21	10.60	10.51- 10.60	48	10.21	10.60	10.51- 10.60	-	-
JOB CLASS 16.....	102	9.53	9.51	8.26- 10.28	66	10.23	10.28	9.51- 10.66	-	-
JOB CLASS 17.....	67	10.37	10.94	10.02- 11.07	67	10.37	10.94	10.02- 11.07	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	91	9.54	9.13	9.11- 10.45	76	9.68	9.13	9.11- 10.45	-	-
STOCKERS, RAW MATERIALS.....	246	7.97	7.76	7.37- 8.73	153	8.40	8.67	8.08- 8.90	93	7.26
UNDER COMMON JOB AND PAY SYSTEM..	199	8.15	8.08	7.37- 8.86	145	8.44	8.67	8.08- 8.90	-	-
JOB CLASS 01 AND 02.....	27	8.49	9.04	7.26- 9.04	27	8.49	9.04	7.26- 9.04	-	-
JOB CLASS 04.....	31	8.65	8.86	8.74- 8.90	31	8.65	8.86	8.74- 8.90	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	47	7.21	6.84	6.63- 7.76	-	-	-	-	-	-
SECOND HELPERS.....	526	9.92	10.01	9.05- 10.70	414	10.33	10.23	9.94- 10.88	112	8.39
UNDER COMMON JOB AND PAY SYSTEM..	337	10.18	10.55	10.01- 10.97	282	10.60	10.67	10.01- 11.11	-	-
JOB CLASS 15.....	212	10.39	10.47	10.01- 11.11	212	10.39	10.47	10.01- 11.11	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	189	9.44	9.21	8.73- 9.94	132	9.75	9.94	9.18- 9.94	-	-
SECOND STEEL POURERS.....	119	9.99	10.48	8.93- 10.70	104	10.21	10.48	10.13- 10.70	-	-
UNDER COMMON JOB AND PAY SYSTEM..	56	10.15	10.48	10.13- 10.53	56	10.15	10.48	10.13- 10.53	-	-
JOB CLASS 14.....	38	10.16	10.48	10.48- 10.53	38	10.16	10.48	10.48- 10.53	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	63	9.85	10.70	8.93- 10.70	-	-	-	-	-	-
STOCKYARD CRANEMEN.....	390	8.82	8.90	8.22- 9.35	338	9.01	9.19	8.63- 9.36	-	-
UNDER COMMON JOB AND PAY SYSTEM..	245	8.76	8.63	7.88- 9.51	208	9.01	9.19	8.63- 9.58	-	-
JOB CLASS 06.....	31	9.09	8.48	8.00- 10.47	31	9.09	8.48	8.00- 10.47	-	-
JOB CLASS 07.....	169	8.99	9.19	8.63- 9.51	169	8.99	9.19	8.63- 9.51	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	145	8.93	8.90	8.46- 9.29	130	9.02	8.90	8.90- 9.29	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
ELECTRIC FURNACES										
FIRST HELPERS.....	513	\$10.22	\$10.37	\$8.93-\$11.24	382	\$10.67	\$11.21	\$10.32-\$11.49	-	-
UNDER COMMON JOB AND PAY SYSTEM..	385	10.64	10.64	9.67- 11.21	294	11.17	11.21	10.33- 12.20	-	-
JOB CLASS 23.....	138	11.02	11.21	10.33- 11.21	138	11.02	11.21	10.33- 11.21	-	-
JOB CLASS 24.....	114	11.51	12.20	10.64- 12.20	113	11.53	12.20	10.64- 12.20	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	128	8.95	8.87	6.16- 11.45	88	8.99	11.00	6.16- 11.45	-	-
MOULD MEN.....	188	8.79	8.91	7.82- 9.76	168	9.00	8.91	8.07- 9.76	-	-
UNDER COMMON JOB AND PAY SYSTEM..	144	8.82	8.91	8.01- 9.73	144	8.82	8.91	8.01- 9.73	-	-
STOPPER MAKERS.....	84	7.02	7.73	5.00- 8.69	84	7.02	7.73	5.00- 8.69	-	-
UNDER COMMON JOB AND PAY SYSTEM..	38	8.89	9.19	8.62- 9.32	38	8.89	9.19	8.62- 9.32	-	-
BASIC OXYGEN FURNACES										
GAS CLEANERS.....	38	8.43	8.34	7.75- 9.11	30	8.66	8.34	7.90- 9.23	-	-
UNDER COMMON JOB AND PAY SYSTEM..	30	8.61	8.34	7.78- 9.23	22	8.99	9.11	8.34- 9.23	-	-
JOB CLASS 09.....	30	8.61	8.34	7.78- 9.23	22	8.99	9.11	8.34- 9.23	-	-
FURNACE OPERATORS.....	222	10.72	10.84	9.82- 11.99	207	11.19	10.66	10.14- 12.05	-	-
UNDER COMMON JOB AND PAY SYSTEM..	136	11.46	11.36	10.63- 12.83	136	11.46	11.36	10.63- 12.83	-	-
JOB CLASS 23.....	63	11.05	10.86	10.84- 11.70	63	11.05	10.86	10.84- 11.70	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	86	9.54	9.82	9.82- 11.85	71	10.67	9.82	9.82- 11.85	-	-
FURNACEMEN, FIRST.....	202	10.43	10.60	9.16- 11.88	202	10.43	10.60	9.16- 11.88	-	-
UNDER COMMON JOB AND PAY SYSTEM..	113	10.85	10.60	9.92- 12.06	113	10.85	10.60	9.92- 12.06	-	-
JOB CLASS 14.....	28	10.29	10.60	9.67- 10.60	28	10.29	10.60	9.67- 10.60	-	-
JOB CLASS 15.....	18	9.33	9.16	9.16- 9.92	18	9.33	9.16	9.16- 9.92	-	-
JOB CLASS 16.....	19	10.03	10.11	9.42- 10.30	19	10.03	10.11	9.42- 10.30	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	89	9.89	9.39	8.78- 11.12	89	9.89	9.39	8.78- 11.12	-	-
LADLE CRANEMEN.....	393	9.77	9.67	8.96- 10.28	393	9.77	9.67	8.96- 10.28	-	-
UNDER COMMON JOB AND PAY SYSTEM..	261	9.92	9.84	9.43- 10.26	261	9.92	9.84	9.43- 10.26	-	-
JOB CLASS 13.....	59	9.42	9.43	9.43- 9.84	59	9.42	9.43	9.43- 9.84	-	-
JOB CLASS 16.....	128	10.12	10.11	9.89- 10.91	128	10.12	10.11	9.89- 10.91	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	132	9.48	9.11	8.78- 10.28	132	9.48	9.11	8.78- 10.28	-	-
LADLE LINERS.....	212	8.86	8.46	8.23- 8.98	212	8.86	8.46	8.23- 8.98	-	-
UNDER COMMON JOB AND PAY SYSTEM..	165	8.98	8.51	8.11- 8.96	165	8.98	8.51	8.11- 8.96	-	-
JOB CLASS 07.....	24	8.17	8.05	7.82- 8.25	24	8.17	8.05	7.82- 8.25	-	-
JOB CLASS 09.....	100	9.50	8.70	8.65- 9.22	100	9.50	8.70	8.65- 9.22	-	-
NOZZLE SETTERS.....	210	10.54	10.39	8.90- 12.37	210	10.54	10.39	8.90- 12.37	-	-
UNDER COMMON JOB AND PAY SYSTEM:	33	8.87	9.25	8.23- 9.25	33	8.87	9.25	8.23- 9.25	-	-
JOB CLASS 10.....	71	9.28	8.90	8.90- 10.39	71	9.28	8.90	8.90- 10.39	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	286	10.00	9.81	9.26- 10.31	286	10.00	9.81	9.26- 10.31	-	-
STEEL POURERS, FIRST.....	185	10.28	10.01	9.81- 10.89	185	10.28	10.01	9.81- 10.89	-	-
UNDER COMMON JOB AND PAY SYSTEM..	157	9.94	9.94	9.61- 10.26	157	9.94	9.94	9.61- 10.26	-	-
JOB CLASS 16.....	157	9.94	9.94	9.61- 10.26	157	9.94	9.94	9.61- 10.26	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	101	9.48	9.33	8.98- 9.61	101	9.48	9.33	8.98- 9.61	-	-
STOPPER MAKERS.....	65	8.50	8.09	7.96- 9.02	65	8.50	8.09	7.96- 9.02	-	-
UNDER COMMON JOB AND PAY SYSTEM..	41	8.44	8.11	7.95- 9.02	41	8.44	8.11	7.95- 9.02	-	-
JOB CLASS 05.....	26	8.17	7.98	7.89- 8.33	26	8.17	7.98	7.89- 8.33	-	-
JOB CLASS 06.....	15	8.89	9.36	8.31- 9.36	15	8.89	9.36	8.31- 9.36	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	24	8.62	8.09	8.06- 8.94	24	8.62	8.09	8.06- 8.94	-	-
UTILITIES ATTENDANTS.....	94	7.94	8.05	7.41- 8.10	94	7.94	8.05	7.41- 8.10	-	-
UNDER COMMON JOB AND PAY SYSTEM..	54	7.86	8.10	7.20- 8.10	54	7.86	8.10	7.20- 8.10	-	-
FOUNDRY										
COREMAKERS.....	33	9.97	8.89	8.04- 10.97	33	9.97	8.89	8.04- 10.97	-	-
UNDER COMMON JOB AND PAY SYSTEM..	24	10.56	10.55	8.56- 12.63	24	10.56	10.55	8.56- 12.63	-	-
JOB CLASS 14.....	18	11.27	10.97	10.42- 13.62	18	11.27	10.97	10.42- 13.62	-	-
MOULDERS.....	168	9.50	8.57	8.36- 10.07	149	9.68	8.77	8.42- 10.38	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
FOUNDRY--CONTINUED										
UNDER COMMON JOB AND PAY SYSTEM..	127	\$9.90	\$9.16	\$8.44-\$11.43	126	\$9.91	\$9.16	\$8.44-\$11.43	-	-
JOB CLASS 14.....	13	9.07	-	-	13	9.07	-	-	-	-
JOB CLASS 16.....	104	10.13	9.30	8.44- 12.69	103	10.15	9.30	8.44- 12.74	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	41	8.28	8.10	8.10- 8.36	-	-	-	-	-	-
BLOOM, SLAB, AND BILLET MILLS										
AUTOMATIC ROLLING ATTENDANTS.....	36	9.11	9.09	8.13- 9.70	-	-	-	-	-	-
BLOOMING HILL ROLLERS.....	190	12.45	11.80	11.18- 12.83	162	12.71	12.20	11.64- 13.06	-	-
UNDER COMMON JOB AND PAY SYSTEM..	142	12.59	11.80	11.46- 13.46	138	12.68	11.97	11.50- 13.61	-	-
JOB CLASS 27.....	45	12.04	11.66	11.46- 12.77	45	12.04	11.66	11.46- 12.77	-	-
JOB CLASS 28.....	32	11.56	11.64	10.71- 12.26	29	11.76	11.70	10.71- 12.26	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	48	12.05	11.69	11.18- 12.83	-	-	-	-	-	-
BOTTOM MAKERS.....	141	9.32	8.95	8.21- 9.50	130	9.49	8.95	8.22- 9.51	11	\$7.26
UNDER COMMON JOB AND PAY SYSTEM..	119	9.44	8.95	8.22- 9.48	108	9.66	9.06	8.58- 9.50	11	7.26
JOB CLASS 08.....	29	11.18	13.99	8.21- 13.99	25	11.79	13.99	8.58- 13.99	-	-
JOB CLASS 10.....	44	8.91	9.06	8.22- 9.43	43	8.94	9.06	8.22- 9.43	-	-
HOOKERS.....	344	7.99	7.94	7.75- 8.17	307	8.12	7.94	7.76- 8.17	37	6.87
UNDER COMMON JOB AND PAY SYSTEM..	242	8.16	8.15	7.76- 8.17	227	8.23	8.15	7.78- 8.17	-	-
JOB CLASS 05.....	159	8.19	8.15	7.86- 8.15	144	8.31	8.15	7.89- 8.15	-	-
MANIPULATORS.....	237	9.97	9.74	9.07- 10.56	201	10.33	10.21	9.35- 11.03	36	7.95
UNDER COMMON JOB AND PAY SYSTEM..	159	10.20	9.76	9.17- 10.60	154	10.28	9.76	9.35- 10.68	-	-
JOB CLASS 13.....	55	10.81	10.21	9.61- 10.39	55	10.81	10.21	9.61- 10.39	-	-
JOB CLASS 14.....	24	9.91	9.73	9.70- 10.41	22	10.08	10.01	9.70- 10.41	-	-
JOB CLASS 15.....	52	9.61	9.17	9.07- 10.47	50	9.67	9.26	9.07- 10.50	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	78	9.51	9.30	8.34- 10.56	47	10.52	10.56	9.30- 11.20	-	-
PIT RECORDERS.....	323	8.76	8.58	8.00- 9.45	283	8.94	8.79	8.29- 9.45	40	7.46
UNDER COMMON JOB AND PAY SYSTEM..	220	8.98	8.61	8.29- 9.51	212	9.03	8.79	8.30- 9.51	8	7.65
JOB CLASS 07.....	20	8.00	8.29	7.79- 8.29	20	8.00	8.29	7.79- 8.29	-	-
JOB CLASS 08.....	22	8.37	8.57	8.18- 8.58	22	8.37	8.57	8.18- 8.58	-	-
JOB CLASS 09.....	59	8.59	8.30	8.15- 9.01	56	8.65	8.41	8.15- 9.01	-	-
JOB CLASS 10.....	50	8.95	9.02	8.38- 9.51	48	9.01	9.02	8.38- 9.51	-	-
JOB CLASS 11.....	19	8.99	9.04	9.04- 9.23	-	-	-	-	-	-
JOB CLASS 14.....	15	9.08	9.25	8.79- 9.49	15	9.08	9.25	8.79- 9.49	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	103	8.27	8.00	7.61- 8.83	71	8.66	8.75	8.00- 9.45	-	-
SCARFERS.....	702	9.53	9.36	8.11- 10.60	551	10.20	9.99	8.91- 11.12	151	7.07
UNDER COMMON JOB AND PAY SYSTEM..	457	10.45	10.03	8.95- 11.60	450	10.49	10.03	8.95- 11.80	-	-
JOB CLASS 07.....	240	10.43	10.11	9.22- 11.86	235	10.50	10.11	9.22- 11.86	-	-
JOB CLASS 08.....	92	11.47	10.60	10.41- 13.52	91	11.51	10.60	10.60- 13.52	-	-
JOB CLASS 09.....	47	10.58	10.03	9.93- 10.03	47	10.58	10.03	9.93- 10.03	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	245	7.80	7.07	7.07- 8.11	101	8.90	8.84	8.11- 9.36	-	-
SOAKING-PIT CRANEMEN.....	681	9.69	9.57	9.10- 10.13	616	9.88	9.63	9.16- 10.25	65	7.93
UNDER COMMON JOB AND PAY SYSTEM..	445	9.84	9.60	9.09- 10.25	417	9.97	9.60	9.10- 10.83	28	7.93
JOB CLASS 15.....	398	9.91	9.60	9.10- 10.25	378	10.00	9.60	9.34- 10.83	20	8.15
NOT UNDER COMMON JOB AND PAY SYSTEM.....	236	9.42	9.34	9.16- 9.84	199	9.69	9.63	9.25- 9.84	-	-
SOAKING-PIT HEATERS.....	351	10.40	10.22	9.27- 11.16	310	10.67	10.54	9.61- 11.16	41	8.36
UNDER COMMON JOB AND PAY SYSTEM..	259	10.33	9.99	9.27- 10.82	243	10.45	10.01	9.47- 10.82	16	8.38
JOB CLASS 18.....	142	10.11	9.48	9.27- 10.01	129	10.27	9.73	9.27- 10.01	13	8.48
JOB CLASS 19.....	75	10.53	10.54	9.87- 11.24	73	10.58	10.54	9.87- 11.24	-	-
JOB CLASS 20.....	14	10.83	-	-	14	10.83	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	92	10.62	11.16	8.45- 11.16	67	11.47	11.16	11.13- 11.45	-	-
CONTINUOUS CASTING MILLS										
CONTINUOUS SLAB CASTERS.....	155	12.39	11.51	8.98- 15.38	114	13.62	15.38	11.21- 15.38	-	-
LADLE AND METAL TRANSFER CONTROLMEN	340	9.65	8.67	8.15- 10.97	232	10.36	9.16	8.67- 12.79	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
CONTINUOUS CASTING MILLS--CONTINUED										
UNDER COMMON JOB AND PAY SYSTEM..	272	\$9.78	\$8.67	\$8.15- \$12.79	164	\$10.86	\$12.79	\$8.67- \$12.79	-	-
JOB CLASS 14.....	19	9.12	8.36	8.36- 9.45	19	9.12	8.36	8.36- 9.45	-	-
RUN OUT OPERATORS.....	208	8.25	7.82	7.82- 8.80	96	8.93	8.98	8.41- 9.43	-	-
UNDER COMMON JOB AND PAY SYSTEM..	-	-	-	-	44	8.84	8.51	8.13- 9.29	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	92	8.31	8.41	7.43- 8.98	-	-	-	-	-	-
STEEL POURERS.....	80	8.81	8.72	7.87- 9.07	-	-	-	-	-	-
STRAND CASTERS.....	412	8.19	8.15	8.15- 10.09	143	9.91	10.09	10.09- 10.19	-	-
UNDER COMMON JOB AND PAY SYSTEM..	-	-	-	-	64	9.94	10.19	9.58- 10.19	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	159	7.54	5.22	5.22- 10.09	79	9.89	10.09	10.09- 10.09	-	-
PLATES										
BURNING-MACHINE OPERATORS.....	252	8.36	7.95	7.81- 9.10	219	8.52	7.95	7.81- 9.34	33	\$7.32
UNDER COMMON JOB AND PAY SYSTEM..	232	8.46	7.95	7.81- 9.34	215	8.54	7.95	7.81- 9.34	-	-
JOB CLASS 08.....	123	8.59	7.81	7.81- 9.42	108	8.76	7.89	7.81- 9.48	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	20	7.25	6.74	6.18- 9.02	-	-	-	-	-	-
PLATE LAYOUTS.....	152	8.54	7.84	7.84- 9.04	138	8.57	8.10	7.84- 8.90	14	8.17
UNDER COMMON JOB AND PAY SYSTEM..	124	8.62	7.86	7.84- 9.05	120	8.65	8.33	7.84- 9.05	-	-
JOB CLASS 10.....	17	10.29	9.57	9.57- 12.13	17	10.29	9.57	9.57- 12.13	-	-
BAR MILLS										
ASSISTANT BAR-MILL ROLLERS.....	132	10.25	10.41	9.48- 11.09	65	10.33	10.84	9.24- 11.09	-	-
UNDER COMMON JOB AND PAY SYSTEM..	114	10.49	10.54	9.88- 11.30	59	10.45	10.84	9.48- 11.09	-	-
JOB CLASS 19.....	33	10.51	11.09	9.88- 11.09	32	10.57	11.09	9.88- 11.09	-	-
CHARGERS.....	178	7.32	7.15	7.15- 8.38	124	7.39	7.97	4.19- 8.82	-	-
UNDER COMMON JOB AND PAY SYSTEM..	117	7.95	7.65	7.15- 8.82	63	8.63	8.69	7.86- 9.17	-	-
JOB CLASS 06.....	101	7.82	7.15	7.15- 8.64	47	8.59	8.69	8.13- 9.06	-	-
JOB CLASS 07.....	12	9.22	-	-	12	9.22	-	-	-	-
ROUGHERS.....	147	10.80	9.99	8.86- 11.37	144	10.86	9.99	8.86- 11.61	-	-
UNDER COMMON JOB AND PAY SYSTEM..	87	9.81	9.99	8.86- 10.35	84	9.87	9.99	8.86- 10.35	-	-
JOB CLASS 13.....	41	9.66	9.99	8.46- 10.22	40	9.70	9.99	9.55- 10.22	-	-
JOB CLASS 14.....	12	9.48	-	-	11	9.61	-	-	-	-
JOB CLASS 15.....	23	10.03	8.86	8.86- 11.29	22	10.12	8.86	8.86- 11.33	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	60	12.23	15.15	8.82- 15.15	60	12.23	15.15	8.82- 15.15	-	-
SHEARMEN.....	345	7.93	7.82	7.82- 8.22	148	8.12	8.33	4.44- 9.99	-	-
UNDER COMMON JOB AND PAY SYSTEM..	-	-	-	-	94	9.16	9.13	8.33- 9.99	-	-
JOB CLASS 11.....	18	9.12	8.22	8.22- 10.09	17	9.21	8.22	8.22- 10.09	-	-
JOB CLASS 12.....	-	-	-	-	55	9.43	9.99	8.49- 9.99	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	78	6.71	4.44	4.44- 7.76	-	-	-	-	-	-
CONTINUOUS HOT-STRIP MILLS										
ASSORTERS.....	45	9.04	8.82	7.37- 9.32	38	9.39	8.94	8.26- 9.32	-	-
UNDER COMMON JOB AND PAY SYSTEM..	43	9.16	8.82	8.26- 9.32	38	9.39	8.94	8.26- 9.32	-	-
COIL BANDERS.....	230	8.32	8.20	7.84- 9.04	207	8.48	8.20	7.90- 9.05	-	-
UNDER COMMON JOB AND PAY SYSTEM..	138	8.47	8.16	7.84- 9.13	136	8.49	8.16	7.84- 9.13	-	-
JOB CLASS 03.....	43	8.32	9.13	7.90- 9.13	43	8.32	9.13	7.90- 9.13	-	-
JOB CLASS 04.....	34	8.25	8.28	7.69- 8.73	34	8.25	8.28	7.69- 8.73	-	-
JOB CLASS 05.....	41	8.53	8.16	8.16- 9.02	39	8.61	8.16	8.16- 9.02	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	92	8.10	8.20	8.09- 8.71	71	8.47	8.26	8.20- 9.05	-	-
COILERS.....	190	9.45	9.30	8.94- 10.38	175	9.59	9.37	8.94- 10.38	-	-
UNDER COMMON JOB AND PAY SYSTEM..	111	9.62	9.49	8.99- 10.38	108	9.67	9.59	8.99- 10.38	-	-
JOB CLASS 11.....	63	9.18	9.22	8.89- 9.37	61	9.23	9.22	8.89- 9.37	-	-
JOB CLASS 12.....	21	10.17	10.52	9.97- 10.52	20	10.29	10.52	9.97- 10.52	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	79	9.21	8.99	8.94- 9.56	67	9.47	9.30	8.94- 9.98	-	-
COIL FEEDERS.....	112	8.87	8.83	8.17- 9.27	112	8.87	8.83	8.17- 9.27	-	-
UNDER COMMON JOB AND PAY SYSTEM..	102	8.90	8.90	8.17- 9.11	102	8.90	8.90	8.17- 9.31	-	-
JOB CLASS 06.....	52	8.69	8.44	8.17- 9.06	52	8.69	8.44	8.17- 9.06	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
CONTINUOUS HOT-STRIP MILLS--CONTINUED										
JOB CLASS 07.....	18	\$9.82	\$9.90	\$9.31-\$10.12	18	\$9.82	\$9.90	\$9.31-\$10.12	-	-
JOB CLASS 08.....	19	8.67	8.98	8.19- 9.14	19	8.67	8.98	8.19- 9.14	-	-
HEATERS.....	191	10.35	10.36	9.26- 11.05	171	10.53	10.36	9.68- 11.32	20	\$8.83
UNDER COMMON JOB AND PAY SYSTEM..	76	10.92	10.87	10.51- 11.49	68	11.12	11.03	10.54- 11.68	-	-
JOB CLASS 22.....	25	11.03	11.05	10.51- 11.05	25	11.03	11.05	10.51- 11.05	-	-
JOB CLASS 23.....	18	10.78	10.68	10.58- 11.21	17	10.88	10.68	10.68- 11.39	-	-
JOB CLASS 25.....	16	10.11	10.08	9.26- 10.91	10	10.62	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	115	9.97	9.68	8.77- 10.36	103	10.13	9.68	9.00- 10.36	-	-
RCUGHERS.....	130	11.23	10.54	9.79- 12.46	126	11.32	10.56	9.97- 12.46	-	-
UNDER COMMON JOB AND PAY SYSTEM..	83	11.13	10.33	9.97- 11.32	79	11.27	10.45	10.00- 11.32	-	-
JOB CLASS 14.....	15	10.07	9.79	9.79- 10.62	15	10.07	9.79	9.79- 10.62	-	-
JOB CLASS 15.....	7	9.86	-	-	7	9.86	-	-	-	-
JOB CLASS 17.....	29	10.32	10.33	10.03- 11.32	25	10.64	10.33	10.03- 11.32	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	47	11.41	12.46	9.41- 12.46	47	11.41	12.46	9.41- 12.46	-	-
STRIP FINISHERS.....	120	10.30	9.90	8.39- 11.22	91	11.01	11.00	9.37- 11.43	-	-
UNDER COMMON JOB AND PAY SYSTEM..	50	10.47	10.76	9.66- 11.06	48	10.56	10.88	9.66- 11.06	-	-
JOB CLASS 15.....	14	10.28	-	-	14	10.28	-	-	-	-
JOB CLASS 17.....	9	9.77	-	-	7	10.16	-	-	-	-
JOB CLASS 20.....	13	11.08	-	-	13	11.08	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	71	10.18	8.74	8.10- 14.13	43	11.52	11.22	8.74- 14.13	-	-
STRIP-MILL CRANEMEN.....	560	8.71	8.79	8.49- 9.11	512	8.84	8.87	8.49- 9.24	-	-
UNDER COMMON JOB AND PAY SYSTEM..	289	8.69	8.75	8.31- 9.00	271	8.77	8.75	8.42- 9.00	18	7.42
JOB CLASS 09.....	179	8.73	8.75	8.34- 9.00	169	8.81	8.84	8.52- 9.00	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	271	8.73	9.10	8.49- 9.24	241	8.93	9.10	8.49- 9.24	-	-
TANDEM-MILL ROLLERS.....	71	12.89	11.82	11.23- 13.77	65	13.23	12.90	11.23- 13.77	-	-
UNDER COMMON JOB AND PAY SYSTEM..	53	12.61	11.82	10.04- 13.42	47	13.04	12.95	11.23- 15.41	-	-
JOB CLASS 32.....	9	11.29	-	-	7	11.65	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	18	13.73	11.23	11.23- 13.77	18	13.73	11.23	11.23- 13.77	-	-
TRACTOR OPERATORS.....	257	8.23	8.20	7.87- 8.27	247	8.27	8.20	7.88- 8.27	-	-
UNDER COMMON JOB AND PAY SYSTEM..	190	8.34	8.20	8.16- 8.27	182	8.40	8.20	8.16- 8.27	-	-
JOB CLASS 07.....	15	7.63	7.38	7.38- 7.71	15	7.63	7.38	7.38- 7.71	-	-
JOB CLASS 08.....	166	8.47	8.20	8.16- 8.27	165	8.47	8.20	8.16- 8.27	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	67	7.90	7.99	7.52- 8.36	65	7.92	7.99	7.52- 8.36	-	-
BAR AND NARROW STRIP FINISHING MILLS										
COLD-SAW OPERATORS.....	89	7.78	7.90	7.27- 8.04	82	7.87	7.90	7.36- 8.04	-	-
UNDER COMMON JOB AND PAY SYSTEM..	75	7.87	7.90	7.27- 8.04	68	7.98	7.90	7.60- 8.04	-	-
JOB CLASS 08.....	7	7.88	-	-	7	7.88	-	-	-	-
COLD STRIP AND SHEET MILLS										
ASSISTANT TANDEM MILL ROLLERS.....	222	\$9.71	\$9.82	\$7.59-\$11.06	142	10.95	10.99	9.85- 11.61	-	-
UNDER COMMON JOB AND PAY SYSTEM..	108	10.72	10.62	9.82- 11.45	106	10.78	10.74	9.85- 11.45	-	-
JOB CLASS 16.....	19	9.81	9.41	9.28- 10.35	19	9.81	9.41	9.28- 10.35	-	-
JOB CLASS 17.....	31	10.72	10.36	9.67- 11.59	31	10.72	10.36	9.67- 11.59	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	-	-	-	-	36	11.44	11.34	10.57- 12.53	-	-
COIL FEEDERS.....	327	9.08	9.17	8.22- 9.70	308	9.17	9.22	8.53- 9.79	-	-
UNDER COMMON JOB AND PAY SYSTEM..	216	9.25	9.40	8.31- 10.08	212	9.30	9.45	8.46- 10.08	-	-
JOB CLASS 05.....	57	8.62	8.67	7.59- 9.65	-	-	-	-	-	-
JOB CLASS 06.....	34	9.24	9.46	8.99- 10.31	34	9.24	9.46	8.99- 10.31	-	-
JOB CLASS 07.....	36	9.79	9.79	9.58- 9.88	36	9.79	9.79	9.58- 9.88	-	-
JOB CLASS 09.....	12	10.52	-	-	12	10.52	-	-	-	-
JOB CLASS 10.....	15	11.26	11.12	11.11- 11.54	15	11.26	11.12	11.11- 11.54	-	-
CONTINUOUS ANNEALING LINE OPERATORS.....	293	9.73	9.75	9.22- 10.14	262	10.00	9.92	9.48- 10.27	31	7.41
UNDER COMMON JOB AND PAY SYSTEM..	187	10.13	10.05	9.48- 10.89	186	10.14	10.05	9.48- 10.89	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
SELECTED DEPARTMENTS ⁴										
COLD STRIP AND SHEET MILLS--CONTINUED										
JOB CLASS 14.....	30	\$9.61	\$9.79	\$9.27-\$10.12	30	\$9.61	\$9.79	\$9.27-\$10.12	-	-
JOB CLASS 15.....	81	9.83	9.48	9.48- 10.14	81	9.83	9.48	9.48- 10.14	-	-
JOB CLASS 17.....	41	10.80	10.56	10.14- 11.34	40	10.86	10.79	10.14- 11.42	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	106	9.03	9.22	8.15- 9.92	76	9.68	9.57	9.22- 9.99	-	-
FLYING SHEARMEN.....	190	9.03	8.59	7.82- 10.49	138	9.51	8.87	8.56- 10.49	-	-
UNDER COMMON JOB AND PAY SYSTEM..	89	9.36	8.87	8.50- 10.49	84	9.48	8.87	8.50- 10.50	-	-
JOB CLASS 11.....	40	9.85	9.31	8.87- 10.92	40	9.85	9.31	8.87- 10.92	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	101	8.74	8.40	7.82- 10.49	54	9.56	8.80	8.59- 10.49	-	-
STRIP INSPECTORS.....	593	8.65	8.97	7.60- 9.40	450	9.24	8.98	8.72- 9.40	143	\$6.82
UNDER COMMON JOB AND PAY SYSTEM..	258	9.19	8.86	8.55- 9.43	252	9.22	8.86	8.55- 9.48	-	-
JOB CLASS 10.....	54	9.21	9.03	8.36- 9.97	52	9.27	9.16	8.47- 9.97	-	-
JOB CLASS 11.....	88	8.85	8.66	8.66- 8.86	87	8.86	8.66	8.66- 8.86	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	335	8.25	8.98	6.61- 9.40	198	9.26	9.34	8.98- 9.40	137	6.78
TANDEM MILL FEEDERS.....	211	9.33	9.31	8.69- 9.74	210	9.34	9.31	8.69- 9.74	-	-
UNDER COMMON JOB AND PAY SYSTEM..	146	9.45	9.31	8.78- 9.74	145	9.46	9.31	8.81- 9.74	-	-
JOB CLASS 09.....	60	9.19	9.19	8.44- 9.74	59	9.22	9.19	8.44- 9.74	-	-
JOB CLASS 11.....	16	9.47	9.40	9.34- 9.45	16	9.47	9.40	9.34- 9.45	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	65	9.08	8.69	8.35- 9.65	65	9.08	8.69	8.35- 9.65	-	-
TANDEM MILL ROLLERS.....	270	11.45	11.45	8.93- 12.93	187	12.72	12.03	11.31- 13.57	-	-
UNDER COMMON JOB AND PAY SYSTEM..	146	12.75	12.05	11.55- 13.40	141	12.89	12.16	11.74- 13.40	-	-
JOB CLASS 25.....	12	12.68	-	-	11	12.99	-	-	-	-
JOB CLASS 28.....	34	12.54	12.74	11.93- 13.40	33	12.63	12.74	11.93- 13.40	-	-
JOB CLASS 29.....	11	12.60	-	-	11	12.60	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	-	-	-	-	46	12.21	11.45	10.96- 14.25	-	-
TUBE FINISHING										
CUT-OFF MACHINE OPERATORS.....	963	7.75	7.93	7.00- 8.36	664	8.47	8.26	7.88- 8.72	299	6.15
UNDER COMMON JOB AND PAY SYSTEM..	652	8.20	8.20	7.59- 8.48	579	8.32	8.21	7.84- 8.59	73	7.23
JOB CLASS 06.....	107	8.33	8.36	8.05- 8.36	107	8.33	8.36	8.05- 8.36	-	-
JOB CLASS 07.....	196	7.95	7.89	7.45- 8.26	154	8.14	8.14	7.84- 8.50	-	-
JOB CLASS 08.....	112	8.39	8.21	7.68- 8.79	-	-	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	311	6.81	5.84	5.73- 6.96	-	-	-	-	226	5.80
STRAIGHTENERS.....	342	7.63	7.59	7.37- 8.34	249	8.21	8.19	7.48- 8.59	93	6.09
UNDER COMMON JOB AND PAY SYSTEM..	266	8.16	8.14	7.48- 8.52	249	8.21	8.19	7.48- 8.59	17	7.41
JOB CLASS 09.....	78	8.23	8.14	8.01- 8.63	69	8.32	8.27	8.14- 8.64	-	-
JOB CLASS 10.....	30	8.59	8.34	8.34- 8.92	27	8.70	8.34	8.34- 9.06	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	76	5.79	5.34	5.34- 6.98	-	-	-	-	76	5.79
ROD AND WIRE MILLS										
BUNDLERS.....	54	9.75	9.73	8.30- 10.42	54	9.75	9.73	8.30- 10.42	-	-
UNDER COMMON JOB AND PAY SYSTEM..	54	9.75	9.73	8.30- 10.42	54	9.75	9.73	8.30- 10.42	-	-
JOB CLASS 05.....	34	9.36	8.42	8.30- 9.73	34	9.36	8.42	8.30- 9.73	-	-
COILERS (ROD MILLS).....	31	9.09	9.06	8.74- 9.28	31	9.09	9.06	8.74- 9.28	-	-
UNDER COMMON JOB AND PAY SYSTEM..	31	9.09	9.06	8.74- 9.28	31	9.09	9.06	8.74- 9.28	-	-
STRAIGHTEN AND CUT OPERATORS.....	60	8.77	9.04	7.56- 9.36	60	8.77	9.04	7.56- 9.36	-	-
UNDER COMMON JOB AND PAY SYSTEM..	42	8.65	8.27	7.56- 9.56	42	8.65	8.27	7.56- 9.56	-	-
JOB CLASS 07.....	35	8.40	8.27	7.56- 9.56	35	8.40	8.27	7.56- 9.56	-	-
WIRE DRAWERS (CONTINUOUS MACHINE)..	1,925	6.55	5.08	5.08- 8.74	800	8.78	9.17	7.81- 9.47	-	-
UNDER COMMON JOB AND PAY SYSTEM..	634	9.29	9.21	8.74- 9.67	628	9.31	9.21	8.74- 9.67	-	-
JOB CLASS 08.....	96	9.86	9.67	9.21- 11.37	96	9.86	9.67	9.21- 11.37	-	-
JOB CLASS 09.....	253	9.08	8.98	8.74- 9.67	-	-	-	-	-	-
JOB CLASS 10.....	273	9.30	9.21	9.17- 9.29	271	9.31	9.21	9.17- 9.29	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers						Incentive workers						Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)				
		Mean	Median	Middle range		Mean	Median	Middle range						
ALL DEPARTMENTS ⁴														
MAINTENANCE ⁶														
AUTOMOBILE REPAIRMEN.....	582	\$8.42	\$8.96	\$8.62- \$9.23	491	\$9.01	\$9.33	\$8.75- \$9.23	-	-				
UNDER COMMON JOB AND PAY SYSTEM..	416	8.91	8.96	8.64- 9.20	406	8.93	8.96	8.75- 9.20	-	-				
RECEIVING TOP RATE.....	253	9.04	9.03	8.84- 9.20	244	9.07	9.03	8.84- 9.20	-	-				
JOB CLASS 16.....	105	8.96	8.84	8.84- 9.18	96	9.03	8.92	8.84- 9.18	-	-				
JOB CLASS 18.....	57	9.12	9.03	8.68- 9.03	57	9.12	9.03	8.68- 9.03	-	-				
RECEIVING LOWER RATE.....	163	8.72	8.64	8.62- 9.23	162	8.72	8.69	8.62- 9.23	-	-				
JOB CLASS 16.....	133	8.84	8.75	8.62- 9.23	132	8.84	8.75	8.62- 9.23	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	166	7.17	9.12	4.40- 9.34	-	-	-	-	-	-				
BLACKSMITHS.....	266	8.97	8.98	8.72- 9.24	254	9.02	9.01	8.79- 9.24	12	\$7.76				
UNDER COMMON JOB AND PAY SYSTEM..	202	8.93	8.96	8.67- 9.20	198	8.95	8.96	8.67- 9.21	-	-				
RECEIVING TOP RATE.....	135	9.04	8.98	8.89- 9.10	133	9.05	8.98	8.89- 9.10	-	-				
JOB CLASS 17.....	88	9.08	8.96	8.79- 9.31	86	9.09	8.96	8.79- 9.31	-	-				
JOB CLASS 18.....	47	8.96	8.98	8.90- 9.01	47	8.96	8.98	8.90- 9.01	-	-				
RECEIVING LOWER RATE.....	67	8.72	8.67	8.29- 9.37	65	8.77	8.67	8.39- 9.54	-	-				
JOB CLASS 13.....	15	8.31	8.39	8.14- 8.46	15	8.31	8.39	8.14- 8.46	-	-				
JOB CLASS 15.....	9	8.84	-	-	9	8.84	-	-	-	-				
JOB CLASS 17.....	13	8.93	-	-	13	8.93	-	-	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	64	9.08	9.24	9.11- 9.24	56	9.27	9.24	9.21- 9.24	-	-				
BOILERMAKERS.....	1,567	8.97	8.86	8.75- 9.26	1,506	8.97	8.85	8.75- 9.26	-	-				
UNDER COMMON JOB AND PAY SYSTEM..	1,327	8.99	8.96	8.75- 9.26	1,324	8.99	8.96	8.75- 9.26	-	-				
RECEIVING TOP RATE.....	1,208	9.04	8.96	8.75- 9.26	1,205	9.04	8.96	8.75- 9.26	-	-				
JOB CLASS 17.....	1,205	9.04	8.96	8.75- 9.26	1,205	9.04	8.96	8.75- 9.26	-	-				
RECEIVING LOWER RATE.....	119	8.49	8.46	8.23- 8.70	119	8.49	8.46	8.23- 8.70	-	-				
JOB CLASS 13.....	61	8.39	8.25	8.19- 8.59	61	8.39	8.25	8.19- 8.59	-	-				
JOB CLASS 15.....	56	8.60	8.70	8.46- 8.73	56	8.60	8.70	8.46- 8.73	-	-				
BRICKLAYERS.....	2,826	9.55	9.74	9.21- 9.87	1,926	9.48	9.51	9.14- 9.82	900	9.71				
UNDER COMMON JOB AND PAY SYSTEM..	1,758	9.37	9.31	8.99- 9.74	1,524	9.30	9.31	8.92- 9.74	-	-				
RECEIVING TOP RATE.....	1,478	9.32	9.31	8.92- 9.74	1,451	9.34	9.31	9.06- 9.74	-	-				
JOB CLASS 17.....	1,464	9.32	9.31	8.92- 9.74	1,437	9.34	9.31	9.00- 9.74	-	-				
RECEIVING LOWER RATE.....	66	8.37	8.24	8.04- 8.70	66	8.37	8.24	8.04- 8.70	-	-				
JOB CLASS 13.....	30	8.23	7.98	7.95- 8.67	30	8.23	7.98	7.95- 8.67	-	-				
JOB CLASS 15.....	36	8.48	8.51	8.16- 8.83	36	8.48	8.51	8.16- 8.83	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,068	9.86	9.87	9.87- 10.29	402	10.17	10.29	10.29- 10.42	-	-				
CARPENTERS.....	1,497	8.58	8.62	8.36- 9.06	1,312	8.77	8.66	8.44- 9.08	185	7.25				
UNDER COMMON JOB AND PAY SYSTEM..	1,061	8.66	8.66	8.36- 9.06	998	8.70	8.66	8.40- 9.06	63	8.02				
RECEIVING TOP RATE.....	894	8.72	8.66	8.41- 9.06	837	8.77	8.72	8.44- 9.06	57	8.04				
JOB CLASS 15.....	858	8.72	8.66	8.41- 9.06	810	8.75	8.72	8.44- 9.06	48	8.15				
RECEIVING LOWER RATE.....	159	8.29	8.18	7.98- 8.38	153	8.31	8.18	8.13- 8.42	-	-				
JOB CLASS 11.....	79	8.07	8.15	7.91- 8.18	75	8.08	8.15	7.91- 8.18	-	-				
JOB CLASS 13.....	76	8.51	8.37	8.32- 8.95	74	8.53	8.37	8.32- 8.95	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	436	8.40	8.56	7.99- 9.28	314	9.01	9.08	8.56- 9.42	122	6.85				
ELECTRICIANS (ARMATURE WINDERS)....	513	9.06	9.18	8.92- 9.42	474	9.14	9.25	8.92- 9.42	-	-				
UNDER COMMON JOB AND PAY SYSTEM..	348	9.03	9.09	8.82- 9.35	338	9.05	9.18	8.92- 9.35	-	-				
RECEIVING TOP RATE.....	330	9.05	9.18	8.92- 9.35	320	9.07	9.18	8.92- 9.35	-	-				
JOB CLASS 16.....	323	9.06	9.18	8.92- 9.35	313	9.08	9.18	8.92- 9.35	-	-				
RECEIVING LOWER RATE.....	13	8.48	-	-	13	8.48	-	-	-	-				
JOB CLASS 12.....	8	8.43	-	-	8	8.43	-	-	-	-				
ELECTRICIANS (LINEMEN).....	391	9.23	9.42	9.28- 9.44	356	9.34	9.42	9.29- 9.45	-	-				
UNDER COMMON JOB AND PAY SYSTEM..	139	9.18	9.29	9.27- 9.29	139	9.18	9.29	9.27- 9.29	-	-				
RECEIVING TOP RATE.....	116	9.31	9.29	9.28- 9.29	116	9.31	9.29	9.28- 9.29	-	-				
JOB CLASS 18.....	116	9.31	9.29	9.28- 9.29	116	9.31	9.29	9.28- 9.29	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	252	9.26	9.42	9.42- 9.45	-	-	-	-	-	-				
ELECTRICIANS (SHOP).....	1,622	8.66	8.81	8.26- 9.38	1,013	9.18	9.18	8.81- 9.55	609	7.80				
UNDER COMMON JOB AND PAY SYSTEM..	865	8.76	8.54	8.26- 9.18	513	9.06	9.14	8.59- 9.39	355	8.32				
RECEIVING TOP RATE.....	785	8.78	8.56	8.26- 9.18	430	9.17	9.18	8.84- 9.55	355	8.32				
JOB CLASS 16.....	443	8.59	8.26	8.26- 8.92	182	9.06	9.18	8.84- 9.39	-	-				
JOB CLASS 18.....	296	9.05	8.80	8.48- 9.56	202	9.31	9.24	8.78- 9.56	-	-				

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
ALL DEPARTMENTS ⁵										
MAINTENANCE ⁶ —CONTINUED										
RECEIVING LOWER RATE.....	80	\$8.47	\$8.54	\$8.28- \$8.56	80	\$8.47	\$8.54	8.28- 8.56	-	-
JOB CLASS 12.....	20	8.52	8.54	8.42- 8.54	20	8.52	8.54	8.42- 8.54	-	-
JOB CLASS 14.....	46	8.47	8.56	8.29- 8.58	46	8.47	8.56	8.29- 8.58	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	757	8.55	8.81	7.87- 9.38	503	9.30	9.38	8.81- 9.81	254	\$7.06
ELECTRICIANS (WIREMEN).....	2,275	9.14	9.09	8.86- 9.44	2,197	9.17	9.09	8.89- 9.44	78	8.17
UNDER COMMON JOB AND PAY SYSTEM..	2,045	9.18	9.09	8.86- 9.44	2,042	9.18	9.09	8.86- 9.44	-	-
RECEIVING TOP RATE.....	1,847	9.24	9.10	8.89- 9.56	1,844	9.24	9.10	8.89- 9.56	-	-
JOB CLASS 18.....	1,825	9.24	9.10	8.89- 9.56	1,822	9.25	9.10	8.89- 9.56	-	-
RECEIVING LOWER RATE.....	194	8.62	8.40	8.33- 8.85	194	8.62	8.40	8.33- 8.85	-	-
JOB CLASS 14.....	126	8.53	8.40	8.39- 8.76	126	8.53	8.40	8.39- 8.76	-	-
JOB CLASS 16.....	65	8.77	8.74	8.27- 9.18	65	8.77	8.74	8.27- 9.18	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	230	8.76	8.91	8.34- 8.91	-	-	-	-	-	-
ELECTRONIC REPAIRMEN.....	1,677	9.45	9.38	9.06- 9.97	1,452	9.59	9.52	9.12- 9.97	225	8.57
UNDER COMMON JOB AND PAY SYSTEM..	1,129	9.48	9.38	9.12- 9.76	1,034	9.51	9.38	9.12- 9.76	95	9.20
RECEIVING TOP RATE.....	952	9.50	9.38	9.12- 9.72	879	9.54	9.38	9.15- 9.72	73	9.04
JOB CLASS 20.....	899	9.47	9.38	9.12- 9.72	835	9.53	9.38	9.15- 9.72	64	8.72
RECEIVING LOWER RATE.....	173	9.38	9.30	8.66- 9.86	151	9.32	9.30	8.70- 9.82	-	-
JOB CLASS 16.....	96	9.14	8.97	8.66- 9.52	92	9.18	8.98	8.66- 9.55	-	-
JOB CLASS 18.....	63	9.48	9.30	8.94- 10.03	57	9.58	9.79	8.94- 10.11	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	548	9.40	9.97	8.83- 10.07	418	9.80	9.97	9.06- 10.27	130	8.10
INSTRUMENT REPAIRMEN.....	1,290	9.05	9.06	8.75- 9.24	1,152	9.15	9.14	8.85- 9.24	138	8.24
UNDER COMMON JOB AND PAY SYSTEM..	898	9.11	9.01	8.75- 9.40	871	9.12	9.01	8.75- 9.40	-	-
RECEIVING TOP RATE.....	768	9.17	9.06	8.80- 9.40	741	9.19	9.06	8.85- 9.40	-	-
JOB CLASS 18.....	670	9.02	9.00	8.75- 9.31	646	9.04	9.01	8.75- 9.33	-	-
JOB CLASS 20.....	8	9.23	-	-	-	-	-	-	-	-
RECEIVING LOWER RATE.....	127	8.73	8.62	8.59- 8.90	127	8.73	8.62	8.59- 8.90	-	-
JOB CLASS 14.....	50	8.56	8.59	8.41- 8.74	53	8.56	8.59	8.41- 8.74	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	392	8.93	9.23	8.34- 9.24	281	9.24	9.24	9.23- 9.24	-	-
MACHINISTS.....	6,180	9.13	9.32	8.83- 9.57	5,117	9.39	9.45	8.97- 9.70	1,063	7.87
UNDER COMMON JOB AND PAY SYSTEM..	4,235	9.28	9.28	8.89- 9.66	3,720	9.39	9.43	8.92- 9.76	515	8.47
RECEIVING TOP RATE.....	3,951	9.30	9.32	8.89- 9.71	3,463	9.42	9.44	9.12- 9.76	488	8.49
JOB CLASS 18.....	3,839	9.31	9.32	8.90- 9.71	3,351	9.43	9.44	9.16- 9.83	488	8.49
RECEIVING LOWER RATE.....	275	8.93	8.91	8.47- 9.26	248	9.02	8.93	8.60- 9.31	-	-
JOB CLASS 14.....	162	8.90	8.74	8.59- 9.14	147	8.98	8.92	8.59- 9.16	-	-
JOB CLASS 16.....	102	9.05	9.18	8.50- 9.36	90	9.15	9.18	8.86- 9.36	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,945	8.82	9.48	8.34- 9.54	1,397	9.41	9.54	9.09- 9.70	548	7.31
MILLWRIGHTS.....	17,582	8.91	8.95	8.57- 9.34	15,773	9.04	9.02	8.72- 9.40	1,809	7.77
UNDER COMMON JOB AND PAY SYSTEM..	11,600	9.05	9.08	8.65- 9.40	11,140	9.09	9.09	8.74- 9.43	460	8.14
RECEIVING TOP RATE.....	7,662	9.02	9.08	8.73- 9.23	7,232	9.07	9.08	8.75- 9.30	-	-
JOB CLASS 16.....	6,940	8.99	9.06	8.74- 9.22	6,582	9.03	9.08	8.74- 9.22	-	-
RECEIVING LOWER RATE.....	3,881	9.11	9.10	8.59- 9.52	3,851	9.12	9.11	8.60- 9.52	30	7.72
JOB CLASS 12.....	1,456	8.79	8.65	8.34- 9.16	1,448	8.80	8.65	8.34- 9.16	-	-
JOB CLASS 14.....	1,198	9.06	9.09	8.61- 9.38	1,188	9.07	9.09	8.65- 9.38	-	-
JOB CLASS 16.....	1,031	9.67	9.68	9.40- 10.07	1,029	9.67	9.68	9.40- 10.07	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	5,982	8.63	8.72	8.31- 9.02	4,633	8.91	8.72	8.72- 9.37	1,349	7.64
MILLWRIGHT HELPERS.....	2,449	7.69	7.70	7.34- 8.14	2,305	7.76	7.73	7.34- 8.20	144	6.71
UNDER COMMON JOB AND PAY SYSTEM..	1,975	7.78	7.76	7.38- 8.17	1,945	7.79	7.76	7.38- 8.20	30	7.24
JOB CLASS 06.....	1,799	7.75	7.75	7.36- 8.12	1,775	7.76	7.76	7.38- 8.13	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	474	7.33	7.27	7.10- 7.48	-	-	-	-	114	6.57
MOBILE EQUIPMENT MECHANICS.....	2,269	8.85	9.02	8.45- 9.33	2,063	8.98	9.06	8.55- 9.41	206	7.52
UNDER COMMON JOB AND PAY SYSTEM..	1,313	8.81	8.75	8.41- 9.15	1,289	8.82	8.75	8.45- 9.18	-	-
RECEIVING TOP RATE.....	1,133	8.88	8.77	8.45- 9.31	1,114	8.89	8.79	8.45- 9.31	-	-
JOB CLASS 16.....	922	8.86	8.75	8.45- 9.33	904	8.88	8.75	8.45- 9.33	-	-
RECEIVING LOWER RATE.....	173	8.36	8.24	8.08- 8.50	168	8.36	8.24	8.08- 8.50	-	-

See footnotes at end of table.

Table 2 . Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments,² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
ALL DEPARTMENTS ⁵										
MAINTENANCE--CONTINUED ⁶										
JOB CLASS 12.....	75	\$8.22	\$8.08	\$8.08- \$8.27	73	\$8.27	\$8.08	\$8.08- \$8.27	-	-
JOB CLASS 14.....	93	8.49	8.35	8.17- 8.81	93	8.49	8.35	8.17- 8.81	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	956	8.90	9.24	8.80- 9.42	774	9.25	9.24	9.02- 9.42	-	-
MOTOR INSPECTORS.....	8,169	9.01	9.07	8.57- 9.37	7,802	9.06	9.08	8.61- 9.39	-	-
UNDER COMMON JOB AND PAY SYSTEM.....	6,187	9.05	9.08	8.65- 9.34	6,165	9.05	9.08	8.68- 9.34	-	-
RECEIVING TOP RATE.....	4,662	9.11	9.08	8.75- 9.36	4,652	9.12	9.08	8.75- 9.36	-	-
JOB CLASS 16.....	4,411	9.09	9.08	8.75- 9.28	4,431	9.09	9.08	8.75- 9.29	-	-
RECEIVING LOWER RATE.....	1,497	8.84	8.76	8.41- 9.28	1,485	8.84	8.76	8.41- 9.28	-	-
JOB CLASS 12.....	728	8.63	8.57	8.21- 8.93	723	8.64	8.57	8.23- 8.93	-	-
JOB CLASS 14.....	576	8.99	8.96	8.48- 9.38	574	8.99	8.96	8.48- 9.38	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,982	8.90	8.91	8.39- 9.57	1,637	9.09	9.28	8.49- 9.57	-	-
PAINTERS.....	558	8.29	8.43	8.02- 8.81	458	8.60	8.63	8.21- 8.91	100	\$6.87
UNDER COMMON JOB AND PAY SYSTEM.....	416	8.52	8.43	8.16- 8.83	397	8.55	8.43	8.16- 8.83	19	7.88
RECEIVING TOP RATE.....	345	8.57	8.55	8.16- 8.86	328	8.61	8.62	8.21- 8.86	17	7.92
JOB CLASS 13.....	291	8.46	8.28	8.16- 8.80	277	8.48	8.37	8.16- 8.80	-	-
RECEIVING LOWER RATE.....	67	8.24	8.41	8.02- 8.43	65	8.26	8.43	8.02- 8.43	-	-
JOB CLASS 09.....	11	7.98	-	-	-	-	-	-	-	-
JOB CLASS 11.....	26	8.23	8.03	8.02- 8.63	25	8.25	8.03	8.02- 8.63	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	142	7.62	7.76	6.44- 9.05	-	-	-	-	81	6.63
PATTERNMAKERS.....	110	9.24	9.15	8.91- 9.76	96	9.47	9.15	9.00- 9.76	-	-
UNDER COMMON JOB AND PAY SYSTEM.....	77	9.38	9.06	8.89- 10.23	71	9.45	9.07	8.95- 10.23	-	-
RECEIVING TOP RATE.....	76	9.43	9.06	8.94- 10.23	71	9.45	9.37	8.95- 10.23	-	-
JOB CLASS 19.....	74	9.40	9.06	8.91- 10.23	69	9.46	9.06	8.95- 10.23	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	33	8.92	9.15	9.15- 9.76	-	-	-	-	-	-
PIPEFITTERS.....	4,424	8.81	8.83	8.33- 9.30	4,186	8.86	8.87	8.36- 9.36	238	7.84
UNDER COMMON JOB AND PAY SYSTEM.....	3,109	8.80	8.79	8.34- 9.13	3,008	8.82	8.82	8.36- 9.13	-	-
RECEIVING TOP RATE.....	2,687	8.85	8.83	8.36- 9.16	2,594	8.87	8.84	8.37- 9.17	-	-
JOB CLASS 15.....	2,090	8.77	8.79	8.35- 9.06	2,078	8.77	8.79	8.36- 9.06	-	-
RECEIVING LOWER RATE.....	404	8.42	8.46	8.20- 8.58	393	8.44	8.46	8.20- 8.65	-	-
JOB CLASS 11.....	182	8.17	8.20	7.90- 8.38	176	8.19	8.20	7.91- 8.38	-	-
JOB CLASS 13.....	199	8.62	8.58	8.46- 8.79	198	8.63	8.58	8.46- 8.79	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,315	8.83	8.91	8.23- 9.55	1,178	8.98	9.05	8.35- 9.55	-	-
PIPEFITTER HELPERS.....	532	7.59	7.29	7.24- 8.24	519	7.60	7.32	7.24- 8.24	-	-
UNDER COMMON JOB AND PAY SYSTEM.....	336	7.65	7.55	7.24- 8.24	323	7.67	7.57	7.24- 8.24	-	-
JOB CLASS 06.....	329	7.65	7.55	7.24- 8.24	318	7.67	7.57	7.24- 8.24	-	-
RIGGERS.....	2,364	8.98	9.08	8.68- 9.60	2,200	9.09	9.18	8.68- 9.60	-	-
UNDER COMMON JOB AND PAY SYSTEM.....	1,290	8.88	9.01	8.53- 9.18	1,283	8.88	9.01	8.53- 9.18	-	-
RECEIVING TOP RATE.....	1,082	8.94	9.06	8.67- 9.18	1,075	8.94	9.06	8.67- 9.18	-	-
JOB CLASS 16.....	962	8.92	9.01	8.67- 9.18	955	8.92	9.01	8.67- 9.18	-	-
RECEIVING LOWER RATE.....	205	8.54	8.46	8.07- 8.97	205	8.54	8.46	8.07- 8.97	-	-
JOB CLASS 12.....	134	8.32	8.38	8.00- 8.51	134	8.32	8.38	8.00- 8.51	-	-
JOB CLASS 14.....	69	8.96	9.13	8.64- 9.25	69	8.96	9.13	8.64- 9.25	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,074	9.12	9.60	8.68- 9.60	917	9.43	9.60	9.39- 9.60	-	-
ROLL TURNERS.....	827	9.03	9.25	8.37- 10.22	561	9.88	9.59	9.25- 10.76	266	7.23
UNDER COMMON JOB AND PAY SYSTEM.....	480	9.18	9.25	8.37- 9.44	372	9.42	9.31	9.01- 9.96	118	8.34
RECEIVING TOP RATE.....	455	9.16	9.25	8.37- 9.44	358	9.38	9.31	9.04- 9.96	97	8.37
JOB CLASS 17.....	422	9.10	9.13	8.37- 9.41	325	9.31	9.26	9.00- 9.44	97	8.37
RECEIVING LOWER RATE.....	20	8.33	8.15	8.09- 8.31	9	8.60	-	-	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	347	8.82	9.59	7.70- 10.95	189	10.78	10.95	10.76- 11.30	158	6.48
SHEET METAL WORKERS.....	216	9.10	9.08	8.66- 9.42	215	9.10	9.08	8.67- 9.42	-	-
UNDER COMMON JOB AND PAY SYSTEM.....	176	9.04	8.98	8.66- 9.36	175	9.04	8.98	8.66- 9.38	-	-
RECEIVING TOP RATE.....	144	9.06	8.98	8.61- 9.48	143	9.07	8.98	8.64- 9.50	-	-
JOB CLASS 17.....	125	8.94	8.96	8.57- 9.31	125	8.94	8.96	8.57- 9.31	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	40	9.35	9.42	9.22- 9.42	40	9.35	9.42	9.22- 9.42	-	-

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers						Incentive workers						Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)				
		Mean	Median	Middle range		Mean	Median	Middle range						
ALL DEPARTMENTS ⁵														
MAINTENANCE--CONTINUED														
TOOL MAKERS.....	203	\$8.54	\$8.31	\$7.43- \$9.55	79	\$9.68	\$9.96	\$9.34- \$9.96	124	\$7.82				
UNDER COMMON JOB AND PAY SYSTEM..	74	9.39	9.55	8.70- 9.96	61	9.54	9.55	9.32- 9.96	-	-				
RECEIVING TOP RATE.....	73	9.38	9.55	8.70- 9.96	60	9.53	9.55	9.32- 9.96	-	-				
JOB CLASS 20.....	48	9.17	9.32	8.70- 9.55	35	9.35	9.34	9.32- 9.55	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	129	8.05	8.31	7.43- 8.31	-	-	-	-	111	7.71				
WELDERS.....	6,682	8.78	9.01	8.35- 9.33	5,346	9.11	9.12	8.75- 9.42	1,336	7.47				
UNDER COMMON JOB AND PAY SYSTEM..	4,159	9.04	9.05	8.64- 9.30	4,001	9.07	9.10	8.75- 9.30	-	-				
RECEIVING TOP RATE.....	3,393	9.10	9.12	8.79- 9.30	3,262	9.13	9.12	8.83- 9.33	-	-				
JOB CLASS 16.....	2,958	9.04	9.03	8.75- 9.19	2,827	9.07	9.11	8.79- 9.19	-	-				
RECEIVING LOWER RATE.....	742	8.79	8.80	8.43- 9.11	715	8.82	8.81	8.52- 9.14	-	-				
JOB CLASS 12.....	194	8.53	8.52	8.38- 8.62	194	8.53	8.52	8.38- 8.62	-	-				
JOB CLASS 14.....	498	8.94	8.93	8.64- 9.33	498	8.94	8.93	8.64- 9.33	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	2,523	8.35	8.49	7.76- 9.42	1,345	9.21	9.42	8.68- 9.51	1,178	7.37				
GENERAL LABOR														
JANITORS.....	3,878	6.58	6.71	6.32- 6.76	1,219	6.89	6.77	6.71- 6.91	2,659	6.44				
UNDER COMMON JOB AND PAY SYSTEM..	2,492	6.75	6.71	6.71- 6.81	1,105	6.87	6.77	6.71- 6.99	1,387	6.65				
JOB CLASS 01 OR 02.....	2,390	6.75	6.71	6.71- 6.80	1,066	6.87	6.75	6.71- 6.99	1,324	6.64				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	1,386	6.28	6.32	6.32- 6.71	-	-	-	-	1,272	6.21				
LABORERS.....	15,591	6.67	6.71	6.48- 6.93	7,234	6.99	6.91	6.76- 7.35	8,357	6.40				
UNDER COMMON JOB AND PAY SYSTEM..	10,764	6.90	6.78	6.71- 7.05	5,995	7.10	6.99	6.78- 7.36	4,769	6.65				
JOB CLASS 01 OR 02.....	8,736	6.82	6.71	6.71- 6.90	4,313	7.00	6.90	6.76- 7.25	4,423	6.64				
JOB CLASS 03.....	1,195	7.23	7.14	7.14- 7.37	1,092	7.26	7.32	7.14- 7.37	103	6.82				
JOB CLASS 04.....	400	7.29	7.36	6.93- 7.46	374	7.32	7.36	6.95- 7.46	-	-				
JOB CLASS 05.....	72	7.71	7.88	7.28- 7.88	69	7.74	7.88	7.64- 7.88	-	-				
JOB CLASS 07.....	6	8.53	-	-	6	8.53	-	-	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	4,827	6.16	6.32	6.32- 6.71	1,239	6.45	6.80	6.28- 6.91	3,588	6.06				
TRANSPORTATION AND YARD														
LOCOMOTIVE CRANEMEN.....	1,856	7.81	7.99	7.82- 8.61	1,322	8.49	8.29	7.97- 8.72	534	6.12				
UNDER COMMON JOB AND PAY SYSTEM..	1,345	8.35	8.11	7.82- 8.67	1,121	8.46	8.29	7.99- 8.71	-	-				
JOB CLASS 08.....	197	8.18	8.12	7.93- 8.56	197	8.18	8.12	7.93- 8.56	-	-				
JOB CLASS 09.....	174	8.24	8.16	7.86- 8.67	174	8.24	8.16	7.86- 8.67	-	-				
JOB CLASS 10.....	29	8.91	7.77	7.59- 8.84	25	9.12	8.84	7.77- 8.84	-	-				
JOB CLASS 11.....	36	8.41	8.55	8.11- 8.55	36	8.41	8.55	8.11- 8.55	-	-				
JOB CLASS 12.....	688	8.17	7.99	7.82- 8.29	468	8.34	8.15	7.99- 8.52	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	511	6.39	7.09	4.10- 7.97	201	8.68	8.68	7.97- 9.74	-	-				
LOCOMOTIVE ENGINEERS (GENERAL).....	953	8.89	9.08	8.49- 9.12	872	8.99	9.08	8.73- 9.12	-	-				
UNDER COMMON JOB AND PAY SYSTEM..	953	8.89	9.08	8.49- 9.12	872	8.99	9.08	8.73- 9.12	-	-				
JOB CLASS 10.....	26	8.41	8.10	8.10- 8.86	26	8.41	8.10	8.10- 8.86	-	-				
JOB CLASS 11.....	268	8.83	8.91	8.51- 9.12	249	8.91	8.91	8.52- 9.12	-	-				
JOB CLASS 13.....	373	8.99	9.08	8.83- 9.08	373	8.99	9.08	8.83- 9.08	-	-				
POWER AND FUEL														
FIRST POWER ENGINEERS.....	383	8.59	8.58	8.26- 9.03	350	8.73	8.66	8.36- 9.03	33	7.06				
UNDER COMMON JOB AND PAY SYSTEM..	322	8.66	8.58	8.30- 8.98	312	8.68	8.58	8.34- 8.99	-	-				
JOB CLASS 13.....	48	8.46	8.51	8.41- 8.58	48	8.46	8.51	8.41- 8.58	-	-				
JOB CLASS 14.....	40	8.54	8.36	8.06- 9.26	36	8.60	8.66	8.06- 9.26	-	-				
JOB CLASS 15.....	49	8.61	8.58	8.53- 8.72	49	8.61	8.58	8.53- 8.72	-	-				
JOB CLASS 16.....	41	8.98	8.95	8.84- 9.23	40	9.00	9.08	8.84- 9.23	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	61	8.21	8.93	6.31- 9.05	38	9.14	9.05	8.93- 9.38	-	-				
METALLURGICAL AND CHEMICAL														
TEST PREPARERS.....	347	7.50	7.52	7.18- 8.04	228	7.66	7.83	7.33- 8.16	119	7.20				
UNDER COMMON JOB AND PAY SYSTEM..	188	7.82	7.84	7.56- 8.16	170	7.90	7.91	7.59- 8.16	18	7.02				
JOB CLASS 05.....	48	7.57	7.47	7.33- 7.84	46	7.59	7.52	7.35- 7.84	-	-				
JOB CLASS 07.....	32	8.13	8.22	8.04- 8.24	28	8.25	8.22	8.04- 8.24	-	-				
NOT UNDER COMMON JOB AND PAY SYSTEM.....	159	7.13	7.18	6.98- 7.29	58	6.96	6.34	6.34- 7.29	101	7.23				

See footnotes at end of table.

Table 2. Occupational hourly earnings by method of wage payment—Continued

(Number and average straight-time earnings¹ of workers in selected occupations in basic iron and steel establishments, ² February 1978)

Department, occupation, type of pay system, and job class ³	All workers				Incentive workers				Time workers	
	Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹			Number of workers	Hourly earnings ¹ (mean)
		Mean	Median	Middle range		Mean	Median	Middle range		
ALL DEPARTMENTS ⁵										
POWER AND FUEL--CONTINUED										
METALLURGICAL ANALYSTS.....	361	\$8.16	\$8.14	\$7.71- 8.57	291	\$8.28	\$8.38	\$7.92- 8.57	70	\$7.68
UNDER COMMON JOB AND PAY SYSTEM..	214	8.16	8.09	7.75- 8.45	187	8.22	8.13	7.88- 8.57	-	-
JOB CLASS 10.....	25	8.07	8.14	7.85- 8.14	25	8.07	8.14	7.85- 8.14	-	-
JOB CLASS 11.....	65	8.36	8.19	8.02- 8.51	63	8.39	8.19	8.02- 8.51	-	-
NOT UNDER COMMON JOB AND PAY SYSTEM.....	147	8.17	8.38	7.62- 8.57	-	-	-	-	43	7.68
HYDRASTATIC TESTERS.....	155	8.19	8.30	7.54- 8.70	123	8.39	8.30	7.84- 8.74	-	-
UNDER COMMON JOB AND PAY SYSTEM..	123	8.39	8.30	7.84- 8.74	123	8.39	8.30	7.84- 8.74	-	-
JOB CLASS 08.....	41	8.39	8.70	8.40- 8.74	41	8.39	8.70	8.40- 8.74	-	-
JOB CLASS 09.....	43	8.70	8.30	8.30- 9.26	43	8.70	8.30	8.30- 9.26	-	-
JOB CLASS 10.....	31	7.94	7.69	7.59- 7.99	31	7.94	7.69	7.59- 7.99	-	-

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Medians and middle ranges are omitted for jobs with less than 15 workers.

² Includes both establishments under common job and pay systems, that is, with the same minimum hourly rate (\$6.705 an hour), and the same increment (11.1 cents) between job classes, and other steelmaking establishments.

³ Job class data are provided only for establishments having a common job and pay system, the same minimum hourly rate, and the same wage increment between job classes. Publication is limited to job classes reported by 3 or more such establishments and meeting other publication criteria. Estimates for all establishments and for the overall occupational classification in establishments having a common job evaluation system include 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 top rate for the job and for those receiving lower rates. Those establishments with common job and pay systems 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. Workers receiving top rates and those receiving lower rates may not add to totals because some workers could not be so identified.

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

Appendix A. Common Job and Pay System Schedule

Hourly wage schedule of production and related workers in basic iron and steel mills with the common job and pay system, specified dates

Job class	September 1972			February 1978			November 1979		
	Basic wage scale	Incentive		Basic wage scale	Incentive		Basic wage scale	Incentive	
		Calculation rate	Hourly additive		Calculation rate	Hourly additive		Calculation rate	Hourly additive
1 and 2	\$3.520	\$2.600	\$0.920	\$6.705	\$3.700	\$3.005	\$8.265	\$4.000	\$4.265
3	3.614	2.670	.944	6.816	3.783	3.033	8.382	4.089	4.293
4	3.708	2.740	.968	6.927	3.866	3.061	8.499	4.178	4.321
5	3.802	2.810	.992	7.038	3.949	3.089	8.616	4.267	4.349
6	3.896	2.880	1.016	7.149	4.032	3.117	8.733	4.356	4.377
7	3.990	2.950	1.040	7.260	4.115	3.145	8.850	4.445	4.405
8	4.084	3.020	1.064	7.371	4.198	3.173	8.967	4.534	4.433
9	4.178	3.090	1.088	7.482	4.281	3.201	9.084	4.623	4.461
10	4.272	3.160	1.112	7.593	4.364	3.229	9.201	4.712	4.489
11	4.366	3.230	1.136	7.704	4.447	3.257	9.318	4.801	4.517
12	4.460	3.300	1.160	7.815	4.530	3.285	9.435	4.890	4.545
13	4.554	3.370	1.184	7.926	4.613	3.313	9.552	4.979	4.573
14	4.648	3.440	1.208	8.037	4.696	3.341	9.669	5.068	4.601
15	4.742	3.510	1.232	8.148	4.779	3.369	9.786	5.157	4.629
16	4.836	3.580	1.256	8.259	4.862	3.397	9.903	5.246	4.657
17	4.930	3.650	1.280	8.370	4.945	3.425	10.020	5.335	4.685
18	5.024	3.720	1.304	8.481	5.028	3.453	10.137	5.424	4.713
19	5.118	3.790	1.328	8.592	5.111	3.481	10.254	5.513	4.741
20	5.212	3.860	1.352	8.703	5.194	3.509	10.371	5.602	4.769
21	5.306	3.930	1.376	8.814	5.277	3.537	10.488	5.691	4.797
22	5.400	4.000	1.400	8.925	5.360	3.565	10.605	5.780	4.825
23	5.494	4.070	1.424	9.036	5.443	3.593	10.722	5.869	4.853
24	5.588	4.140	1.448	9.147	5.526	3.621	10.839	5.958	4.881
25	5.682	4.210	1.472	9.258	5.609	3.649	10.956	6.047	4.909
26	5.776	4.280	1.496	9.369	5.692	3.677	11.073	6.136	4.937
27	5.870	4.350	1.520	9.480	5.775	3.705	11.190	6.225	4.965
28	5.964	4.420	1.544	9.591	5.858	3.733	11.307	6.314	4.993
29	6.058	4.490	1.568	9.702	5.941	3.761	11.424	6.403	5.021
30	6.152	4.560	1.592	9.813	6.024	3.789	11.541	6.492	5.049
31	6.246	4.630	1.616	9.924	6.107	3.817	11.658	6.581	5.077
32	6.340	4.700	1.640	10.035	6.190	3.845	11.775	6.670	5.105
33	6.434	4.770	1.664	10.146	6.273	3.873	11.892	6.759	5.133
34 ¹	-	-	-	10.257	6.356	3.901	12.009	6.848	5.161

¹ Job class 34 was added in 1977.

NOTE: Cost-of-living allowances are included in basic wage scales and hourly additives.

Appendix B. Scope and Method of Survey

Method of study

Data were obtained by personal visits of the Bureau's field representatives to a sample of establishments within the scope of the survey. To obtain appropriate accuracy at minimum cost, a greater proportion of large than of small establishments were studied. 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.

Scope of survey

The survey included establishments classified in the following industries as defined in the 1972 edition of the *Standard Industrial Classification Manual* (SIC), prepared by the U.S. Office of Management and Budget: (1) Blast furnaces (excluding merchant coke ovens), steelworks, and rolling mills—part of SIC 3312; (2) steel wire drawing and steel nails and spikes—SIC 3315; (3) cold rolled steel sheet, strip, and bars—SIC 3316; and (4) steel pipe and tubes—SIC 3317.

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

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 tabulation below shows the number of establishments and workers estimated to be within the scope of the survey, as well as the number actually studied by the Bureau.

Establishments within scope of study	179
Establishment actually studied	68
Estimated number of workers within scope of the survey ¹	452,783
Production workers	345,163

Total number of workers actually studied¹ 278,886

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

Establishment definition

An establishment is defined for this study as a single physical location where manufacturing operations are performed. An establishment is not necessarily identical with a company, which may consist of one establishment or more.

Employment

Estimates of the number of workers within the scope of the study are intended as a general guide to the size and composition of the industry's labor force, rather than as precise measures of employment.

Production workers

The terms "production workers" and "production and related workers," used interchangeably in this bulletin, include working supervisors and all nonsupervisory workers engaged in nonoffice activities. Workers engaged in recordkeeping closely associated with production operations, e.g., plant clerks in production departments, were included. Administrative, executive, professional, and technical personnel, and force-account construction employees, who are used as a separate work force on the firm's own properties, are excluded.

Occupational classification

Occupational classification was based on the standard job titles and codes use by companies with the common job and pay system, as well as on uniform job descriptions. (See appendix C for these descriptions.) The criteria for selection of the occupations were: The number of workers in the occupation; the usefulness of the data in collective bargaining; and appropriate representation of the entire job scale in the industry. Working supervisors, apprentices, learners, beginners, trainees, and handicapped, part-time, temporary, and probationary workers were not reported in the data for selected occupations but were included in the data for all production workers.

Wage data

Information on wages relates to 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 part of the workers' regular pay. Workers were considered on incentive if during the payroll period scheduled, any part of their work was paid on this basis. Nonproduction bonus payments, such as Christmas or yearend bonuses, were excluded.

Average (mean) hourly rates or earnings for each occupation or category of workers, such as production 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 hourly earnings of salaried workers were obtained by dividing straight-time salary by normal (or standard) hours to which the salary corresponds.

The *median* designates position; that is, one-half of the employees covered by the survey received more than this rate and one-half received less. The *middle range* is defined by two rates of pay such that one-fourth of the employees earned less than the lower of these rates and one-fourth earned more than the higher rate.

Scheduled weekly hours

Data on weekly hours refer to the predominant work schedule for full-time production workers employed on the day shift.

Shift practices

Shift practices relate to workers employed on late shifts at the time of the survey.

Establishment practices and supplementary wage provisions

Supplementary benefits in an establishment were considered applicable to all production workers if they applied to half or more of such workers in the establishment. Similarly, if fewer than 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 summary of vacation plans is limited to formal arrangements and exclude 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 the employer pays all or a part of the cost, excluding programs required by law such as workers' compensation and social security. Among 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 legally required, or (2) provides the employees with benefits which exceed the requirements of the law.

Tabulations of 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. Separate tabulations are provided for (1) plans which provide full pay and no waiting period, and (2) plans providing either partial pay or a waiting period.

Medical insurance refers to plans providing for complete or partial payment of doctors' fees. Such plans may be underwritten by a commercial insurance company or a nonprofit organization, or they may be a form of self-insurance.

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

Tabulations of retirement pensions are limited to plans which provide regular payments for the remainder of the retiree's life. Establishments providing both retirement severance payments and retirement pensions to employees were considered as having both retirement pensions and retirement severance plans; however, establishments having optional plans providing employees a choice of either retirement severance payments or pensions were considered as having only retirement pension benefits.

Technological severance pay. Data relate to formal plans providing for payments to employees permanently

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

separated from the company because of a technological change or plant closing.

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

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

supplementing benefits paid under State unemployment systems.

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

Appendix C. Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field representatives 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 representatives are instructed to exclude working supervisors; appren-

ces; 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 next to the job titles 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.

PART I. Selected Departments or Works

Coke works and byproducts

Door machine operator (AA-03050)

Operates door machine to remove and replace coke oven doors.

Heater (AA-01800)

Operates coke oven batteries to produce coke from coal by directing and controlling heating.

Lidman (AA-02020)

Removes and replaces coke oven lids, in the preparation of the ovens for pushing and charging.

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

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 performs work to prepare for casting and flushing a blast furnace.

Keeper helper (AB-01945)

Assists with the blast furnace operations by repairing and maintaining iron runners, gates, and spouts.

Larryman (AB-01970)

Loads and operates larry car supplying material to blast furnaces. May operate skip hoists, scales, record data, etc.

Ore-bridge craneman (AB-00890)

Operates ore-bridge crane that transports 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 machine to place scrap and other materials into open hearth.

First helper (AD-01830)

Operates open hearth furnace to produce carbon and alloy steel.

Ladle craneman (AD-00940)

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

Stocker, raw materials (AD-04560)

Unloads and stocks raw materials; fills and trims charging boxes with raw materials, scrap, etc.

Second helper (AD-05600)

Assists first helper in the operation of an open hearth furnace.

Second steel pourer (AD-04560)

Assists first steel pourer as directed.

Stockyard craneman (AD-00900)

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

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

Gas cleaner (AJ-00730)

Tends air pollution control equipment by observing instruments, taking water samples, and starting and stopping various equipment.

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 craneman (AJ-00940)

Operates an overhead 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 refractory brick and stopper heads on stopper rods.

Utilities attendant (AJ-06650)

Directs and operates Q-BOP gas cleaning, water pumping, and cooling facilities.

Foundry

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.

Bloom, slab, and billet mills

Automatic rolling attendant (AG-06530)

Performs attendant functions to the rolling of steel on a mill by feeding prepunched schedule cards into reader, setting controls for automatic operation, starting readers, and operating controls to move ingots through rolling schedule.

Blooming mill roller (AG-04960)

Rolls or directs the rolling and processing of ingots into slabs and blooms; 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 phases 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 craneman (AG-00990)

Operates overhead crane in charging and drawing ingots at soaking pits.

Soaking-pit heater (AG-01800)

Heats ingots to specified temperatures by controlling a furnace in a soaking pit.

Continuous casting mills

Continuous billet caster (AK-00500)

Directs and works with casting crew in the set-up operation of a multistrand 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 and metal transfer controlman (AK-06620)

Controls the flow of molten metal from ladle to tundish (ladle controlman) or controls molten flow from tundish to continuous casting process (metal transfer controlman). (See *steel pourer* below.)

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 molds. Work involves most of the following: inspecting molds; signaling craneman to move ladle over mold; starting pouring and filling each mold or maintaining flow of molten metal into tundish; directing crew in making mold additions; taking tests; and covering molds after pouring; and inspecting machinery after each heat.

Steel pourers are distinguished from *ladle and metal transfer controlmen* by the range of duties of *steel pourers* (setting stoppers, pouring steel, directing crew, inspect-

ing) and by the considerable judgment necessary for the job in contrast to the single function of the *ladle and metal transfer controlmen*. (See above.)

Strand caster (AK-06610)

Sets up and operates a single strand on a multistrand 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 layout (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 and 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 hot strip and operates piling mechanism in piling flats.

Coil feeder (BC-01450)

Manually or mechanically feeds material into a processing unit.

Heater (BA-01800)

Operates slab-heating furnaces to supply heated slabs to mills.

Rougher (BA-04990)

Directs and assists in setting up and operating a roughing roll train in breaking down slabs prior to delivery to finishing roll train.

Strip finisher (BA-01520)

Sets up, adjusts, and/or operates finishing roll stand or stands in rolling processes.

Strip-mill craneman (BA-00970)

Operates electric overhead traveling crane to provide service for mill crews, maintenance crews, finishing department, and service shops in such work as changing of rolls, removal of cobbles, and handling of machines, 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**Chipper (EB-00680)**

Manually or by use of chipping hammer removes defects from semifinished product.

Cold-saw operator (EB-02940)

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

Cold-strip and sheet mills**Assistant tandem mill roller (BD-04970)**

Assists roller in the direction and rolling of cold steel by maintaining proper speed, uniform gauge and shape at end of cold reducing mill.

Batch pickler (BC-04410)

Operates plunger-type pickling unit in pickling sheet and plate product by operating valves to control acid,

water, and steam; using testing meters; operating controls to start and stop pickler; and inspecting and recording products.

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.

Loader, batch pickler (BC-02050)

Loads and unloads sheets and plates for batch pickling by pushing lift or buggy to or from loading racks, picking up sheets and plates, inserting separator pins, and hooking and unhooking loaded racks.

Flying shearman (BF-05290)

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

Strip inspector (BF-01910)

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)

Prepares and feeds raw coils into first stand of a cold reducing 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.

Straightener (FH-05610)

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

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.

Wiredrawer (continuous machine) (GA-01150)
Operates one or more continuous wiredrawing machines to draw wire.

PART II. All Works or Departments

Maintenance

Automobile repairman (004860)
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 repairman (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.

Machinists (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.

Toolmaker (02460)

Makes and repairs tools, jigs, fixtures, gauges, templates, 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, washhouses, sanitary stations, etc.

Laborer (01950)

Performs general laborer work in or about the plant.

Transportation and yard**Locomotive craneman (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.

Hydrostatic tester (90073)

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

Industry Wage Studies

The most recent reports providing occupational wage data for industries included in 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, 1978-79. BLS Bulletin 2064
Candy and Other Confectionery Products, 1975. BLS Bulletin 1939
Cigar Manufacturing, 1972. BLS Bulletin 1976
Cigarette Manufacturing, 1976. BLS Bulletin 1944
Corrugated and Solid Fiber Boxes, 1976. BLS Bulletin 1921
Fabricated Structural Steel, 1974. BLS Bulletin 1935
Fertilizer Manufacturing, 1971. BLS Bulletin 1763
Fluid Milk Industry, 1973. BLS Bulletin 1871
Footwear, 1975. BLS Bulletin 1946
Hosiery, 1976. BLS Bulletin 1987
Industrial Chemicals, 1976. BLS Bulletin 1978
Iron and Steel Foundries, 1973. BLS Bulletin 1894
Leather Tanning and Finishing, 1973. BLS Bulletin 1835.
Machinery Manufacturing, 1978. BLS Bulletin 2022
Meat Products, 1974. BLS Bulletin 1896
Men's Shirts and Separate Trousers, 1978. BLS Bulletin 2035
Men's and Boys' Suits and Coats, 1976. BLS Bulletin 1962
Miscellaneous Plastics Products, 1974. BLS Bulletin 1914
Motor Vehicles and Parts, 1973-74. BLS Bulletin 1912
Nonferrous Foundries, 1975. BLS Bulletin 1952
Paints and Varnishes, 1976. BLS Bulletin 1973
Paperboard Containers and Boxes, 1970. BLS Bulletin 1719¹
Petroleum Refining, 1976. BLS Bulletin 1948
Pressed or Blown Glass and Glassware, 1975. BLS Bulletin 1923
Pulp, Paper, and Paperboard Mills, 1977. BLS Bulletin 2008
Semiconductors, 1977. BLS Bulletin 2021
Shipbuilding and Repairing, 1976. BLS Bulletin 1968
Southern Sawmills and Planning Mills, 1969. BLS Bulletin 1694¹
Structural Clay Products, 1975. BLS Bulletin 1942
Synthetic Fibers, 1976. BLS Bulletin 1975
Textile Dyeing and Finishing, 1976. BLS Bulletin 1967
Textiles, 1975. BLS Bulletin 1945
Wages and Demographic Characteristics in Work Clothing Manufacturing, 1972. BLS Bulletin 1858
West Coast Sawmilling, 1969. BLS Bulletin 1704¹
Women's and Misses' Coats and Suits, 1970. BLS Bulletin 1728¹
Women's and Misses' Dresses, 1977. BLS Bulletin 2007
Wood Household Furniture, Except Upholstered, 1974. BLS Bulletin 1930

Nonmanufacturing

- Appliance Repair Shops, 1975. BLS Bulletin 1936
Auto Dealer Repair Shops, 1978. BLS Bulletin 2060
Banking and Life Insurance, 1976. BLS Bulletin 1988
Bituminous Coal Mining, 1976. BLS Bulletin 1999
Communications, 1977. BLS Bulletin 2029
Computer and Data Processing Services, 1978. BLS Bulletin 2028
Contract Cleaning Services, 1977. BLS Bulletin 2009
Contract Construction, 1973. BLS Bulletin 1911
Department Stores, 1977. BLS Bulletin 2006
Educational Institutions: Nonteaching Employees, 1968-69. BLS Bulletin 1671¹
Electric and Gas Utilities, 1978. BLS Bulletin 2040
Hospitals, 1975-76. BLS Bulletin 1949
Hotels and Motels, 1978. BLS Bulletin 2055
Laundry and Cleaning Services, 1968. BLS Bulletin 1645¹
Metal Mining, 1977. BLS Bulletin 2017
Motion Picture Theatres, 1966. BLS Bulletin 1542¹
Nursing Homes and Related Facilities, 1976. BLS Bulletin 1974¹
Oil and Gas Extraction, 1977. BLS Bulletin 2014
Scheduled Airlines, 1975. BLS Bulletin 1951
Wages and Tips in Restaurants and Hotels, 1970. BLS Bulletin 1712¹

¹ Bulletin out of stock.

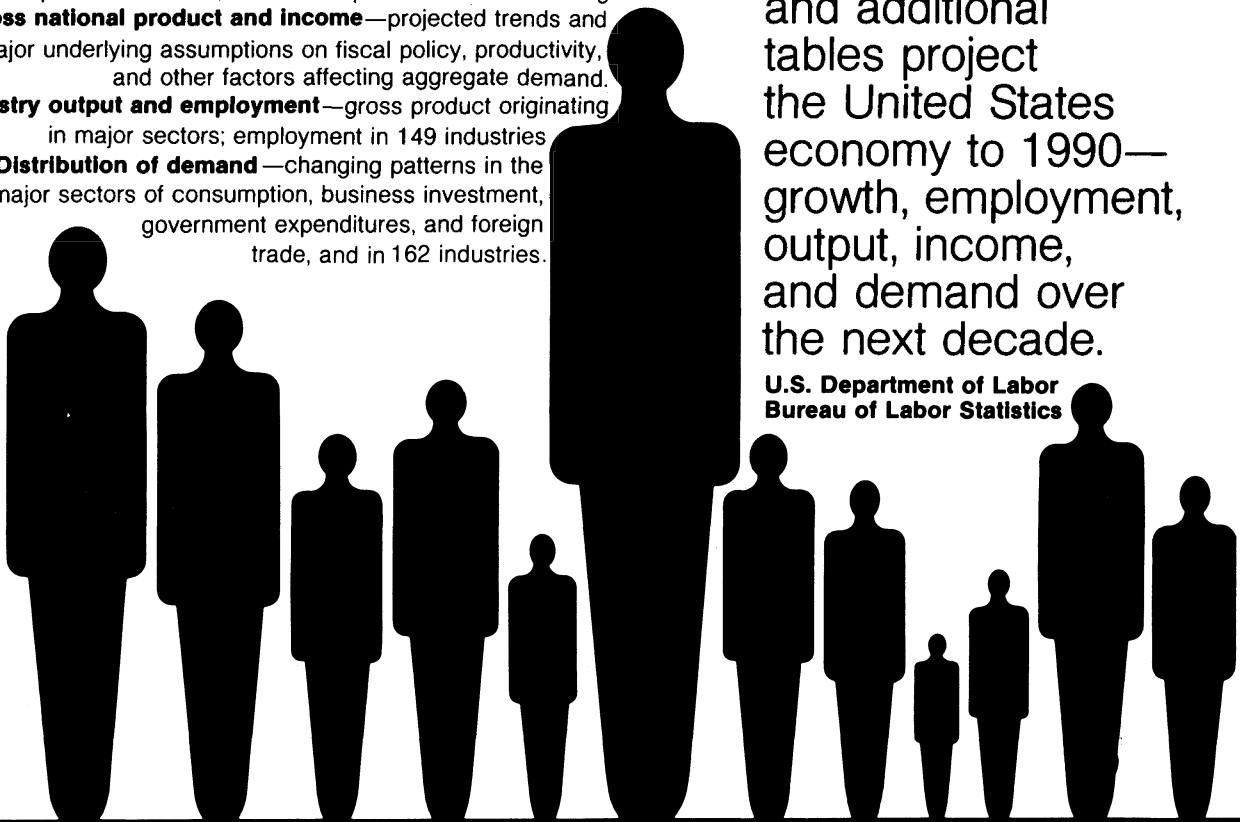
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Four articles from the *Monthly Labor Review* and additional tables project the United States economy to 1990—growth, employment, output, income, and demand over the next decade.

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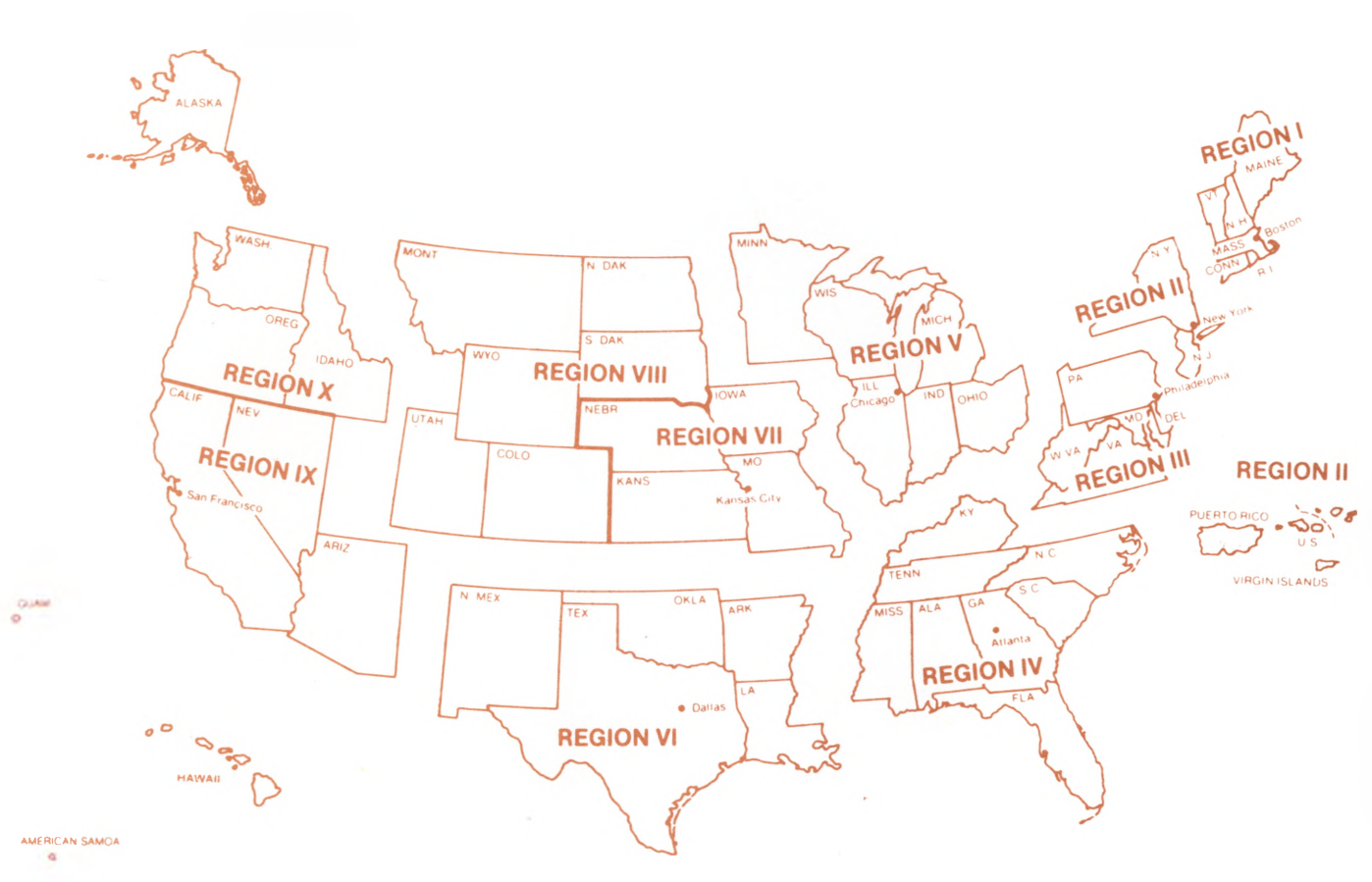
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