

UNITED STATES DEPARTMENT OF LABOR

FRANCES PERKINS, Secretary

BUREAU OF LABOR STATISTICS

ISADOR LUBIN, Commissioner

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This Issue in Brief

Median weekly earnings of \$7.40 were found in a recent study by the United States Department of Labor of conditions in the shirt industry in nine States. Less than \$5 per week was made by 22 percent of all the workers covered. Of the 18,000 women and girl workers, only 24 percent earned as much as \$10 a week and 35 percent earned less than \$6 a week. Though the study was made during a period when the industry was busier than for many months, much short time was found. Sixty percent of 7,207 women for whom time records were obtained were in plants whose scheduled hours were 48 but less than 50 hours per week, yet only 20 percent actually worked that long; 21 percent were in plants whose full-time week was 50 hours or over but only 16 percent were actually working full time. In spite of this the low earnings cannot be attributed mainly to part-time employment, for the State with the highest median weekly earnings had also the largest proportion working short time and the smallest proportion working 48 hours and over. Hourly rates were also low, the median being 19 cents, while about 7 percent of the women were being paid less than 10 cents per hour, over 50 percent received from 10 to 20 cents, and only 3 percent received as much as 35 cents per hour. Women and girls constituted 92 percent of the working force in the factories studied (p. 499).

A total of 18 codes of fair competition had been approved by the President at the end of August under the provisions of the National Industrial Recovery Act. These codes were set up in a wide variety of industries; the effective date varied from immediate adoption to nearly 3 weeks after approval. All codes approved provide for the exclusion of minors under specified ages from employment, the usual provision being for the exclusion of minors under age 16. However, in the lumber industry the minimum age for employment is 18 with certain exceptions, and in the coat and suit industry no minor under the age of 18 may be employed in manufacturing while those over 16 years of age may be employed in nonmanufacturing. For summaries of the labor features of the codes see p. 518.

The Supreme Court of Washington has held that the legislature of that State may legally appropriate money for unemployment relief, when necessary for the purpose of suppressing, as the legislature termed it, an "incipient insurrection," even though such an appropriation should cause the State to exceed its constitutional limitation of indebtedness. This case is of interest and importance to all States, as nearly all of them have appropriated large sums of money to correct the widespread distress and unemployment (p. 514).

Nine years from the time the proposed Federal child labor amendment was approved by the Congress of the United States 15 States had officially ratified the amendment. During 1933, 9 States were added to the list of 6 States which had officially approved the amendment prior to this year. The present status of the proposed amendment is given on page 556.

Average hourly earnings of miners and loaders in the bituminous-coal industry, based on time at the face, decreased between 1931 and 1933 from 59.9 to 39.5 cents, average earnings per day (start) from \$4.82 to \$3.18, and average actual earnings in a half-monthly pay period from \$33.82 to \$22.59. Average days worked per half month increased from 7 to 7.1 and average hours at the face from 56.5 to 57.2, while for all other occupations in the industry the days worked per half month dropped from 8.3 to 8 and the average hours actually worked from 69.8 to 67.1. These and other data from surveys of wages and hours of labor in this industry by the Bureau of Labor Statistics are given in an article beginning on page 644.

Hourly earnings in the iron and steel industry in 1933 averaged 48.5 cents per hour and \$24.98 per full-time week, compared with 66.3 cents per hour and \$34.58 per full-time week in 1931, as shown in an article beginning on page 651 summarizing data obtained in a survey of wages and hours in this industry made by the Bureau of Labor Statistics and covering 200 plants, with 53,365 wage earners, in the 10 major departments of the industry. Average full-time working hours per week averaged 51.5 in 1933 as compared with 52.4 in 1931.

Union scales of hourly wage rates in May 1933 as compared with May 1932 showed 13 increases, 278 decreases, and no change in 394 cases, according to information collected by the Bureau of Labor Statistics. Full-time working hours between the two dates had increased in 17 cases and decreased in 67, while in 601 instances there had been no change (p. 660).

The average wage per hour in industry generally was 20.2 percent lower in 1932 than in 1929, according to an analysis by the Bureau of Labor Statistics. Agricultural employments were not included in this computation (p. 632).

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Labor in the Shirt Industry, 1933

IN JUNE 1933 the United States Department of Labor,¹ actively assisted by the State departments of labor in the States visited, made a field survey of the shirt industry,² covering approximately 20,000 workers in 129 establishments in 9 of the principal shirt-manufacturing States (Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Indiana, and Missouri). Twenty-one percent of the shirt factories in these States, constituting 17 percent of those in the entire industry, were visited. These employed 43 percent of the wage earners in the shirt industry in these States and 34 percent of the 58,000 wage earners in the entire industry, according to the 1931 Census of Manufactures.

The survey was undertaken because the reports which came to the Department of changing policies in the industry and of great restlessness among the employees made it important for the Department to assemble some information for the use of the National Industrial Recovery Administration. Time did not permit an intensive study of individual factories. Employers and plant managers, workers, and union officials were interviewed. Pay rolls and other factory records were examined to obtain information as to earnings and hours.

Marked changes in the geographical distribution of the industry have been taking place in recent years. Measured in terms of the number of wage earners, the value added by manufacture, and number of establishments, it appears that the shirt industry has been growing in Pennsylvania and Connecticut, while it has been declining in New York, New Jersey, and Massachusetts.³ There has also been noted, for a number of years, a movement of the industry away from large cities into rural districts.

Women and girls constituted 92 percent of the wage earners in the shirt factories visited. In the Middle West mostly young women—many of them married—were employed; some factories had a policy of employing none under 18 years of age. In factories located in up-State New York and along the Eastern Shore of Maryland, elderly women were found in considerable numbers. Information obtained as

¹ The following bureaus of the Department cooperated in the survey: Children's Bureau, Bureau of Labor Statistics, Women's Bureau, and the Conciliation Service.

² The study covered plants in which shirts had comprised 50 percent or more of the output during the year.

³ Between 1929 and 1931, the latest date for which census information is available, the average number of wage earners in the shirt industry in New York and New Jersey decreased 31 and 13 percent, respectively, while the number increased in Pennsylvania 15 percent and in Connecticut 21 percent. New York in 1929 had 15,000 shirt workers, and in 1931, 10,400; while Pennsylvania had 16,500 in 1929 and 19,000 in 1931. (Census of Manufactures, 1929, 1931.)

to the number of children under 16 employed and the wages paid was not conclusive. Time did not permit an investigation to determine the ages of the children. The statements in the work permits or those made by employers were not verified. The names on the work-permit records could not always be identified with names on the pay rolls so that information as to the wages paid the young workers is not complete. At any rate, 1 percent of all the female workers included in the survey were reported by the management to be under 16 years of age, whereas, according to the 1930 census, 4 percent of the female laborers and operatives in the industry in the country were under 16. Whether this difference is due to an actual decrease since 1930 in the number of children employed or to the inadequacy of the employment-certificate records, or to employment of children without certificates, was not determined. The proportion of children reported in some of the States included in the survey, however, was very much higher than in others—in Pennsylvania 3 percent, and in Connecticut and Delaware 4 percent, of the female workers were girls under 16. In some establishments, the number of young workers was very large; in 1 factory in Pennsylvania 30 percent of the females employed were under 16, and in several other plants in that State practically the whole working force, according to the management, was under 20 years of age; in Connecticut, 1 contractor, who said that he had moved from another town in the same State to escape labor troubles, declared that 75 percent of his employees were girls fresh from school.

Work was sent into the homes by very few firms visited. In the Troy District in New York home work had been customary but was little used at the time of the survey.

Earnings in the Industry

THE earnings of each wage earner in the plant during one pay-roll period were copied directly from pay rolls.⁴ Information as to actual hours worked by each employee during the same period was requested, but could be obtained for workers in only 31 plants—about one fourth of those visited.

Hours and Hourly Earnings of Female Wage Earners

What were reported to be the regular hours of work in the plants included in the survey ranged from 40 to 55 per week; the latter was reported for a Maryland establishment. Over half the plants, employing about 14,000 women, or 77 percent of the total number, operated 48 hours or more a week. The majority in New York and Massachusetts ran 48 hours; in New Jersey and Connecticut most of the plants ran 48 to 50 hours; in Pennsylvania schedules in all but 3 plants were 50 hours or longer. The scheduled hours for the 128 establishments reporting were as shown in the following table.

⁴ Foremen, forewomen, supervisors and instructors, machinists, and clerical and shipping-department employees were not included.

SCHEDULED HOURS OF WORK IN 128 SHIRT FACTORIES IN 9 STATES

State	40 and under 44 hours	44 and under 48 hours	48 and under 50 hours	50 hours and over	Total
Massachusetts.....		1	5		6
Connecticut.....		1	9		10
New York.....	1	7	22		30
New Jersey.....	1	2	10	1	14
Pennsylvania.....		1	2	23	26
Delaware.....		2	2	1	5
Maryland.....	4	10	4	7	25
Indiana.....	1	1	1	3	6
Missouri.....	1	4	1		6
Total, 9 States.....	8	29	56	35	128

Most of the plants visited did not keep records of actual hours worked. Even in the two States where the hours-of-labor law required that actual hours worked be recorded for each woman worker, many employers failed to keep such a record, giving as their excuse that most of the women were pieceworkers who came and went according to the work to be done. However, the extent to which broken time and undertime exist in the shirt industry is indicated by a comparison of the regular scheduled hours and the actual hours worked by 7,207 women in 31 plants in 7 States, for whom time records were obtained.⁵ None of the scheduled hours in these plants fell below 44 a week, yet 35 percent of the women worked less than these hours, and 19 percent worked less than 40 hours. Sixty percent were employed in plants whose scheduled hours were 48 but less than 50, yet only 20 percent actually worked this amount of time. Twenty-one percent of the woman workers were in establishments scheduled to work 50 hours a week or over, but the actual hours worked came up to this schedule for only 16 percent of the female employees.

A comparison of women's median weekly earnings in these seven States in the light of actual hours worked refutes the hypothesis that low earnings in the industry are mainly due to part-time employment. (See tables 2 and 7.) New York with the highest median (\$8.70) had also the largest proportion working short time (28 percent working less than 40 hours), and the smallest proportion (11 percent) working 48 hours and over. In Pennsylvania, where the median of \$6 was the lowest of the seven States, 46 percent worked 48 hours and over, and 36 percent worked 50 hours or more a week; only 19 percent worked less than 40 hours a week. In Indiana, where the median was also low (\$7.10), 51 percent of the female workers worked 50 hours and over a week.

Hourly earnings have been computed for the woman workers for whom actual hours in the pay-roll period were reported. For all these workers median hourly earnings were 19 cents. In New York the median earnings were 23 cents an hour; in Massachusetts, 20 cents; in New Jersey, 19 cents; in Pennsylvania, 15 cents; and in Connecticut, 17 cents. For Indiana woman shirt workers the median payment was 16 cents an hour and in Missouri it was 17 cents an hour. If the actual working hours of these women had amounted to 44 a

⁵ No time records were available in any of the establishments visited in either Delaware or Maryland.

week, their median weekly earnings would have been \$10.10 in New York, \$8.80 in Massachusetts, \$8.40 in New Jersey, \$6.60 in Pennsylvania, \$7.50 in Connecticut and Missouri, and \$7 in Indiana.

In considering the extent to which these hourly earnings are representative of the industry, it is significant that the shirt factories keeping time records are likely to be a selected group, in which general conditions, including wages, are above the average level. A comparison of actual median earnings in establishments for which hour records were obtained with median earnings in all plants in the same State showed that earnings in those keeping such records were somewhat higher.

About 7 percent of the woman workers for whom hour records were obtained earned below 10 cents an hour, 31 percent less than 15 cents, and 57 percent less than 20 cents. The earnings of almost four fifths fell below 25 cents an hour. In Pennsylvania 50 percent and in Connecticut 39 percent earned less than 15 cents an hour, compared to 15 percent in both New York and Massachusetts. Ninety-one percent in Pennsylvania and 88 percent in Connecticut earned less than 25 cents an hour; in New York 59 percent received below 25 cents an hour. The proportion earning 35 cents and over was small in every State, varying from 8 percent in New York to less than half of 1 percent in Indiana (tables 3 and 4).

Weekly Earnings of All Wage Earners

In order to give a picture of earnings in the shirt industry in all the nine States, and to include the workers for whom no hour records were available, weekly earnings of all workers, irrespective of the time worked, are shown. Although such a picture is necessarily incomplete it has definite value as showing the amount of weekly income that the industry afforded its workers during a relatively busy week. The payroll periods were in each case selected in order to show full-time operation, or as near full time as possible, within the 2 months preceding the visits. Actually, most of the shirt factories included in the survey were found to have been busier during this period, extending from the latter part of April to the early part of June 1933, than for many months.

In each of the nine States included in the survey, weekly earnings of shirt workers were extremely low. Twenty-two percent of all workers—men, women, and children—earned less than \$5 a week; 50 percent earned less than \$7.40⁶; 74 percent received less than \$10; and 95 percent received less than \$15. In Maryland 42 percent, in Delaware, 43 percent, and in Pennsylvania, 35 percent of all the workers earned less than \$5 a week. New York was the only State in which as many as 10 percent earned \$15 or more (table 5).

Earnings, by Occupation, for All Wage Earners

Earnings varied somewhat according to the kind of work performed. The occupations of stitching, turning collars and cuffs, and pressing are usually performed by women, who also do the trimming, sorting, examining, wrapping in cellophane, and boxing; men and boys work chiefly in cutting rooms, stock rooms and shipping departments, but they are occasionally employed as operators and pressers.

⁶ All medians have been adjusted to the nearest 10 cents. Where the pay-roll period was for more than a week, a percentage of the earnings equivalent to 1 week was used.

Machine operators, with a median weekly wage of \$7.30, were by far the most numerous group in the industry, comprising 64 percent of all the wage earners included in the survey; pressers, with a median wage of \$7.90, constituted 18 percent; workers in miscellaneous occupations, such as thread clippers, examiners, sorters, and boxers, made up 14 percent and their median was the lowest, \$6.60. Workers in cutting departments were 4 percent of the wage earners. Men working as cutters and markers—the most skilled occupations—were well paid compared to others in the shirt industry; nevertheless, 48 percent of all those employed in cutting rooms earned less than \$15.

Weekly Earnings of Female Wage Earners

Since women and girls constitute so large a proportion of the workers included in the survey, and since the men work in the better-paid occupations, it is significant to consider women's earnings separately. Half of the 18,378 women earned less than \$7.30 in the week for which pay rolls were copied. In general the medians for female workers were about 10 cents lower than the medians for all workers. The highest median earnings (\$8.70) were found in New York, and the lowest, \$5.40, in Delaware (table 7).

Even more striking than the low medians is the fact that so large a proportion of the woman workers is found in the very low-wage groups. Fourteen percent of all the women received less than \$4 a week; 35 percent less than \$6 and 77 percent less than \$10. The proportion receiving less than \$4 a week varied from 6 percent in Massachusetts to 29 percent in Maryland; the proportion receiving less than \$10 varied from 94 percent in Delaware to 64 percent in New York. Only in New York did as many as 5 percent earn \$15 or more (tables 8 and 9).

Although New York shows both the highest median earnings and the largest proportions in the higher wage groups, the earnings disclosed by this survey are lower than they were almost 50 years ago. In 1886, when a strike and lockout tied up 10,000 workers in the shirt and collar factories of Troy, N.Y., the State board of arbitration found that wages of the women and young girls employed ranged from \$6 to \$18 a week, with an average of \$10. Even at that time the settlement called for wage increases of as high as 25 percent.

Within each State a striking variation was found, in the present survey, in the earnings of female workers in different establishments. The widest variation occurred in New York, where one plant had a median of \$4.20 and another a median of \$12.60. In Pennsylvania one firm had a median of \$2 and another a median of \$9.10 (table 10).

Weekly Earnings of Female Wage Earners in Rural and Urban Shirt Factories

In general, weekly earnings varied directly with the size of the community in which the factories were located. In 7 of the 9 States the factory with the lowest median earnings (see table 10) was located either in a rural district or in a community with a population of less than 10,000.

In shirt factories in rural communities, that is, towns of less than 2,500 population and country districts, half of the women earned less than \$4.30 a week; in those in communities with a population between 2,500 and 10,000, the median was slightly higher—\$5.60; in

towns and cities with a population between 10,000 and 50,000, the median was \$7.50; and in cities of 50,000 or more the median—\$8.20—was almost twice what it was in the rural factories.

There was a marked similarity in median weekly earnings of shirt workers in places with populations of less than 2,500 in all the States in which such information was available. In three States (New York, Pennsylvania, and Maryland) the medians were identical—\$4.20. Considerable differences, however, were found in median weekly earnings of shirt workers in the larger towns of these States (table 11).

While many rural factories were small, some were visited which employed several hundred workers; the automobile has made it possible for the rural factory to tap the labor supply of remote farms and villages.

In rural places 43 percent of the woman shirt workers were earning less than \$4 a week; in communities with populations between 2,500 and 10,000, 25 percent; in cities of the next size, 12 percent; and in cities of 50,000 and over, only 9 percent.

Those earning \$10 and over were 2 percent of the total in rural factories, 22 percent in factories located in towns with populations of 10,000 to 50,000, and 31 percent in the largest cities (50,000 and over).

In the rural factories only 70 out of 1,254 women earned as much as \$8 and not one earned as much as \$15 (tables 12 and 13).

Weekly Earnings in Contracting and Manufacturing Establishments

Weekly earnings of female shirt workers were found to be higher in manufacturing than in contracting establishments. Half the female workers in all contract establishments combined earned less than \$6.40 a week. In all manufacturing establishments combined the median for woman and girl workers was \$7.60. Thirteen firms in four States did both contracting and direct manufacturing, and the median for these establishments was \$7.40. In each State in which both types of manufacture were found ⁷ median weekly earnings were higher in the manufacturing establishments, the difference varying from 40 cents in New Jersey to more than a dollar in several States (table 14).

Competitive Conditions in the Shirt Industry

THE marked variations in earnings between establishments and the prevalence of extremely low earnings are indicative of the competitive character of the shirt industry, which has indeed played havoc with standards, prices, and business stability. The majority of the firms visited had suffered from reduced business, only a few in each State claiming to have been continuously busy during the past year. Many plants, both contracting and manufacturing, both large and small, had been forced to curtail operations either by closing entirely for several weeks, or months, or by running only 2 or 3 days a week. In every State some plants were found to have changed from producing shirts, or mainly shirts, to other types of clothing—boys' play suits, men's wash suits, pajamas, and even dresses. Because of the similarity and simplicity of operations these shifts to related lines of cotton wearing apparel are common, and are regularly used by some

⁷ No contractors were visited in Massachusetts or Missouri.

manufacturers to reduce seasonal fluctuations. Some work-shirt plants had started to make work pants or lumber jackets. In order to keep their customers supplied with a complete line of work clothing, certain of these plants were buying or contracting for work shirts from other plants having a lower production cost. One firm in Missouri reported that it could buy work shirts from a firm in Mississippi for \$1 a dozen less than it could make them, and that consequently it had discontinued the manufacture of this line. Another firm, in Indiana, was buying work shirts from a factory in Georgia which could manufacture them at a cost of 60 cents a dozen less than the Indiana production cost. Competition from prisons, reformatories, and other institutions, especially in the work-shirt branch of the industry, was also reported. Complaints against prison competition were heard in Maryland, Indiana, Missouri, and New York. An Eastern manufacturer dealing in work shirts remarked, "Prison competition is worse in hard times because the prison factories don't feel the depression; they can go right on producing and push the little fellow out altogether."

As was to be expected, in the regions where earnings were relatively high complaints concerning unfair competition were numerous. Variations found between States, and between city and rural districts, indicate the validity of these charges. Earnings in rural districts were found to average about half of the earnings in large cities. Earnings in Pennsylvania and Connecticut, where the industry is growing, were found to be considerably lower than in New York State, where employment in the industry is declining. Median weekly earnings of women in Pennsylvania were \$6 and in Connecticut \$7.70, compared to \$8.70 in New York. Median hourly earnings were 15 cents and 17 cents, respectively, in the first two States, and 23 cents in New York.

In Pennsylvania, the State against which the majority of complaints were directed, conditions were by no means satisfactory. Here, too, employers were bending every effort to meet the cut-throat competition that existed within the State as well as with outside concerns. Some firms had changed their type of product in the hope of finding better markets. One shirt manufacturer had shifted to dresses, but owing to inexperience had lost money and was returning to shirts at the time of the survey. Even managers and partners in some cases reported their own salaries as low as \$10 and \$15 a week. Workers in many plants had agreed to one wage cut after another rather than have the plants close down.

In the spring of 1933, however, after 3 years of accepting successive wage cuts in order to preserve at least some employment, a new temper appeared among the shirt workers, and a large number of strikes developed in the shirt factories of several Eastern States—Massachusetts, Connecticut, New Jersey, and Pennsylvania. Some of these were the result of a unionization campaign by the Amalgamated Clothing Workers, others were apparently spontaneous uprisings against intolerable wage conditions. A large number of these strikes were settled, some of them after intervention by commissioners of conciliation of the United States Department of Labor. The terms usually included union recognition and wage increases of 5 to 10 percent. Many other shirt factories in these States and in other parts of the country reported similar increases at about this time.

The employers, on their side, were in most cases eager to see Federal regulation set up under the National Industrial Recovery Act to stabilize conditions and put an end to disastrous competitive practices.

TABLE 1.—NUMBER OF FEMALE WAGE EARNERS EMPLOYED IN 31 SHIRT FACTORIES REPORTING SCHEDULED WEEKLY HOURS OF WORK IN 7 STATES

State	Female wage earners having scheduled weekly hours of work of 1—						Total
	44 and under 48		48 and under 50		50 or more		
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	
Massachusetts.....	25	4	579	96	-----	-----	604
Connecticut.....	195	23	665	77	-----	-----	860
New York.....	78	3	2,392	97	-----	-----	2,470
New Jersey.....	-----	-----	526	100	-----	-----	526
Pennsylvania.....	-----	-----	-----	-----	545	100	545
Indiana.....	656	38	34	2	1,046	60	1,736
Missouri.....	543	61	345	39	-----	-----	888
Total, 7 States.....	1,497	20	4,541	60	1,591	21	7,629

¹ No factory reported having under 44 schedule hours.

TABLE 2.—NUMBER OF FEMALE WAGE EARNERS EMPLOYED IN 31 SHIRT FACTORIES REPORTING ACTUAL WEEKLY HOURS OF WORK IN 7 STATES

State	Female wage earners having actual weekly hours of work of—												Grand total
	Under 40		40 and under 44		44 and under 48		48 and under 50		50 and over		Total re-ported	Hours not re-ported	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent			
Massachusetts.....	171	28	78	13	148	25	203	34	2	(¹)	602	2	604
Connecticut.....	107	13	112	13	325	38	256	30	51	6	851	9	860
New York.....	595	28	464	22	813	38	242	11	1	(¹)	2,115	355	2,470
New Jersey.....	48	9	46	9	38	7	337	64	56	11	525	1	526
Pennsylvania.....	97	19	88	17	97	19	53	10	188	36	523	22	545
Indiana.....	186	11	190	11	373	22	103	6	881	51	1,733	3	1,736
Missouri.....	165	19	143	17	303	35	247	29	-----	-----	858	30	888
Total, 7 States.....	1,369	19	1,121	16	2,097	29	1,441	20	1,179	16	7,207	422	7,629

¹ Less than 1 percent.

TABLE 3.—MEDIAN HOURLY EARNINGS OF FEMALE WAGE EARNERS AND NUMBER RECEIVING SPECIFIED AMOUNTS PER HOUR IN 31 SHIRT FACTORIES IN 7 STATES

State	Median hourly earnings	Female wage earners receiving specified amounts per hour ¹									
		Under 5 cents		5 and under 10 cents		10 and under 15 cents		15 and under 20 cents		20 and under 25 cents	
		Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Massachusetts.....	\$0.20	1	(²)	5	1	86	14	221	37	172	29
Connecticut.....	.17	5	1	51	6	271	32	265	31	151	18
New York.....	.23	-----	-----	63	3	253	12	423	20	503	24
New Jersey.....	.19	-----	-----	11	2	129	25	143	27	137	26
Pennsylvania.....	.15	6	1	67	13	188	36	132	25	81	15
Indiana.....	.16	16	1	190	11	577	33	494	29	258	15
Missouri.....	.17	8	1	65	8	243	28	231	27	188	22
Total, 7 States.....	.19	36	(²)	452	6	1,747	24	1,909	26	1,490	21

¹ Hourly earnings for each worker were obtained by dividing the total amount received for the pay period by the actual number of hours worked.

² Less than 1 percent.

TABLE 3.—MEDIAN HOURLY EARNINGS OF FEMALE WAGE EARNERS AND NUMBER RECEIVING SPECIFIED AMOUNTS PER HOUR IN 31 SHIRT FACTORIES IN 7 STATES—Continued

State	Female wage earners receiving specified amounts per hour ¹								Grand total
	25 and under 30 cents		30 and under 35 cents		35 cents and over		Total reported	Amount not reported	
	Number	Percent	Number	Percent	Number	Percent			
Massachusetts.....	69	11	35	6	13	2	602	2	604
Connecticut.....	72	8	28	3	8	1	851	9	860
New York.....	467	22	239	11	167	8	2,115	355	2,470
New Jersey.....	71	14	22	4	12	2	525	1	526
Pennsylvania.....	31	6	13	2	5	1	523	22	545
Indiana.....	150	9	43	2	5	(²)	1,733	3	1,736
Missouri.....	90	10	18	2	15	2	858	30	888
Total, 7 States.....	950	13	398	6	225	3	7,207	422	7,629

¹ Hourly earnings for each worker were obtained by dividing the total amount received for the pay period by the actual number of hours worked.

² Less than 1 percent.

TABLE 4.—PERCENT OF FEMALE WAGE EARNERS RECEIVING UNDER SPECIFIED AMOUNTS PER HOUR IN 31 SHIRT FACTORIES IN 7 STATES

State	Percent of female wage earners receiving hourly earnings of ¹ —							
	Under 5 cents	Under 10 cents	Under 15 cents	Under 20 cents	Under 25 cents	Under 30 cents	Under 35 cents	35 cents and over
Massachusetts.....	(²)	1	15	52	81	92	98	2
Connecticut.....	1	7	39	70	88	96	99	1
New York.....		3	15	35	59	81	92	8
New Jersey.....		2	27	54	80	94	98	2
Pennsylvania.....	1	14	50	75	91	97	99	1
Indiana.....	1	12	45	74	89	98	100	(²)
Missouri.....	1	9	37	64	86	96	98	2
Total, 7 States.....	(²)	7	31	57	78	91	97	3

¹ Hourly earnings for each worker were obtained by dividing the total amount received for the pay period by the number of hours worked.

² Less than 1 percent.

TABLE 5.—MEDIAN WEEKLY EARNINGS OF ALL WAGE EARNERS AND NUMBER AND PERCENT RECEIVING CLASSIFIED AMOUNTS PER WEEK IN 129 SHIRT FACTORIES IN 9 STATES

State	Median weekly earnings	Wage earners whose weekly earnings were—								Total
		Under \$5		\$5 and under \$10		\$10 and under \$15		\$15 and over		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Massachusetts.....	\$8.00	99	12	506	61	192	23	34	4	831
Connecticut.....	7.80	364	16	1,267	56	501	22	130	6	2,262
New York.....	9.00	759	13	2,860	48	1,786	30	590	10	5,995
New Jersey.....	7.90	362	18	1,056	53	448	23	114	6	1,980
Pennsylvania.....	6.10	1,129	35	1,687	53	321	10	52	2	3,189
Delaware.....	5.50	272	43	323	51	40	6	2	(¹)	637
Maryland.....	5.60	676	42	722	45	165	10	38	2	1,601
Indiana.....	7.30	426	21	1,195	58	381	19	55	3	2,057
Missouri.....	6.60	386	28	742	54	199	15	43	3	1,370
Total, 9 States.....	7.40	4,473	22	10,358	52	4,033	20	1,058	5	19,922

¹ Less than 1 percent.

TABLE 6.—MEDIAN WEEKLY EARNINGS OF ALL WAGE EARNERS IN SPECIFIED OCCUPATIONS IN 129 SHIRT FACTORIES IN 9 STATES

State	Machine operators	Pressers	Miscellaneous occupations ¹	All occupations ²
Massachusetts.....	\$8.60	\$7.40	\$6.30	\$8.00
Connecticut.....	8.00	8.40	6.20	7.80
New York.....	8.80	9.10	8.30	9.00
New Jersey.....	8.10	8.60	5.90	7.90
Pennsylvania.....	6.20	6.30	4.70	6.10
Delaware.....	5.40	5.80	5.40	5.50
Maryland.....	5.10	8.20	5.80	5.60
Indiana.....	7.20	9.40	6.10	7.30
Missouri.....	6.30	6.60	7.20	6.60
Total, 9 States.....	7.30	7.90	6.60	7.40

¹ Thread clippers, examiners, sorters, boxers, floor girls, etc.² Including cutting department which is composed chiefly of men; for all States combined it includes 796 workers, of whom 52 percent earned \$15 or more per week.

TABLE 7.—NUMBER OF FEMALE WAGE EARNERS AND MEDIAN WEEKLY EARNINGS IN 129 SHIRT FACTORIES IN 9 STATES

State	Number of female wage earners	Median weekly earnings
Massachusetts.....	788	\$7.90
Connecticut.....	2,074	7.70
New York.....	5,310	8.70
New Jersey.....	1,858	7.70
Pennsylvania.....	2,985	6.00
Delaware.....	620	5.40
Maryland.....	1,540	5.50
Indiana.....	1,904	7.10
Missouri.....	1,299	6.40
Total, 9 States.....	18,378	7.30

TABLE 8.—PERCENT OF FEMALE WAGE EARNERS RECEIVING CLASSIFIED WEEKLY EARNINGS IN 129 SHIRT FACTORIES IN 9 STATES

Weekly earnings	Percent of female wage earners receiving classified weekly earnings in—									
	Massachusetts	Connecticut	New York	New Jersey	Pennsylvania	Delaware	Maryland	Indiana	Missouri	9 States
Under \$2.....	1	3	2	2	8	9	7	3	5	4
\$2 and under \$4.....	5	6	6	9	16	19	22	10	13	10
\$4 and under \$6.....	17	19	13	19	26	30	28	23	26	21
\$6 and under \$8.....	28	26	21	23	25	23	22	25	24	24
\$8 and under \$10.....	24	20	22	21	15	13	11	20	17	18
\$10 and under \$12.....	16	13	17	14	6	4	6	14	9	13
\$12 and under \$15.....	7	9	13	9	3	2	3	5	4	8
\$15 or more.....	2	4	5	4	1	-----	1	-----	1	3
Total.....	100	100	100	100	100	100	100	100	100	100

TABLE 9.—PERCENT OF FEMALE WAGE EARNERS RECEIVING UNDER SPECIFIED AMOUNTS PER WEEK IN 129 SHIRT FACTORIES IN 9 STATES

Weekly earnings	Percent of female wage earners receiving under specified amounts per week in—									
	Massachusetts	Connecticut	New York	New Jersey	Pennsylvania	Delaware	Maryland	Indiana	Missouri	9 States
Under \$2.....	1	3	2	2	8	9	7	3	5	4
Under \$4.....	6	9	8	11	24	28	29	13	18	14
Under \$6.....	23	28	21	30	50	58	57	36	44	35
Under \$8.....	51	54	42	53	75	81	79	61	68	59
Under \$10.....	75	74	64	74	90	94	90	81	85	77
Under \$12.....	91	87	81	88	96	98	96	95	94	90
Under \$15.....	98	96	94	97	99	100	99	100	98	98
\$15 and over.....	2	4	5	4	1	-----	1	-----	1	3

TABLE 10.—MINIMUM AND MAXIMUM MEDIAN WEEKLY EARNINGS OF FEMALE WAGE EARNERS IN SHIRT FACTORIES HAVING 50 OR MORE EMPLOYEES, IN 9 STATES

State	Median weekly earnings in factory	
	Minimum	Maximum
Massachusetts.....	\$7.00	\$9.50
Connecticut.....	6.60	12.00
New York.....	4.20	12.60
New Jersey.....	4.70	10.00
Pennsylvania.....	2.00	9.10
Delaware.....	3.70	5.90
Maryland.....	2.90	9.20
Indiana.....	4.80	8.90
Missouri.....	3.90	9.40

TABLE 11.—NUMBER OF FEMALE WAGE EARNERS AND MEDIAN WEEKLY EARNINGS IN 129 SHIRT FACTORIES IN COMMUNITIES WITH SPECIFIED POPULATION, IN 9 STATES

State	Female wage earners in communities with a population of—							
	Under 2,500		2,500 and under 10,000		10,000 and under 50,000		50,000 or more	
	Number	Median weekly earnings	Number	Median weekly earnings	Number	Median weekly earnings	Number	Median weekly earnings
Massachusetts.....					96	\$7.20	692	\$8.00
Connecticut.....					572	9.00	1,502	7.40
New York.....	91	\$4.20	264	\$7.70	2,041	8.00	2,914	9.60
New Jersey.....			58	4.70	708	7.80	1,092	7.90
Pennsylvania.....	284	4.20	1,003	5.90	1,043	6.30	655	6.90
Delaware.....	215	4.90					405	5.70
Maryland.....	545	4.20	261	4.80	136	5.30	598	7.80
Indiana.....	119	4.80	519	5.70	527	7.50	739	8.60
Missouri.....			638	5.10			661	8.50
Total, 9 States.....	1,254	4.30	2,743	5.60	5,123	7.50	9,258	8.20

TABLE 12.—NUMBER AND PERCENT OF FEMALE WAGE EARNERS RECEIVING CLASSIFIED WEEKLY EARNINGS IN 129 SHIRT FACTORIES IN COMMUNITIES WITH SPECIFIED POPULATION, IN 9 STATES

Weekly earnings	Female wage earners in communities with a population of—							
	Under 2,500		2,500 and under 10,000		10,000 and under 50,000		50,000 or more	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under \$2.....	151	12	189	7	145	3	225	2
\$2 and under \$4.....	389	31	491	18	448	9	607	7
\$4 and under \$6.....	423	34	863	31	990	19	1,514	16
\$6 and under \$8.....	221	18	705	26	1,308	26	2,091	23
\$8 and under \$10.....	49	4	344	13	1,084	21	1,928	21
\$10 and under \$15.....	21	2	147	5	1,032	20	2,516	27
\$15 or more.....			4	(1)	116	2	377	4
Total.....	1,254	100	2,743	100	5,123	100	9,258	100

¹ Less than 1 percent.

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TABLE 13.—PERCENT OF FEMALE WAGE EARNERS RECEIVING UNDER SPECIFIED AMOUNTS PER WEEK IN 129 SHIRT FACTORIES IN COMMUNITIES WITH A SPECIFIED POPULATION, IN 9 STATES

Weekly earnings	Percent of female wage earners in communities with a population of—			
	Under 2,500	2,500 and under 10,000	10,000 and under 50,000	50,000 or more
Under \$2.....	12	7	3	2
Under \$4.....	43	25	12	9
Under \$6.....	77	56	31	25
Under \$8.....	95	82	57	48
Under \$10.....	99	95	78	69
Under \$15.....	100	100	98	96
\$15 and over.....		(1)	2	4

¹ Less than 1 percent.

TABLE 14.—NUMBER OF FEMALE WAGE EARNERS AND MEDIAN WEEKLY EARNINGS IN 129 SHIRT FACTORIES OF SPECIFIED TYPES, IN 9 STATES

State	Manufacturing establishments			Contracting establishments			Combined manufacturing and contracting establishments		
	Number	Female wage earners		Number	Female wage earners		Number	Female wage earners	
		Number	Median weekly earnings		Number	Median weekly earnings		Number	Median weekly earnings
Massachusetts.....	6	788	\$7.90	2	232	\$7.40	4	864	\$7.20
Connecticut.....	4	978	8.50	9	1,228	8.10	2	103	8.40
New York.....	19	3,979	8.90	4	606	7.80	6	755	7.40
New Jersey.....	4	497	8.20	15	1,713	5.60			
Pennsylvania.....	11	1,272	6.50	2	76	4.60			
Delaware.....	3	544	5.60	10	722	5.00			
Maryland.....	15	818	6.00	1	119	4.80	1	34	(1)
Indiana.....	4	1,751	7.20						
Missouri.....	7	1,299	6.40						
Total, 9 States.....	73	11,926	7.60	43	4,696	6.40	13	1,756	7.40

¹ Not shown because number of female wage earners was less than 50.

EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Regulations Governing Federal Grants to Self-Help Organizations

THE Federal Emergency Relief Act authorizes the Administrator of the act "to make grants to aid in assisting cooperative and self-help associations for the barter of goods and services."

To aid in making such grants, applications for which have already been received from self-help groups in various parts of the United States, the Administrator has drawn up a questionnaire, to be filled in by the applicant group, and a set of regulations as follows:¹

Questionnaire to be Answered by Applicants for Self-Help and Barter-Exchange Funds

1. How much money is needed?
2. How to be paid—installment or lump sum?
3. What is money to be used for?

(Give as full and detailed information as possible on each project separately for which Federal aid asked.)

4. Give sworn statement of assets and liabilities as of July 1, 1933, or as near that date as possible.

5. Administrative personnel?

(List names, addresses, past experience and business connections of principal officers.)

6. How long organized?
7. How many active members?
8. How many actually sustained in system who otherwise would be on relief?

(Submit names and addresses of same for independent check-up.)

9. In what amount have relief costs been reduced?
10. In what amount can relief costs be reduced within the next 6 months?
11. What commodities are produced?
12. How is shelter handled?
13. Is scrip used? If so, submit samples of the scrip.
14. What is behind the scrip?
15. When was scrip first issued?
16. Has it depreciated? How much?
17. Has unit traded with other units? If so, state value, kind and quantity of goods exchanged with other units.
18. How far apart are various other units traded with?
19. To what extent is community behind movement? Are merchants favorable or otherwise? Is organized labor favorable or otherwise? Does the State, county or other local relief organization cooperate with you? To what extent?
20. Give dollar volume of business transacted for each month since starting.
21. To what extent would this appropriation make the system self-sustaining?
(Name of organization)-----,
(Name and title of officer)-----

¹ Both questionnaire and regulations have since been revised in minor points, but the changes were received too late for revision in this issue. The revised forms will be carried in the October 1933 issue of the Labor Review.

The regulations drawn up by the Federal Emergency Relief Administration governing the grant of Federal funds to self-help associations are as follows:

Regulations

1. All applications must be made through the State relief administration and receive the approval of that administration before they will be considered by the Federal administration.

2. The questionnaire (F.E.R.A. Form No. 12) should be filled out by any applicant as completely as possible.

3. The State relief administration before giving its approval should check the answers as to accuracy.

4. The State relief administration is not expected to take the full responsibility for the success of any barter and self-help experiment; but the Federal administration would expect the State administration to assume responsibility for two of the factors most essential to the success of a barter unit, namely, the quality of the administrative personnel, its integrity, and its ability; and the sympathy and cooperation of the community in which the unit wishes to operate. These two factors can best be judged by the State authorities. It is almost impossible for the Federal administration to make a fair judgment of them.

As to the other answers to the questionnaire the Federal administration feels that the State administration will have performed its duty and discharged its responsibility with the check-up of accuracy. The responsibility of the final judgment as to whether the appropriation should be made will rest with the Federal administration.

It is to be definitely understood that expenditures on any of these units are to be considered as experimental ones, and until such units prove that they either have actually reduced the relief expense, and at the same time given adequate relief, or prevented a rise in the relief expense they shall be considered in this experimental light.

Upon the approval by the State relief administration and the request by it for funds to establish the barter unit and after approval by the Federal Relief Administration funds will be forwarded to the State relief administration which will be over and above the regular relief appropriation. These funds shall be earmarked for the specific purpose of establishing the barter unit.

The State relief administration is advised to keep in as close touch as possible with any unit that is set up under its recommendation. It should require reports from the unit from time to time on expenditures of funds and on the progress being made. These reports should be on file with both the State administration and the Federal administration. It is suggested that one of the members of the State administration should give such time to the development of this project in either a supervisory or advisory capacity as the State administration deems necessary.

If any State relief administration wishes to make an experiment of its own without using an already existing barter unit such application will, of course, be given immediate consideration upon the filing of the plan of organization with this office. Any help that this office can give in an advisory or temporary supervisory capacity for any unit will also be furnished.

In a memorandum dated August 10, 1933, these regulations were further interpreted as follows:

The Federal Emergency Relief Administration does not wish to establish detailed rules or conditions under which grants shall be made to cooperatives and self-help organizations. It prefers to trust to the judgment of the State emergency relief administration and under ordinary circumstances will not feel justified in going back of the recommendations of the State administration. As a matter of clarification of our present views, it seems useful to make the following statement concerning these grants.

Field of utilization of Federal grants.—Any grant made to a cooperative should be for those of its activities that are supplemental to the ordinary means of support of its members. It is expected that a substantial proportion of the members shall be persons theretofore on relief, eligible to relief, or prospectively eligible if it were not for their membership in the cooperative.

Funds resultant from Federal grants should not be used for the bulk purchase of commodities for distribution to members in the discharge of relief operations. In any case where it seems desirable to the local relief agency that the cooper-

ative shall make bulk purchase for the direct relief of its members, local, or local and State funds must, in general, be used for this purpose and funds from a Federal grant can only be included by special arrangement. Such exceptions must be well justified, both by the local agency and the State administration.

A further exception will occasionally occur where bulk purchase of commodities may serve a useful purpose in the exchange for other commodities needed by the membership of the organization. This exception must also be well justified. No blanket statement of policy can be made covering these exceptions. Each one will be considered on its merits and such conditions established surrounding it as seem necessary.

In general, funds granted from the Federal Emergency Relief Administration for cooperatives should be used for working capital for the purchase of mobile or short-lived equipment, for gasoline, canning equipment, cans, and any other of the items commonly included in the working capital of such an enterprise. This is not intended to be a rigorous statement of limitations, but should serve as an indication of the way Federal moneys should be spent. No Federal funds should be invested in permanent plant or land, although Federal funds may be used for advantageous leaseholds for temporary use.

To sum up: If we classify the property of a cooperative as (1) consumable goods, (2) working or circulating capital and (3) long-term investment, Federal funds should be used only for (2) working capital.

Relation to relief cost.—As a condition of Federal grant, the cooperative must give evidence of its ability to reduce the relief cost of the community and should indicate its expectation of the degree of such reductions if the grant is given. In case of requests for further grants, it should present evidence covering the degree to which that expectation is met.

Management.—The cooperative must indicate that it has adequate accounting facilities and set-up, should agree to furnish to the State emergency relief administration such reports as are necessary to evidence its proper use of the Federal grant. In event of change of management after the grant is made, immediate information should be given to the State emergency relief administration covering such changes, together with a statement of experience and qualification of any person elected or appointed. Whenever possible, it would be well for the governing body of the cooperative to discuss the proposed changes in managerial personnel with a representative of the State emergency relief administration in advance of such a change.

No part of a Federal grant shall be used as a cash payment of salaries to managing personnel. This should not serve as a barrier to the payment of such salaries from local or privately raised funds. In grants below ten thousand dollars, funds to the extent of 2 percent of any Federal grant, may, if necessary, be used for professional accounting services. In grants above that amount, proportionately smaller limits shall be set.

Labor and business policy.—The cooperative must undertake to exercise extreme care that its operation shall not in any way reduce the wage of labor in the community in which it operates. It must agree to pay its members at least 30 cents per hour in scrip, book-credit or kind, while the beneficiary of Federal funds.

It is the general intention that no goods produced by the cooperative under Federal grant shall find their way into the open market. No hard and fast rule can be drawn on this point because it sometimes happens that the goods exchanged by a cooperative for other goods that it needs, will after two or three such exchanges, be sold for cash. It is the intention that this cash sale, even when effected indirectly, shall be kept at a minimum. This general rule, however, does not constitute a barrier to the sale of products by cooperatives to local or private relief agencies. Such agencies should pay the cooperative the same price that they would pay in the open market, and may pay in cash or in kind; e.g., it frequently happens that clothing may be used in payments for cloth.

The cooperative, at the time of filing its application for funds, will have presented its major projects. It should periodically file with the State administration any new projects which it plans to prosecute. These should be filed sufficiently far in advance so that the State administration may advise the cooperative if the proposed project does not come under the conditions of the Federal grant. In such cases, a discussion should be held between the State administration and the cooperative so that differences can be resolved.

Application for funds.—Application for Federal grant is made by filing with the State emergency relief administration or its appointed agencies or local committees as the State emergency relief administration may direct, answers to the questionnaire. (Form No. 12, Federal Emergency Relief Administration.) These

should be filed in duplicate so that one copy may be held in file by the State commission and one copy forwarded to Washington with the formal application of the Governor of the State.

Right of Legislature to Appropriate Money for Unemployment Relief

THE Legislature of Washington, by an act passed at its 1933 session, authorized that State to exceed its constitutional limitation of indebtedness so as to provide funds to suppress, as the legislature indicated, an incipient insurrection arising out of widespread distress and unemployment. The Supreme Court of Washington, in a 5 to 3 decision, upheld the power of the legislature in authorizing the State to issue a sale of bonds in the sum of \$10,000,000 to carry out the purposes and provisions contained in the relief act (*State v. Martin*, 23 Pac. (2d) 1).

By the provisions of chapter 8, Acts of 1933, a relief act was passed which had for its purpose the relief of the people of the State from hardships and suffering caused by unemployment, and in addition, created an emergency relief administration. At a later date the Legislature of Washington enacted chapter 65, which is referred to as the Bond Act, which authorized the State finance committee to issue general obligation bonds of the State in the sum of \$10,000,000. The attorney general of the State commenced an action in the superior court of Thurston County permanently to enjoin the committee from enforcing the provisions of the Bond Act. The constitutionality of the act was challenged and it was alleged that various sections of the State constitution were violated and in addition that many of the provisions of the act were in conflict with other existing laws. In the State of Washington the constitutional debt limit is fixed at \$400,000, with the exception that the State may also contract debt to repel invasion, suppress insurrection, etc.

The Bond Act enumerates a number of reasons for the enactment of such a law:

Discontent, social unrest, and incipient insurrection exist. Acts of insurrection are occurring. * * * A critical emergency calling for constructive action is presented; otherwise catastrophe impends. * * * It is imperative that existing unemployment and distress be in some measure allayed. * * * This obligation is upon the State. Legislation is essential for its fulfillment.

The Supreme Court of Washington in the majority opinion written by Mr. Justice Holcomb refused to go behind the legislative declaration stating that the purpose of the legislature was to prevent insurrection by civilized methods rather than by violence and bloodshed. The court referred to several cases in which it was shown that measures had been undertaken before to suppress insurrection by ordering State forces to localities to prevent destruction of life and property.

The court, in the case of *Chapin v. Ferry* (28 Pac. 754) said that "in these cases prevention is to be desired, not cure." It was pointed out that disorders which constitute "incipient insurrection" were declared by the legislature to be existing in the State at the time the legislation was enacted. "It would seem to any rational mind", the court said, "that it is far better to cure insurrection or incipient insurrection by promoting prosperity than by the use of bullets."

The court was of the opinion that it was not in the mind of the makers of the State constitution "that there must be actual armed insurrection with bloodshed, before taking steps and providing means by which to suppress it." In 1932 the Supreme Court of Washington had occasion to take notice of the economic and financial conditions then existing, in the case of *Rummens v. Evans* (13 Pac. (2d) 26). The court also pointed out that it had always held to the rule that the facts declared by a legislature constituting an emergency are conclusive, "unless, giving effect to every presumption in its favor, the court can say that such legislative declaration, on its face, is obviously false and a palpable attempt at dissimulation." (Cases cited.)

It was also shown that it has been well settled that the court will enter upon no inquiry as to the facts in determining the truth or falsity of a legislative declaration of a fact. The province of the court is to consider the question from what appears upon the face of the act, assisted by its own judicial knowledge.

Reference was made to the constitution of California, which contains a limitation of State indebtedness similar to the Washington provision. The California indebtedness is limited to \$300,000 in general, except in case of war, to repel invasion, or to suppress insurrection.

A case decided by the Supreme Court of Pennsylvania (*Schnader v. Liveright*, 161 Atl. 697) was cited by the court in rendering its opinion. The Supreme Court of Pennsylvania in this case said:

The greatest menace to the well-being and safety of the State is for it to have hundreds of thousands of its able-bodied and willing citizens suffering with their families, from hunger and lack of clothing and shelter because work is unobtainable. An appropriation from a public treasury to relieve this suffering is no more a "charitable" appropriation than an appropriation made to suppress an uprising, repel an invasion, or to combat a pestilence.

In conclusion, the court said that it remained to be seen whether or not the legislation would accomplish the intended purpose. The wisdom and expedience of the legislation was not of their concern and it was not for the court to say that the facts found by the legislature were false. The court therefore concluded that the law as enacted violated none of the limitations and restrictions set out in the petition.

Three of the justices of the Supreme Court of Washington dissented on the ground that the constitution in authorizing the legislature to incur indebtedness in excess of \$400,000 to suppress insurrection, etc., did not contemplate the relief of the distressed. In a written opinion, by Mr. Justice Tolman, it was said that while the purpose and intent to relieve the distress of the people was a most worthy one, only as a last resort, however, could the constitution be destroyed to serve humanitarian purposes. He pointed out that there was ample wealth now within the State to relieve every worthy distressed person. The State by its power of taxation had an almost unlimited power and until the State had consumed the wealth within its borders, the judge was of the opinion that the court had no right to set aside a plain constitutional mandate and "pass the results of our own lack of foresight on to our children and our children's children." The dissenting opinion declared that the meaning of the word "suppress" at the time the constitution of the State of Washington was adopted, and now is "to crush, to put down by force" and the force of the word cannot be changed or softened by any "amount of sophistry."

Final Report of English Unemployment Grants Committee

THE Unemployment Grants Committee was appointed in December 1920, "for the purpose of assisting local authorities in the United Kingdom in carrying out approved schemes of useful work other than work on roads and on housing schemes", and gave such aid, more or less extensively according to the policy of the successive governments in power, for something over a decade. In 1931 it was decided, as a measure of economy, to limit approval of schemes for grants to those on which work could be actively commenced by the end of October, and this time limit was afterward extended to the end of January 1932. A final report of the committee, recently issued, reviews its work, and summarizes the changes in its policy:

During the years 1921 to 1925 there was no important change of policy affecting the committee, grants being given freely toward the cost of suitable schemes provided by local authorities in areas where unemployment was severe. From December 1925 to November 1928, the qualifying conditions were made so stringent that few schemes were submitted, and of these the great majority could not be approved. From November 1928, the scheme was opened, on special terms, to local authorities willing to employ men from the depressed areas; certain relaxations of the conditions were made in July 1929, and in July 1930, grants were made available to all local authorities on uniform terms and under uniform conditions. In September 1931, grants were offered on a much reduced scale up to the end of January 1932, after which no further schemes were approved.

Kind and Cost of Schemes

PROVISION was made for two different kinds of aid. The Government might assume a portion of the interest and amortization charges on any loan raised to meet the cost of an approved scheme, or it might undertake to pay a part of the wages bill in cases where no loan was raised and the scheme was paid for out of current revenue. Schemes approved covered such matters as sewerage works, water-supply schemes, dock and harbor improvements, electricity-supply developments, certain road and building schemes, and miscellaneous activities, such as land reclamation and flood prevention, leveling, draining and laying out land for aerodromes, parks and recreation grounds, and the erection of abattoirs, public baths, and washhouses. Some of the schemes were of national importance; others were merely local improvements. In general it was laid down that to be approved a scheme must be of public utility, the extent to which it would affect the economic development of the United Kingdom would be taken in consideration, and conditions as to hours and wages must be strictly observed.

From December 1920 to January 1932, the committee approved 17,640 schemes, estimated to cost £191,006,000. (Revised estimates as of August 31, 1933, put the total cost at £190,862,000.) The estimated liability of the Government from 1932-33 to the date when the financing of these schemes will be closed (1963-64) amounts to £60,415,000. Up to March 31, 1932, the Government had paid in respect to these schemes £24,339,640, so that the disbursements over the whole period during which grants are payable will amount to £84,754,640. The Government's annual liability will reach its maximum, £4,463,000, in the fiscal year 1934-35.

Employment Value of Schemes

A NUMBER (127) of the completed schemes were tested to discover the relative amount of direct employment furnished by the different types. Considering only direct employment, i.e., employment of

men on the actual site of the works, and calculating the equivalent employment for an expenditure of £1,000,000, the following results for the different types of schemes were obtained:

	<i>Man-years</i>
Sewerage.....	3, 206
Roads.....	2, 395
Docks and harbors.....	2, 430
Water supply.....	2, 564
Electricity supply.....	1, 170
Recreation grounds.....	3, 752
Municipal offices.....	1, 612
Sea defense.....	2, 733
Miscellaneous.....	1, 910

As a result of these tests the committee concludes that "the allocation of £1,000,000 of grant-aided expenditure between the various types of schemes, according to the proportion in which they were approved by the committee over the whole period from 1920 to 1932, would on the average result in the provision of direct employment amounting to rather more than 2,500 man-years."

As to how much indirect employment is provided by such an expenditure, the committee does not feel justified in making any statement. There is a general impression that for every man directly employed on public works there is another man indirectly employed, but it is pointed out that while this may or not be true in some cases, it does not apply to all kinds of work.

For example on certain land leveling schemes * * * direct employment was provided to the equivalent of over 6,000 man-years for expenditure of £1,000,000, the reason for this high return being that practically the whole of the cost of the scheme was in the form of wages paid to men employed on the site, and consequently the amount of indirect employment provided by these schemes was negligible. On the other hand, electricity-supply schemes and schemes for the improvement of docks and harbors give a comparatively low return by way of direct employment but a high return of indirect employment in the manufacture of materials such as cables, transformers and motors in the former type, and cranes, rails, lockgates, slipway machinery and dredgers in the latter type. In general, therefore, it is true to say that a small return by way of direct labor is to a considerable degree balanced by a correspondingly large return by way of indirect labor.

Unemployment-Insurance Legislation in England

ON June 28 the Unemployment Insurance Act of 1933 received the royal assent, thus continuing for another year certain provisions relating to unemployment benefit and transitional payments which would otherwise have expired June 30, 1933. The matters with which these provisions deal are summarized briefly in the Ministry of Labor Gazette for June 1933, as follows:

The principal matters with which these enactments deal are: (a) The power to make transitional payments to certain claimants who have not the necessary contribution qualification for unemployment benefit; (b) the method of taking into account for the purpose of determining need in connection with transitional payments, wounds and disability pensions, workmen's compensation, investments and dwelling-houses; (c) the removal of anomalies in connection with certain classes of claimant; (d) the rate of benefit for adult dependents (failing the prolongation of these expiring enactments, the present rate of 8s. for adult dependents would fall to 7s. a week); (e) the substitution of the "genuinely seeking work" condition of a disqualification for failure to apply for, or refusal to accept, suitable employment; (f) provision of approved courses of instruction for juveniles.

NATIONAL RECOVERY ADMINISTRATION

Summary of Permanent Codes Adopted to August 30, 1933

THERE is given below a summary of each of the permanent codes which had been adopted prior to August 30. The summaries deal primarily with the labor provisions of the codes, but brief reference is also made to other significant provisions.

The following provision is incorporated in all codes and is not reproduced, therefore, in the summaries of the individual codes:

(1) That employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; (2) that no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing; and (3) that employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

There having been written into certain codes tentatively presented to the National Recovery Administration paragraphs providing for company unions and some confusion having arisen as to what, if anything, might be added to the clauses on collective bargaining which are made mandatory in every code under section 7 (a) of the National Industrial Recovery Act, General Johnson on August 23, 1933, clarified the situation in this respect, as follows:

The plain meaning of section 7 (a) cannot be changed by any interpretation by anyone. It is the function of the Administrator and the courts to apply and to interpret the law in its administration; and no one else can assume this function and no official interpretation can be circumscribed, affected, or foreclosed by anyone writing his own interpretation into any code or agreement. Such an interpretation has no place there and cannot be permitted.

The words "open shop" and "closed shop" are not used in the law and cannot be written into the law.

These words have no agreed meaning and will be erased from the dictionary of the NRA.

The law requires in codes and agreements that "employees shall have the right to organize and bargain collectively through representatives of their own choosing."

This can mean only one thing, which is that employees can choose anyone they desire to represent them or they can choose to represent themselves. Employers likewise can make collective bargains with organized employees, or individual agreements with those who choose to act individually; provided, of course, that no such collective or individual agreement is in violation of any State or Federal law. But neither employers or employees are required, by law, to agree to any particular contract, whether proposed as an individual or collective agreement.

The law provides that employees shall be free from the interference, restraint, or coercion of employers in the exercise of their rights established by the law. The conduct of employers which is here prohibited has been defined by the Supreme Court in the case entitled *T. & N. O. R.R. v. Brotherhood of Railway*

Clerks, 281 U.S. 548. The rulings of the Supreme Court lay down the law which governs the NRA.

Under section 7 (a), employers are forbidden to require "as a condition of employment" that an employee shall either "join a company union", or "refrain from joining, organizing, or assisting a labor organization of his own choosing." The law does not prohibit the existence of a local labor organization, which may be called a company union and is composed only of the employees of one company. But it does prohibit an employer from requiring, as a condition of employment, that any employee join a company union and it prohibits the maintenance of a company union, or any other labor organization, by the interference, restraint, or coercion of an employer.

If there is any dispute in a particular case over who are the representatives of the employees of their own choosing, the NRA will offer its services to conduct an impartial investigation and, if necessary, a secret ballot to settle the question.

The NRA will not undertake, in any instance, to decide that a particular contract should be made, or should not be made between lawful representatives of employees and employers; or to decide that a contract which has been lawfully made should not be enforced.

Cooperation in all industrial relations depends largely on the making and maintenance of agreements. The NRA will promote and aid such cooperation.

Cotton and Rayon Textiles

Cotton.—The hearing on the cotton-textile industry code¹ lasted over a 4-day period, June 27 to June 30, 1933, and the final code was approved by the President on July 9, to take effect beginning July 17.

As defined in the code, the term "cotton-textile industry" embraces the manufacture of cotton yarn and/or cotton woven fabrics, whether as a final process or as a part of a larger or further process.

A group of persons known as the "Cotton Textile Industry Committee" offered the code. This committee is made up of the presidents of the Cotton Textile Institute, Inc., the American Cotton Manufacturers' Association, and the National Association of Cotton Manufacturers, together having as members practically all of the cotton-textile mills in the United States and with authority to act for mills representing two thirds of the cotton spindles and looms in the country.

Minimum wages set for the cotton-textile industry are \$12 a week in the South and \$13 in the North for all employees in the industry except learners during a 6 weeks' apprenticeship, cleaners, and outside employees. It is further provided that the amount of difference existing prior to July 17, 1933, between wage rates paid various classes of employees who receive more than the minimum shall not be decreased, and that no employee shall be paid at a rate that will yield less for a 40-hour week than was received for a similar class of work for 48 hours or more prevailing before July 17.

The hours schedule provides that 40 hours shall be the maximum working time (repair-shop crews, engineers, electricians, firemen, office and supervisory staff, shipping, watching, and outside crews, and cleaners excepted), with the further stipulation that productive machinery shall not be operated for more than two shifts of 40 hours each per week. A 10 percent tolerance in case of emergencies is allowed under the code for repair-shop crews, etc., above the 40-hour maximum, and the hours of labor for office employees may not average in excess of 40 hours over a 6-month period.

All children under 16 years of age are barred from employment.

¹ The full text of this code was printed in the August issue of the *Monthly Labor Review* (p. 267).

Pending the establishment of any other methods of preventing any improper speeding up of work (stretch-outs), it is provided that no worker shall be required to do any work in excess of the practices as to a particular class of work prevailing on July 1, 1933, or prior to the share-the-work movement, unless the increase is approved by the proper administrative body.

As the control of stretch-outs was deemed of vital importance if the cotton-textile code was to accomplish the end of furnishing increased employment, a special committee was named by the Administrator to make a report on this subject. In accordance with the recommendation of this body the code was amended to provide a Cotton Textile National Industrial Relations Board, with three members, and State industrial boards, each with three members, throughout the industry to cooperate with employers and employees in settling disputes and especially those arising out of the stretch-out system. The Cotton Textile National Industrial Relations Board has already taken steps to visit mill centers throughout the industry for conferences with mill owners and employees with a view to aiding in interpreting the code and dealing with grievances and complaints. The settlement of disputes in the cotton industry will devolve upon this board instead of being referred to the National Labor Board.

The administrative organization under the code is known as "the Cotton Textile Industry Planning and Supervisory Committee." The total membership of this committee was not specified in the code as adopted. In approving the formation of the committee the President specified that the administration should have 3 representatives who were duly appointed and are without vote. At the first meeting of the code authority 20 members appointed by the industry and the 3 administration representatives were in attendance. The duties of this committee include participation in investigations and making recommendations to the administration.

Rayon.—By Executive order of August 25, 1933, the rayon weaving industry was brought under the cotton-textile code, the modification to take effect 1 week after the date ordered, that is, on September 1, unless good cause to the contrary was shown. Accordingly, the definition of the industry as given in the cotton-textile code was modified to include manufacture of woven rayon fabrics 18 inches or more in width, the warp of which is primarily rayon or other synthetic fiber yarn, whether finished or unfinished.

Provision was made in the President's order that any manufacturer operating silk looms and known to the trade as a silk manufacturer and so listed in trade directories, might elect not to be bound by the provisions of the cotton-textile code with respect to its synthetic-fiber production, provided notice of such decision be made not later than 10 days after the approval date bringing rayon textiles under the cotton code.

The President's order also stated that the National Rayon Weavers' Association should act with the organization representing the cotton-textile industry in setting up a planning and fair-practice agency for the industry.

Shipbuilding and Ship Repairing

A HEARING on the shipbuilding and ship-repairing code was held between July 19 and 21, a revised code being approved on July 26, to take effect not later than August 5, 1933. Under the terms agreed

upon, the business of building, fabricating, repairing, reconstructing, remodeling, and assembling ocean-going, harbor, and inland waterway vessels and floating marine equipment of every type above 10 tons, as well as the building within the respective plants of machinery, equipment, and other ship's parts, fall under the provisions of the code.

Organizations, including the National Council of American Ship Builders, the New York and New Jersey Dry Dock Association, and the Pacific Coast Dry Dock Association, stated to represent 80 percent of the capacity of the industry, presented the code.

Under the labor sections of the code the minimum pay for labor, excluding apprentices, learners, casual and incidental labor, is set at 45 cents an hour in the North and 35 cents in the South, with the added provisions that apprentices and learners shall not be paid less than the minimum wage after 2 years of employment, and casual and incidental labor shall not be paid less than 80 percent of the minimum wage, the number of such casual and incidental employees in any calendar month not to exceed 8 percent of the total number of skilled and semiskilled employees. Differences, existing prior to July 1, 1933, between the wage rates paid various classes of employees receiving more than the minimum wage are not to be decreased, and in no instance is any employee to receive less for a work week of 36 hours than he received for the same class of work for 40 hours prior to July 1, 1933.

Hours are fixed at a maximum of 36 per week on merchant ship work, based on a 6-month period with not more than 40 hours' work in any one week, and time in excess of 8 hours in any one day to be paid for at not less than one and one half times the regular hourly rate or otherwise according to the custom prevailing in the port. On United States Government shipbuilding the maximum hours are 32 per week, with the same provisions as to overtime for work in excess of 8 hours on any one day. For a period of 6 months exceptions from the hours provisions are allowed for employees of shipbuilders engaged in designing, engineering, and in mold loft and order departments and such others as are necessary for preparing to start work on new ship construction, but in no case may these employees work in excess of 48 hours per week or without approval of the planning and fair-practice committee. Employment of all minors under 16 years of age is expressly prohibited.

In presenting the code to the President, the National Recovery Administration stated that the industry is characterized by a great overcapacity of physical facilities and that the employment index for 1933 stood at 47.4 and the pay-roll index at 29.6. Representatives of the industry at the time of the hearing estimated that, under the limitations of hours prescribed in the code and taking into account the naval shipbuilding program, employment would be increased from 15,000 men to approximately 60,000.

In the course of the hearing, a provision to prevent material extension of facilities that had been written into the original code was the subject of particular discussion and does not appear in the code adopted.

To act with the Government as a planning and fair-practice agency, a Shipbuilding and Ship Repairing Industry Committee is set up under the code, composed of 5 members chosen from the industry and 3 members appointed by the President without vote. This

committee may present recommendations and may on request from the Administrator, or on its own initiative, or the request of any person affected, make investigations and report to the Administrator.

Wool Textiles

THE hearing on the wool-textile code was held on July 24 and 25, 1933. The code which was submitted by the National Association of Wool Manufacturers on July 15, 1933, represented, the association stated, fully 80 percent of the wool-textile machinery in the country, including both looms and spindles. The code originally submitted was amended in certain particulars in accordance with facts brought out in the hearing and was resubmitted to the Administrator on July 25. As amended, the code received the approval of President Roosevelt on July 26, 1933, and became effective August 14, 1933, subject to the further condition that a Wool Textile Industry Committee should be created to cooperate with the Administrator as a planning and fair-practice agency for the industry. It was provided that the committee should consist of five representatives of the wool-textile industry elected by a fair method of selection, to be approved by the Administrator, and three members, without vote, appointed by the Administrator.

The branches of the industry included in the term "wool-textile industry" are as follows: Manufacture of worsted men's wear, worsted women's wear, carded men's wear, carded women's wear, blankets, cotton warp fabrics, reworked wool, knitted woolen goods, worsted sales yarn (Bradford system), worsted sales yarn (French system), carded sales yarn, and combing, wool scouring, and carbonizing, and such other related branches as may from time to time be included under the provisions of this code.

A minimum wage of 35 cents an hour and \$14 per week was established by the code for workers north of the Mason and Dixon Line and of 32½ cents per hour and \$13 per week for workers in the South. The minimum wage applies to all employees including learners, apprentices, and casual labor. It was also provided that no employer should, on or after the effective date, pay employees then receiving not less than the minimum wage at a rate which would yield a smaller wage for a 40-hour week than they formerly received for the same class of work when employed on the established longer week of 48 hours or more.

The maximum working hours were fixed at 40 per week, and the operation of any comb, spinning spindle, loom, or knitting machine is limited to two shifts of 40 hours each per week. However, the maximum 40-hour week does not apply to repair-shop crews, engineers, electricians, firemen, office, sales and supervisory staff, shipping, watching and outside crews. The code prohibited, on and after the effective date, the employment of any minor under the age of 16 years.

According to a study made by the sponsors of the code, 43 percent of those employed in the industry were, at the time of the hearing, receiving an average of \$12.40 per week, less than the prescribed minimum wage, and it was estimated that the establishment of the minimum rates fixed in the code would increase the pay roll of the industry \$100,000 per week, in addition to the amount added as a result of the increase in the wages of the workers who are now earning the estab-

lished minimum or more. In 1929 there were approximately 147,000 wage earners employed in the wool-textile industry, and it was considered that in order to reach the 1929 volume of production it would be necessary under the 40-hour week to employ approximately 27,000 additional workers, which would add an additional \$378,000 to the weekly pay roll.

Improper speeding up of work (stretch-outs) beyond the present prevailing practices was forbidden by the code, and it was provided that on and after the effective date no employer should operate any comb, spinning spindle, loom, or knitting machine for more than two shifts of 40 hours each per week.

The National Association of Wool Manufacturers is the agency designated to supply the President and the Administrator with requisite data regarding the operation of the code, covering employment, hours, wages and wage rates; statistics of production, financial and cost data; activity, purchase, sales, and scrapping of machinery; and consumption and stocks of raw material.

In accordance with an Executive order dated July 15, 1933, which provides under certain circumstances for a stay of the application of certain provisions of a code, hearings were granted by the Administrator to certain persons directly affected by the wool-textile code who claimed that applications thereof had been unjust to them and applied for an exemption therefrom with reference to the limitations of the use of the productive machinery (namely, woolen spinning spindles, and worsted combs) as applied to the production of woolen yarns and worsted tops. It appeared on the basis of the showing made at the hearing that a temporary scarcity and disruption of the supply of woolen yarns and worsted tops might result if the stay was not granted. Therefore, pending adjustment to the requirements of the code, and in order that there might be equality of treatment, an order was issued by the Administrator on August 11, providing that, pending determination by the President of the issues raised by the application, the limitation in the use of woolen spinning spindles and worsted combs in use for the production of woolen yarns and worsted tops should be stayed.

Coats and Suits

THE hearing on the code for the coat and suit industry was held July 20 and 21, 1933. A code was submitted July 13 by the American Cloak and Suit Manufacturers' Association, Inc., Industrial Council of Cloak, Suit and Skirt Manufacturers, Inc., and Merchants Ladies Garment Association, Inc. These organizations represented the "eastern area," which was defined to include all the New England States and New York, Pennsylvania, New Jersey, Maryland, and Delaware. A final code was worked out at hearings and conferences on the basis of the code presented by the manufacturers in the eastern area and proposals by the manufacturers in the western area, which includes all parts of the United States not comprised in the eastern area, and by representatives of the International Ladies' Garment Workers' Union. This code was submitted to the Administrator July 13, and received the approval of President Roosevelt August 4, 1933. The effective date of the code was August 7.

The administration and enforcement of the code is vested in a coat and suit code authority, made up of 2 members selected from each of the 3 associations which submitted the code, 2 members selected by the

International Ladies' Garment Workers' Union, and 2 members selected by the associations in the western area.

The term "coat and suit industry", as used in the code, includes the manufacture and wholesale distribution of women's, misses', children's, and infants' coats, jackets, capes, wraps, riding habits, knickers, suits, ensembles, and skirts, in whole or in part, made of woolen, silk, velvet, plush, and other woven or knitted materials, and all employers, whether contractors, subcontractors, manufacturers, submanufacturers, wholesalers, or jobbers, are included.

For the administration of the code the two areas are retained, the Baltimore market being included in the eastern area, with the provision that the employers' association therein may request the appointment of a commission by the Administrator to determine, after investigation, what modifications should be granted, if any. The employees in the industry are divided into manufacturing and nonmanufacturing, the manufacturing employees comprising all persons engaged in any hand or machine operation in any factory in the coat and suit industry.

The basic minimum wage set for nonmanufacturing employees in all sections of the country is \$14 per week. Separate scales are established for manufacturing employees in the two areas. The minimum weekly rates set in the eastern area for time workers are as follows:

	<i>Per week</i>
Coat and suit cutter.....	\$47. 00
Sample makers.....	40. 00
Examiners.....	36. 00
Drapers.....	29. 00
Begraders on skirts.....	32. 00
Bushelmen who also do pinning, marking, and general work on garments.....	36. 00

Employees in the following crafts work on a piece-rate basis and are guaranteed the following minimum rates:

	<i>Per hour</i>
Jacket, coat, reefer and dress operators, male.....	\$1. 00
Jacket, coat, reefer and dress operators, female.....	. 90
Skirt operators, male.....	. 90
Skirt operators, female.....	. 80
Piece tailors.....	. 90
Reefer, jacket, and coat finishers.....	. 85
Jacket, coat and reefer finishers' helpers.....	. 63
Jacket, coat, reefer, and dress upper pressers.....	1. 00
Jacket, coat, reefer, and dress under pressers.....	. 90
Skirt upper pressers.....	. 90
Skirt under pressers.....	. 85
Skirt basters.....	. 60
Skirt finishers.....	. 60
Machine pressers.....	1. 30

All manufacturers in the eastern area operating outside the limits of New York and Philadelphia, however, it is provided, will operate on a wage scale 10 percent less than the rates fixed for the area.

In fixing piecework rates on garments, the rates will be computed on a basis to yield the worker of average skill in the various crafts the following amounts for each hour of continuous work:

	<i>Per hour</i>
Jacket, coat, reefer, and dress operators.....	\$1. 50
Skirt operators.....	1. 40
Piece tailors.....	1. 30
Reefer, jacket, and coat finishers.....	1. 25
Jacket, coat, and reefer finishers' helpers.....	1. 00
Jacket, coat, reefer, and dress upper pressers.....	1. 35
Jacket, coat, reefer, and dress under pressers.....	1. 25
Skirt upper pressers.....	1. 25
Skirt under pressers.....	1. 25
Skirt basters.....	. 80
Skirt finishers.....	. 70
Machine pressers.....	1. 80

The minimum wages paid manufacturing employees in the western area for each full week's work are fixed as follows:

	<i>Per week</i>
Coat and suit cutters.....	\$41. 00
Semiskilled cutters.....	39. 00
Clothing and lining pilers.....	33. 00
Pilers.....	28. 00
Canvas cutters.....	26. 00
Apprentice cutters for 6 months.....	22. 00
Sample makers.....	40. 00
Examiners.....	32. 50

Employees in the western area in the crafts enumerated below are on a piece-rate basis and are guaranteed the following minimum hourly rates:

	<i>Per hour</i>
Males:	
Jacket, coat, reefer, and dress operators.....	\$0. 85
Skirt operators.....	. 75
Jacket, coat, reefer, and dress upper pressers.....	. 85
Jacket, coat, reefer, and dress under pressers.....	. 77
Jacket, coat, reefer, and dress part pressers.....	. 65
Jacket, coat, reefer, finishers.....	. 75
Apprentices in the above classifications for a period not exceeding 6 months.....	. 60
Females:	
Jacket, coat, reefer, and dress operators.....	. 75
Jacket, coat, reefer, and dress operators (semiskilled).....	. 62
Skirt operators.....	. 70
Lining ironers.....	. 60
Jacket, coat, reefer, and dress finishers.....	. 63
Jacket, coat, reefer finishers' helpers.....	. 53
Jacket, coat, reefer, skirt button sewers.....	. 53
Apprentices in the above classifications for a period not exceeding 6 months.....	. 47

In establishing piecework rates on garments, it is provided that the rates shall be computed on a basis to yield to the worker of average skill the following wage for each hour of continuous work:

	<i>Per hour</i>
Males:	
Jacket, coat, reefer, and dress operators.....	\$1. 26
Skirt operators.....	1. 15
Jacket, coat, reefer, and dress upper pressers.....	1. 26
Jacket, coat, reefer, and dress under pressers.....	1. 15
Jacket, coat, reefer, and dress part pressers.....	. 92
Jacket, coat, and reefer finishers.....	1. 10
Females:	
Jacket, coat, reefer, and dress operators.....	. 95
Jacket, coat, reefer, and dress operators (semiskilled).....	. 88
Skirt operators.....	. 90
Lining ironers.....	. 82
Jacket, coat, reefer, and dress finishers.....	. 84
Jacket, coat, reefer finishers' helpers.....	. 70
Jacket, coat, reefers, skirt button sewers.....	. 70

The code provides that the existing classifications in the western area shall be subject to further study by the coat and suit authority which will make any recommendation to the Administrator necessary in order to eliminate such competitive irregularities as may be found to exist.

The wages of workers in both areas who were receiving payment in excess of the minimum rates at the time the code was put into effect may not be reduced even though the hours worked in such employment are reduced.

The maximum working hours fixed by the code for all employees except clerical and service employees working in office and shipping departments are 35 per week. The work for manufacturing employees is divided into 5 working days, the working hours to be from 8:30 a.m. to 4:30 p.m., with a 1-hour interval for lunch. The maximum working hours of nonmanufacturing employees are fixed at 40 per week. The work is limited to one shift per day, and no overtime is permitted unless the Administrator grants an extension of hours in the busy season when and if in his opinion labor in the industry is fully employed and conditions warrant such an extension. No home work is allowed and no work is permitted in tenement houses, basements, or in any unsanitary buildings or in buildings in which there is a fire risk.

The code prohibits, on and after the effective date, the employment of any manufacturing employee under the age of 18 years and any nonmanufacturing employee under the age of 16.

In addition to the mandatory collective-bargaining clause which is a feature of all codes, the code provides that wherever in the industry agreements arrived at by collective bargaining shall exist or shall come into existence hereafter, all the provisions of such agreements with reference to labor standards not prohibited by law and not inconsistent with NIRA shall be administered as though part of the code.

The unemployment-insurance fund which was established in the industry in the years 1924 and 1925, but which was discontinued because of the general disorganization of the industry, will be resumed as soon as the enforcement of uniform labor standards and general stabilization have reached a point at which the provisions for payment of unemployment-insurance contributions can be generally enforced throughout the industry. The code authority and the Administrator shall determine when the conditions in the industry justify the reestablishment of the fund.

In order to effectuate the provisions of the code and to eliminate substandard and sweatshop conditions in the industry all garments manufactured or distributed will bear an NRA label, which will bear a registration number specially assigned to each employer and must remain attached to such garment when placed on sale by the retail distributor.

As the methods employed in the production of garments in both the eastern and western areas necessitate the employment of contractors and submanufacturers, the code provides that there shall be proper supervision of such contracts so that there will be an equitable distribution of the work and so that the payment for such production shall be in an amount to enable the contractor or submanufacturer to pay the employees the wages and earnings provided for in the code, together with an allowance for the contractor's overhead. The code

authority, together with the Administrator, will formulate the provisions under which this regulation will be carried out.

In commenting on the signing of the code, General Johnson stated that it was a particularly noteworthy event, as it marks the culmination of the efforts which, for nearly 25 years, the industry has been making to discipline itself. Although for some years the industry has endeavored to eliminate its sweatshops and the principal factors in the industry have been anxious to raise standards, their efforts have been handicapped by the ease with which substandard shops can be set up. The cooperation of governmental agencies and wholesalers and retailers under the present code, it is believed, will make possible the complete elimination of the sweatshop, thus freeing responsible manufacturers from unfair competition, increasing employment, and making it possible for the workers to earn amounts to which their skill entitles them.

The code authority will have charge of collecting statistics of the industry, setting up a service bureau for engineering, accounting, credit, etc., and of the general enforcement, administration, and planning activities under the code. The cost of maintenance of the code authority is to be borne by the union and the associated manufacturers.

Electrical Manufacturing

THE hearing on the code for the electrical manufacturing industry was held on July 19 and 21, 1933. The final code, as developed through the hearing and conferences of representatives of the interests concerned was submitted to the Administration on August 1, and accepted by President Roosevelt August 4, 1933. The code became effective on August 15, 1933.

The National Electrical Manufacturers' Association which was the organization presenting the code, is made up of some 300 companies covering practically the entire field of electrical manufacture. The exact percentage of total production represented by its membership is not known, but it is believed to be in excess of 75. The organization of the association, it is believed, peculiarly fits it for operation under the National Industrial Recovery Act because of its wide diversity in product and the accompanying diversity in specific interest. The code as finally submitted to the President had the full approval of the labor, industrial, and consumers' advisory committees.

The term "electrical manufacturing industry" is defined to mean the manufacture for sale of electrical apparatus, appliances, material, or supplies, together with such other electrical or allied products (for example, absorption-type refrigerators) as are natural affiliates. Manufacturers of radios were not included under this code, as they had requested that they be exempted from it and had filed a code covering the manufacture of radio apparatus and parts. The Radio Manufacturers Association withdrew the request for exemption, however, on August 18, and, accordingly, all manufacturers of radio apparatus and parts, including radio receiving and television sets, radio and television tubes, electric tubes and valves, parts, cabinets, accessories, loudspeakers, condensers, and also sound distribution equipment will operate under the terms of the electrical manufacturing industry code.

The telephone manufacturing industry, which had also requested exemption and had filed a separate code, withdrew its pending code August 24 and will comply with the provisions of the electrical manufacturing industry code. The units affected by the decision are those represented by the Telephone Manufacturing Association engaged in the manufacture and public sale of telephone apparatus, appliances, materials, or supplies. However, the Western Electric Co., manufacturing telephone apparatus and appliances for the Bell Telephone and its subsidiaries, had been operating under the electrical manufacturing code since it became effective.

It was announced on August 25 that the manufacturers of flashlights and dry batteries and of porcelain products, except sanitary ware, tile, and high-tension porcelain, have withdrawn individual codes and would immediately comply with the code for the electrical industry.

Employees engaged in the processing of the products of the electrical manufacturing industry and in labor operations directly incident thereto will receive a minimum wage of 40 cents an hour under the provisions of the code, unless the rate per hour on July 15, 1929, for the same class of labor was less than that amount, in which case the rate per hour paid shall not be less than the rate paid on July 15, 1929, but in no case may the hourly rate be less than 32 cents. Learners may not be paid less than 80 percent of the established minimum, and the number of learners may not exceed 5 percent of the total number of employees engaged in the processing of products and in labor operations directly incident to such work. The minimum wage paid by any employer to all other employees, except commission salespeople, is fixed at the rate of \$15 per week, except that office boys and girls and learners may be paid not less than 80 percent of such minimum wage, but the number of such workers receiving less than \$15 per week may not exceed 5 percent of the total number of this class of employees. The established minimum applies to employees in all localities unless the Administrator or his representative shall fix a lower rate for particular localities. It is provided that not later than 90 days after the effective date the electrical manufacturing industry shall report to the Administrator the action taken by all employers in adjusting the hourly wage rates for all employees receiving more than the minimum rates provided for employees engaged directly or indirectly in the processing of the products of the industry.

Maximum hours of 36 per week were established by the code for employees engaged in the processing of products and in labor operations directly incident thereto. For all other employees, except executive, administrative, and supervisory employees, and traveling and commission salespeople, the maximum hours of work are fixed at 40 per week. It is provided, however, that these limitations shall not apply to those branches of the industry in which seasonal or peak demand places an unusual and temporary burden upon such branches, but in such cases such number of hours may be worked as are required by the necessities of the situation. Employers are required, however, to report to the Administration at the end of each calendar month the number of man-hours worked in that month on account of seasonal or peak demand requirements and the ratio which such hours bear to the total number of man-hours of labor during that month. The same provisions apply to cases of emergency in which additional hours of work are required.

The code provides that no employer shall employ any worker under the age of 16 years.

In 1929 the electrical industry employed 328,000 persons, with a total pay roll of \$456,000,000. The number of employees reported by the National Electrical Manufacturers' Association among the companies affiliated to the organization at the time of the code hearing was 125,000 persons. It was stated by the Administrator that when improvement in business requires the industry to operate at 60 percent of the 1929 volume, there will be employed in the industry a greater number of persons than at any time of peak operations and the provisions of the code will also result in a substantial increase in wages.

The National Electrical Manufacturers' Association is the administrative and supervisory agency appointed to enforce the code, and its board of governors will control the collection of statistics covering plant capacity, production, sales, number of employees, wage rates, employee earnings, hours of work, and such other data or information as may be required.

Corset and Brassiere Industry

THE hearing on the code for the corset and brassiere industry was held August 7, 1933. The code was submitted by the Corset and Brassiere Association of America, a national trade association said to represent 80 percent of the industry throughout the country. The code was amended in several particulars as a result of the facts brought out in the hearing and was resubmitted to the Administrator, receiving the approval of the President on August 14, 1933. The code became legally effective the second Monday following its final approval, that is, August 28, but some of the manufacturers announced their intention of putting it into effect as soon as approved.

The branches of the industry subject to the code are as follows: Manufacture and sale, either direct to retailers or other distributors who resell or distribute by the direct-to-consumer method of selling, of corsets, step-in corsets, brassieres, bandeau-brassieres; corsets, girdle corsets, or step-in corsets attached to brassieres or bandeau-brassieres; and all similar body garments.

A minimum wage of \$14 per week was established by the code with the provision that cutters shall not be paid less than \$25 for a week of 40 hours. The code also provided that the pay of persons receiving compensation in excess of the established minimum at the time the code was put in operation shall not be reduced even though the hours of work of such persons are reduced, but pay for such employment shall be increased by an equitable readjustment of all pay schedules, whether timework or piecework. The minimum rate for learners or apprentices was set at 27½ cents an hour or \$11 a week for the first 6 weeks, and thereafter at the standard minimum rate. Learners or apprentices on piecework operations must be paid on this basis if their earnings are in excess of \$11. In order to provide employment for workers who are physically handicapped and to prevent their becoming a burden to the State, such workers are exempted from the rates established for regular employees although these employees may not exceed in number 5 percent of the total force of an individual or firm. The employment of any minor under the age of 16 years is prohibited.

The maximum hours of productive operation are limited to 40 per week and no plant may operate in excess of 5 days in any week. However, the maximum 40-hour week does not apply to executives, designers, office workers, shipping clerks, repair crews, watchmen, porters, salesmen, and truckmen.

Sanitary standards are set for the industry since the products are customarily worn next to the body, and home work or employment in any place other than the regular plant of an employer is prohibited.

The code provides that all garments manufactured or distributed shall bear an NRA label which shall remain attached to the garment when it is placed on sale by the retail distributor.

A code authority consisting of 8 to 10 members was established which will have full control of the administration and enforcement of the code, subject, however, to an appeal to the Administrator. It is provided that 2 members of the code authority shall be appointed by the Administrator, and not less than 6 nor more than 8 by the president of the association, subject to the approval of the board of directors.

Lace Industry

THE hearing on the code for the lace manufacturing industry was held July 28, 1933. The code was presented by the American Lace Manufacturers Association represented by a committee of its board of directors. It was stated the committee represented approximately 75 percent of the productive capacity of the industry and as no inequitable restrictions had been imposed on admissions to membership in the association it was believed to be truly representative of the industry as a whole. The code was approved by the President August 14 and became legally effective the second Monday after approval, that is, August 28; it was stated, however, that some of the units in the industry planned to begin operations under the code as soon as it was approved. Approval of the code by the President was subject to the condition that a Lace Manufacturing Industry Committee shall be created to cooperate with the Administrator as a planning and fair-practice agency for the industry; this committee is to consist of five representatives of the lace manufacturing industry elected by a fair method of selection and three members without vote appointed by the Administrator.

The term lace manufacturing industry was defined to mean the manufacture of the products of Levers, Go-through, Bobbinet, Barmen, or Mechlin machines and any and all processing thereof. The term "rack" as used in the code was defined as 1,920 motions of a Levers or Go-through machine and 1,440 motions of a Bobbinet or Mechlin machine.

A minimum wage of \$13 per week was established for all employees engaged in productive operations, except that learners during a 6-week apprenticeship shall be paid not less than 80 percent of the minimum wage and shall not exceed in number one learner to six craftsmen.

The maximum hours of labor were fixed in the code at 40 per week, and the operation of productive machinery was limited to two shifts of 40 hours each per week no matter by whom operated. Repair-shop crews, outside sales force, executives, and supervisory staffs are exempted from the maximum hours provision as are also engineers, electricians, firemen, designers, draftsmen, and shipping crews. It

is provided, however, that the latter group shall be paid at the rate of time and one half for all hours per week over 40.

On and after the effective date the employment of any minor under the age of 16 years is prohibited.

The American Lace Manufacturers Association was constituted the administrative agency in cooperation with the Administrator to carry out the provisions of the code.

Legitimate Theatrical Industry

FOR the legitimate full-length dramatic and musical theatrical industry a hearing on a proposed code of fair competition was held August 10, 1933, and approval of the final code was given by the President on August 16, the code to take effect on the tenth day following the approval of the code, that is, August 26, 1933.

This industry includes the full-length theatrical performances of dramatic and musical plays (including stock-company productions), as differentiated from grand opera, vaudeville, presentation, "rep" show, "tab" show, tent show, wagon show, Chautauqua, showboat, burlesque, or motion or sound picture performance.

Sponsors of the code are the National Association of the Legitimate Theater, representing 95 percent of employers managing or owning legitimate theaters or managing or producing full-length dramatic or musical plays, and the National Dramatic Stock Association, embracing more than 60 percent of the persons engaged in management or production of full-length dramatic or musical stock plays.

Owing to the existence of many different types of professional and mechanical skill employed in this industry, it was necessary to include more than one set of minimum wages and maximum hours. These provisions are as follows:

MINIMUM WAGES AND MAXIMUM HOURS PROVIDED IN THE LEGITIMATE FULL-LENGTH DRAMATIC AND MUSICAL THEATRICAL INDUSTRY

Occupation	Minimum wage per week	Maximum hours per week
Actors with more than 2 years' theatrical experience, where top box-office price is—		
\$4.50 and over	\$50.00	40
\$4.00 and under \$4.50	45.00	40
\$3.01 and under \$4.00	42.50	40
\$3.00 and under	40.00	40
Actors with less than 2 years' theatrical experience	25.00	40
Chorus	30.00	40
Musicians, theatrical stage employees, and moving-picture-machine operators	¹ 30.00	40
Theatrical wardrobe attendants	30.00	40
Company managers and house treasurers	40.00	40
Press representatives, on station	50.00	(²)
Press representatives, traveling	75.00	(²)
Other employees:		
Ushers, ticket takers, theater attendants, etc.	3.30	35
Porters	3.30	40
Electrical workers, engineers, firemen, oilers, etc.	30.00	40
Stock productions:		
Cities of over 500,000 population:		
Actors in companies with at least 6 regular employees	40.00	40
Others	25.00	40
Jobbers	15.00	40
Cities of under 500,000 population or localities in neighborhood thereof:		
Actors in companies with at least 4 regular employees	40.00	40
Others	25.00	40
Jobbers	⁴ 12.00-14.50	40
Chorus	⁵ 25.00-35.00	40
Managers	25.00	40
Treasurers	20.00	40
Press representatives	25.00	(²)
Others	(⁶)	(⁶)

¹ For 8 performances and pro rata for additional performances.

² None set.

³ Per hour.

⁴ Depending to population.

⁵ According to season.

⁶ Rates same as for those under actors' section of code.

Where contractual relations exist, as in the case of scenic artists, transfer men, etc., no wages and hours provisions are made. In instances in which the code does make provisions and the existing contracts stipulate better conditions it is provided that the more favorable rates shall obtain.

A protective clause is also written into the code whereby a dramatist must be paid a sum not less than \$500, not returnable under any circumstances, but to be considered as an advance against royalties if the play runs at least three consecutive weeks in New York City. If the play closes at the end of the first week the dramatist must pay to the manager 15 percent of all sums collected if the dramatist sells or otherwise disposes of the motion-picture rights in such play; if the play runs for two weeks, 25 percent; but if it fails to run for three weeks the dramatist has the control of the sale of motion-picture rights.

For special try-out attractions, the wages and hours provisions of this code do not apply and the administrative committee under the code will later recommend provisions for this group.

No minor under 16 years of age shall be employed except to fill a role written for or requiring a child and then only with the consent of the proper governmental authority.

In the course of the hearing, opposition to the competition of alien actors was very strong. An effort was made by an actors' group to obtain the inclusion in the code of clauses providing that aliens should not enter the country without specified contracts and that such contracts should not be allowed to run for more than three months, unless the particular play runs continuously for a longer period; that foreign actors should not be allowed to take another contract until a period of 6 months has elapsed; and that 10 percent of their gross earnings be paid into the actors' unemployment fund. These provisions, however, were not made a part of the code.

The administrative body provided in the code is to be known as the National Legitimate Theater Committee, to consist of one representative each from the Actors' Equity Association, Chorus Equity Association, the International Alliance of Theatrical Stage Employees and Moving-Picture Machine Operators of the United States and Canada, American Federation of Musicians of the United States and Canada, United Scenic Artists of America; one representative of the group of employees not included in the above; one representative of The Dramatists Guild; three representatives of the National Association of the Legitimate Theater, Inc.; two representatives of the National Dramatic Stock Association (raised to three when questions relating only to stock productions are considered); and not more than three representatives to be appointed by the Administrator of the National Industrial Recovery Act. The duties of this committee shall be to assist the Administrator, supervise the application of the code, and notify those subject to it of the existing provisions and regulations.

Fishing-Tackle Industry

A HEARING on a proposed code of fair competition for the fishing-tackle industry was held on August 14, 1933 and the code for the industry was approved by the President on August 19, to take effect 10 days later, that is, on August 29, 1933.

As defined in the code, the fishing-tackle industry embraces the manufacture of wood fishing rods, fishing reels, fishing lines, flies, snelled hooks, gut and wire leaders, baits, including all wood, metal, composition and preserved lures, fishing hooks, floats, furnished lines and sinkers, sundries, including creels, tackle boxes, minnow buckets, bait boxes, fly books and boxes, rod cases, reel cases and tackle containers of all kinds, landing nets, dip nets, minnow seines and nets, nets for crabs and other live baits, gaffs and gaff hooks, rod mountings and parts, swivels and snaps and all other accessories such as scalers, disgorgers, stringers, fish knives, and any other article of fishing tackle.

The code was presented by the Associated Fishing Tackle Manufacturers, an organization with 51 members said to produce approximately 85 percent of all fishing-tackle output in the United States; in 1933 their product amounted to from \$7,000,000 to \$8,000,000 in value.

Operation on a 40-hour maximum schedule is provided for all employees except office, supervisory staff and sales force. The working day is not to exceed 8 hours. For office employees the maximum hours shall not exceed an average of 40 over each 6 months based upon the usual fiscal year of any manufacturer.

A minimum wage of 35 cents is required under the code, with the added provision that in a State whose law provides a higher rate of pay no person shall be paid a wage below the State minimum. For home workers and those whose remuneration depends upon quantity and/or quality of production the pay shall in no case be less than the fixed hourly rate of 35 cents.

Differences in wage rates for various classes of employees, existing on July 15, 1933 shall not be decreased and no employee may be paid less for 40 hours of work than he formerly received for the same class of work for the longer week prevailing prior to the effective date of the code.

Employment of any minor under 16 years of age is forbidden, with the further stipulation that in States in which the law provides a higher minimum age for employment such law shall be complied with.

The fishing-tackle industry was stated to employ about 3,100 workers, at the time of the hearing, and the average working time per employee was 46 hours per week. In the peak year (1928) 3,500 persons were employed and the average hours were 47 per week. Theoretically, 600 additional persons should be employed under the hours provisions set up, or in excess of the peak employment of 1928. As little as 16 cents per hour was stated to be paid for the lowest class of labor, while for skilled workmen, such as machinists, the weekly rate has averaged around \$40, according to testimony offered at the hearing.

In the original hours provisions sponsored by the proponents of the code, a request was made for overtime during 12 weeks per year, on the ground that seasonality in this particular industry made such an exemption necessary. This provision was the subject of special discussion in the hearing and it was agreed that it might be possible to work out a lower seasonal allowance. As a result no such exemption was included in the code adopted.

A Fishing-tackle Industry Code Committee is designated to cooperate with the National Industrial Recovery Administration as a planning

and fair-practice agency for the industry. This committee shall consist of five representatives of the industry elected by a fair method of selection, to be approved by the Administrator, and three members without vote appointed by the President. On majority vote this committee may present to the Administrator of the National Industrial Recovery Act recommendations, based on conditions in the industry, which will become operative if accepted. The committee will also investigate as to the functioning and observance of any provisions of the code and the importation of competitive articles. The secretary-treasurer of the Associated Fishing Tackle Industry Manufacturers will be executive officer of the code committee and all manufacturers must furnish to him such statistical data and reports as may be required, this information not to be revealed to any other manufacturer except as may be necessary to effectuate the purposes of the code.

Iron and Steel Industry

THE code of fair competition for the iron and steel industry was presented by the American Iron and Steel Institute at a public hearing held July 31, 1933. The members of the Institute, it was stated, produce approximately 98 percent of the output of pig iron and steel ingots in the United States and the signers of the code as presented represent over 90 percent of such capacity. Approval of the code, in which amendments had been made in the maximum number of hours allowed, in the administrative provisions, and the duration of the code, was given by the President August 19, 1933, and became effective the same day.

The industry as defined in the code includes all industries producing in the United States pig iron, iron or steel ingots, and rolled or drawn iron or steel products. Other operations and products of iron and steel producers, such as mining of iron ore and coal, transportation, production of cement and other byproducts, castings, and the bulk of forgings were purposely excluded but some iron and steel products, not properly or fully described by the words "rolled or drawn" and which are processed after rolling or drawing by the producing company, such as spikes, tie plates, wire fencing, nails and staples, tinplate, and other coated products, are included.

The code makes provision for amendments including the changing of any schedule or the addition of new schedules which shall be proposed by the board of directors by a majority vote and submitted to a meeting of the members of the code which shall be called for this purpose. If at least 75 percent of all the votes that might be cast at such a meeting are in favor of the amendment it shall be submitted to the President for approval, if such approval is then required by law, and every accepted amendment shall take effect as part of the code.

Minimum rates for common labor are established in the code on the basis of geographical wage differentials which have existed throughout the history of the industry. These differentials have resulted partly from differences in hiring costs and general economic conditions and partly from the ability adequately to man the industry in the different localities. As the establishments in the industry have been developed under such differences in wages, the country was divided into 21 districts for the purpose of establishing the minimum

rates which vary in the code from 25 cents to 40 cents per hour. The rates in the various districts are as follows:

	<i>Rate per hour</i>
Eastern district.....	\$0. 35
Johnstown district.....	. 37
Pittsburgh district.....	. 40
Youngstown Valley district.....	. 40
North Ohio River district.....	. 40
Canton, Massillon, and Mansfield district.....	. 37
Cleveland district.....	. 40
Buffalo district.....	. 38
Detroit-Toledo district.....	. 40
South Ohio River district.....	. 37
Indiana-Illinois-St. Louis district.....	. 37
Chicago district.....	. 40
Southern district.....	. 25
Birmingham district.....	. 27
Kansas City district.....	. 35
Duluth district.....	. 37
Colorado district.....	. 40
Utah district.....	. 39
Seattle district.....	. 38
San Francisco district.....	. 37
Los Angeles district.....	. 35

The above minimum rates, the code provides, shall be paid by members for common labor, not including apprentices and learners, until changed by amendment of the code as provided in the section on amendments. The minimum rates established by the code shall not, however, be understood to be the maximum rates of pay for such labor although no firm operating under the code shall be required to pay its common laborers a rate of pay higher than the rate specified for the district except as such higher rate has been set by agreement with its employees. A 15 percent increase in pay is provided for employees who on July 14, 1933, were receiving above the regular rate for common labor. This provision is not to be construed, however, as requiring any increase that will result in a rate higher than that paid to employees doing substantially the same class or kind of labor in the same wage district by any other establishment which has increased its rate of pay in accordance with this provision. The minimum rate of employees on piecework shall be sufficient to yield the minimum rate of pay per hour provided for common labor in the plant.

The maximum hours are set at 40 hours per week in any 6-month period, or 48 hours (6 days) in any 1 week. Executives, those employed in supervisory capacities and in technical work and their respective staffs, and those employed in emergency work are excluded from this provision. On and after November 1, 1933, as soon as the firms under the code shall be operating at 60 percent of capacity they shall adjust the operations of their plants so that with the exception of the above-mentioned executives and employees the 8-hour day will be established for all their employees. The first 6-month period for each employee shall begin on the effective date of the code, and, for any employee thereafter employed, with his date of employment. The aggregate employment of any employee who has worked for one or more firms under the code shall be considered in computing his total number of hours of work.

The employment of persons under 16 years of age, in or about the plants is prohibited.

Establishments are required to file basing-point f.o.b. prices for each product and may change such prices only 10 days after notifying the Iron and Steel Institute. The board administering the code is permitted to fix base prices if it determines that those filed, having regard to manufacturing costs, may result in unfair competition.

The principle of collective bargaining was established by the code, the sponsors of the code having withdrawn a provision in the original code providing that members of the industry who had dealt with their employees through employee-representation plans should continue to follow this method of bargaining.

The report on the steel code submitted with the code states that the number of wage earners employed in the industry in 1929 was 421,000 and the total pay roll was \$733,400,000. The operations of the industry reached very low levels in 1932 and early 1933, as low as 12 percent of normal operation, but during July of this year operated at over 50 percent of ingot capacity. In 1929 the average pay in the industry was above the average for all manufacturing but since then its pay for common labor has been reduced more than 50 percent.

A trial period of 90 days is provided for in which to determine whether its provisions will effectuate the provisions of the National Industrial Recovery Act, subject, however, to amendments at any time as provided in the code and also subject to the reserved power of the President to cancel or modify his approval thereof. After this trial period the code is to continue in effect unless terminated by the President or by the signers of the code. When so terminated, all obligations and liabilities under the code shall cease, except for unpaid assessments and for liquidated damages accrued under any provisions of the code.

The administration of the code is vested in the board of directors of the American Iron and Steel Institute, but it is provided that full opportunity shall be given to the Administrator and one or two other persons appointed by him (who shall be persons not having or representing interests antagonistic to the industry) to discuss with the board of directors or any committees thereof any matters relating to the administration of the code, to attend meetings of the board, and to make recommendations as to methods and measures of administering the code. It is further provided that the board of directors or committees appointed by it shall cooperate in obtaining full information concerning the operation and administration of the code so as to insure that the code and the administration thereof do not promote or permit monopolies or monopolistic practices, or eliminate or oppress small enterprises, or operate to discriminate against them, and do provide adequate protection of consumers, competitors, employees, and others concerned.

Lumber- and Timber-Products Industries

A CODE of fair competition for the lumber- and timber-products industries came before the National Recovery Administration in public hearing between July 20 and 26, 1933, and was approved by the President on August 19 to become effective with respect to maximum hours and minimum wages 3 days later (Aug. 22) and for other provisions 10 days later (Aug. 29) unless otherwise provided.

The code is to terminate on June 16, 1935, or on such earlier date as the National Industrial Recovery Act may cease to be effective. For a period of 6 months the provisions are to be effective and at the expiration of that time the President will have an opportunity to determine, upon the recommendations of his representatives on the lumber code authority, whether the purposes of title I of the National Industrial Recovery Act are being carried out. Unless provisions are then canceled or modified by the President, the code shall continue in effect.

The definition of lumber and timber products in this code includes logs, poles, and piling; sawn lumber and products of planing mills operated in conjunction with sawmills; shingles; woodwork (millwork) including products of planing mills operated in conjunction with retail lumber yards; hardwood flooring; veneers; plywood; kiln-dried hardwood dimension; lath; sawed boxes, shooks, and crates; plywood veneer and wirebound packages and containers; and in respect of any division or subdivision additional timber products as enumerated in the wage schedule presented.

The code was submitted by the National Lumber Manufacturers' Association, representing more than 70 percent of the output of lumber and timber products throughout the United States, and was concurred in by 45 trade associations composed of manufacturers of lumber and timber products and by the single wholesale lumber association and the single retail lumber association of national scope.

Maximum hours are fixed at 40 per week and no employee shall be permitted to work for two or more employers for a longer period in any week. Exception to this provision may be made, however, as follows: The maximum does not apply to executives, supervisors, traveling sales force and camp cooks; employees such as watchmen, firemen, and repair crews, representing not more than 10 percent of the employees in any operation, may work for longer hours according to the exigencies of their employment but shall be paid time and a half for weekly overtime; and temporary employment in excess of 40 hours is allowable in emergency. In seasonal operations the administrative agency may authorize employment up to 48 hours per week, or longer hours for stream driving and sled hauling, provided the average employment in any seasonal operation shall not exceed the standard schedule for the calendar year. Manufacturers of wooden packages for perishables may employ workers for longer hours for a period not to exceed four weeks for any perishable crop, again provided that the employment shall not exceed the standard schedule for the calendar year.

The minimum wages on piecework or contract work shall not be less than the minimum hourly rates set; the existing differentials between skills shall be maintained for those earning up to \$30 weekly; and charges to employees for rent, board, medical attendance and other services must be fair. No person shall be paid less than 40 cents an hour unless the prevailing rate in a particular district was lower on July 15, 1929, in which case the rate to be paid will be based on that of July 15, 1929, plus a specified percentage. "In no case shall wages in any locality be lower than the rates proposed by the applicant industries in the code filed July 10, 1933."

Minimum hourly wage rates authorized are as follows:

MINIMUM HOURLY WAGE RATES IN THE LUMBER- AND TIMBER-PRODUCTS INDUSTRY

	Hourly rate		Hourly rate
	<i>Cents</i>		<i>Cents</i>
Cypress.....	24.0	Mahogany and walnut—Continued	
Hardwood:		Southern cities.....	30.0
Appalachian.....	28.5	Southern rural.....	25.0
Southern.....	24.0	Woodwork:	
Philippine mahogany.....	45.0	Stock manufacturers subdivision:	
Northern hardwood:		South (13 States).....	25.0
Mills and factories.....	30.0	West (9 States).....	32.5
Logging.....	27.0	Other (26 States).....	30.0
North-central hardwood: Mills and factories and logging.....	32.5	Wholesale distributors subdivision:	
Northeastern hardwood:		South (13 States).....	25.0
Mills and factories.....	30.0	West (9 States).....	32.5
Logging.....	27.0	Metropolitan New York and Chicago.....	45.0
Northern hemlock:		East of Ohio.....	35.0
Mills and factories.....	30.0	Other territory.....	30.0
Logging.....	27.0	Special woodwork subdivision:	
Northern pine:		South (13 States).....	25.0
Mills and factories.....	33.5	West (9 States).....	32.5
Logging.....	28.5	Metropolitan New York and Chicago.....	50.0
Redwood.....	35.0	East of Ohio.....	40.0
Northeastern softwood:		Other territory.....	30.0
Mills and factories.....	30.0	Wooden package: ¹	
Logging.....	27.0	Sawed box shuck, crate, and tray subdivision:	
Southern pine.....	24.0	Eastern (New England).....	30.0
Southern rotary cut.....	23.0	New York, New Jersey.....	35.0
West coast:		Southeastern.....	23.0
Logging.....	42.5	Southern hardwood group.....	23.0
Lumber manufacture.....	42.5	Northwest.....	30.0
Factories.....	40.0	Inland Empire.....	40.0
Fir door.....	40.0	Pacific:	
Fir plywood.....	40.0	North of 38° north latitude.....	40.0
Western pine (except Arizona, New Mexico, and Colorado south of 38° north latitude):		South of 38° north latitude.....	23.0
Logging.....	42.5	Pacific Northwest.....	40.0
Mills.....	42.5	Northern.....	30.0
Factories.....	40.0	Southern.....	23.0
Arizona, New Mexico, and Colorado south of 38° north latitude.....	24.0	Plywood-package subdivision:	
Red cedar shingle.....	42.5	South of Delaware River, southern line of Pennsylvania, Ohio River, etc.....	23.0
Stained shingle.....	40.0	North of Delaware River, etc.....	30.0
Oak flooring:		Southeastern veneer container subdivision—Florida, Georgia, Alabama.....	23.0
Appalachian.....	29.5	Pacific veneer container subdivision—California, Oregon, Washington.....	40.0
Southern.....	26.0	Egg-case subdivision:	
Maple flooring.....	30.0	South.....	23.0
Hardwood dimension:		All other territory.....	30.0
Southern hardwood area.....	24.0	Wire-bound box subdivision:	
Appalachian hardwood area.....	28.5	South.....	23.0
Northern hardwood area.....	30.0	All other territory.....	30.0
Northeastern hardwood area.....	30.0	Veneer fruit and vegetable package subdivision:	
North Central hardwood area.....	32.5	Southern group.....	23.0
Mahogany and walnut subdivisions and veneer division:		Northern group.....	30.0
New York City and Chicago.....	42.5		
Northern cities.....	35.0		
Northern rural.....	30.0		

¹ Boys and girls under 20 years of age may be paid less than the fixed minimum provided that this group shall not represent more than 20 percent of the number employed and that the differential in no case is more than 5 cents.

² Provisional.

No individual under 18 years of age shall be employed, except that boys 16 years and over may be employed in the wooden package division and in nonhazardous work during school vacations or provided there are no wage earners in their families 18 years of age or over.

The code provides for establishment of the lumber code authority to assist the National Recovery Administration in administering the provisions set forth. When set up this organization will have representatives of the principal divisions of the industries embraced in the

code and three nonvoting members to be appointed by the President. Broad administrative powers will be held by the lumber code authority and it will be further empowered to designate appropriate agencies for applying the code in the various divisions and subdivisions of the industry and will obtain and compile adequate information as to the extent of observance of the code and results obtained under its operation.

Petroleum Industry

HEARINGS on the proposed code of fair competition for the petroleum industry were held between July 24 and July 26, 1933. Thereafter and until the date of approval a number of committee meetings were held at which the various interests were represented by a small number of delegates. The code was finally approved by the President on August 19 to take effect 2 weeks later, that is, September 2, 1933.

For the purposes of this code the term American petroleum industry includes the production, transportation, refining, and marketing of crude petroleum and its products, and includes natural gasoline and the production of natural gas in conjunction with petroleum.

A code was originally presented by the American Petroleum Institute, in the preparation of which 97 trade associations representing at least 95 percent of the oil industry in the United States joined, and another by a group of 22 independent operators from widely scattered sections of the country.

The code agreed upon and approved by the President sets up two separate schedules of maximum hours and minimum wages, the first for production, refinery, and pipe-line operations, and the second for market operations.

In drilling, refinery, and pipe-line operations maximum hours for clerical employees may not exceed 40 per week. All other employees, except executives, supervisors and their immediate staffs and pumpers on "stripper" wells so located as to make relief impracticable, shall not work more than 72 hours in any 14 consecutive days and not more than 16 hours in any 2 days. In market operations all employees (other than those employed in filling or service stations, garages, or other institutions which sell gasoline to the public), but excluding executives, supervisors and their immediate staffs and outside salesmen, shall work not more than 40 hours per week. For filling-station employees the maximum hours of work permitted are 48 per week.

The schedule of minimum hourly wage rates for employees engaged in drilling, production, refinery, and pipe-line operations and for those engaged in marketing operations other than those carried on by filling stations, etc., follows.

MINIMUM HOURLY WAGE RATES IN THE PETROLEUM INDUSTRY

Geographic area	Minimum hourly wage rate	
	Drilling, production, refining and pipe-lines	Market operations, (other than filling stations)
	<i>Cents</i>	<i>Cents</i>
Middle Atlantic division (New York, New Jersey, Pennsylvania).....	52.0	47.0
New England division (Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut).....	52.0	47.0
East North Central division (Ohio, Indiana, Illinois, Michigan, Wisconsin).....	52.0	47.0
West North Central division (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas).....	48.0	42.0
South Atlantic division (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida).....	45.0	40.0
East South Central division (Kentucky, Tennessee, Alabama, Mississippi).....	45.0	40.0
West South Central division (Arkansas, Louisiana, Oklahoma, Texas).....	48.0	40.0
Mountain division (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Nevada, Utah).....	50.0	45.0
Pacific division (Washington, Oregon, California).....	52.0	47.0

Pipe-line and refinery and marketing operations in North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas, employing not to exceed 10 percent of the total number of workers (constituting common labor only), may be paid not less than 80 percent of the minimum rate.

The minimum weekly wage rates set for filling or service station employees and other employees selling gasoline to the public are as follows:

Workers in cities with a population of—	
500,000 and over.....	\$15.00
250,000 and under 500,000.....	14.50
2,500 and under 250,000.....	14.00
Under 2,500.....	(1)

It is further stipulated that the service-station employees shall not receive smaller weekly wages for the shorter work week than they received July 20, 1933.

Differentials between the rates for skilled classes and those for common labor established by the code are not to be less than those existing July 1, 1929. In no case may such differential for first-grade refinery still men be less than 45 cents per hour or that for rotary drillers less than 75 cents per hour.

All contracts for work within the industry shall carry a statement whereby the contractor agrees that his employees shall receive the rates designated by this code for the respective classes of work and shall not work in excess of the prescribed number of hours.

Minors under 16 years of age are excluded from employment in the petroleum industry.

Administrative machinery provided for effectuation of this code shall consist of the planning and coordination committee (representing the petroleum industry and the National Recovery Administration) and a Federal agency to be designated by the President. The planning and coordination committee shall consist of 15 members, 3 of whom shall represent the National Recovery Administra-

¹ Increase of 20 percent in wages provided this does not require wages in excess of \$12 a week.

tion and be without vote and 12 of whom shall be representatives of the petroleum industry. All shall be appointed by the President, the industry members to be chosen from nominations made by a group or groups within the industry as prescribed by the President. The committee shall cooperate with the Administrator as a planning and fair-practice agency. It shall have a chairman from its own membership and statistical, production, refinery, marketing, accounting, labor, adjustment, and transportation committees.

The Federal agency, to be set up later, shall make such estimates of petroleum requirements and such recommendations, allocations, and inventories as may be required.

Both groups to be set up are empowered to call upon the industry for such statistical and other reports as are deemed necessary and any refusal to supply such reports shall be a violation of the code.

Photographic Manufacturing Industry

THE photographic manufacturing industry submitted a code of fair competition for the industry on which a hearing was held August 4, 1933. The code was presented by duly qualified and authorized representatives of the industry, complying with the statutory requirements in representing fully 80 percent of the industry in the United States. Several amendments were made in the code, these changes including the establishment of a flat minimum wage rate for men and women instead of a higher wage for men, the addition of certain groups of employees to those excepted from the maximum hours established by the code, and an increase in the number of members of the code committee. The code was approved by the President August 19, 1933, and became effective 10 days thereafter, on August 29, 1933.

The industry as defined in the code includes the manufacture of any of the following photographic products: Cameras, exclusive of professional motion-picture cameras using film having a width of 35 mm or greater; motion-picture projectors, exclusive of professional motion-picture projectors using film having a width of 35 mm or greater; amateur and professional photographic film, plates and paper; photographic accessories, equipment and supplies, except photographic mounts and photographic chemicals.

The minimum wage payable to any employee in the photographic industry was fixed at 35 cents an hour, or \$14 per week for 40 hours of labor except (1) that learners may be paid not less than 80 percent of such minimum wage during a period limited to 60 days, (2) that the total amount paid to such learners may not exceed in any calendar month 5 percent of the total wages paid to all employees by any employer during the month, and (3) that these provisions shall not apply to apprentice machinists and apprentice tool makers now under contract with their employers under forms approved by the National Metal Trades Association or any branch of such association.

The maximum working hours were fixed at 40 per week subject to the provision that the average hours worked per week by any individual employee shall not exceed the maximum established when figured over a period of 3 months. It is further provided that the maximum hours established shall not apply in cases of emergency or

in those departments or divisions of the industry in which seasonal or peak demand places an unusual and temporary burden for production upon such departments, except that in the case of such work no employee shall be permitted to work more than an aggregate of 144 hours per year in excess of the maximum limitations. The maximum hours established in the code do not apply, however, to employees engaged in research and experimental capacities or to emulsion makers engaged in secret processes or to designing and tooling engineers. The maximum hours also do not apply to repair-shop crews, outside crews, and cleaners, although all such employees are to be paid at the rate of time and one half for all hours worked in excess of 40 per week.

On and after the effective date employers shall not employ or have in their employ any person under the age of 16 years.

The Administrator in submitting the code stated that the definite seasonal demand and a perplexing problem peculiar to the industry because of the perishable nature of its sensitized products, and the necessity for finishing attendant processes, when once begun, made it necessary to provide for the additional 144 hours per year and for the averaging of the regular hours of employees over a period of 3 months. The peak year for the photographic apparatus industry was 1929, and the number of persons employed in that year was 16,360. In that year the average purchasing power of the wage earners in the industry was \$30.42 per week, which was considerably above the average of \$25.28 for all industry in that year. In 1931 employment had declined 18.2 percent and the average purchasing power had dropped 22 percent, or to an average of \$23.71. It is estimated that, on the basis of the 1931 figures, the 40-hour week would not place any additional burden on the ultimate consumer, but if wages were maintained on the basis of the 1929 figures the price to the consumer on a 40-hour basis would increase 7.8 percent. The number of persons who will be reemployed as a result of the adoption of the 40-hour week is estimated to be from 1,600 to 2,000.

A planning and fair-practice agency is provided for in the code and in the Executive order, which shall consist of 7 representatives of the photographic manufacturing industry elected by a fair method of selection, to be approved by the Administrator, and 3 members without vote appointed by the Administrator.

Automobile Manufacturing

THE National Automobile Chamber of Commerce submitted a code of fair competition for the automobile manufacturing industry on which a hearing was held August 18, 1933. The organization presenting the code represents 78 percent of the products of the industry and more than 95 percent of the companies engaged in the manufacture of motor vehicles. The code as amended as a result of conferences between officials of the industry and the Administrator and his assistants was approved by the President August 26, and became effective 10 days thereafter, or September 5, 1933. The code provides that the "expiration date" of the code shall be December 31, 1933, or the earliest date prior thereto on which the President by proclamation or the Congress by joint resolution shall have declared that the national emergency has ended.

The term "automobile industry" as used in the code includes the manufacturing and assembling within the United States of motor vehicles and bodies therefor, and of component and repair parts and accessories by manufacturers or assemblers of motor vehicles. The term "motor vehicles" means automobiles, including passenger cars, trucks, truck tractors, buses, taxicabs, hearses, ambulances, and other commercial vehicles, for use on the highway, but excluding motorcycles, fire apparatus, and tractors other than truck tractors.

The terms of the code provide for a wage differential according to population, the minimum wages ranging from 40 to 43 cents an hour. For the period included between the effective date and the expiration date the minimum wage established for factory employees is 43 cents in cities having 500,000 population or over; 41½ cents in cities having 250,000 and less than 500,000 population; and 40 cents in cities or towns having less than 250,000 population. It is provided, however, that apprentices and learners and females not doing the same work as adult males shall be paid not less than 87½ percent of these minimums; the number of such workers shall not exceed 5 percent of the total force, including subsidiary and affiliated companies. Equitable adjustment in all pay schedules of factory employees above the minimum shall be made on or before September 15, by any employers who had not made such adjustments prior to that date, and it is required that the first monthly report of wages filed under the code shall contain all wage increases since May 1, 1933.

In the automobile manufacturing industry there are substantial fluctuations in the rate of factory production throughout each year, due mainly to the concentration of a large part of the annual demand for cars within a few months, and also to the slowing down of employment in connection with changes in models and other causes beyond the industry's control. In the past it has been the policy of manufacturers to adjust working hours in cases of this kind in order to retain the greatest number of employees and as far as practicable adjust the manufacturing schedules of component parts to allow a more uniform schedule of hours. The industry expects to continue this policy. Before the presentation of the code, it is stated, the industry had gone far in spreading available work to relieve unemployment and it now proposes under the code to spread the work as far as practicable, in its judgment, consistent with its policy of giving each employee a reasonable amount of work in each year. For this purpose the code provides that employers shall so operate their plants that the average employment of all factory employees (with the exceptions stated below) shall not exceed 35 hours per week for the period from the effective date to the expiration date, and the hours of each individual employee shall as far as practicable conform with this average and shall in no case exceed the same by more than 3 percent. In order to give employees this average of 35 hours per week it will be necessary at times to operate for substantially longer hours, but no employee shall be employed for more than 6 days or 48 hours in any 1 week, and all such peaks shall be absorbed in the average. It is provided, in order to maintain production and employment with as few interruptions as possible, that the supervisory staff and employees engaged in the preparation, care, and maintenance of plant machinery and facilities of and for production shall be exempt from the above

weekly limitations, but the hours of work of such employees shall not exceed 42 hours per week averaged on an annual basis.

The hours of office and other salaried employees receiving less than \$35 per week shall not exceed 48 in any 1 week and not more than an average of 40 hours per week from the effective date to the expiration date. Employees receiving more than \$35 per week and executives and managerial and supervisory staffs are not subject to any hourly limitations.

In order to develop any further practicable measures to provide more stable and continuous employment, if this is possible, and to reduce to a minimum the number of employees temporarily employed, the chamber agrees to make a further study of the problem of fluctuation in production because of the reasons already stated and to submit a report thereon to the Administrator by December 1, 1933.

The code provides that no person under 16 years of age shall be employed. It is stated, however, that child labor has never been a factor in the automobile industry.

The code as originally presented contained a statement qualifying the provision regarding collective bargaining which is prescribed in section 7 (a) of the National Industrial Recovery Act. This statement provided that the open-shop policy of employers in the industry might be continued. The proponents of the code stated that there was so much confusion regarding the collective bargaining provision that this statement was inserted to clarify the provision for employers in the industry. Mr. Donald R. Richberg, counsel for the National Recovery Administration, in speaking on this clause of the proposed code stated that the phrase "open-shop policy" might be construed in many cases as a policy of refusing to follow the provisions of the law and therefore as a sanction to continue previous labor policies which might be in direct conflict with the act. In the final code as accepted this phrase was deleted, the clause being made to read as follows: "Without in any way attempting to qualify or modify, by interpretation the foregoing requirements [section 7 (a)] of the National Industrial Recovery Act, employers in this industry may exercise their right to select, retain, or advance employees on the basis of individual merit without regard to their membership or nonmembership in any organization."

The Labor Advisory Board approved the code as signed by the President, making a statement that it did so "with the understanding that no section or sentence contained therein modifies, qualifies, or changes section 7 (a) of the National Recovery Act and, furthermore, that the sentence in the code following section 7 (a) does not establish a precedent to be followed in the preparation or acceptance of any other code."

In the announcement of the code by the Administrator this principle is again stressed and it is stated that it has not been permitted in the code as an interpretation of the law.

The board of directors of the National Automobile Chamber of Commerce is designated as the agency to supply the President and the Administrator with requisite data as to the observance and effectiveness of the code and the administration thereof and to represent the industry in conference with the Administrator with respect to the application of the code and the act, with the stipulation that the chamber shall have no power to bind the industry or any subdivision of the industry.

Hosiery Industry

FOLLOWING a hearing held on August 10, 1933, the President gave approval to the code for the hosiery industry on August 26. The effective date of the code was fixed as the second Monday following approval, or September 4.

As used in this code the term "hosiery industry" includes the manufacturing, finishing, repairing, selling, and/or distributing by manufacturers at wholesale or retail, or distributing by wholesalers and selling agents, of hosiery, and other related branches, as may from time to time be included under the provisions of the code.

The National Association of Hosiery Manufacturers, claiming to represent 80 per cent of the industry, submitted the proposed code.

A hosiery code authority is established for the purpose of administering the code and for all purposes set forth therein. Membership of the code authority is as follows: 8 members, representative of employers, shall be appointed by the board of directors of the National Association of Hosiery Manufacturers; 2 members, representative of labor, appointed by the Administrator on nomination of the Labor Advisory Board; and 2 members appointed by the Administrator. To assure the code authority the advice and suggestions of the major branches of the industry an advisory committee is to be provided for each major branch of the industry, to make such recommendations to the code authority as they may deem necessary and advisable. These suggestions, when approved by the code authority and the Administrator, become a part of the code. The code authority is to distribute to all persons in the industry such posters and notices as should be displayed in plants in order to bring to the attention of employees provisions affecting them.

In order to carry out the provisions of the code and the objectives of the National Industrial Recovery Act, each person engaged in the hosiery industry is required to furnish to the National Association of Hosiery Manufacturers such properly certified reports as may be required.

Maximum hours are fixed at 40 hours per week for any employee engaged in productive operations. The understanding is that this limitation shall not apply to office employees, supervisors, foremen, engineers, firemen, electricians, repair-shop men, dyers, shipping force, watchmen, cleaners, outside workers, sales force, and those engaged in emergency maintenance or repair work. However, it is provided that on and after September 4, 1933, the maximum hours for office employees shall not exceed an average of 40 hours per week over each period of 6 months, and that on or before January 1, 1934, the code authority shall prepare and submit to the Administrator suggestions for a schedule of maximum hours and minimum wages to apply to those excepted employees mentioned. The provisions laid down are interpreted to establish a maximum of hours of labor per week for every employee covered, so that no employee may be permitted to work for one or more employers in the aggregate in excess of the prescribed number of hours.

Two shifts of 40 hours each shall be the maximum allowable, the work week for productive operations, except dyeing, not to exceed 5 days of 8 hours each. These days shall be Monday to Friday, inclusive, except in States where the laws prevent such operation,

when the employer may operate one shift on Saturday, not to exceed 4 hours.

For a period of 6 months following the effective date of the code, full-fashioned-hosiery plants whose footing equipment on July 24, 1933, was being operated on a 2-shift basis may continue such operation but the length of each of these two shifts may not exceed 35 hours and the rates paid such operators shall be equal to those paid for 40-hour shifts. If the operation of footing equipment was on a 1-shift basis on July 24, 1933, 1-shift operation shall be continued during the said 6 months. Not less than 30 days before expiration of the 6-month period mentioned the code authority shall submit to the Administrator a recommendation for determining a more permanent policy respecting footer operation in order to effect a reasonable balance between production and demand.

Manufacturers of woolen hosiery containing at least 20 percent wool may operate their knitting equipment not to exceed 3 shifts of 40 hours each until December 31, 1933, and thereafter this branch of the industry shall be limited to 2 shifts of 40 hours each.

The minimum wages on the basis of the 40-hour week shall be as follows:

MINIMUM WEEKLY WAGES ESTABLISHED IN THE HOSEIERY INDUSTRY

Branch of industry and class of workers	Minimum weekly rate	
	North	South
<i>Full-fashioned manufacture</i>		
Class 1: Leggers and footers:		
36 gage and below.....	\$18. 50	\$16. 75
39 gage.....	20. 00	18. 00
42 gage.....	21. 50	19. 50
45 gage.....	23. 50	21. 25
48 gage.....	25. 50	23. 00
51 gage and over.....	27. 50	24. 75
Class 2: Boarders.....	17. 00	15. 50
Class 3: Toppers, loopers, seamers, skein winders, menders, pairers, finished inspectors, helpers on knitting with over 6 months' training, pairer-folders.....	15. 00	13. 50
Class 4: Stampers, boxers, cray examiners, folders, cone winders, other productive workers, learners (including machine helpers) for second 3 months of training.....	13. 00	12. 00
Class 5: Learners (including machine helpers) for first 3 months of training.....	8. 00	8. 00
<i>Seamless manufacture</i>		
Class 1: Machine fixers.....	18. 00	16. 25
Class 2: Knitters (above 240 needle), loopers (above 240 needle), boarders.....	14. 00	12. 75
Class 3: Knitters (240 needle and below), loopers (240 needle and below), seamers, toppers, menders, pairers, wetters, trimmers, stampers, folders, boxers, inspectors, winders, knitters (ribbed top), shipping help, machine fixer helpers, other productive workers.....	13. 00	12. 00
Class 4: Learners (first 3 months of training).....	8. 00	8. 00

The territory known as South includes the States of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Certain provisions are clarified as follows: The minimum wage provisions are interpreted as establishing a guaranteed minimum rate of pay per hour of employment regardless of whether compensation is based on a time or piece work basis; the learner's first 3 months' training is the aggregate of his or her first 3 months within the industry, whether continuous or not and whether employed by one or more

employers; the practice of requiring or permitting a knitter to pay part or all of the wages of a helper is prohibited and full wages of all employees shall be paid by the employer; production required of any worker shall not be increased over the requirements for the same class of work prior to July 15, 1933; minimum wages of substandard employees shall not be more than 20 percent below those of regular employees in the same class of work; the total number of substandard employees shall at no time exceed 5 percent of all productive employees of the plant and they shall be registered with the code authority; and lastly except for cleaners, outside workers and substandard workers, minimum wages shall be at the rate of \$12 per week in the South and \$13 in the North for 40 hours of work.

A section on conditions of work written into the code provides that no home work shall be allowed unless the worker can work only at home and needs such work as a means of livelihood, when a permit for the exception shall be procured from the code authority. It is further provided that no knitter shall operate more than 2 full-fashioned legging machines and that under such operation he shall be assisted by 2 knitting helpers and that footing machines shall be operated on a single machine basis, that is, 1 knitter, or 1 knitter and 1 knitting helper, to 1 machine. Pending the collection of information and making of recommendations by the code authority on double-machine full-fashioned legging operations as of July 15 and September 15, full-fashioned legging machines operating on a single-machine basis shall so continue.

No person under 16 years of age may be employed in the industry.

It was stated by the administration after the approval of the code that the 40-hour week established for the industry should go far toward reemploying workers skilled in hosiery manufacture who have been forced to leave the industry, and insure more nearly full-time employment for the great majority of the workers who have remained in the industry. While the demand for hosiery has remained fairly constant even during the depression years, it is said the industry has had a serious unemployment and underemployment problem. A survey of the industry for the week of July 10, 1933, indicated a total of 114,000 employees in the two branches of the industry—full-fashioned hosiery and seamless hosiery—and it is estimated that had the same production been made by a group of employees working 40 hours per week a total of 147,000 workers would have been employed. The code also prevents excessive speeding up of employees by increases in the task requirement and regulates the so-called stretch-out problem by limiting the number of machines which a full-fashioned knitter may operate to 1 footing machine and 2 legging machines, in the latter case 2 knitting helpers being required in place of 1 knitter and 1 helper on the 2 machines as has been the prevailing custom. A series of 16 fair-trade practices is enumerated with a view to assuring fair competition in the industry. Two labor representatives are given places on the code authority.

Men's Clothing Industry

CODES of fair competition in the men's clothing industry were submitted at a hearing held July 26, by two organizations, the Clothing Manufacturers Association of the United States of America and the Industrial Recovery Association of Clothing Manufacturers; the

latter organization represented manufacturers largely outside of the four great clothing centers. The Clothing Manufacturers Association, it was claimed, was representative of approximately 75 percent of the clothing industry of the United States. The differences between these two organizations were adjusted at conferences in which representation of both groups on the code authority was provided for, and a code was agreed upon by the two organizations and the Administrator which was approved by the President on August 26, 1933. The code became effective September 11, 1933.

A code authority consisting of 23 members is provided for the administration and enforcement of the provisions of the code. The membership of the code authority is apportioned as follows: 10 members representative of the Clothing Manufacturers Association, 5 members representing employers who are not members of the association, who shall be appointed by the association, and 2 members representative of other employers who may be chosen by the foregoing members. There shall also be 5 members representative of labor appointed by the Administrator on nomination by the Labor Advisory Board, and 1 member may be appointed by the Administrator. The code authority shall designate the National Association of Uniform Manufacturers to aid in the administration of the code in respect of the manufacture and distribution of uniform apparel and shall make recommendations to the Administrator regarding trade practices desirable for this branch of the industry.

The term "clothing industry" as used in the code is defined to mean the manufacture of men's, boys', and children's clothing, uniforms, single knee pants, single pants, and men's summer clothing (exclusive of cotton wash suits).

The minimum wages established by the code for manufacturing employees are fixed at 40 cents per hour when employed in the northern section of the industry and at 37 cents per hour when employed in the southern section of the industry. The minimum rates for non-manufacturing employees are fixed at \$14 in the northern section and \$13 in the southern section. The southern section includes Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. The minimum rate for employees working on single knee pants is 37 cents per hour.

The minimum rate for cutters is fixed at \$1 per hour and that for off-pressers at 75 cents per hour. The existing amounts by which wages in the higher-paid classes, up to classes of employees receiving \$30 per week, exceed wages in the lowest-paid substantial classes shall be maintained, but any increase in the minimum wage made effective between the date of the filing of the code, i.e., July 14, 1933, and the effective date shall be disregarded and shall have no effect in connection with determining the wages to be paid in the higher-priced classes as provided above. The code authority may appoint a committee to supervise the execution of the foregoing provisions.

The minimum wages established in the code shall constitute a guaranteed minimum rate of pay in connection with both a time rate and a piecework basis of compensation, and no increases in the amount of production or work shall be required of employees for the purpose of avoiding the benefits to employees in respect of wages and hours of employment.

Three months after the effective date no manufacturer shall be permitted to have work done on any garment or part of a garment in the home of a worker, and all work done for a manufacturer shall be done in what is commonly known as an inside shop or in a contracting shop.

The maximum hours of employment for employees in the clothing industry are fixed at 36 per week and 8 per day, with the exception of repair-shop crews, engineers, electricians, firemen, office and supervisory staff, stock clerks, shipping clerks, truck drivers, porters, and watchmen, for whom an average week of 40 hours in any year is prescribed. Employees engaged in bona fide managerial or executive capacities are not subject to the hours limitations. Employers shall not operate productive machinery more than one shift of 36 hours per week. It is stated in the code that it is the intention that the foregoing provisions as to maximum hours shall establish the maximum hours of labor per week of every manufacturing employee other than those excepted, so that under no circumstances will an employee be employed or permitted to work for any one or more employers in the industry an aggregate in excess of the prescribed number of hours in any single week.

It is intended that employees' wages shall not be reduced by reason of the reduction of the prescribed number of hours of employment.

Tailoring to the trade and manufacturers of uniforms shall be permitted overtime during peak seasons, the number of hours and the number of weeks to be determined by the code authority.

It is provided that an NRA label shall be attached to all garments manufactured or distributed and shall bear a registration number specially assigned to each manufacturer in the industry. The privilege of use of such labels by any manufacturer may be withdrawn and cease or may be suspended if after appropriate hearing by the code authority and review by the Administrator it shall be found that there has been substantial violation of the standards established by the code.

The employment of any minor under the age of 16 years is prohibited.

The code provides for the establishment of safe, healthful, and otherwise satisfactory working conditions, which shall as a minimum comply with the highest standards respecting sanitation, cleanliness, light and safety, specified in the factory laws of any State in which the manufacturer operates.

It is estimated that the maximum work week established by the code will result in the reemployment of almost 20,000 employees who are now attached to the industry but for whom employment has not been provided within recent years. It is anticipated, also, that the number of short-time workers will be considerably reduced. The research and planning division of the industry has estimated that the establishment of a 40-cent minimum hourly rate in conjunction with the 36-hour week will result in a 28 percent increase in the total pay roll of the industry, which will in the future total about \$100,000,000 a year.

While it is said that sweatshops have never been the problem in the men's clothing industry that they have been in the manufacture of women's clothing, it clearly appeared at the hearing that, in comparison with the prevailing standards throughout the greater part of

the industry, there are many manufacturing units which must be classed as substandard. The fair-trade practices set up by the code were designed to correct some of these conditions, and these together with the provisions governing hours and wages, it is believed, will result in the elimination of this substandard competition and enable the industry to level off the seasonal peaks of operation and provide greater employment opportunities.

Rayon and Synthetic-Yarn Production

FOLLOWING a hearing on a proposed code of fair competition in the rayon and synthetic-yarn producing industry held on July 27, 1933, a revised code was approved by the President on August 26, to take effect on September 9.

For the purposes of this code the rayon and synthetic-yarn-producing industry includes the manufacture of rayon and/or synthetic yarns from cellulose, put up and packaged in forms suitable for the various consuming and fabricating branches of the textile industry.

Proponents of the code, numbering 14 firms, represent 80 percent of the number of firms and 90 percent of the total output in the industry.

Wages are established at a minimum of \$13 weekly in all geographical divisions. Apprentices during a 6 weeks' learning period shall be paid 85 percent of the minimum weekly rate fixed in the code.

Forty hours shall be the maximum working time per week. Those serving in executive, administrative and supervisory, outside sales, and/or technical capacities may not average over 40 hours per 4-week period. Emergency work must be reported to the code authority. No employee shall receive less pay for 40 hours of work than he received for 48 hours on May 1, 1933.

No minors under 16 years of age are to be employed in the industry.

It is estimated that under the 40-hour week this industry, now employing 41,000, will add 3,500 to 4,500 employees to its pay rolls, bringing the total to the greatest number in its history. The 18 companies under the provisions of the code have an annual production of rayon and synthetic yarn of approximately 224,900,000 pounds.

At the hearing held for discussion of the industry's proposals separate recognition under the trade-practice section of the code was sought by a group of producers of cellulose acetate yarns. These firms produce the major portion of cellulose acetate yarns, and while entirely in accord with the labor provisions of the code presented, they expressed a belief that the cellulose acetate yarns were a different product, of higher cost than rayon, and that there was no reason why these two products should come under the same code, thus bringing the cellulose acetate industry under the control of concerns interested primarily in the production and marketing of rayon. As finally approved, however, the code includes production of cellulose acetate yarns.

The personnel of the administrative body is not fixed in the code, but it is expressly stated that such a body shall be established to cooperate with the administration.

Substitutions Allowed under President's Reemployment Agreement

IN CONNECTION with the presentation of the President's Reemployment Agreement,¹ whereby employers have voluntarily agreed to abide by certain fixed minimum wages and maximum hours pending adoption of specific codes of fair competition for their respective industries, it has been the policy of the Administration to permit certain substitutions in the labor provisions adopted. This applies in the industries that were brought under the labor provisions of the cotton-textile code by Executive order pending the adoption of their own codes. A large group of additional industries has applied and received authorization to operate under the wages and hours provisions of codes filed with the National Recovery Administration but as yet not given hearings. A further ruling has been made providing that where contractual relations exist the President's Reemployment Agreement will not supersede the provisions as to wages and hours mutually agreed to by employers and employees through collective bargaining.

A policy board has been created under the National Recovery Administration to which groups may apply who wish to have modified agreements adopted in place of the President's agreement. The board consists of Robert T. Stevens, chairman and representative of General Johnson; W. M. Leiserson, labor representative; Edward R. Stettinius, Jr., industrial representative; Robert K. Straus, secretary of the board and liaison officer with the Industrial Mediation Board; and Kilbourne Johnson, legal adviser to the chairman.

For those seeking exceptions from the terms of the President's agreement, because to comply "will create a great and unavoidable hardship because of peculiar circumstances," a newly created "exceptions division" will act under Gen. Thomas Hammond, of the National Recovery Administration.

Individual manufacturers and producers who seek to obtain independent modifications either of the President's Reemployment Agreement or the modified President's Reemployment Agreement, because compliance with all provisions would work undue hardship, must place a white bar, marked "Provisional", across the breast of the blue eagle displayed under the President's Reemployment Agreement. In order to secure this right the petitioner must sign the certificate of compliance in the regular way and state the exceptions requested. Such petitioner must have his request for individual modification approved by his trade association before submitting it to the administration. If the petition is not approved by the administration he must comply with the agreement obtaining in his particular industry, and if the petition is finally approved he may remove the white bar.

Among the industries permitted to operate temporarily under the labor provisions of their proposed codes pending hearing and approval of such codes are: banking, advertising specialties, ice cream, fluid milk, knitted outer wear, oil burner, optical, paint, varnish and lacquer, printing, toys and playthings, wheat-flour millings, retail lumber, lumber products, building materials and building specialties, gasoline-pump manufacturing, ice and paper-box manufacturing, photographic manufacturing, mayonnaise, linseed oil, meat packing, and various branches of retail trade.²

¹ For text of agreement, see *Monthly Labor Review*, August 1933, p. 263.

² See *Monthly Labor Review*, August 1933 (p. 272), for supplementary industries.

A Nation-wide drive to add 5,000,000 to 6,000,000 persons to the country's pay rolls through the President's Reemployment Agreement and its modifications was started on August 28.

In allowing the continuance of the wages and hours provisions under collective agreement of a printing group in New York City, it was stated that the stay was granted in accordance with section 14 of the President's agreement reading, as follows:

That any person who wishes to do his part in the President's reemployment drive by signing this agreement, but who asserts that some particular provision hereof, because of peculiar circumstances, will create great and unavoidable hardship, may obtain the benefits hereof by signing this agreement and putting it into effect, and then, in a petition approved by a representative trade association of his industry, or other representative organization designated by NRA, may apply for a stay of such provision pending a summary investigation by NRA, if he agrees in such application to abide by the decision of such investigation.

Formation of Central Statistical Board

IN CONNECTION with carrying out the purposes of the National Industrial Recovery Act the statistical operations of the Federal Government are to be coordinated and standards formulated to this end, under an Executive order whereby a Central Statistical Board is created. The board is to be made up of one representative designated by each of the following officers from one of the statistical agencies under his direction: The Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the Governor of the Federal Reserve Board, and the National Industrial Recovery Administrator, and one representative to be designated by the Committee on Government Statistics and Information Services, created at the invitation of the Secretaries of the Interior, Agriculture, Commerce, and Labor; and such other members as the President may designate or the board may invite for full or limited membership.

The board is empowered to appraise and advise upon all schedules of all Government agencies engaged in the primary collection of statistics required in carrying out the purposes of the National Industrial Recovery Act, and to review plans for carrying out statistical work.

A fund of \$20,000 is made available by the Federal Emergency Administration of Public Works, appointments of employees to do the necessary work to be made by the board.

Creation of National Labor Board

IN THE belief that by establishing a body to review matters in dispute and to prevent strikes and lockouts the purposes of the National Industrial Recovery Act would be well served, the industrial and labor advisory committees of the National Recovery Administration recommended the establishment of a national labor board. The creation of the board was announced on August 5, 1933, the membership to include: Senator Robert F. Wagner, chairman, Dr. Leo Wolman, Walter C. Teagle, William Green, John L. Lewis, Gerard Swope, and Louis E. Kirstein. The duties of the board were set forth as follows:

This board will consider, adjust, and settle differences and controversies that may arise through differing interpretations of the President's Reemployment Agreement and will act with all possible dispatch in making known their findings. In return, employers and employees are asked to take no disturbing action pending hearings and final decision. This board will promptly proceed to establish such central and local organizations as it may require to settle on the ground, such differences as arise in various parts of the country.

Settlement of Hosiery Strike in Reading, Pa.

AN AGREEMENT settling the strike of hosiery workers in Reading, Pa., was made public August 11, 1933. This was the first agreement arrived at through the good offices of the National Labor Board.

The text of the agreement is as follows:

Agreement between the National Labor Board and the hosiery manufacturers of Reading, Pa., and the representatives of the employees, each agreeing with the National Labor Board but not with each other, as follows:

1. The strike to be called off immediately and the employees to report to work as quickly as work is available.
2. The employees are to return to work without prejudice or discrimination.
3. Conditions of work and wages will be as agreed upon.
4. During the week beginning Tuesday, August 15, 1933, and throughout that week, employees on the pay roll of the last day on which they worked at each company shall hold a meeting, elect their own chairman by secret ballot, and elect their representatives to deal with the management in working out agreements dealing with the relationship of employees and employer.
5. Each works will send to each employee on the pay roll on the last day that he was at work a notice to that effect, which will entitle him to be present and vote at the meeting aforesaid.
6. This election to be held under the supervision of the National Labor Board.
7. Any disagreement in interpretation arising will also be settled by the National Labor Board.
8. Both employers and employees agree to accept the decision of the National Labor Board as final and binding.

Since the inception of the National Labor Board manufacturers who have not been approached by the Board's representatives have volunteered to settle disputes along the lines laid down in the Board's early decisions. Local mediation boards have also been established in a number of cities to settle labor disputes in the different cities.

INDUSTRIAL AND LABOR CONDITIONS

International Labor Conference, 1933

THE seventeenth session of the International Labor Conference¹ was held in Geneva, June 30, with 367 delegates and advisers present from 49 countries. A delegation, officially representing the United States, was appointed by the President, the members of which attended the conference as observers. Miss Mary Anderson, the director of the Women's Bureau, headed the delegation. The other three members were Edwin S. Smith, commissioner of labor of Massachusetts, William H. Stead, of the Minnesota Employment Stabilization Institute, and Hugh Frayne, organizer of the American Federation of Labor. These representatives had the privilege of discussion in the plenary sessions and also of discussion in the committees, but had no vote.

The agenda of the conference contained five items: Abolition of fee-charging employment agencies; invalidity, old-age, and widows' and orphans' insurance; unemployment insurance and various forms of relief for the unemployed; methods of providing rest and alternation of shifts in automatic sheet-glass works; and reduction of hours of work.

The rules of the conference provide for a "double discussion" procedure by which an item which is placed on the agenda of any session is presented to the governments so that the final report will be ready for discussion and vote at the next session of the conference. As this was the second discussion on the question of fee-charging employment agencies, a draft convention providing for the abolition of such agencies within 3 years from the date the convention comes into force was proposed and adopted. During this period it is provided that no new fee-charging employment agency conducted with a view to profit may be established, and existing agencies shall be subject to the supervision of the competent authority and shall only charge fees and expenses on a scale approved by the said authority. The convention does not apply to the placing of seamen. A recommendation was also adopted concerning various matters related to the convention, including the adaptation of free public-employment agencies to the needs of occupations relying on fee-charging agencies.

Two draft conventions were adopted providing for compulsory old-age insurance. The first applied to persons employed in industrial or commercial enterprises, in the liberal professions, and to outworkers and domestic servants, and the second to persons engaged in agriculture. Similar draft conventions were adopted providing for invalidity insurance and for compulsory widows' and orphans' insurance for persons employed in the same industries and occupations. A recommendation was adopted outlining certain general principles calculated

¹ International Labor Office. Industrial and Labor Information, Geneva, June 19, July 3 and 10, 1933.

to provide an effective organization of these various forms of insurance and a resolution was passed which provided that the agenda of the 1934 conference should include a first discussion on provisions governing application of such insurance to workers who transfer their residence from one country to another.

The report of the committee on unemployment insurance and various forms of relief for the unemployed outlined the points to be embodied in a questionnaire for the consultation of Governments prior to the second and concluding discussion at the next conference. The questions of providing rest and alternation of shifts in automatic sheet-glass works were also left for consultation with the different Governments and for final decision next year.

It was decided by the conference to place the question of the reduction of hours of work on the agenda of the 1934 conference. It was also agreed that the question was suitable to form the subject of a draft convention or recommendation, and accordingly the points on which the Governments should be consulted in preparation for next year's discussion were decided upon. A resolution was adopted requesting Governments and industrial bodies to suspend the working of overtime and other exceptions to the 48-hour week or to reduce them to a strict minimum.

The conference adopted the report of a committee set up to examine the annual reports supplied by Governments on the application of ratified conventions. Although the report called attention to certain discrepancies of interpretation and defects in application, it stated that the observance of the conventions seems to be increasingly satisfactory.

Resolutions were passed favoring the study of the questions of safety provisions for building workers and of equality of treatment of national and foreign workers with a view to placing these subjects on the agenda of an early session of the conference.

CHILD LABOR

Status of Proposed Federal Child-Labor Amendment

AT THE first session of the Sixty-eighth Congress which was held in 1924, a joint resolution (H.J.Res. No. 184)¹ originated in the House of Representatives proposing a child-labor amendment to the United States Constitution. The resolution was approved in the House on April 26, 1924, and was followed by adoption in the Senate on June 2. Two days later the joint resolution was deposited in the Department of State and was thereupon submitted to the States. Under the Constitution a proposed amendment to the Constitution must be ratified by the legislatures of three fourths of the States before it becomes valid.

The text of the amendment reads as follows:

SECTION 1. The Congress shall have power to limit, regulate, and prohibit the labor of persons under 18 years of age.

SEC. 2. The power of the several States is unimpaired by this article except that the operation of State laws shall be suspended to the extent necessary to give effect to legislation enacted by the Congress.

Eight years prior to the submission of the above amendment, Congress had passed the first Federal child labor law.² The commerce clause of the Constitution was invoked to sustain it before the courts. In a five to four opinion, however, in the case of *Hammer v. Dagenhart* (247 U.S. 251)³, the Supreme Court on June 3, 1918, held that the act was an undue extension of the power to regulate interstate commerce and therefore unconstitutional. The court said "it not only transcends the authority delegated to Congress over commerce but also exerts a power as to a purely local matter to which the Federal authority does not extend."

In 1919, a second child-labor law⁴ was enacted by Congress, providing for a tax of 10 percent on the net profits for the year of any factory, etc., in which children were employed in contravention of the age and hour limits prescribed by the act. On May 15, 1922, the United States Supreme Court, in the case of *Bailey v. Drexel Furniture Co.* (259 U.S. 20)⁵ held this act unconstitutional also, declaring that although the law was a tax law in form, nevertheless it was clearly regulatory in purpose and Congress could not extend its power into the field of social legislation.

The method of amending the Constitution was then resorted to. At the time the amendment was submitted to the States the proposal was rejected by many States, and ratified by a few; other States took no action. At the beginning of 1933 only 6 States had officially

¹ 43 U.S.Stat.L. 670.

² 39 U.S.Stat.L. 675.

³ See U.S. Bureau of Labor Statistics Bul. no. 258, pp. 96-101.

⁴ 40 U.S.Stat.L. 1138.

⁵ See U.S. Bureau of Labor Statistics Bul. no. 344, pp. 60-62.

ratified the amendment (Arizona, Arkansas, California, Colorado, Montana, and Wisconsin).

Under the impetus of the acute unemployment situation, the legislatures of 9 States during 1933 reversed their previous stand on this question, and the following States were added to the list of those States which had already ratified the proposed amendment: Michigan, New Hampshire, New Jersey, North Dakota, Ohio, Oregon, Washington, Illinois, and Oklahoma. As of September 1, 1933, therefore, 15 States had officially ratified the amendment.

Since there is no time limit within which the States are obliged to act on the proposal, it is still possible for other States to change their previous position.

It is of interest to learn that since the passage of the National Industrial Recovery Act⁶ several of the codes of fair competition already approved have specifically provided that no employer in the said industry shall employ any person under the age of 16 years. The cotton-textile code and several other codes later signed by President Roosevelt have such a provision, and it is probable that a similar prohibition will be incorporated in the other codes when they are finally adopted.

At the end of August 1933, 18 codes had been approved. Of this number the lumber industry fixed the minimum age at 18, with certain exceptions, while the coat-and-suit industry prohibited employment of minors under 18 in the manufacturing section of the industry, although permitting employment of minors over 16 years of age in nonmanufacturing work.

Hours of Minors in Unregulated Occupations in Great Britain

IN 1930 the National Advisory Council for Juvenile Employment was asked by the Ministry of Labor to undertake an inquiry into the employment of young persons under the age of 18 in occupations in which the hours of work were not limited by statute. The results of this inquiry have recently been published in a report dated January 13, 1932.⁷

The survey was made by means of a questionnaire addressed to the local juvenile employment committees and juvenile advisory committees of England and Wales. The composition of these local committees is much the same as that of the national committee.

These committees are composed of representatives of education authorities in their areas, of employers and workpeople, of teachers, and of others possessing special knowledge of the social and industrial problems connected with juvenile employment. They are thus in a position to give expert advice regarding any questions relating to juvenile employment in their areas.

⁶ See Monthly Labor Review, July 1933, pp. 74-87.

⁷ Great Britain. Ministry of Labor. National Advisory Council for Juvenile Employment (England and Wales). Fourth report: Hours of employment of boys and girls in "unregulated occupations." London, 1932.

Scope of Inquiry

THE questionnaires were answered by 280 out of a total of 283 local juvenile committees, covering areas which contain about 71 percent of the juvenile population of England and Wales. The replies showed that about 25.7 percent of the boys and 3.6 percent of the girls leaving school enter some one of the unregulated occupations.

The total numbers of boys and girls reported by committees as being employed in the occupations in their areas were 116,046 boys, of whom 71,242 were under 16, and 14,855 girls of whom 8,123 were under 16. The largest groups were, for boys: errand boys (73,264), van boys (14,367), warehouse workers (12,420), and messenger boys (6,887); and for girls, warehouse workers (6,957) and errand girls (4,819). Other occupations included petrol-pump boys and girls, ice-cream sellers, laboratory assistants, golf caddies, bill distributors, assistants in fair grounds and amusement parks, chocolate and program sellers in theaters, newspaper boys and girls, firewood choppers, and billiard markers.

The returns sent in by local committees relating to certain of these occupations include boys and girls employed in connection with shops, but do not distinguish their number. It should be noted that the hours of such boys and girls, or some of them, may be subject to the limit of hours of work fixed by the shops acts, namely, 74 hours per week, inclusive of mealtimes.

Weekly Hours of Work

HOURS were calculated on two bases, the first including intervals for rest and meals, and the second omitting these and giving the net hours of work. For 3,509 juveniles no information was supplied as to the meal and rest intervals, but these constituted only 2.7 percent of the total, so that their omission does not vitiate the general findings. When these intervals are included, the largest group of juveniles, amounting to 32.6 percent of the whole, had a normal week of over 48 to 54 hours; 31.1 percent a week of 54 to 60 hours; 14.2 percent a week of over 60 to 66 hours; 15.1 percent a week of 48 hours or less; and 7 percent a week of over 66 hours. This last group numbered 8,831, of whom 71.4 percent were errand boys, 11.8 percent were van boys, and 2.9 percent were boy sellers of ice cream. A total of 1,207 had a week of over 72 hours. When the mealtimes and rest periods are excluded, 57.1 percent worked 48 hours or less, 26.9 percent over 48 to 54 hours, 11.7 percent over 54 to 60 hours, 3.8 percent over 60 to 66 hours, and 0.5 percent over 66 to 72 hours. Age seemed to have little relation to the length of the hours worked.

The general tendency is for the hours worked by juveniles under the age of 16 to be somewhat less than those worked by juveniles over that age, but there is no very marked disproportion between the two age groups.

The extent to which these hours made attendance at evening classes or clubs difficult or impossible varied according to the kind of work done. None of the boys employed as laboratory assistants had a normal working week of over 60 hours, and only 1.5 percent of this group found their hours a handicap in regard to evening classes. Of the boy ice-cream sellers, on the other hand, 64.9 percent were hindered by their long hours, and so were 52.3 percent of both the errand and the van boys. Of the 130,901 juveniles for whom answers in regard to this point were returned, 45.1 percent were handicapped by their long hours.

No information was received tending to show that any of the occupations covered were definitely injurious to health. In some, particularly such occupations as those of the petrol-pump boys,

warehouse boys and girls, and laboratory assistants, prospects for progressive employment were deemed, on the whole, good, but many others were obviously dead-end occupations.

Recommendations

Two reports were presented, the majority report being signed by the chairman and all the other members of the committee except the representatives of the employers, who brought in a minority report signed by their whole group. The majority report recommends (a) that further steps should be taken to regulate the hours of employment of boys and girls in unregulated employments, and (b) that a maximum working week for boys and girls in unregulated occupations should be fixed by Parliament. In view of the present economic and industrial position of the country, the majority "feel that it is beyond our function to advise as to whether immediate action should be taken on these recommendations." The trade-union representatives on the committee signed the majority report, and added an addendum saying that while they fully concurred in these recommendations, they thought a third recommendation that the maximum working week for minors should be set at 48 hours, should have been included. They also stated that they endorse the recommendations and add their addendum "without any hesitation on account of the existing economic position. We do not believe that the regulation of juvenile employment proposed can have any adverse effect on British industry."

The minority report, signed by the five employers' representatives on the national committee, dissents from the recommendations of the majority committee, and holds that these are based on irrelevant data.

The 127,000 juveniles whose hours and conditions are dealt with in the majority report include 77,000 errand boys and girls, 19,000 warehouse boys and girls, 12,000 van boys and 2,000 petrol-pump boys—a total of 110,000—who, in our view, are for the most part employed in or about wholesale or retail shops or warehouses where their hours are already regulated by the shops acts.

If, then, 110,000 of the group are covered by the shops acts—which, as stated above, limit hours of work for minors to 74 a week—the recommendations of the majority are based mainly on data which have no bearing on "unregulated" occupations, and cannot be considered pertinent to the purposes for which the survey was undertaken.

Moreover, they feel that there is no need for the action recommended by the majority. Comparing the situation shown by this inquiry with that disclosed by a similar survey made in 1913, they feel that conditions "have improved out of all recognition."

That improvement in conditions has been brought about, not by statutory regulations, but by the force of public opinion as exemplified in the many agencies dealing with juvenile questions, and we are therefore convinced that these same forces can safely be left to effect further improvements as and when the necessity for them is shown. * * *

In conclusion we must submit that there is no justification in the majority report for the recommendations which it puts forward, and we would venture to add that any proposal that this country should divert its attention from urgent national issues and embark on legislation of this nature, strikes us with a complete sense of unreality.

INSURANCE AND BENEFIT PLANS

Benefit Payments of International Stereotypers' Union

THE International Stereotypers' Union pays funeral and strike benefits and carries with the Union Labor Life Insurance Co. insurance covering death and permanent disability. Tuberculosis being a special hazard of the trade, the locals of the union jointly support Costello Home, a small tuberculosis sanitarium in a suburb of Denver, which was started about 1902 by the Denver local. During the year ending April 30, 1933, the number of patients at this sanitarium ranged from 11 to 13.

The following table shows the benefits of this organization:

BENEFITS OF INTERNATIONAL STEREOTYPERS AND ELECTROTYPERS' UNION¹

Type of benefit	Year ending—	Amount paid
Insurance:		
Death.....	Dec. 31, 1932	\$46,500.00
Permanent disability.....	do.....	2,500.00
Strike and lockout benefits.....	Apr. 30, 1933	12,731.29
Funeral benefits.....	do.....	26,200.00
Total.....		87,931.29
Cost of operation of Costello Home.....	do.....	² 14,946.07
Grand total.....		102,877.36

¹ Compiled from International Stereotypers' and Electrotypers' Union Journal, issues of July 1932 to July 1933.

² Met by contributions from individual local unions.

These benefits were paid by a membership which numbered 8,116 at the close of 1932. That year, according to the report of the secretary-treasurer, showed a loss of members for the first time in the history of the organization. "The probability is that it won't be the last unless the demand for trained men in our crafts shows marked improvement soon."

This official, reporting on the finances of the union, recommended discontinuance of the insurance and the assumption of this risk by the international union. Combination of the two funds—insurance and funeral—would give the organization a reserve of \$123,334 to start with. A change of policy regarding the payment of strike and lock-out benefits was recommended, the secretary-treasurer pointing out that that fund was the only one showing a deficit. It was intended that such benefits should be paid for 8 weeks only, unless extended by the executive board.

Certainly it never was contemplated that those placed as beneficiaries of this fund should be maintained as such indefinitely. Now it is the rare exception to get anybody off the benefit roll when once placed thereon. It is nothing uncommon now to keep paying benefits from this fund long after the strike or lock-out has ceased to be an active one. The fund is now used in large part as an unemployment benefit and bids fair to become a pension for those who risk their jobs in an endeavor to improve their working conditions. This may be all right and

easily justified if our funds were adequate. I cannot see the merit in recognizing the claim of anybody after the fight is lost, in the judgment of the executive board, to permanent benefits from this fund just because he is out of a job, unless we also wish to recognize the merits of the claims of all those who have lost their jobs through no fault of their own to payment of benefits out of the same fund. The basic idea behind strike and lockout benefits is to support those involved while they prosecute the fight. When the fight is over and the union has lost, the men who lost out are no worse off than scores of others who lose their jobs annually through no fault of their own.

Maybe I am all wrong. However, whether right or wrong, our funds will not stand for any such policy if we have any except sporadic and minor difficulties.

Reduction of Social-Insurance Contributions for Domestic Servants in Germany¹

TWO decrees designed to check the increasing tendency to dismiss domestic servants and to stimulate their employment were promulgated by the German Government. The first decree, issued May 12, 1933, and retroactive to May 1, removed female domestic servants from the coverage of the German unemployment-insurance law. A second decree, issued May 16 and retroactive to May 1, related to invalidity and old-age insurance and provided that henceforth such servants are to be considered in wage group II with weekly contributions of 60 pfennigs (14.3 cents) if the monthly cash wage is less than 50 marks (\$11.90) and in wage group III, with weekly contributions of 90 pfennigs (21.4 cents) if over 50 marks. The practical effect of the second decree is to reduce by about one third the monthly contributions of nearly all domestic servants covered by the invalidity and old-age insurance law.

Legally, servants are obligated to pay one half of contributions in the case of both the unemployment and the invalidity and old-age insurance, but in actual practice the employer generally pays the entire amount. The two decrees are expected to result in a saving to employers of about 7.35 marks (\$1.75) per month per servant, or 89.20 marks (\$21.23) per year.

There are three different kinds of social insurance to which domestic servants are liable. In addition, they are required to pay a special wage tax. The following table gives a typical illustration of the monthly contributions for a servant in Berlin.

CONTRIBUTIONS FOR INSURANCE AND TAXES OF DOMESTIC SERVANTS IN GERMANY BEFORE AND AFTER MAY 1, 1933

[Conversions into United States currency on basis of mark at par=23.8 cents]

Item	Amount of contribution or tax—			
	Prior to May 1, 1933		After May 1, 1933	
	German currency	United States currency	German currency	United States currency
	<i>Marks</i>		<i>Marks</i>	
Unemployment insurance.....	6.05	\$1.44	.....	.....
Invalidity and old-age insurance.....	3.90	.93	2.60	\$0.62
Sickness insurance.....	6.05	1.44	6.05	1.44
Wage tax.....	1.40	.33	1.40	.33
Total.....	17.40	4.14	10.05	2.39
Difference per month per servant.....			7.35	1.75

¹ Report of C. W. Gray, American vice consul at Berlin, May 24, 1933.

Due to the economic crisis, the wages of servants have steadily decreased. On the other hand, the amount of social contributions and taxes paid by the employer for them have increased. The result was that in many cases the total of these payments came to represent 50 percent or more of the cash wage. It was not surprising, therefore, that many employers regarded the contributions for social insurance and the wage tax, all of which have to be paid in cash, as too burdensome and decided upon the dismissal of their servants as the only way out. In this connection the Berlin newspaper "12 Uhr Blatt" of May 20, 1933, reports that in the last 2 months 2,000 of the 12,000 servants registered at the office of the Wilmersdorfer Sickness Insurance Fund in Berlin have been given notice. This newspaper also states that there are now 200,000 unemployed domestic servants in Germany and mentions the fact that the exodus of Jewish families from Germany has also resulted in the dismissal of their servants.

Transfer of Functions of Labor Department and of Social Insurance to Trade Unions in Soviet Union¹

UP TO June 23, 1933, social insurance in the Soviet Union was administered by a central insurance office under the authority of the Commissariat (Department) of Labor. On that date the Soviet Government issued a decree transferring both the functions of the Commissariat of Labor and the entire administration of social insurance to the Soviet trade unions, that is, directly to the industries and trades themselves. As the trade unions² are a part of the Government, which is the principal employer of hired labor in Soviet Russia, this means that the trade unions now represent the interests not only of their members (the wage earners) but also those of the employer (the Soviet State) in the industries and trades.

Social insurance in Soviet Russia had its beginning in Czarist Russia. An employers' liability act covering industrial accidents was enacted as early as 1903, and about a decade later, namely, in 1912, two acts were passed providing for compulsory insurance of wage earners against industrial accidents and diseases. These acts, covering about 3,000,000 wage earners, remained in force up to the 1917 revolution. The sickness insurance act, as amended on July 25, 1917, by the Kerenski Provisional Government, somewhat extended the coverage and enlarged the right of the insured to representation in the administration of the insurance funds.

On October 30, 1917, shortly after its ascendancy to power, the Soviet Government issued a declaration favoring insurance of all wage earners and the urban and rural poorer population against the loss of earning power through sickness, industrial accidents and diseases, disability, old age, maternity, widowhood, loss of parents, and unemployment, at the expense of employers, the minimum benefit in cases of loss of earning ability and unemployment to amount to the full wage. It also favored complete autonomy of the insured in insurance offices.

¹ Data are from *Isvestia* (official daily of the Soviet Government), Moscow, June 24, 1933, p. 2, and July 4, 1933, p. 3; and Soviet Union (U.S.S.R.), Central Social Insurance Administration, *Social Insurance in the Soviet Union*, Moscow, 1928.

² In Soviet terminology, "professional" unions.

The Soviet Government proceeded to amend the existing insurance legislation in accordance with the above declaration, but owing chiefly to the lack of funds was compelled to abandon the insurance system for the time being, replacing it with direct relief during 1919 and 1920.

With the introduction of the "New Economic Policy (Nep)", however, the Soviet Government issued a decree on November 15, 1921, and the Soviet Labor Code in 1922, providing for a new system of social insurance. This system, with certain modifications, has been in operation up to this time. It provided temporary disability, funeral, unemployment, and dependents' benefits, maternity benefits, invalidity and widows' and orphans' pensions, compensation for industrial accidents and occupational diseases, and medical treatment in cases of sickness.³

The administration of the social-insurance system was organized on the territorial or geographical principle. A local fund covered a territory with at least 2,000 insured workers, without consideration of their trade, skill, or occupation. It collected contributions from employers and paid benefits to workers for temporary disability and unemployment. A regional or provincial fund comprised a certain number of local funds, while the regional funds were united in a central fund. The central social insurance bodies in the several Federated Republics were the Main Social Insurance Administrations of the commissariat (department) of labor in each Republic. The central insurance authority for the entire Union was the Central Social Insurance Administration under the Federal Labor Department.

In order to understand the meaning and magnitude of the transfer of social insurance to the trade unions, the following official data are presented.

The members of the trade unions include 17,260,000 wage earners and salaried employees—nearly all the wage workers in the Soviet Union in June 1933. They are all insured. The total budgetary expenditures for social insurance in 1933 were fixed at 4,431,000,000 rubles (\$2,282,000,000),⁴ the principal items of which are as follows.

	<i>Rubles</i>	
Temporary disability and supplementary benefits.....	814, 000, 000	(\$419, 000, 000)
Regular benefits and retraining.....	532, 000, 000	(\$274, 000, 000)
Sanitariums and preventive measures.....	203, 000, 000	(\$105, 000, 000)
Dietary measures.....	35, 000, 000	(\$18, 000, 000)
Medical service and hospitals.....	920, 000, 000	(\$474, 000, 000)
Care for workers' children.....	189, 000, 000	(\$97, 000, 000)
Housing for workers.....	600, 000, 000	(\$309, 000, 000)

The social-insurance system is running 311 rest houses, with 72,000 beds, and 98 sanitariums, including those in resort places, with 19,925 beds. These rest houses and sanitariums are valued at 150,000,000 rubles (\$77,000,000). The capacity of the rest houses is 1,140,000 workers, each with 2 weeks' leave during the year, and that of the sanitariums is 141,330 workers. There are also being built 50 new rest houses, for 16,745 workers, and 29 new sanitariums, for 10,925 workers. The combined cost of this new construction amounts to about 158,000,000 rubles (\$81,000,000).

³ For amount of benefits and pensions see Monthly Labor Review for July 1929, pp. 106-109: "Social Insurance in Russia".

⁴ Conversions into United States currency on basis of ruble at par=51.5 cents.

The farms supplying these rest houses and sanitariums with provisions cover about 41,000 acres and have about 5,000 milk cows, 10,000 hogs, and other smaller farm animals.

Maternity hospitals provide facilities for over 366,000 births, the cost in 1933 amounting to 81,000,000 rubles (\$42,000,000).

The kindergartens provide for about 1,500,000 children at a cost of 48,000,000 rubles (\$25,000,000). The medical service for pre-school children costs about 3,000,000 rubles (\$1,500,000) and the children's milk kitchens about 45,000,000 rubles (\$23,200,000) a year. A supplementary appropriation amounting to 5,196,000 rubles (\$2,700,000) was made for the care of babies and children during harvest time in 1933.

It should be borne in mind that the above expenditures and the manifold activities connected with social insurance in 1933 do not include unemployment insurance. The decree of October 9, 1930, suspended the operation of the public unemployment-insurance system altogether and prescribed that unemployed workers, including those receiving insurance benefits, be immediately dispatched to work in factories or sent back to their villages to work on farms there. For the Soviet Government's efforts to industrialize Russia through the 5-year plan and through the formation of large-scale Soviet and collective farms in rural districts required more workers at that time.

The *Provdá*, official daily of the Communist Party for October 22, 1930, commenting on the decree abolishing unemployment insurance in Soviet Russia stated:

The People's Commissariat of Labor has taken a purely bureaucratic stand on an economic question and instead of organizing a speedy distribution and utilization of labor, has kept on the "dole" hundreds of thousands of the unemployed to whom they have paid out tens of millions of rubles, failing to combat loafers and malingerers.

According to the Soviet authorities it was chiefly the aloofness of the social-insurance system from industries and trades, with all its consequences, that led the Fifth Congress of Trade Unions in Soviet Russia to pass a resolution recognizing "the necessity of reorganization of the entire social-insurance system from bottom to top, rearrangement of its activities, of bringing it closer to shops, factories, and large-scale farms (*sovkozy*), of improvement of the personnel of the system, and of elimination of bureaucracy from the offices of social insurance".

As a first step in the reform of social insurance demanded by the above resolution, offices for payment of benefits were opened in the industrial establishments and in transportation and new construction offices. Up to June 1933, there were 3,500 such pay offices in operation under the direct supervision and control of the works councils. This meant that the insured themselves became a part of the insurance machinery.

As a further step, 11 insurance funds were formed by industries and their branches, replacing territorial funds, and their success led to still further steps in reform, namely, the election of the insurance personnel by the trade unions and the control over budgetary estimates of social insurance by trade unions. At the same time a number of the functions of the Commissariat of Labor, especially in the field of protection of labor, were transferred to the trade unions.

The beneficial results from these partial measures led the Soviet Government to the issuance of the decree of June 23, 1933, transferring

to the trade unions all the functions of the Commissariat of Labor and the entire social insurance system, which as independent offices and institutions therefore ceased to exist.

Commenting on the transfer, N. M. Shvernik, secretary general of the All-Union Central Committee of Trade Unions, observes with regard to the new status of social insurance:

It is necessary to uproot all kinds of bureaucratism and the equality fetish (*uravnilovka*) in social insurance. We have to revise the entire practice of social insurance from the point of view of a preferential provisioning of shock workers and old ranking workers. Main efforts should be directed against fluidity (high turnover) of labor. We have to manipulate the lever of social insurance in the direction of attachment of workers to production and of strongly striking at the floaters (*letuns*), and other disorganizers of production. Guarding the interests of the working class in socialist economy, we should not tolerate a situation in which floaters and loafers are being cared for equally with the shock worker. The trade unions do not stand for that.

The trade unions in Soviet Russia are now responsible for efficiency in production, both quantitatively and qualitatively, and at the same time for the welfare of the workers, performing simultaneously the functions of a department of labor and of social insurance in the Soviet Government.

INDUSTRIAL ACCIDENTS AND SAFETY

Accident Experience in the Iron and Steel Industry to the End of 1932

THE Bureau of Labor Statistics has been collecting data on accidents in the iron and steel industry since 1910 and in some cases the records go as far back as 1907. A review of this period of a quarter of a century reveals some very interesting trends.

Since 1907 a remarkable decline has taken place in accident rates in this industry. In that year 82.06 workers were being killed or injured for every 1,000,000 man-hours worked and 6.9 days' working time was being lost by injured employees for every 1,000 man-hours worked. Since that year the general tendency in both severity and frequency of accidents has been downward, although in occasional years the rates have swerved upward. As the chart on page 567 shows, considerable increases in the frequency of accidents took place from 1911 to 1912, from 1915 to 1917, and from 1927 to 1929. Each of these periods was also characterized by a sharp increase in employment in the industry. A large increase in time loss (indicating a greater severity of accidents) occurred from 1911 to 1913 and from 1915 to 1917, while slight rises were shown from 1921 to 1924, from 1925 to 1926, and from 1928 to 1929.

During the course of the 26-year period covered by the present review the number of accidents per 1,000,000 man-hours worked has been reduced 78 percent (from 82.06 to 18.06), while the time lost through accident, per 1,000 man-hours, has been cut 68.3 percent (from 6.90 to 2.19 days). The year 1932 witnessed the attainment of an all-time low mark as regards frequency of accident in this industry. The lowest point yet recorded for severity of accidents occurred in 1928 when only 2.15 days per 1,000 man-hours worked were lost as a result of accident; the year 1932, while not equaling the record of 1928, was very close to it, with a time loss of 2.19 days per 1,000 hours' exposure.

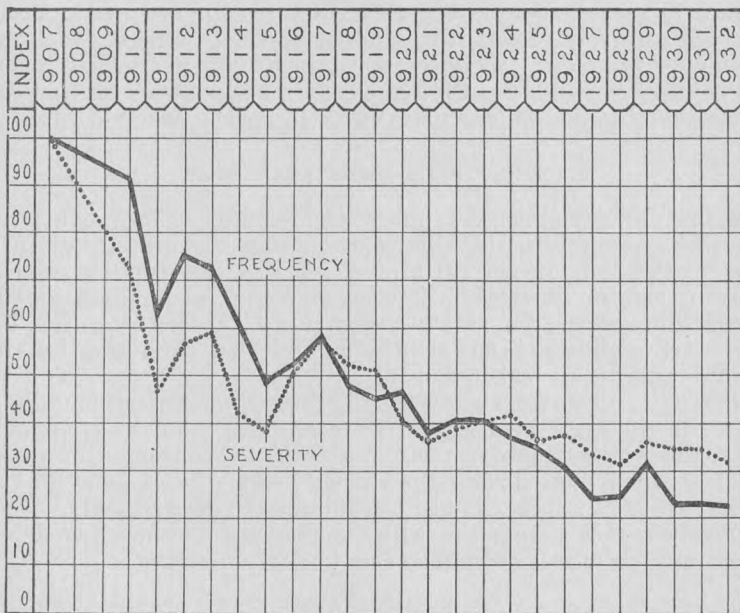
While these changes were taking place in the accident record of the industry as a whole, the trends in the individual departments of the industry were by no means identical, even though generally in the downward direction. As regards the reduction in the frequency of accidents, the best record was shown by the Bessemer converters which reduced their accident rate from 134.09 in 1907 to only 3.25 in 1929 (a year when the rate for the industry rose sharply); although since that time the rate has risen to 11.62 in 1932, the rate for the latter year is still 91.3 percent below the 1907 level. Other remarkable declines in frequency rates have taken place in the plate mills (from 113.64 in 1907 to 11.93 in 1930 and 18.14 in 1932) and in unclassified rolling mills (from 113.74 in 1910 to 17.46 in 1930 and 18.97 in 1932).

A general downward trend, varying in degree, occurred in all but six of the other departments for which data for a series of years are shown. The six exceptions are puddling mills, car wheels, crucible furnaces, electric furnaces, wire springs, and stampings in which the frequency of occurrence of accidents has risen during the period for which statistics have been collected.

The lowest frequency rates in 1932 were in nails and staples (5.13), electrical departments (4.17), and the power houses (4.99).

As regards severity of accidents, all but 10 departments show a reduction in the rates during the period covered. The largest reductions in severity rates occurred in the plate mills, nails and staples,

Trend of Accident Frequency and Severity Rates in the Iron and Steel Industry, 1907 to 1932



docks and ore yards, and power houses, each of which show a fall of about 85 percent, while a decline of over 80 percent took place in the severity of accidents in the yards department. In 1932 there were 7 departments in which the severity rate (time loss) was less than 1 day per 1,000 man-hours worked.

In 1932 the actual number of accidents reported was 43.2 percent smaller than that for 1931 and the working time lost by injured workers was 45.3 percent less. However, as at the same time the volume of employment in this industry (i.e., the exposure on which the rates are calculated) declined 40.8 percent, the decline in the frequency rate

was only from 18.81 to 18.06, and that in the severity rate was only from 2.37 to 2.19 from 1931 to 1932.

Not all of the individual departments of the industry, however, showed decreases in frequency or severity rates. Frequency rates per 1,000,000 hours' exposure were reduced in 17 departments, ranging from 0.26 injuries in blast furnaces to 22.78 in axle works, but increases occurred in 14 other departments, ranging from 0.05 in tube mills to 25.47 in crucible furnaces. Severity rates (time lost per 1,000 hours' exposure) decreased in 19 departments, ranging from 0.16 day in heavy rolling mills to 34.86 in docks and ore yards. The rate for unclassified rolling mills remained as in 1931, but increases took place in 11 other departments, ranging from 0.04 day in the nails and staples department to 10.88 in crucible furnaces.

The above data relate to the industry as a whole and cover all establishments from which information could be obtained, the number varying from year to year, due to the constant attempt to secure data from establishments which have not reported previously.

The second section of this article covers the experience of a group of identical establishments engaged primarily in the production of fabricated products, sheets, wire and its products, tubes, and miscellaneous steel products. These establishments, which constitute about 30 percent of the industry, were pioneers in accident-prevention work and have maintained an energetic effort to reduce accident rates.

Experience in the Industry as a Whole

THE first industrial-accident data assembled on a large scale by the Bureau of Labor Statistics were in connection with a survey in the iron and steel industry in 1910, at which time information was collected, in cases in which records were available, as far back as 1907. Through the cooperation of the industry such information has been continuously collected since then and published from time to time. All tables cover wage earners only.

Frequency and severity rates for the individual departments in the industry in the same year are far from uniform, and the changes for any specified period also show considerable variation. Because of lack of detailed data during the earlier years, the changes in rates from 1907 to 1932 can be determined for only 10 departments. These are shown in table 1, together with the changes for the other departments from the earliest available years to 1932, inclusive.

TABLE 1.—CHANGES IN FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY SINCE THE FIRST YEAR DATA WERE COLLECTED, BY DEPARTMENT AND YEAR

Department and year	Frequency rates (per 1,000,000 hours' exposure)	Severity rates (per 1,000 hours' exposure)	Department and year	Frequency rates (per 1,000,000 hours' exposure)	Severity rates (per 1,000 hours' exposure)
The industry:			Woven wire fence:		
1907	82.06	6.90	1915	65.29	1.72
1932	18.06	2.19	1932	13.42	4.76
Blast furnaces:			Nails and staples:		
1907	101.32	16.03	1915	41.83	3.32
1932	15.39	4.12	1932	5.13	.41
Bessemer converters:			Hot mills:		
1907	134.09	5.35	1923	43.45	1.51
1932	11.62	6.18	1932	12.83	.52
Open-hearth furnaces:			Cold rolling:		
1907	104.45	14.49	1926	38.92	1.21
1932	11.09	3.35	1932	12.49	2.29
Foundries:			Axle works:		
1907	64.96	3.46	1915	38.39	3.39
1932	36.68	2.61	1932	22.49	.45
Bar mills:			Car wheels:		
1915	60.33	1.91	1915	22.28	.98
1932	14.30	2.32	1932	38.10	1.85
Heavy rolling mills:			Docks and ore yards:		
1907	65.26	4.85	1915	26.08	2.41
1932	10.74	1.90	1932	6.14	.34
Plate mills:			Electrical departments:		
1907	113.64	9.08	1910	62.69	4.20
1932	18.14	1.36	1932	4.17	.96
Puddling mills:			Mechanical departments:		
1917	47.07	1.65	1907	84.05	3.96
1932	68.94	2.30	1932	8.66	2.09
Rod mills:			Power houses:		
1915	38.63	1.21	1917	16.40	4.40
1932	16.99	2.81	1932	4.99	.63
Sheet mills:			Yards:		
1907	42.81	4.10	1907	66.72	7.50
1932	13.92	2.12	1932	11.01	1.32
Tube mills:			Crucible furnaces:		
1907	96.32	3.12	1930	39.21	1.18
1932	12.93	1.47	1932	42.30	10.95
Unclassified rolling mills:			Electric furnaces:		
1910	113.74	4.98	1930	35.12	3.07
1932	18.97	1.69	1932	58.64	3.00
Fabricating shops:			Wire springs:		
1907	94.34	9.50	1930	29.91	2.32
1932	29.98	4.07	1932	38.81	3.96
Forge shops:			Stampings:		
1917	80.30	4.40	1930	23.58	2.02
1932	41.20	2.52	1932	31.46	2.52
Wire drawing:			Galvanizing and tinning: 1932	6.23	.75
1910	77.53	4.28	Cold drawing: 1932	26.82	3.99
1932	12.23	2.19	Miscellaneous:		
			1915	75.59	2.50
			1932	14.49	1.91

Further details are given in the three tables following. Table 2 presents the yearly experience for the industry from 1907 to 1932, consisting of the respective number of full-year workers, with the number of accidents, frequency rates, and severity rates, by extent of disability.

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1932, BY YEAR AND EXTENT OF DISABILITY

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

Year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
1907	31,740	73	0.76	4.60	121	1.27	1.43	7,620	80.03	0.87	7,814	82.06	6.90
1910	202,157	327	.54	3.23	848	1.39	1.03	44,108	72.73	.69	45,283	74.66	4.95
1911	231,544	204	.29	1.76	931	1.34	.88	34,676	49.92	.54	35,811	51.55	3.18
1912	300,992	348	.38	2.31	1,241	1.37	.97	54,575	60.44	.65	56,164	62.19	3.93
1913	319,919	426	.44	2.66	1,200	1.25	.77	55,556	57.89	.62	57,182	59.58	4.05
1914	256,299	219	.28	1.71	860	1.12	.74	37,390	48.63	.48	38,469	50.03	2.93
1915	113,773	77	.22	1.35	361	1.06	.79	13,102	38.39	.51	13,540	39.67	2.65
1916	163,440	144	.29	1.76	719	1.47	1.16	20,254	41.30	.62	21,117	43.06	3.54
1917	403,055	485	.40	2.41	1,243	1.03	.92	56,144	46.43	.62	57,872	47.86	3.95
1918	463,806	512	.37	2.21	1,236	.89	.86	53,267	38.28	.52	55,015	39.54	3.59
1919	367,752	402	.36	2.19	831	.75	.76	40,148	36.39	.50	41,381	37.50	3.45
1920	433,428	315	.24	1.45	1,061	.82	.82	48,760	37.50	.51	50,136	38.56	2.78
1921	230,753	149	.21	1.29	519	.75	.69	20,929	30.23	.49	21,597	31.19	2.47
1922	328,760	229	.23	1.39	875	.89	.79	31,784	32.23	.50	32,888	33.35	2.68
1923	424,824	304	.24	1.43	1,167	.92	.87	41,116	32.26	.51	42,587	33.42	2.81
1924	380,923	293	.25	1.51	1,108	.95	.89	33,936	29.19	.49	35,337	30.39	2.89
1925	434,622	264	.20	1.21	1,074	.82	.81	36,074	27.67	.45	37,412	28.69	2.47
1926	424,742	292	.23	1.37	1,175	.92	.81	31,107	24.41	.40	32,574	25.56	2.58
1927	384,774	235	.20	1.22	1,012	.88	.77	21,735	18.83	.31	22,982	19.91	2.30
1928	406,261	212	.17	1.04	976	.80	.75	23,138	18.98	.36	24,326	19.95	2.15
1929	487,879	275	.19	1.13	1,729	1.18	.94	36,096	24.66	.42	38,100	26.03	2.49
1930	396,542	217	.18	1.09	1,172	.98	.94	20,956	17.62	.36	22,345	18.78	2.39
1931	268,220	153	.19	1.14	795	.99	.86	14,190	17.63	.37	15,138	18.81	2.37
1932	158,700	66	.14	.83	490	1.03	.96	8,041	16.89	.40	8,597	18.06	2.19

With the exception of 3 years, the varying size of the working group shown from year to year is due to changing industrial conditions. Only a few firms were able to supply records for 1907; but as conditions in their establishments were practically typical, such data were included because they clearly indicated a still less satisfactory condition than existed in 1910. In 1915 and 1916 it was not possible to secure complete data.

The frequency rate for all injuries declined fairly constantly from 82.06 in 1907 to 19.91 in 1927, rose to 26.03 in 1929, then dropped again, reaching the all-time low level of 18.06 in 1932. The severity rate for all injuries, which was 6.90 in 1907, dropped with some fluctuation to its low point of 2.15 in 1928, advanced to 2.49 in 1929, and then declined gradually to 2.19 in 1932.

Frequency and severity rates for each of the regular departments in the industry, for each year for which separate data were collected, are presented in table 3. Two departments—galvanizing and tinning, and cold drawing—for which separate data were not previously available, are included for 1932. Rates for coke ovens operated in connection with steel works, and for the erection of structural steel by steel-manufacturing plants, which do not properly fall among the regular operations of the iron and steel industry, are also shown.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR

Frequency rates (per 1,000,000 hours' exposure)

Year	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Bar mills	Heavy rolling mills	Plate mills	Puddling mills	Rod mills	Sheet mills	Tube mills	Unclassified rolling mills
1907	101.32	134.09	104.45	64.96		65.26	113.64			42.81	96.32	
1910	87.80	130.24	106.08	53.30		79.18	64.49			61.07	55.83	113.74
1911	52.90	81.93	60.74	50.49		45.47	46.31			41.57	52.01	54.63
1912	60.76	99.06	80.38	66.82		50.35	59.80			58.00	43.40	69.14
1913	51.53	80.75	72.76	72.83		37.68	46.22			48.90	29.49	73.54
1914	50.89	53.39	65.74	66.28		26.81	32.03			47.70	29.74	52.85
1915	31.81	54.53	48.02	30.56	60.33	29.38	20.93		38.63	39.57	9.61	37.47
1916	41.21	73.30	52.03	41.15	87.44	33.41	32.33		36.77	36.81	13.30	39.26
1917	42.47	68.85	51.57	72.90	88.42	30.87	39.03	47.07	49.08	33.96	34.17	51.64
1918	36.45	51.46	52.47	58.11	45.34	33.50	50.88	46.34	37.55	18.46	21.19	36.87
1919	39.59	44.80	47.42	56.77	50.49	33.77	35.87	29.03	26.52	32.77	21.31	40.18
1920	31.19	36.87	37.90	64.19	45.62	27.00	32.94	42.19	31.64	41.90	33.08	45.42
1921	25.98	25.39	28.99	60.82	40.62	18.63	23.87		20.96	36.71	20.04	41.95
1922	30.83	16.95	33.72	61.55	36.06	18.69	32.75		25.46	41.37	23.51	42.73
1923	31.68	21.54	30.26	63.14	38.30	18.59	26.38	58.23	20.67	27.56	18.22	37.09
1924	31.19	19.62	30.44	62.37	33.94	21.42	27.21	65.52	15.91	29.71	18.64	35.03
1925	24.28	9.24	27.25	65.89	25.27	16.31	22.73	51.74	17.77	32.89	15.89	27.57
1926	25.56	14.95	21.12	60.88	17.20	10.58	19.39	44.00	16.74	22.71	16.91	22.44
1927	23.11	6.83	17.27	52.38	31.14	10.05	12.43	38.78	11.78	11.99	15.54	21.54
1928	21.27	7.80	15.25	45.91	61.14	9.01	14.08	40.32	12.78	21.06	14.19	23.87
1929	19.15	3.25	19.08	58.74	20.12	8.88	17.82	34.39	21.12	23.12	18.51	23.99
1930	22.28	9.68	14.37	36.41	31.60	11.53	11.93	47.48	9.33	12.87	16.95	17.46
1931	15.65	8.81	13.37	39.92	14.68	9.38	14.08	80.97	9.01	14.35	12.88	18.16
1932	15.39	11.62	11.09	36.68	14.30	10.74	18.14	68.94	16.99	13.92	12.93	18.97

Year	Fabricating shops	Forge shops	Wire drawing	Woven wire fence	Nails and staples	Hot mills	Cold rolling	Axle works	Car wheels	Docks and ore yards	Electrical departments	Mechanical departments
1907	94.34											84.05
1910	150.92		77.53								62.69	56.34
1911	57.07		66.64								45.43	37.99
1912	80.96		69.81								51.77	64.13
1913	82.11		68.05								43.53	70.96
1914	67.08		52.06								45.12	60.52
1915	42.69		80.33	65.29	41.83			38.39	22.28	28.08	13.61	33.57
1916	49.19		65.33	40.67	41.14			15.23	159.85	35.89	61.36	46.10
1917	60.41	80.30	42.88	28.37	28.84			37.87	66.10	76.48	45.83	53.79
1918	58.60	54.04	27.49	17.85	23.13			87.03	60.38	33.51	35.46	36.03
1919	47.83	40.41	25.10	9.98	10.78			36.08	75.14	42.61	36.10	37.85
1920	54.27	58.41	33.14	16.40	24.25			44.86	47.74	13.19	30.62	37.14
1921	52.19	41.01	20.57	24.96	19.01			17.90	57.36	15.60	21.27	23.63
1922	70.77	53.50	21.51	19.85	18.59			7.48	23.59	15.99	15.96	18.97
1923	60.31	51.89	21.98	26.61	13.61	43.45		12.92	35.78	11.15	17.57	19.44
1924	58.19	84.51	21.76	17.68	14.95	36.93		15.50	43.39	15.68	15.37	20.89
1925	18.98	79.68	23.91	27.65	16.27	40.13		4.59	25.77	7.73	13.21	16.54
1926	17.82	50.27	15.95	21.76	8.42	26.39		()	12.68	1.65	8.59	12.50
1927	7.16	24.11	11.26	13.56	10.51	28.99		38.20	3.49	3.89	6.24	7.77
1928	12.95	16.97	10.24	13.03	6.05	11.60		30.48	56.43	72.07	8.99	15.56
1929	25.91	82.15	5.95	10.54	8.96	10.16		26.45	35.76	72.59	10.68	6.85
1930	28.32	36.03	11.37	4.12	14.93	13.58		20.60	45.27	53.58	5.87	5.74
1931	34.12	26.91	13.17	7.67	5.13	12.83		12.49	22.49	38.10	6.14	8.66
1932	29.98	41.20	12.23	13.42								

1 Included under unclassified.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENT AND YEAR—Continued

Frequency rates (per 1,000,000 hours' exposure)—Continued

Year	Power houses	Yards	Crucible furnaces	Electric furnaces	Wire springs	Stampings	Galvanizing and tinning	Cold drawing	Miscellaneous	Coke ovens ²	Structural-steel erection
1907		66.72							75.59		
1910		44.83							62.35		
1911		51.00							43.03		
1912		60.43							48.75		
1913		52.98							52.50		
1914		43.24							43.09		
1915		37.47							38.34	27.10	110.15
1916		42.32							42.52	24.45	87.04
1917	16.40	40.36							43.03	27.31	135.23
1918	24.60	33.03							37.41	24.73	101.83
1919	18.40	36.07							32.74	24.71	97.20
1920	12.85	26.61							36.43	20.69	116.17
1921	11.23	25.68							29.66	10.86	102.96
1922	11.90	23.72							30.83	10.68	80.71
1923	10.40	29.43							34.18	16.25	89.18
1924	12.56	25.96							26.38	12.35	102.74
1925	15.01	34.32							28.66	7.01	71.14
1926	6.00	17.31							25.80	9.86	84.41
1927	9.08	9.91							21.68	6.98	58.82
1928	3.13	8.83							21.78	5.73	61.74
1929	5.02	11.45							29.35	6.08	67.20
1930	7.99	8.35	39.21	35.12	29.91	23.58			16.74	5.97	63.82
1931	4.63	8.39	16.83	51.78	32.15	37.30			15.63	4.24	108.35
1932	4.99	11.01	42.30	58.64	38.81	31.46	6.23	26.82	14.49	6.42	77.48

Severity rates (per 1,000 hours' exposure)

Year	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Bar mills	Heavy rolling mills	Plate mills	Puddling mills	Rod mills	Sheet mills	Tube mills	Unclassified rolling mills
1907	16.03	5.35	14.49	3.46		4.85	9.08			4.10	3.12	
1910	9.76	10.44	9.77	2.44		6.55	6.58			4.35	1.70	4.98
1911	6.54	4.49	5.37	4.27		3.04	3.88			1.76	1.48	3.32
1912	7.23	5.27	8.29	4.29		4.08	3.62			2.59	2.51	3.33
1913	7.21	7.05	5.81	3.79		3.01	2.91			2.71	2.70	4.13
1914	5.09	4.84	4.50	3.29		3.09	2.62			2.04	2.01	2.49
1915	4.54	3.48	4.18	5.59	1.91				1.21	1.69	1.39	1.79
1916	4.60	9.71	4.22	2.93	4.26	3.19	2.53		2.40	2.00	1.00	2.51
1917	5.78	9.29	6.37	4.74	4.10	4.44	2.55		1.65	4.77	1.91	2.61
1918	6.17	6.27	7.90	3.14	3.50	3.84	2.98		3.20	4.73	1.04	1.61
1919	7.24	5.68	6.80	2.75	1.64	3.88	2.50		.53	3.50	1.10	1.89
1920	3.96	2.32	4.29	2.28	1.20	1.96	2.54		2.41	1.44	2.68	2.09
1921	3.88	3.15	2.35	2.65	1.60	1.25	1.98		2.41	1.03	1.60	1.42
1922	5.13	1.66	3.63	2.67	5.03	2.53	2.05			1.79	2.49	1.60
1923	4.16	2.97	5.18	2.96	1.31	2.11	2.73			2.22	2.19	1.52
1924	5.58	3.78	4.39	3.04	1.68	3.92	2.04		2.40	1.81	1.71	2.11
1925	4.39	4.64	3.72	3.72	2.18	2.99	3.71		3.73	2.71	1.70	1.70
1926	4.55	7.66	6.20	3.26	1.41	2.01	2.52		3.57	2.70	1.19	1.50
1927	4.51	2.32	4.30	2.91	1.71	2.45	1.89		.88	1.24	.83	1.59
1928	3.38	2.07	3.51	1.86	4.64	1.55	1.51		2.90	2.10	1.77	1.27
1929	2.57	2.92	4.41	3.18	1.66	2.18	2.62		.50	3.99	1.82	1.80
1930	4.99	3.41	3.58	3.04	2.41	2.20	2.55		1.44	3.43	1.33	1.72
1931	3.42	1.99	3.69	3.19	2.74	2.06	1.75		3.31	3.03	1.81	1.89
1932	4.12	6.18	3.35	2.61	2.32	1.90	1.36		2.30	2.81	2.12	1.47

² Only those operated in connection with steel works.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY BY DEPARTMENT AND YEAR—Continued

Severity rates (per 1,000 hours' exposure)—Continued

Year	Fabricating shops	Forge shops	Wire drawing	Woven wire fence	Nails and staples	Hot mills	Cold rolling	Axle works	Car wheels	Docks and ore yards	Electrical departments	Mechanical departments
1907	9.50											3.96
1910	5.41		4.28								4.20	3.69
1911	2.37		3.23								3.61	3.29
1912	3.87		3.78								5.33	3.79
1913	3.79		2.73								8.71	4.87
1914	2.92		2.18								8.41	3.71
1915	2.90		3.50	1.72	3.32			3.39	0.98	2.41	3.61	2.09
1916	4.39		4.32	3.39	2.39			.13	8.52	33.59	8.51	3.20
1917	3.08	4.40	1.09	2.49	3.29			.88	5.91	13.03	9.30	4.40
1918	2.58	3.02	2.21	1.21	1.42			5.01	1.69	5.98	5.69	3.28
1919	1.45	2.72	1.41	2.29	.62			.71	3.22	10.88	7.01	3.41
1920	3.30	1.51	2.50	3.10	.93			.69	1.51	8.30	2.71	2.61
1921	2.10	3.89	2.70	1.19	1.98			8.78	4.83	.53	2.23	3.38
1922	3.28	5.19	2.13	1.11	2.41			.12	.63	30.08	2.80	2.65
1923	2.19	2.61	1.91	1.94	1.67	1.51		.08	2.80	4.12	3.00	3.31
1924	2.21	2.71	2.10	1.51	1.22	1.41		4.26	2.91	14.71	4.20	2.72
1925	1.69	3.31	1.89	.58	1.81	2.31		.12	1.91	10.63	3.90	2.71
1926	2.28	1.09	1.59	.79	.34	4.77	1.21	6.00	2.00	2.89	3.19	2.51
1927	1.12	2.79	2.01	1.12	.19	1.01	2.19	(1)	3.92	3.54	4.39	2.10
1928	1.45	1.89	2.08	2.31	2.92	.90	1.90	.81	3.50	2.01	4.21	2.20
1929	3.30	4.59	1.99	.72	.11	.81	2.88	1.21	2.81	5.91	3.93	2.71
1930	2.87	2.68	1.73	2.24	.34	1.01	2.72	1.27	3.19	8.60	2.80	2.76
1931	2.17	2.45	3.33	.32	.37	1.39	3.40	1.86	5.37	35.20	4.15	3.02
1932	4.07	2.52	2.19	4.76	.41	.52	2.29	.45	1.85	.34	.56	2.09

Year	Power houses	Yards	Crucible furnaces	Electric furnaces	Wire springs	Stampings	Galvanizing and tinning	Cold drawing	Miscellaneous	Coke ovens ²	Structural-steel erection
1907		7.50									
1910		6.52									
1911		5.00									
1912		6.28									
1913		6.41									
1914		4.52									
1915		1.42									
1916		5.90							2.50	3.31	25.41
1917	4.40	6.87							3.52	5.50	23.20
1918	5.81	5.81							3.00	8.71	26.97
1919	5.71	7.42							2.99	5.39	19.61
1920	1.93	3.39							2.58	3.70	15.49
1921	1.93	4.46							2.70	2.41	25.00
1922	.92	4.77							2.35	1.20	20.26
1923	3.44	5.19							2.18	1.01	22.08
1924	2.99	3.80							2.48	3.00	9.39
1925	2.00	5.30							2.76	3.41	25.10
1926	2.22	4.89							1.79	2.18	22.40
1927	.32	3.90							2.01	4.41	32.01
1928	.70	2.99							2.11	2.09	9.50
1929	.49	2.71							2.13	2.11	27.58
1930	.38	3.27	1.18	3.07	2.32	2.02			2.19	2.34	25.61
1931	1.42	3.64	.07	.90	.91	3.32			1.75	3.01	17.89
1932	.63	1.32	10.95	3.00	3.96	2.52	0.75	3.99	1.66	2.78	31.25
									1.91	2.85	22.50

¹ Included under unclassified.² Only those operated in connection with steel works.

Frequency rates were lower in 1932 than in 1931 in 17 departments and in structural-steel erection, with decreases ranging from 1.7 percent for blast furnaces to 65.6 percent for nails and staples, and higher in 14 departments and in coke ovens, with increases ranging from 0.4 percent for tube mills to 151.3 percent for crucible furnaces.

Severity rates were lower in 1932 than in 1931 in 19 departments and in structural-steel erection, with decreases ranging from 7.3 per-

cent for rod mills to 99 percent for docks and ore yards, and higher in 11 departments and coke ovens, with increases ranging from 2.5 percent for coke ovens to 15,542.9 percent for crucible furnaces. The severity rate for unclassified rolling mills in 1932 was the same as in 1931. The seemingly extraordinary percentage increase for crucible furnaces was caused by a decided drop in man-hour exposure (from 534,740 in 1931 to 189,098 in 1932), combined with the occurrence in 1932 of four accidents resulting in permanent disability, while in 1931 only temporary injuries were sustained.

It should be noted that percentage increases or decreases do not give any idea of the relations of the departments to each other; to obtain an idea of these, the rates in the tables must be compared, because they represent the actual conditions existing.

TABLE 4.—ACCIDENT RATES FOR THE IRON AND STEEL INDUSTRY AND FOR SPECIFIED IMPORTANT DEPARTMENTS, BY 5-YEAR PERIODS

Frequency rates (per 1,000,000 hours' exposure)

Period	The industry	Blast furnaces	Bessemer converters	Open-hearth furnaces	Foundries	Heavy rolling mills	Plate mills	Sheet mills
1907-11	69.2	70.69	104.88	83.12	53.17	61.31	69.71	47.92
1908-12	65.1	56.21	101.20	80.52	58.74	56.51	91.08	51.83
1909-13	62.1	61.48	95.70	76.57	63.14	50.98	55.90	51.34
1910-14	59.22	59.16	89.79	76.42	63.59	46.02	49.94	51.02
1911-15	54.85	51.97	77.71	69.28	65.21	39.41	44.66	48.07
1912-16	53.84	50.35	76.13	68.16	67.69	37.26	41.54	47.37
1913-17	49.92	45.63	68.27	60.11	70.12	32.14	36.61	41.32
1914-18	44.28	41.24	60.43	54.05	64.74	31.13	39.81	35.81
1915-19	41.66	38.96	57.66	50.56	62.31	33.95	39.25	32.72
1916-20	41.04	37.72	53.11	47.35	63.18	31.41	38.43	33.72
1917-21	39.67	35.54	46.94	44.85	63.11	29.87	37.58	33.43
1918-22	36.73	34.03	36.98	41.56	60.44	27.63	36.68	35.21
1919-23	35.21	32.74	30.53	36.33	61.76	24.24	31.44	35.75
1920-24	33.83	30.61	24.90	32.82	62.72	21.48	29.33	34.83
1921-25	31.45	28.99	18.32	30.14	63.12	18.61	26.77	33.03
1922-26	30.74	28.65	16.74	28.43	62.79	17.06	25.59	30.40
1923-27	27.79	27.37	14.96	25.57	61.19	15.15	21.33	25.29
1924-28	25.04	25.23	11.97	22.32	57.82	13.05	18.49	23.93
1925-29	24.22	22.80	8.66	20.06	57.19	10.81	16.91	22.82
1926-30	22.27	22.38	8.71	17.57	51.02	9.94	15.28	19.39
1927-31	21.08	20.84	7.06	16.24	47.50	9.76	14.35	18.15
1928-32	21.06	19.77	7.42	15.62	45.78	9.78	15.11	18.58

Severity rates (per 1,000 hours' exposure)

1907-11	5.0	8.55	7.54	7.47	3.16	4.60	5.11	2.83
1908-12	4.3	7.88	6.86	7.32	3.51	4.32	6.18	2.72
1909-13	4.4	7.67	6.74	6.98	3.71	4.01	3.90	2.75
1910-14	3.79	7.04	6.43	6.68	3.65	3.78	3.78	2.58
1911-15	3.49	6.37	5.30	5.98	3.86	3.42	3.14	2.21
1912-16	3.57	6.10	6.18	5.83	3.76	3.46	2.85	2.27
1913-17	3.60	5.75	7.15	5.39	4.01	3.61	2.59	2.10
1914-18	3.49	5.53	6.96	6.14	3.74	3.82	2.61	1.78
1915-19	3.58	6.03	7.01	6.56	3.56	4.14	2.57	1.60
1916-20	3.45	5.67	6.28	6.09	3.23	3.47	2.59	1.82
1917-21	3.32	5.48	5.42	5.82	3.17	3.28	2.53	1.75
1918-22	3.07	5.49	3.95	5.33	2.69	2.85	2.47	1.88
1919-23	2.87	4.98	3.25	4.67	2.66	2.45	2.44	2.09
1920-24	2.76	4.50	2.74	4.16	2.74	2.37	2.35	2.16
1921-25	2.69	4.64	3.24	4.03	3.08	2.64	2.53	1.95
1922-26	2.74	4.72	4.05	4.66	3.16	2.68	2.60	1.82
1923-27	2.62	4.62	4.20	4.78	3.18	2.65	2.54	1.50
1924-28	2.49	4.51	4.18	4.42	2.98	2.51	2.25	1.43
1925-29	2.41	3.92	4.05	4.43	3.02	2.22	2.39	1.48
1926-30	2.39	3.96	3.79	4.43	2.90	2.08	2.23	1.42
1927-31	2.35	3.74	2.60	3.93	2.86	2.09	2.12	1.51
1928-32	2.34	3.53	2.92	3.80	2.82	1.99	2.11	1.73

While the exposure for the individual years is of considerable volume, it is naturally affected by local and temporary conditions, such as a catastrophic occurrence. A more satisfactory picture of the trend in accident rates, therefore, is presented by combining exposures and accidents for several years. Table 4, which shows a 5-year moving average for the industry as a whole and for specified important departments, from 1907 to 1932, affords a comparison of the relation between these departments and the industry.

Comparison of the first period, 1907-11, with that of 1928-32 shows that the industry as a whole and all of the specified departments except foundries present a notable reduction in frequency rates. Practically continuous decreases were shown by the industry as a whole and by all the departments covered, except foundries. Foundries show a relatively low rate for the early period (53.17), but the rate advanced during the next six periods and reached 70.12 in 1913-17. While it declined again the decrease did not keep pace with that of other departments, and the 1932 rate was more than double the average rate for the entire industry.

Severity rates declined from 1907-11 to 1928-32 in the industry as a whole, and also in all of the specified departments.

The period 1928-32, as compared with the period 1927-31 shows decreases in frequency rates for the industry as a whole and for 3 departments, but increases for the other 4 departments, and decreases in severity rates for the industry as a whole and for 5 departments, but increases for the other 2 departments.

Experience of the Industry, by States, 1922 to 1932

Accident frequency and severity rates in the iron and steel industry by individual States, from 1922 to 1932 for 18 States and from 1926 to 1932 for 6 other States, are presented in table 5. Several States were previously omitted, to avoid identification of establishments or because the exposure was less than 1,000 full-year workers. The available data for 1931 and 1932 for these States have been grouped and are here shown combined under "Miscellaneous."

A downward trend in frequency rates is shown by all but two of the States, while severity rates show a reduction in the majority of the States. The declining tendency is more pronounced in those States in which accident-prevention activities have been most extensive and of longest duration. Operations in the industry are, however, not uniform in the various States, and in some States the more hazardous operations predominate.

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1932, BY STATE AND YEAR

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Alabama:													
1922	10,998	10	0.30	1.82	51	1.55	1.17	1,163	35.25	0.48	1,224	37.10	3.47
1923	11,915	7	0.20	1.18	78	2.18	1.77	1,348	37.71	.87	1,433	40.09	3.82
1924	13,705	16	.39	2.33	41	1.00	1.06	1,127	27.41	.62	1,184	28.80	4.01
1925	15,244	14	.31	1.84	46	1.00	1.37	508	11.11	.19	568	12.42	3.40
1926	19,887	30	.50	3.02	130	2.18	1.56	1,370	22.95	.39	1,530	25.63	4.97
1927	14,493	12	.28	1.66	77	1.77	1.43	809	18.61	.36	898	20.66	3.45
1928	13,258	16	.40	2.41	76	1.91	1.63	954	23.98	.63	1,046	26.29	4.67
1929	16,162	11	.23	1.36	93	1.92	1.43	1,395	28.76	.45	1,499	30.91	3.24
1930	15,073	12	.27	1.59	89	1.97	2.03	1,246	27.55	.61	1,347	29.79	4.23
1931	10,470	9	.29	1.72	54	1.72	1.79	635	20.21	.39	698	22.22	3.90
1932	5,688	3	.18	1.06	19	1.11	.78	294	17.23	.42	316	18.52	2.26
California:													
1922	4,013	3	.25	1.50	35	2.91	2.63	711	59.05	.80	749	62.21	4.93
1923	3,113	3	.32	1.93	11	1.18	1.19	597	63.92	.75	611	65.42	3.87
1924	2,901	2	.23	1.38	16	1.84	1.43	522	59.97	1.34	540	62.04	4.15
1925	3,018	1	.11	.66	10	1.11	1.56	278	30.70	.71	289	31.92	2.93
1926	2,908	0	-----	-----	16	1.89	2.09	825	95.93	1.20	841	97.82	3.29
1927	1,370	0	-----	-----	4	.97	1.02	225	54.76	.91	229	55.73	1.99
1928	4,660	1	.07	.43	14	1.00	1.07	1,209	86.48	1.14	1,227	87.55	2.64
1929	6,360	7	.37	2.20	39	2.04	2.03	1,221	63.99	1.07	1,267	66.40	5.30
1930	5,351	3	.19	1.12	12	.75	.76	695	41.42	.54	680	42.36	2.42
1931	4,018	2	.17	.99	12	.99	.90	348	28.87	.48	362	30.03	3.37
1932	2,466	2	.27	1.62	9	1.22	1.56	192	25.95	.58	203	27.44	3.76
Colorado:													
1922	3,351	3	.20	1.79	2	.20	.27	367	36.51	.36	372	37.01	2.42
1923	4,164	7	.56	3.36	13	1.04	1.22	462	36.98	.76	482	38.58	5.34
1924	4,269	6	.47	2.81	22	2.12	1.52	452	35.29	.63	480	37.48	4.96
1925	4,243	3	.24	1.41	14	1.10	.93	592	46.50	.78	609	47.84	3.12
1926	4,507	2	.15	.89	13	.96	1.15	668	49.48	.71	683	50.59	2.75
1927	4,074	6	.49	2.95	27	2.21	1.75	474	38.78	.51	507	41.48	5.21
1928	3,439	2	.19	1.16	16	1.55	1.80	502	48.66	.61	520	50.40	3.57
1929	4,764	3	.21	1.26	32	2.24	2.64	506	35.40	.57	541	37.85	4.47
1930	3,283	4	.41	2.44	9	.91	.96	263	26.69	.50	276	28.01	3.90
1931	2,071	2	.32	1.93	6	.97	1.19	137	22.04	.44	145	23.33	3.56
1932	968	0	-----	-----	3	1.03	.48	45	15.50	.27	48	16.53	.75
Connecticut:													
1922	3,778	3	.26	1.59	22	1.94	1.38	510	44.99	.67	535	47.19	3.64
1923	5,307	5	.31	1.88	34	2.14	1.58	446	28.01	.27	485	30.46	3.73
1924	5,639	6	.35	2.13	40	2.36	1.31	522	30.85	.43	568	33.56	3.87
1925	7,263	5	.23	1.38	49	2.24	.28	778	35.72	.35	832	38.19	2.01
1926	2,908	1	.13	.68	47	5.40	2.47	366	42.07	.72	414	47.60	3.87
1927	4,458	1	.07	.44	27	1.97	1.58	276	20.09	.34	304	22.13	2.36
1928	5,997	1	.06	.35	15	.88	.74	402	23.48	.28	418	24.42	1.37
1929	7,579	0	-----	-----	46	2.02	1.63	449	19.75	.30	495	21.77	1.93
1930	5,039	1	.07	.40	27	1.78	1.03	315	20.84	.37	343	22.69	1.80
1931	7,938	1	.04	.25	25	1.05	.69	217	9.11	.16	243	10.20	1.10
1932	3,840	1	.09	.52	13	1.13	.93	136	11.80	.29	150	13.02	1.74
Georgia:													
1926	125	1	2.67	16.00	1	2.67	.80	58	154.66	1.43	60	160.00	18.23
1929	1,106	2	.60	3.62	5	1.51	1.57	99	29.84	.43	106	31.95	5.62
1930	946	0	-----	-----	3	1.06	1.05	27	9.51	.19	30	10.57	1.24
1931	478	0	-----	-----	0	-----	-----	14	9.75	.24	14	9.75	.24
1932	40	0	-----	-----	0	-----	-----	15	125.73	.44	15	125.73	.44
Illinois:													
1922	23,926	16	.22	1.34	95	1.32	1.00	2,370	33.02	.44	2,481	34.56	2.78
1923	40,097	39	.32	1.95	171	1.42	1.63	3,753	31.20	.55	3,963	32.94	4.13
1924	38,147	21	.18	1.13	126	1.12	.98	2,934	25.63	.21	3,081	26.93	2.32
1925	35,810	20	.19	1.12	120	1.12	1.32	2,551	23.75	.36	2,691	25.06	2.80
1926	37,574	25	.22	1.33	114	1.01	.82	2,916	25.87	.38	3,055	27.10	2.53
1927	49,576	20	.13	.81	124	.83	.76	1,611	10.83	.19	1,755	11.79	1.76
1928	30,171	14	.15	.93	132	1.46	1.47	1,761	19.46	.42	1,907	21.07	2.82
1929	47,548	16	.11	.67	226	1.58	1.48	3,453	24.21	.35	3,695	25.90	2.50
1930	40,819	28	.23	1.37	209	1.71	1.76	2,194	17.92	.35	2,431	19.86	3.48
1931	21,499	12	.19	1.12	79	1.22	1.16	1,005	15.58	.30	1,096	16.99	2.58
1932	12,550	2	.05	.32	64	1.70	1.74	551	14.63	.28	617	16.38	2.34
Indiana:													
1922	36,683	18	.16	.98	113	1.03	.95	2,200	20.00	.27	2,331	21.19	2.20
1923	22,887	12	.17	1.05	67	.98	.86	1,746	25.43	.33	1,825	26.58	2.24
1924	34,846	30	.29	1.72	69	.66	.75	1,591	15.22	.28	1,690	16.17	2.75
1925	32,743	25	.25	1.53	86	.88	.73	2,110	21.48	.31	2,221	22.61	2.57
1926	38,735	42	.36	2.17	133	1.14	.88	1,405	12.09	.22	1,580	13.59	3.37
1927	43,120	13	.10	.60	92	.71	.58	1,302	10.07	.19	1,407	10.88	1.37

INDUSTRIAL ACCIDENTS AND SAFETY

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1932, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death		Permanent disability			Temporary disability			Total			
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Indiana—Con.													
1928	31,921	13	0.14	0.81	109	1.14	0.89	913	9.53	0.18	1,035	10.81	1.88
1929	45,384	28	.21	1.23	152	1.11	.84	1,777	13.05	.25	1,957	14.37	2.32
1930	38,485	9	.08	.47	84	.73	.59	1,075	9.31	.18	1,168	10.12	1.24
1931	22,373	7	1.10	.63	72	1.07	1.05	740	11.03	.25	819	12.20	1.93
1932	13,972	8	.19	1.15	41	.98	1.19	424	10.11	.23	473	11.28	2.57
Iowa:													
1926	563	0	-----	-----	3	1.77	.53	179	105.88	1.09	182	107.65	1.62
1927	424	0	-----	-----	1	.78	.24	230	130.71	1.73	231	181.49	1.97
1928	438	0	-----	-----	5	3.80	2.40	129	98.14	1.08	134	101.94	3.48
1929	1,157	0	-----	-----	2	.57	.35	329	94.82	1.01	331	95.39	1.36
1930	706	1	.47	2.83	3	1.42	1.98	134	63.22	.76	138	65.11	5.57
1931	604	0	-----	-----	2	1.10	.83	189	104.31	1.13	191	105.41	1.96
1932	327	0	-----	-----	2	2.04	.92	103	105.10	1.27	105	107.14	2.19
Kentucky:													
1922	1,396	2	.48	2.87	10	2.39	1.43	477	113.89	1.82	489	116.76	6.12
1923	2,601	5	.64	3.84	18	2.31	4.31	899	115.22	.87	922	118.17	9.02
1924	1,734	1	.19	1.15	9	1.73	1.58	144	27.68	.39	154	29.60	3.12
1925	2,550	13	1.70	10.20	15	1.96	1.83	193	25.23	.39	221	28.89	12.42
1926	3,744	3	.26	1.60	30	2.67	2.57	273	24.37	.25	306	27.30	4.42
1927	4,450	5	.37	2.25	26	1.95	1.62	295	22.10	.35	326	24.42	4.22
1928	4,909	5	.34	2.04	30	2.04	3.10	276	18.74	.28	311	21.12	5.42
1929	5,264	4	.25	1.52	22	1.39	1.49	340	21.53	.34	366	23.17	3.35
1930	3,154	1	.11	.63	7	.74	.68	138	14.57	.22	146	15.42	1.53
1931	2,100	0	-----	-----	4	.64	.29	88	13.97	.18	92	14.61	.47
1932	1,727	1	.19	1.16	5	.96	1.55	67	12.93	.30	73	14.08	3.01
Maryland:													
1926	1,400	0	-----	-----	7	1.67	1.07	425	101.19	1.34	432	102.86	2.41
1927	10,973	18	.55	3.28	15	.46	.52	1,080	32.81	.58	1,113	33.82	4.38
1928	12,149	8	.22	1.32	17	.47	.85	770	21.13	.38	795	21.82	2.55
1929	12,424	16	.43	2.57	40	1.07	1.33	718	19.26	.39	774	20.76	4.36
1930	11,360	10	.29	1.76	67	1.97	1.54	441	12.94	.37	518	15.20	3.67
1931	8,501	4	.16	.94	21	.82	.78	406	15.92	.34	431	16.90	2.06
1932	4,495	2	.15	.37	5	.37	.13	161	11.94	.41	168	12.46	1.43
Massachusetts:													
1922	5,610	7	.41	2.48	29	1.72	1.64	337	20.03	.53	373	22.16	4.65
1923	5,018	4	.27	1.59	26	1.73	1.08	230	15.28	.57	260	17.28	3.24
1924	7,580	3	.13	.79	22	.97	1.55	246	10.82	.29	271	11.92	2.63
1925	6,645	1	.05	.30	7	.35	.33	126	6.32	.21	134	6.72	.84
1926	7,150	5	.23	1.42	18	.83	.78	247	11.48	.32	270	12.54	2.52
1927	7,230	5	.23	1.38	13	.60	.63	229	10.56	.27	247	11.39	2.28
1928	6,723	2	.10	.59	21	1.04	.81	171	8.47	.22	194	9.61	1.62
1929	8,940	3	.08	.49	38	1.03	.65	623	16.91	.40	664	18.02	1.54
1930	7,267	5	.23	1.38	23	1.05	.61	330	15.13	.39	358	16.41	2.38
1931	5,394	2	.12	.74	17	1.05	.77	284	17.55	.43	303	18.72	1.94
1932	4,116	2	.16	.97	13	1.05	.86	137	11.10	.36	152	12.31	2.19
Michigan:													
1922	3,928	6	.51	3.05	16	1.36	1.29	916	77.73	.86	938	79.60	5.20
1923	4,399	11	.83	5.00	19	1.44	1.05	984	74.57	.93	1,014	76.84	6.98
1924	2,457	4	.54	3.29	14	1.90	3.56	583	79.11	.90	601	81.55	7.72
1925	4,869	4	.27	1.64	8	.56	.70	1,093	74.83	.92	1,105	75.66	3.26
1926	5,643	3	.18	1.06	16	.95	.67	1,086	64.15	.89	1,105	65.28	2.62
1927	3,489	2	.19	1.15	10	.96	.51	620	59.23	.79	632	60.38	2.45
1928	3,124	2	.21	1.28	3	.32	1.4	758	80.87	.96	763	81.40	2.38
1929	8,683	7	.27	1.61	56	2.15	1.28	1,805	69.27	.85	1,868	71.69	3.74
1930	5,724	1	.06	.35	29	1.69	1.77	896	52.17	.67	926	53.92	2.79
1931	6,107	5	.27	1.64	24	1.31	.68	762	41.59	.59	791	43.17	2.91
1932	3,490	1	.10	.57	22	2.10	1.59	459	43.84	.69	482	46.04	2.85
Minnesota:													
1926	444	0	-----	-----	0	-----	-----	4	3.00	.03	4	3.00	.03
1927	472	2	1.41	8.47	0	-----	-----	16	11.30	.37	18	12.71	8.84
1928	1,283	2	.52	3.12	4	1.04	1.14	250	64.92	.80	256	66.48	5.06
1929	1,906	2	.35	2.10	10	1.75	.77	300	52.47	.56	312	54.57	3.43
1930	905	0	-----	-----	9	3.32	1.36	168	61.91	.88	177	65.23	2.24
1931	1,187	0	-----	-----	8	2.25	.76	124	34.83	.41	132	37.08	1.17
1932	408	0	-----	-----	3	2.45	4.66	52	42.51	1.10	55	44.96	5.76
Missouri:													
1922	4,676	6	.43	2.57	12	.86	1.01	1,632	116.35	1.41	1,650	117.64	4.99
1923	4,255	0	-----	-----	4	.31	.33	903	70.74	.84	907	71.05	1.17
1924	1,284	1	.26	1.56	8	2.08	1.78	266	69.06	.76	275	71.40	4.10
1925	3,662	1	.09	.55	2	.18	.19	294	26.76	.34	297	27.03	1.08
1926	3,215	3	.31	1.86	6	.61	.68	443	46.14	.54	452	47.06	3.08
1927	2,913	1	.11	.69	3	.34	.19	268	30.67	.56	272	31.12	1.44
1928	2,934	1	.11	.68	2	.23	.10	141	16.02	.35	144	16.36	1.13
1929	4,367	5	.38	2.29	27	2.06	2.00	915	69.84	1.00	947	72.28	5.29

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1932, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Missouri—Con.													
1930	3,250	2	0.20	1.23	15	1.54	1.74	456	46.77	0.69	473	48.51	3.66
1931	2,695	1	.12	.74	15	1.86	1.41	366	45.27	.64	382	47.25	2.79
1932	1,302	0			5	1.28	.50	262	67.06	.91	267	68.34	1.41
New Jersey:													
1922	6,597	1	.05	.30	37	1.87	1.20	625	31.58	.55	663	33.50	2.05
1923	7,341	0			47	2.13	2.17	780	35.42	.57	827	37.55	2.74
1924	7,175	0			47	2.18	2.69	772	35.87	.70	819	38.05	3.39
1925	6,923	4	.19	1.16	31	1.49	1.46	769	37.03	.59	804	38.71	3.21
1926	7,896	4	.16	1.01	30	1.26	.92	568	23.96	.37	602	25.38	2.30
1927	7,420	6	.27	1.62	42	1.89	1.68	331	14.87	.30	379	17.03	3.30
1928	7,538	1	.04	.27	43	2.12	1.31	387	17.11	.30	436	19.27	1.88
1929	9,403	1	.04	.21	74	2.62	2.20	1,002	35.51	.59	1,077	38.17	3.00
1930	9,177	3	.11	.65	32	1.16	2.38	428	15.54	.33	463	16.81	3.26
1931	4,933	0			25	1.69	2.09	294	19.86	.39	319	21.55	2.48
1932	3,384	1	.10	.59	30	2.95	3.33	183	18.03	.49	214	21.08	4.41
New York:													
1922	8,446	11	.44	2.60	47	1.85	1.82	1,625	64.13	.99	1,683	66.42	5.41
1923	11,377	9	.26	1.58	65	1.90	1.84	2,141	62.73	.73	2,215	64.89	4.15
1924	6,903	5	.24	1.45	51	2.46	2.03	1,107	53.46	.94	1,163	56.16	4.42
1925	10,372	7	.22	1.35	66	2.12	2.35	2,725	87.58	.89	2,798	89.92	4.59
1926	9,442	7	.24	1.48	43	1.51	.90	1,821	64.34	.95	1,871	66.09	3.33
1927	8,785	5	.19	1.14	45	1.71	1.32	884	33.54	.73	934	35.44	3.19
1928	16,531	14	.28	1.69	57	1.15	1.11	1,250	25.20	.60	1,321	26.63	3.40
1929	17,963	6	.11	.67	84	1.56	1.36	1,553	28.82	.49	1,643	30.49	2.52
1930	16,456	25	.51	3.04	95	1.92	1.73	1,288	26.09	.77	1,408	28.52	5.54
1931	11,497	9	.26	1.57	66	1.91	1.22	675	19.57	.47	750	21.74	3.26
1932	6,939	5	.24	1.44	35	1.68	1.58	377	18.11	.47	417	20.03	3.49
Ohio:													
1922	51,424	42	.27	1.63	125	.81	.66	5,268	34.15	.48	5,435	35.23	2.77
1923	77,979	39	.17	1.00	201	.86	.87	5,763	24.63	.39	6,003	25.66	2.26
1924	75,282	57	.25	1.54	181	.80	.98	5,223	23.13	.36	5,461	24.18	2.88
1925	86,820	33	.13	.76	150	.58	.53	5,059	19.42	.25	5,242	20.13	1.54
1926	92,678	48	.17	1.03	172	.62	.44	5,630	20.25	.24	5,850	21.04	1.71
1927	91,377	37	.13	.81	190	.69	.58	5,313	19.38	.32	5,540	20.20	1.71
1928	65,955	53	.27	1.61	181	.91	.78	5,066	25.60	.46	5,300	26.78	2.85
1929	96,360	40	.13	.83	230	.80	.69	4,972	17.20	.27	5,242	18.13	1.79
1930	66,489	26	.13	.78	144	.72	.60	3,200	16.04	.35	3,370	16.89	1.73
1931	52,132	37	.24	1.42	127	.81	.65	2,669	17.07	.42	2,833	18.12	2.49
1932	30,793	9	.10	.58	90	.97	.83	1,397	15.12	.35	1,496	16.19	1.76
Pennsylvania:													
1922	102,186	60	.20	1.17	103	.34	.34	8,364	27.28	.45	8,527	27.82	1.96
1923	140,259	112	.27	1.60	244	.58	.59	12,188	28.97	1.03	12,544	29.82	3.22
1924	154,800	54	.12	.70	244	.53	.34	8,382	18.05	.30	8,680	18.70	1.34
1925	149,089	75	.18	1.01	218	.49	.45	9,527	21.30	.26	9,820	21.97	1.72
1926	106,124	77	.13	.79	204	.34	.09	7,763	13.17	.20	8,044	13.64	1.08
1927	146,595	103	.23	1.41	239	.54	.53	6,727	15.30	.31	7,069	16.07	2.25
1928	147,455	93	.21	1.26	212	.48	.48	6,415	14.50	.31	6,720	15.19	2.05
1929	177,191	67	.13	.76	242	.45	.39	8,415	15.83	.26	8,724	16.41	1.41
1930	142,954	95	.23	1.37	259	.60	.62	6,684	15.59	.34	7,041	16.42	2.33
1931	84,959	49	.19	1.15	170	.67	.69	3,639	14.27	.34	3,858	15.13	2.18
1932	47,992	23	.16	.96	82	.57	.52	2,202	15.29	.40	2,307	16.02	1.88
Rhode Island:													
1926	409	0			1	.81	3.26	86	70.08	1.35	87	70.89	4.61
1927	144	0			0			19	43.86	.74	19	48.86	.79
1928	474	0			3	2.11	.63	79	55.54	1.10	82	57.65	1.73
1929	1,566	0			1	.21	.26	108	22.99	.55	109	23.20	.81
1930	641	1	.52	3.12	2	1.04	.55	93	48.38	.84	96	49.94	4.51
1931	856	1	.39	2.34	1	.39	.23	134	52.18	.54	136	52.96	3.11
1932	642	0			2	1.04	.31	49	25.43	.72	51	26.47	1.03
Tennessee:													
1922	1,543	0			4	.86	1.49	220	47.52	.69	224	48.38	2.18
1923	2,258	9	1.33	7.94	19	2.80	2.26	437	64.50	1.03	465	68.63	11.23
1924	1,503	3	.67	3.99	6	1.33	1.60	77	17.08	.25	86	19.08	5.84
1925	1,256	1	.27	1.59	2	.53	1.67	196	52.02	.69	199	52.82	3.95
1926	1,139	1	.30	1.75	0			32	9.41	.13	33	9.71	1.88
1927	1,354	1	.25	1.48	1	.25	.44	114	28.07	.48	116	28.57	2.40
1928	1,063	0			4	1.25	.85	65	20.38	.43	69	21.63	1.28
1929	1,819	1	.18	1.10	7	1.28	1.45	193	35.38	.91	201	36.84	3.46
1930	1,009	0			2	.66	.20	64	21.15	.33	66	21.81	.53
1931	711	1	.47	2.81	0			62	29.06	.45	63	29.53	3.26
1932	286	0			2	2.33	2.45	24	27.98	.64	26	30.31	3.09

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1922 TO 1932, BY STATE AND YEAR—Continued

State and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Texas:													
1922	362	0			1	0.92	2.76	61	56.13	0.79	62	57.05	3.55
1927	166	0			1	2.01	.60	29	58.23	1.04	30	60.24	1.64
1928	24	0			0			2	27.39	.34	2	27.39	.34
1929	679	0			16	7.86	4.27	577	283.42	4.04	593	291.28	8.31
1930	2,367	2	0.28	1.69	12	1.69	2.22	277	39.00	.67	291	40.97	4.58
1931	1,089	0			3	.92	.28	135	41.32	.61	138	42.24	.89
1932	531	0			5	3.14	2.01	56	35.15	.73	61	38.29	2.74
Washington:													
1922	534	0			6	3.75	5.99	80	49.95	.50	86	53.70	6.58
1923	800	0			1	.42	.13	77	32.09	.50	78	32.51	.63
1924	603	0			2	1.11	1.49	66	36.50	1.49	68	37.67	2.98
1925	1,256	2	.55	3.31	3	.83	1.27	181	49.89	1.15	186	51.21	5.73
1926	1,348	1	.25	1.48	6	1.05	.96	148	37.00	.48	155	38.30	2.92
1927	763	0			2	.87	1.57	69	30.17	.58	71	31.04	2.15
1928	942	0			2	.71	.48	84	29.71	.57	86	30.42	1.05
1929	678	0			2	.98	.29	122	59.98	1.00	124	60.96	1.29
1930	796	0			3	1.26	.50	131	54.87	.84	134	56.13	1.34
1931	994	2	.67	4.02	4	1.34	1.38	129	43.26	.91	135	45.27	6.31
1932	463	0			5	3.60	3.13	63	45.39	.96	68	48.99	4.09
West Virginia:													
1922	2,702	2	.24	1.48	6	.74	.84	592	73.06	.85	600	74.04	3.17
1923	9,336	8	.29	1.71	13	.46	.54	749	26.74	.33	770	27.40	2.58
1924	4,613	7	.51	3.03	18	1.30	1.53	806	58.24	1.70	831	60.05	6.25
1925	7,964	13	.54	3.26	14	.59	.67	537	22.48	.28	564	23.61	4.21
1926	14,124	12	.28	1.70	30	.71	.41	1,306	30.87	.35	1,348	31.86	2.46
1927	12,414	15	.40	2.42	21	.56	.56	1,279	34.34	.56	1,315	35.30	3.54
1928	13,938	8	.19	1.15	39	.93	.83	1,874	44.83	.58	1,921	45.95	2.56
1929	21,760	14	.21	1.23	32	.49	.38	985	15.09	.26	1,031	15.79	1.93
1930	12,311	10	.27	1.63	25	.68	.75	583	15.86	.36	618	16.81	2.74
1931	8,787	7	.27	1.59	28	1.06	.69	332	12.59	.39	367	13.92	2.67
1932	7,027	4	.19	1.14	16	.76	.48	259	12.28	.28	279	13.23	1.90
Wisconsin:													
1922	5,441	0			20	1.23	1.39	790	48.40	.73	810	49.63	2.12
1923	4,264	3	.23	1.41	17	1.33	1.23	708	55.34	.78	728	56.90	3.42
1924	8,321	5	.20	1.20	47	1.88	1.57	1,275	51.08	.68	1,327	53.16	3.45
1925	5,180	2	.13	.77	34	2.18	2.11	1,121	72.02	.81	1,157	74.33	3.69
1926	10,481	6	.19	1.14	66	2.10	1.76	1,214	38.66	.55	1,286	40.95	3.45
1927	3,992	4	.33	2.00	26	2.17	1.66	641	53.52	.59	671	56.02	4.25
1928	2,604	0			15	1.92	1.33	595	76.16	.82	610	78.08	2.15
1929	7,353	3	.13	.81	48	2.17	1.76	1,459	66.14	.99	1,510	68.44	3.56
1930	5,412	3	.18	1.11	24	1.48	1.22	667	41.08	.62	694	42.74	2.95
1931	4,378	1	.08	.46	23	1.75	.87	545	41.50	.57	569	43.33	1.90
1932	3,921	2	.17	1.02	14	1.19	.91	348	29.59	.63	364	30.95	2.56
Miscellaneous:													
1931	2,449	1	.14	.82	9	1.22	.62	261	35.52	.38	271	36.88	1.82
1932	1,333	0			5	1.25	2.55	185	46.27	1.50	190	47.52	4.05

Experience of Selected Group of Establishments

A DECIDED contrast to the experience of the industry as a whole is presented by the data covering the special group of establishments for which separate frequency rates have been published yearly, as these show an increase in frequency rates from 5.3 in 1927 to 8.1 in 1932.

Except for 1916 the frequency rates for this group showed a continuous decline from 1913 to 1927, and it is therefore somewhat surprising that gradual increases have occurred since then in this special group that embodies the best practices and the most pronounced success in accident prevention. Even in 1932, however, after slight increases in 5 successive years, the frequency rate for this group was only 8.1 as against 18.1 for the industry as a whole.

Table 6 presents the experience of the six companies included in the group, by the principal product of each company and for the entire group, by years from 1913 to 1932.

TABLE 6.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF PLANTS, 1913 TO 1932, BY PRODUCT AND YEAR

Year	Fabri- cated products	Sheets	Wire and its prod- ucts	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
1913	100.3	61.6	59.3	27.2	70.9	41.3	60.3
1914	59.0	47.2	46.2	12.5	50.7	27.6	43.5
1915	53.5	37.3	52.4	10.8	51.9	23.0	41.5
1916	52.1	34.0	48.2	12.4	67.6	28.2	44.4
1917	51.3	33.9	32.5	10.2	51.3	20.5	34.5
1918	38.2	25.9	18.8	9.1	42.0	31.4	28.8
1919	32.8	25.8	12.5	9.1	39.7	23.0	26.3
1920	35.3	22.7	12.0	8.9	35.3	18.6	23.1
1921	28.4	17.5	7.5	6.1	15.8	12.1	13.2
1922	33.8	16.9	7.9	7.1	14.5	10.8	13.1
1923	32.6	17.2	7.9	7.0	13.9	9.8	12.8
1924	33.4	10.3	6.2	5.1	11.8	7.9	10.2
1925	27.4	11.4	4.2	4.0	9.8	3.7	8.2
1926	24.3	9.4	3.9	3.6	6.6	3.8	6.8
1927	18.0	8.4	3.5	2.5	5.1	2.7	5.3
1928	19.7	8.7	4.0	2.3	5.3	2.4	5.6
1929	21.4	10.7	3.1	3.0	5.3	3.2	6.2
1930	21.3	6.0	5.0	3.8	9.0	7.3	7.7
1931	24.0	7.4	4.4	5.0	8.4	7.4	7.8
1932	24.5	8.2	5.2	3.8	10.1	6.7	8.1

In order to get a more intimate view of the changes which have occurred in these establishments since the safety movement was inaugurated, it is necessary to consider not only the frequency rates for the various companies but also the changes in the rates for causes of accidents. As shown in table 7, a notable decline has occurred in the rate of accidents for each of the general-cause groups from 1913 to 1932.

TABLE 7.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) IN A SELECTED GROUP OF PLANTS, 1913 AND 1932, BY CAUSE OF ACCIDENT

Cause of accident	Frequency rates (per 1,000,000 hours' exposure)		Percent of decrease
	1913	1932	
Machinery	7.3	1.9	74.0
Vehicles	2.3	.3	87.0
Hot substances	5.4	.6	88.9
Falls of persons	4.5	1.0	77.8
Falling material, not handled by injured	1.2	(¹)	96.7
Hand tools and handling of objects	26.7	3.5	86.9
Miscellaneous	12.9	.7	94.6
Total	60.3	8.1	86.6

¹ Less than one tenth of 1 percent.

Handling of objects was responsible for nearly half of the injuries in both 1913 and 1932. During the interval the frequency rate for this principal cause group dropped from 26.7 to 3.5 injuries per 1,000,000 hours' exposure, a decrease of 86.9 percent. The decreases for the other cause groups ranged from 74 to 96.7 percent, while the general average reduction was 86.6 percent.

A more extended analysis of the accident causes is presented in table 8 which shows the frequency rates in detail, by cause, for 1913 (the earliest year for which data are available) and by year from 1919 to 1932. An analysis of this kind is extremely valuable for accident-prevention purposes. It indicates the relative importance of the

causes, points out the special channels for corrective measures, and also helps to determine whether the accident-reduction effort has been successful in all phases of the various processes.

TABLE 8.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF IRON AND STEEL PLANTS, 1913 AND 1919 TO 1932, BY YEAR AND CAUSE OF ACCIDENT

Cause of accident	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Machinery	7.3	3.3	3.4	1.9	2.3	2.3	2.0	1.6	1.6	1.3	1.3	1.3	1.5	1.7	1.9
Other than cranes	3.8	1.4	1.5	.9	1.1	1.0	.8	.7	.7	.5	.5	.5	.5	.8	.8
Caught in	2.5	.9	1.0	.6	.7	.7	.6	.5	.5	.4	.4	.4	.4	.5	.5
Breaking	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	.1	(1)	(1)	(1)
Struck by load	1.2	.4	.4	.2	.3	.2	.2	.2	.1	.1	(1)	.1	.2	.2	.2
Hoisting apparatus	3.5	1.9	1.9	1.0	1.2	1.3	1.2	.9	.9	.8	.8	.8	1.0	.9	1.1
Overhead cranes	2.8	1.6	1.5	.8	1.0	1.1	1.0	.7	.7	.6	.6	.6	.7	.8	.8
Locomotive cranes	.3	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.2
Other	.4	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)
Vehicles	2.3	1.2	1.1	.5	.4	.6	.5	.3	.3	.2	.2	.2	.3	.2	.3
Hot substances	5.4	2.8	2.4	1.2	1.1	1.2	.9	.6	.5	.5	.3	.4	.4	.5	.6
Electricity	.5	.2	.3	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	.1	.1
Hot metal	3.6	2.0	1.7	.9	.7	.9	.6	.4	.3	.3	.2	.3	.3	.3	.4
Steam, hot water, etc.	1.3	.6	.4	.2	.3	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1
Falls of persons	4.5	2.8	2.5	1.7	1.5	1.4	1.3	1.1	1.0	.7	.7	.8	1.0	1.0	1.0
From ladders	.3	.2	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)
From scaffolds	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Into openings	.2	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Slipping or stumbling	3.8	2.3	2.1	1.4	1.3	1.1	1.1	.9	.8	.6	.6	.7	.9	.8	.9
Falling material, not handled by injured	1.2	.4	.2	.1	.1	.1	.1	.1	.1	(1)	.1	(1)	.1	.1	(1)
Hand tools and handling of objects	26.7	11.7	10.4	6.5	5.8	5.4	3.8	3.4	2.9	2.0	2.3	2.7	3.6	3.6	3.5
Objects dropped in handling	11.2	5.0	4.4	2.6	2.6	2.3	1.9	1.6	1.2	.9	.9	1.2	1.9	1.8	1.6
Caught between material	3.4	1.7	1.3	.7	.6	.7	.5	.4	.3	.2	.3	.3	.7	.7	.8
Hand trucks, etc.	1.9	.8	.6	.4	.4	.4	.2	.2	.2	.1	.2	.2	.2	.1	.1
Strain in handling	2.5	1.4	1.1	.8	.8	.5	.3	.3	.3	.2	.2	.2	.2	.2	.2
Objects flying from tools	.2	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Slivers, sharp edges, etc.	3.8	1.3	1.5	1.1	.6	.6	.3	.4	.4	.3	.4	.4	.2	.2	.2
Hand tools	3.7	1.4	1.4	.8	.7	.8	.6	.5	.5	.3	.3	.4	.4	.6	.6
Miscellaneous	12.9	4.1	3.1	1.3	1.9	1.8	1.6	1.1	1.4	.6	.7	.8	.8	.7	.7
Asphyxiating	.3	.2	.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Objects flying from material, striking body	.8	.3	.3	.1	.1	.3	.2	.1	.1	.1	.1	.1	(1)	.1	(1)
Objects flying from material, striking eye	2.9	1.3	1.1	.5	.4	.2	.3	.2	.1	.1	.1	.2	.2	.1	.2
Heat	.9	.1	.1	.1	.1	.1	(1)	(1)	(1)	.1	.1	.1	.1	(1)	(1)
Other	8.0	2.2	1.5	.5	1.3	1.1	1.0	.8	.2	.3	.4	.4	.5	.5	.4
Grand total	60.3	26.3	23.1	13.2	13.1	12.8	10.2	8.2	6.8	5.3	5.6	6.2	7.7	7.8	8.1

¹ Less than one tenth of 1 percent.

Transfer of Safety-Code Work from Bureau of Standards to American Standards Association

THE United States Bureau of Standards has been actively engaged in the development of industrial safety codes since 1913. It has acted as sponsor for the American logging and sawmill safety code, the national safety code for the protection of heads and eyes of industrial workers, and the safety code for elevators, dumbwaiters, and escalators, besides participating in the preparation and revision of a number of other nationally recognized codes. Considerable research work and investigation in connection with special problems pertaining to many of the codes have been conducted at the Bureau.

The economy program of the Government has necessitated the transfer of these functions to the American Standards Association, together with other activities of the Bureau in the field of simplification, commercial standards, and building codes.

The American Standards Association, which was organized in 1918 by 5 major engineering societies to serve as a clearing house for industrial standardization, is a federation of 37 trade associations,

technical societies, and governmental departments. At present approximately 2,700 technical experts from every branch of industry, representing about 475 national organizations, 43 branches of the Federal Government, and various State governmental departments, are participating actively in the work of the association.

The actual work of establishing safety codes or other standards is ordinarily carried on by technical committees, made up of representatives of manufacturer and employee groups, appointed by their trade and technical associations, casualty insurance groups, Government regulatory bodies, and other interested groups. The completed code or standard, when satisfactory to the groups which have a substantial interest in it, is submitted to the association for formal approval.

Up to date, 50 safety codes have been developed under the auspices of the American Standards Association, and 19 others are now in the process of development. Several of the approved safety codes have been printed as bulletins of the Bureau of Labor Statistics.

Accidents in the Petroleum Industry, 1932

THE annual summary of injuries in the petroleum industry for 1932, published by the Department of Accident Prevention of the American Petroleum Institute, states that in the last 6 years the frequency rate (the number of disabling injuries per million hours worked) has been reduced 60 percent, and the severity rate (the number of days lost, as a result of such injuries, per thousand hours worked) has been reduced 28 percent.

It is clearly shown that this reduction was a decided financial saving to the industry. The total number of injuries reported in 1932 was 6,949, but, had injuries occurred in 1932 at the rate prevailing in 1927, the number would have been increased by 10,698. It is estimated that the average cost of a disabling injury in the petroleum industry is \$300, and on that basis the 60 percent reduction in the number of injuries means a saving of \$3,209,400 in the year 1932 alone.

An aggregate of 565,760,000 man-hours worked during 1932 was reported to the institute by 101 companies, with a total of 6,949 disabling injuries and a time loss of 1,078,629 days. Consequently the average frequency rate for 1932 was 12.28, as compared with 14.14 for 1931, a decrease of 13 percent, while the severity rate for 1932 was 1.91, as compared with 2.06 for 1931, a decrease of 7 percent.

The departments included by the institute under its classification of the industry consist of refining, marketing, production, natural gasoline, pipe line, marine, and miscellaneous, and the figures obtained by it cover the clerical help as well as the wage earners. The following table shows the number of fatal and nonfatal disabling injuries reported by the 101 companies in 1932, with frequency and severity rates, by departments.

FATAL AND NONFATAL DISABLING INJURIES IN THE PETROLEUM INDUSTRY, 1932, BY DEPARTMENTS

Department	Number of man-hours	Fatal cases ¹			Nonfatal cases			Total cases		
		Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate
Refining.....	146,082,000	43	0.29	1.77	1,273	8.72	0.53	1,316	9.01	2.30
Marketing.....	231,178,000	27	.12	.70	2,007	8.68	.26	2,034	8.80	.96
Production.....	91,930,000	36	.39	2.35	2,292	24.93	1.38	2,328	25.32	3.73
Natural gasoline.....	9,885,000	3	.30	1.82	149	15.08	1.49	152	15.38	3.31
Pipe line.....	35,241,000	8	.23	1.36	602	17.08	.87	610	17.31	2.23
Marine.....	15,843,000	5	.32	1.89	232	14.64	.67	237	14.96	2.56
Miscellaneous.....	35,598,000	3	.08	.50	269	7.56	.22	272	7.64	.72
Total.....	2 565,760,000	125	.22	1.33	6,824	12.06	.58	6,949	12.25	1.91

¹ Includes permanent total disability.² Not exact sum of items, but as given in report.

Accidents in Cement Manufacturing in 1932

STATISTICS of injuries occurring in the cement manufacturing industry in 1932, compiled by the Portland Cement Association and published in its Accident Prevention Magazine for the second quarter of 1933, shows a reduction in both frequency and severity rates in 1932 as compared with 1931.

Table 1 shows the accident experience for the industry, by years, for the 5-year period 1928 to 1932, converted to conform to the standard measurement of 1,000,000 man-hours' exposure for frequency rates and 1,000 man-hours' exposure for severity rates.

TABLE 1.—NUMBER OF INJURIES AND ACCIDENT FREQUENCY AND SEVERITY RATES IN CEMENT MANUFACTURING, 1928 TO 1932, BY YEARS

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

Year	Number of establishments reporting	Number of man-hours	Fatal cases			Nonfatal cases			Total cases		
			Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate	Number	Frequency rate	Severity rate
1928.....	136	85,796,645	33	0.38	2.31	877	10.23	1.41	910	10.61	3.72
1929.....	138	75,739,429	37	.49	2.93	686	9.06	1.28	723	9.55	4.21
1930.....	128	69,727,954	18	.26	1.55	420	6.02	.92	438	6.28	2.47
1931.....	100	38,099,084	17	.45	2.68	197	5.17	.63	214	5.62	3.31
1932.....	112	27,939,634	5	.18	1.07	125	4.47	.73	130	4.65	1.80

The average frequency rate for the industry shows a constant decline throughout the period and, like the average severity rate, dropped to an all-time low level in 1932. The severity rate, however, fluctuated considerably from year to year, indicating that minor injuries are being controlled at a faster rate than the more severe accidents.

A total of 57 out of the 112 establishments reporting for 1932 completed the year without a disabling injury, while 30 others reported only 1 injury each.

A distribution is shown in table 2, by nature of injury and by cause, of the injuries given for 1932 in table 1, together with 10 other injuries listed on reports that were not included in the former tabulation.

TABLE 2.—DISTRIBUTION OF INJURIES IN CEMENT MANUFACTURING, 1932, BY NATURE OF INJURY AND CAUSES OF ACCIDENTS

Item	Number of cases	Item	Number of cases
Nature of injury:		Causes of accidents—Continued.	
Fatalities.....	6	Explosions.....	7
Permanent partial disabilities.....	16	Falling objects.....	21
Fractures.....	33	Falls.....	30
Severe cuts, bruises, burns, etc.....	46	Flying material.....	9
Infections.....	9	Heat.....	2
Eye injuries, temporary.....	8	Hot substances.....	8
Minor cuts, bruises, burns, etc.....	22	Machinery.....	8
Total.....	140	Objects handled.....	14
Causes of accidents:		Strains from lifting.....	5
Caught between objects.....	18	Trucks, rolling stock, etc.....	1
Cement dust.....	3	Other causes.....	14
		Total.....	140

WORKMEN'S COMPENSATION

Wife Employed by Husband Granted Compensation under Iowa Act

THE Osceola Tribune, a newspaper of which Dudley A. Reid was the sole owner, employed Josephine Reid, his wife. She was an expert linotype operator, and skilled in other duties in the printing trade. On the afternoon of October 18, 1930, her arm was drawn into a press and badly mangled.

She later instituted proceedings under the workmen's compensation law to recover compensation for her injury, and the industrial commission denied compensation. On appeal to the district court the decision was reversed and the insurance carrier appealed the case to the Supreme Court of Iowa. The insurance carrier urged the theory that "a married woman cannot contract with her husband" and therefore "a wife cannot be an employee of her husband under the workmen's compensation act", and cited many cases supporting this contention. The supreme court said that this was a new question in Iowa, and held that these decisions were not germane to the case under consideration, since the proceeding here was not a court action but an action under the workmen's compensation law.

The distinguishing feature of the cases cited is the general nature of the services performed, the court showed, and made a distinction as follows:

If the services performed are within the scope of those demanded by the marital relation, then the wife may not contract with the husband for such services; but, where the services rendered are of a general nature, beyond the scope of those demanded by the marriage relation, she may contract with her husband for the same and recover from him therefor. [Cases cited.]

The court was of the opinion that under the enabling statutes of the State the wife had a right to contract with her husband to perform such services.

The services performed were wholly outside of the ordinary and usual services of the housewife and foreign to the usual duties of a housewife. We say, therefore, that she had the right to enter into this contract with her husband.

The court also held that there was evidence of a contract and found no material conflict in the testimony as—

* * * The outstanding fact, as shown by the record, is that there was a contract between them by which she was to perform these services, and in this respect we think the industrial commissioner erred in holding that there was not sufficient evidence to show the existence of such contract.

The court was, therefore, of the opinion that the ruling of the district court in reversing the decision of the industrial commission was right (*Reid v. Reid*, 249 N.W. 387).

Protection of Employee from Physical Danger Held to be Required of Employer

THE Court of Appeal of Louisiana has held that an injury arose out of and in the course of the employment where a Negro employee on a highway project, while sleeping in a guarded camp made necessary by race prejudice, was shot by some unknown person. An action was brought under the workmen's compensation law of Louisiana by the injured employee for an award of compensation in the sum of 65 percent of his weekly wage for a period of 200 weeks for the loss of an arm (*Ivory v. Philpot Construction Co.*, 145 So. 784).

From the facts in the case it appears that the Philpot Construction Co. was under a contract to build a road in Louisiana, in a section of the State from which Negroes were excluded. The construction company, upon beginning work, brought many Negro laborers to this particular locality, and shortly afterwards some road machinery of the company was dynamited. After this occurrence the State highway commission furnished a number of guards to protect the property and the laborers at night. In order to provide a place for the laborers to sleep, the construction company secured a plot of ground and erected tents. These tents were charged to the laborers and a certain amount deducted from each week's pay for them. Some time after the machinery was destroyed an employee was injured; he sued and recovered compensation. About 3 months later a similar accident occurred in which one of the laborers was killed and the plaintiff in the case under review was injured while asleep. From the evidence shown, no one was aware who fired the shots, but it was pointed out they were not fired at any particular individual, since several were fired into a number of different tents.

The construction company defended on the ground that the accident in which the employee was injured did not arise in the course of or out of the employment, that it occurred at night after the injured employee had ceased work for the day and had retired for the night and that the latter was not at the time engaged in any service connected with his employment.

The court, in rendering the opinion, pointed out that the injured employee was obliged to live in the quarters furnished by the company in order to maintain his employment. The living quarters, the court said, were under the supervision and control of the construction company, and the employee's presence in the tent on the premises provided by the company was "incidental to his employment, if not impliedly in the terms of his employment." When he was injured while asleep in his tent, the court said, it was in the course of his employment, and the accident and injury arose out of such employment. He was more exposed to danger than others living in the community, the court held, because of the existing circumstances, and he was so exposed on account of his employment. The Court of Appeal of Louisiana therefore reversed the judgment of the lower court and held that the injured employee was entitled to 25 percent of 65 percent of \$18 per week for a period of 200 weeks. He also was entitled to recover doctors' and medical bills.

Seasonal Employment Held to Authorize No Reduction in Compensation Unless Business Ceases

THE Ottumwa Sand Co., engaged in the business of acquiring and selling stone, sand, and ice, collects large quantities of sand and gravel from the Des Moines River by the use of dredges in the open-season months, and during the winter months sells and delivers large quantities of ice which it cuts from the river. During the winter months the company operates with a greatly reduced force, except for about 11 days while engaged in cutting ice. William Forbes, an employee of the company, had been for many years engaged in both lines of work. On January 28, 1931, he was drowned while cutting ice in the river.

The industrial commission awarded compensation to the widow in the sum of \$15 per week for a period of 300 weeks. The average wage received by Forbes was \$4.50 per day. Upon appeal the district court affirmed the award, and the case was taken to the Iowa Supreme Court. The employer contended that the widow was entitled to an award of \$15 per week only for a period of 200 weeks, as the business was a seasonal one, and based his contention on section 1397, subdivision 6, of the Iowa Code, 1931, which provides—

For employees in a business or enterprise which customarily shuts down and ceases operation during a season of each year, the number of working days which it is the custom of such business or enterprise to operate each year instead of 300 shall be the basis for computing the annual earnings; but the minimum number of days which shall be used as a basis for the year's work shall not be less than 200.

The company contended, in view of this provision of the law, that its enterprise "shuts down and ceases operation during a season of each year", and therefore was entitled to the benefit of the reduction.

The court showed that dredging operations must necessarily cease upon freezing weather and on the other hand that the cutting of ice must stop upon the approach of warm weather.

The court found that the company did not "shut down" or cease to operate during any particular period of the year although it did operate in the winter time with a greatly reduced force, and Forbes was one of the employees whose employment was not continued throughout the winter, except while cutting ice. The court concluded, however, by citing the provision above quoted and said:

The period of plaintiff's employment is not the criterion laid down in the statute. This exceptional provision of the statute above quoted is made applicable only in a case where the enterprise itself "shuts down" for a season. The defendant's enterprise is not such. Such was the finding of the industrial commissioner.

The decision was therefore affirmed (*Forbes v. Ottumwa Sand Co.*, 249 N.W. 399).

LABOR LAWS AND COURT DECISIONS

Removal of Arizona Industrial Commission Upheld by Court

THE Supreme Court of Arizona has upheld the right of the Governor of the State to remove the entire personnel of the State industrial commission (*Sims et al. v. Moeur*, 19 Pac. (2d), 679).

The Governor of the State of Arizona removed the three members of the State industrial commission. Upon their removal they filed a petition in the Supreme Court of the State to review the order of dismissal. From the facts in the case it appears that on January 11, 1933, the Governor filed charges against the members of the board and accused them of having expended money from the State compensation fund for the purpose of keeping the Secretary of State from placing on the official ballot at the general election, held in November 1932, a proposed measure to repeal the workmen's compensation law. He also accused them of expending money from the compensation fund for advertising purposes and for the purpose of influencing the votes of electors on the initiative petition. The Governor extended a hearing to the removed State officers and on the last day of January 1933 the Governor found that the charges which had been instituted were sustained and ordered the removal of the commission.

The commissioners based their defense on several grounds. Briefly, these were, that since they were appointed by and with the advice of the Senate for a fixed term they could not be removed during their terms; that the power of removal conferred on the Governor was unconstitutional since it was not expressed in the title of the workmen's compensation act by which such power is attempted to be conferred; that they had a right to make such expenditures from the State compensation fund; and, finally, that the Governor removed them without legal evidence to support the charges.

While a section of the Arizona compensation law provides that the members of the industrial commission shall be appointed by the Governor with the advice and consent of the Senate, it also provides that the Governor may remove any member for inefficiency, etc., in the conduct of his office. The court held that this provision did not in any way conflict with the State constitution. While the constitution is silent as to the power of removal from office, in general it is left to the legislature to regulate this by statute. The court held that the legislature exercised a rightful power in making a distinction in the manner of appointment and removal from office. The power to remove for any of the causes mentioned is vested solely in the Governor. The title of the workmen's compensation law of Arizona does not specifically mention the appointment or removal of commissioners; it does, however, cover the creation of a commission. The body of the act contains a provision for the appointment of the com-

missioners, defining the terms of office, compensation, and duties, and providing for their removal for cause.

The court said that "clearly the matters of appointment and removal of such officers are germane to the subject of the act as expressed in the title" and that the appointment and removal of the commissioners were properly connected with the act.

To justify the expenditure of approximately \$16,000 of the State compensation fund, the commissioners cited the authorization of the compensation law and the request of many employers in the State who were insured in the fund. They also contended that there was approximately \$3,500,000 in the fund and if the proposed initiative measure should be approved by the people and the liquidation of such fund be brought about, it would result in a loss of approximately \$900,000, since the fund consisted of various kinds of public bonds, the market value of which at that time was quoted at much below their full value.

The court said that "whatever the motive of this proposed legislation by the people" it must be confessed "that it inadequately protected the compensation fund and took away all future protection from the employer and employee." The motive of the legislators, however, could not be questioned by the courts. The court pointed out that while the compensation law was created by the legislature it could nevertheless be destroyed by the same body. The right of the commissioners to expend money from the compensation fund could not be justified, the court said, "on the ground that the initiated measure proposed to abolish their offices and the compensation law." If any such right exists, the court continued, "it must be found in the statutes defining the powers and duties of the commission in relation to the compensation fund."

While the chairman of the board had a right to test the legality of the initiative petition at his own expense, yet the court said:

The industrial commissioners, as such, had no more interest in that action than any other State agency and no more right, abstractly speaking, to spend money intrusted to them for other purposes to prosecute said action, than would the members of the State tax commission or the State corporation commission to expend money in their possession or control to save their offices. It must be remembered that the commission is a creature of statutory origin and that it can do only those things or exercise those powers that are expressly conferred or necessarily implied in the law.

The court considered the limitations of the industrial commission and the purpose of the insurance fund, and continued "it may be asked then: What provisions of the law do the petitioners claim gave them authority to use the compensation fund * * *?"

The commissioners relied upon the last sentence of section 1410, Revised Arizona Code, 1928, which reads—

The commission shall have full authority over the fund, and may do all things necessary or convenient in the administration thereof, or in connection with the compensation business to be carried on by it hereunder, and shall adopt rules and regulations for the collection, maintenance, and disbursement of the fund.

The court said that this sentence was specific when construed with the whole act and continuing stated that—

It is a limitation of the power of the commissioners and of their expenditures to a liberal, fair, and honest administration of the compensation fund for the purpose for which it was created. The sentence preceding the one above quoted

puts the whole matter in a nutshell: "Such fund shall be administered by the commission * * * and shall be applied to insurance and to the payment of compensation and of expenses as herein provided."

While it was unnecessary, the court said, to cite any authority other than the compensation act itself to show that the commission did not have a right to use the fund for the purposes for which they did, nevertheless several cases were referred to in which public bodies were not authorized to spend public funds to defeat an initiative measure. The evidence as presented, the court concluded, showed that the commissioners were guilty both of inefficiency and of malfeasance in office. The order of removal was therefore approved and affirmed.

Italian Eight-Hour Day Law¹

AN 8-hour working day, or 48-hour week, has been made obligatory upon Italian industrial establishments through law no. 527 of March 16, 1933 (Official Gazette of June 5).

While article 1 of the law states that the normal maximum duration of work shall not be more than 8 hours per day, or 48 hours per week, for all public or private industrial establishments, regardless of character or size, subsequent articles allow certain leeway. Thus article 2 exempts from the provisions of the law the post, telegraph, and telephone services; industrial establishments in which members of one family only are engaged; sea, inland waterway, and air navigation; and fishing. As to land transport concerns, the Government will issue special regulations. Moreover, persons holding managerial or supervisory posts and persons working in private homes are excepted from the application of the law.

An extension of the established maximum is provided for in the case of certain industries and occupations, which must, however, be specifically determined by a royal decree to be issued later by the Ministry of Corporations; and in certain cases such extension may be made only if so stipulated in the collective labor contract signed between the respective professional associations. Provision is also made for overtime work during rush periods, upon the condition that employees be given extra pay in accordance with the scale of wages established in the collective labor contract.

The *Lavoro Fascista* (Rome), Fascist labor organ, remarks that the new law embodies the principles sanctioned by the labor conference in the Washington convention and demonstrates in a practical way "that there are no real difficulties in the way of further reduction of working hours." This newspaper concludes:

It is not without significance that a legislative provision sanctioning and extending the principle of an 8-hour day is presented on the eve of the Geneva discussion, while the Washington convention still remains a dead letter as far as many other governments are concerned.

Text of Law

A TRANSLATION of the law follows:

ARTICLE 1. The normal maximum duration of actual work shall not exceed 8 hours per day and 48 hours per week for the laborers and employees of public or private industrial establishments or their auxiliaries, no matter what their nature, including those having the character of institutions of professional education or charity, and regardless of the number of employees.

¹ Report prepared by the American Embassy at Rome.

ART. 2. The present law is not applicable to the following industries: (a) Ordinary post, telegraph, and telephone services; (b) industrial establishments in which members of one family only are engaged; (c) marine, internal waterways, and air navigation; (d) fishing.

ART. 3. The King's Government is authorized to issue special regulations governing the personnel of the State railways and of public transport concerns operating under concession, and of State industrial establishments, in conformity with existing laws.

ART. 4. The provisions of the present law are not applicable to the occupants of managerial or supervisory posts or of positions of trust or to those who work in private homes.

ART. 5. When the maximum hours of work on one or more days of the week are less than 8, the hours on the other days of the week may, upon the basis of a collective labor contract, be increased to 9 hours provided the average maximum of 48 hours per week is maintained.

ART. 6. The maximum normal working hours may be extended beyond the limits established in article 1 in the following cases:

(a) When the work is done by shifts, provided it does not, for a period of 3 weeks or less, exceed an average of 8 hours per day and 48 hours per week.

(b) In industries operating continuously, where the work must because of its very nature be carried on by consecutive shifts, provided that the average working hours do not exceed 56 per week.

(c) In preparatory or finishing operations which must necessarily be carried on outside the general hours of the establishment.

(d) In occupations in which the work is essentially intermittent, requiring occasional attention or simply observation and surveillance.

(e) In occupations for which the limits established by article 1 are recognized as inapplicable, provided that the weekly average over a given period of time is not more than 48 hours.

The Ministry of Corporations, in consultation with the competent professional associations and the National Council of Corporations, shall propose a royal decree establishing the industries, occupations, work, and cases to be included under letters *b*, *c*, *d*, and *e*, and determining in regard to these the limits and division of working hours.

Furthermore, for cases included under the letter *e*, the right of waiving the provisions of article 1 must be mentioned in the collective labor contract entered into between the competent professional associations and duly deposited and published according to law.

ART. 7. When an accident occurs or appears imminent, when urgent repairs must be made to machinery or plants, and when circumstances of force majeure arise, the maximum working hours may be extended, but only to the minimum absolutely necessary to avoid consequences detrimental to the normal productivity of the establishment.

ART. 8. To the normal maximum working hours is authorized the addition, on the basis of a collective labor contract, of 2 hours per day or of 12 hours per week, or of their average equivalent over a given period, for the purpose of permitting an establishment to meet an extraordinary increase in work, on condition that the extra hours of work are compensated for by extra pay on a scale to be established by the collective labor contract.

ART. 9. In every industrial establishment subject to the provisions of the present law, the working hours must be posted in a conspicuous place easily accessible to the personnel concerned, together with details as to opening and closing hours and periods of leisure permitted during working hours.

When the working hours are not the same for all employees, the details mentioned in the preceding paragraph must appear on the schedule of hours for each professional department or category or for each individual worker.

When the work is done by shifts, the details mentioned above must be given for each shift.

When the work is carried on out of doors and it is accordingly impossible to post the schedule of hours as mentioned above, it must in any case be exhibited at the place where wages are paid.

A schedule of the working hours, signed by the employer or by his legal representative, must be sent to the competent corporative inspectorate, to which must be communicated all subsequent changes.

Hours of overtime work done by each employee must be entered separately from hours of ordinary work on the pay roll, authenticated by the Institute for Industrial Accident Insurance, or by the Social Insurance Institute if the establishment is not subject to the laws on industrial accident insurance.

The pay roll must be shown to the officials charged with supervision whenever they so request.

The corporative inspectorate may authorize equivalent methods of registration.

ART. 10. Violators of article 9 of the present law shall be punished by a fine of not more than 5 lire per day for each employee concerned, up to a maximum of 500 lire.

Employers who violate the other provisions of the present law shall be punished by a fine of not more than 10 lire per day for each employee concerned.

In case of repetition of the offense, the fine may be doubled.

The Government is empowered to establish fines up to the sum of 500 lire for violation of the rules which shall be adopted for the operation of the present law.

ART. 11. The corporative inspectorate shall be responsible for seeing that the present law is observed.

Employers and employees are required to observe the rules made by the corporative inspectorate with respect to all the provisions of the present law and to the enforcement thereof.

Appeal against the regulations of the inspectorate may be made to the Minister of Corporations, who will give final decision.

ART. 12. The present law shall enter into effect 2 months after the publication of the royal decree mentioned in the next to last paragraph of article 6.

Upon the enactment of the present law, the provisions of royal decree law no. 692 of March 15, 1923, and of article 1 of royal decree law no. 1096 of June 30, 1926, together with the regulations appended thereto, are repealed insofar as they affect the establishments mentioned in article 1 of the present law.

COOPERATION

Cooperative Purchasing and Marketing by Farmers in 1929

DATA recently published by the United States Bureau of the Census¹ show the number of farms in the United States whose operators buy or sell (or both) through cooperative societies, and the volume of business so transacted in 1929, as compared with 1924 and 1919.

The table following, compiled from these data, shows the number of farm operators who sold their farm products through cooperative associations or bought their farm supplies through such organizations, for the 3 census years.

COOPERATIVE PURCHASES AND SALES OF FARMS IN THE UNITED STATES, 1919, 1924, AND 1929

Item	1919		1924		1929	
	Number or amount	Per cent of all farms	Number or amount	Per cent of all farms	Number or amount	Per cent of all farms
All farms in United States.....	6, 448, 343	100. 0	6, 371, 640	100. 0	6, 288, 648	100. 0
Farms reporting cooperative—						
Sales only.....	295, 078	4. 6	624, 631	9. 8	413, 623	6. 6
Purchases only.....	113, 144	1. 8	103, 169	1. 6	132, 642	2. 1
Sales and purchases.....	216, 305	3. 4	259, 576	4. 1	278, 272	4. 4
Total.....	624, 527	9. 7	987, 376	15. 5	824, 537	13. 1
Value of all farm products.....					\$2, 138, 048, 366	100. 0
Value of products sold cooperatively.....	\$721, 983, 639		\$858, 284, 387		\$892, 481, 491	41. 7
Value of goods bought cooperatively.....	\$84, 615, 669		\$75, 971, 199		\$125, 048, 597	

In 1929, 13.1 percent of all the farm operators in the United States reported dealings with cooperative organizations. Half of these (6.6 percent of all farm operators) had sold their crops through marketing organizations, while the number who confined their cooperative dealings to the purchase of farm supplies formed only 2.1 percent of the total. The report points out that these figures represent only the patrons and not necessarily the membership of cooperative associations, since such organizations also do business with and for nonmembers.

It is seen from the table that the proportion making cooperative sales only rose from 1919 to 1924 and then dropped in 1929, though still considerably above the 1919 level; those making purchases only

¹ United States. Department of Commerce. Bureau of the Census. Fifteenth census of the United States: 1930. Agriculture. Selected farm expenditures, cooperative marketing and purchasing, and farm facilities. Washington, 1933 (ch. VII of vol. IV—General report on agriculture.)

declined from 1919 to 1924 but rose above even the 1919 level in 1929; the proportion making both purchases and sales showed a consistent increase each year.

The money value of the farm products sold through cooperative channels showed an increase from year to year. More than two fifths of the farm products of the entire United States were marketed cooperatively in 1929. No data are available for previous years.

While the value of goods bought through the cooperative stores declined 10.2 percent from 1919 to 1924, there was an increase in 1929 of 64.6 percent as compared with 1924 and of 47.8 percent as compared with 1919. Part of these purchases were of consumers' goods (food, clothing, fuel, etc.) and part were of commodities (such as fertilizer, seed, feed, twine, machinery) used in the business of the farm.

In 1929 the average value per farm of products marketed cooperatively was \$1,290, while the average value of supplies bought was \$304.

Among the individual States "Minnesota has held the foremost rank in the percentage of farms reporting cooperative sales for the 3 census years," the percentages being 43.9 in 1919, 42.4 in 1924, and 51.6 in 1929. As regards cooperative purchasing, Nebraska led in 1919 with 22 percent of all its farm operators buying supplies cooperatively, Iowa led in 1924 with 15.9 percent, and Minnesota led in 1929 with 21.4 percent.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in July 1933

DATA regarding industrial disputes in the United States for July 1933 with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than 1 day have been omitted.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH JANUARY 1931 TO JULY 1933, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927 TO 1932

Month and year	Number of disputes ^s		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927 total	734	-----	349,434	-----	37,799,304
1928 total	629	-----	357,145	-----	31,556,947
1929 total	903	-----	230,463	-----	9,975,213
1930 total	653	-----	158,114	-----	2,730,368
1931 total	894	-----	279,299	-----	6,386,183
1932 total	808	-----	242,826	-----	6,462,973
1931					
January	57	19	10,150	2,905	181,169
February	52	29	20,473	10,677	223,660
March	49	26	26,453	28,012	476,904
April	73	39	27,135	22,687	770,512
May	115	45	28,000	15,603	400,509
June	90	47	18,795	15,223	511,926
July	73	51	49,434	56,683	612,864
August	79	36	11,019	14,759	1,157,013
September	117	65	36,092	37,427	493,649
October	77	45	34,384	29,380	1,052,095
November	62	39	13,219	13,690	355,818
December	50	21	4,145	1,318	150,064
1932					
January	87	37	12,091	4,993	132,873
February	56	34	33,713	31,103	460,701
March	64	30	33,087	13,937	736,782
April	89	44	19,187	21,513	620,866
May	87	52	44,357	49,777	1,251,455
June	69	46	15,858	24,138	943,338
July	66	40	20,890	33,216	740,785
August	85	38	28,492	27,717	754,423
September	85	33	17,824	7,456	566,045
October	47	23	10,442	2,324	147,059
November	38	21	3,460	1,896	68,154
December	35	12	3,425	997	40,492
1933					
January	67	29	19,616	8,790	240,912
February	63	32	10,909	6,706	109,860
March	91	41	39,913	12,794	445,771
April	72	46	23,077	19,867	535,039
May	133	49	41,652	16,584	603,723
June ¹	134	63	43,701	29,417	537,983
July ¹	165	132	109,752	110,032	2,143,085

¹ Preliminary figures subject to change.

Table 1 shows the number of disputes beginning in each year from 1927 to 1932, the number of workers involved and man-days lost for these years and for each of the months January 1931 to July 1933, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost as given in the last column of the table refers to the estimated number of working days lost by workers involved in disputes which were in progress during the month or year specified.

Occurrence of Disputes

TABLE 2 gives by industrial groups the number of strikes beginning in May, June, and July 1933, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN MAY, JUNE, AND JULY 1933

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	May	June	July	May	June	July
Auto, carriage, and wagon workers.....	1	2	-----	15	275	-----
Bakers.....		1	5		23	342
Barbers.....	2	1	1	1,200	104	350
Brick and tile workers.....		1	1		24	44
Building trades.....	11	3	6	1,797	188	444
Chauffeurs and teamsters.....	3	-----	1	656	-----	12
Clothing.....	28	18	49	10,300	4,420	61,470
Coopers.....			1			18
Electric and gas appliance workers.....		1	1		75	400
Farm labor.....		2	2		1,020	300
Food workers.....	3	2	2	1,720	133	185
Furniture.....	8	8	3	1,847	1,414	1,630
Glass workers.....	2	1	2	148	318	1,540
Hotel and restaurant workers.....		1	2		50	62
Iron and steel.....		-----	2		-----	530
Jewelry workers.....	3	1	-----	52	12	-----
Laundry workers.....	1	1	1	9	1,200	46
Leather.....	1	8	1	25	6,160	150
Longshoremen.....		1	2		16	430
Lumber, timber, and millwork.....	3	1	2	38	40	134
Metal trades.....	2	8	5	28	1,319	730
Miners.....	10	11	8	2,568	4,893	11,770
Motion-picture operators and theatrical workers.....	1	-----	2	38	-----	6,665
Paper and paper-goods workers.....	2	-----	2	136	-----	275
Printing and publishing.....	1	1	1	232	41	100
Rubber.....		1	4		78	971
Stone.....		2	-----		330	-----
Municipal workers.....	6	1	2	1,065	250	1,100
Textiles.....	40	48	46	18,797	20,300	18,975
Tobacco.....		1	3		250	250
Other occupations.....	5	8	8	981	768	829
Total.....	133	134	165	41,652	43,701	109,752

Size and Duration of Disputes

TABLE 3 gives the number of industrial disputes beginning in July 1933, classified by number of workers and by industrial groups.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JULY 1933, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial group	Number of disputes beginning in July 1933 involving—						
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 and under 10,000 workers	10,000 workers and over
Bakers	1	3	1				
Barbers			1				
Brick and tile workers		1					
Building trades		4	2				
Chauffeurs and teamsters	1						
Clothing	2	9	21	8	7	1	1
Coopers	1						
Electric- and gas-appliance workers			1				
Farm labor			2				
Food workers		1	1				
Furniture		1	1		1		
Glass workers				1	1		
Hotel and restaurant workers	1	1					
Iron and steel		1	1				
Laundry workers		1					
Leather			1				
Longshorem		1	1				
Lumber, timber, and mill work		1	1				
Metal trades		3	2				
Miners		1	5	1			1
Motion-picture operators, actors, and theatrical workers					1	1	
Paper and paper-goods workers	1		1				
Printing and publishing			1				
Rubber			4				
Municipal workers			1	1			
Textiles		13	25	4	3	1	
Tobacco		2	1				
Other occupations	2	2	4				
Total	9	45	78	15	13	3	2

In table 4 are shown the number of industrial disputes ending in July 1933, by industrial groups and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JULY 1933, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in July 1933			
	½ month or less	Over ½ and less than 1 month	1 month and less than 2 months	2 and less than 3 months
Bakers	1	1		
Brick and tile workers	1			
Building trades	1			2
Clothing	17	1		1
Coopers	1			
Electric and gas appliance workers	1			
Farm labor	1			
Food workers	2			
Furniture	1			
Glass workers	1			
Iron and steel	2			
Jewelry workers			1	
Laundry workers		1		
Leather	1			
Lumber, timber, and millwork	1			
Metal trades	6			
Miners	3			
Paper and paper-goods workers	2			
Printing and publishing	1			
Rubber	3			
Municipal workers	1			
Textiles	32	1	1	1
Tobacco	1	1		
Other occupations	5			
Total	85	5	2	4

Conciliation Work of the Department of Labor in July 1933

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 140 labor disputes during July 1933. These disputes affected a known total of 120,063 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 5 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

LABOR DISPUTES HANDLED BY CONCILIATION SERVICE DURING JULY 1933

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved—	
					Beginning	Ending	Directly	Indirectly
Altman Cash Feed Store, Irwin, Pa.	Strike.....	Feed-store workers..	Asked increase of wages.....	Adjusted. Wages increased 15 percent. Gentlemen's agreement.	1933 July 3	1933 July 6	150	200
McGregor Leather Coat Co., Amsterdam, N.Y.	do.....	Coat makers.....	do.....	Adjusted. Wages increased 20 percent, 44-hour week, union recognition.	July 1	July 18	154	-----
Riverside Grocery, Columbus, Ohio.	do.....	Building workers.....	Employment of nonunion men.....	Pending.....	July 3	-----	6	-----
Textile workers, Chattanooga, Tenn.	Threatened strike.....	Textile workers.....	Working conditions.....	Adjusted. Accepted National Textile Code.	June 25	July 6	100	-----
Consumers' Coal Co., Harmsville, Pa.	Lockout.....	Miners.....	Wages and conditions.....	Adjusted. Returned; checkweighman allowed.	July 7	July 12	550	700
Art Metal Construction Co., Jamestown, N.Y.	Strike.....	Metal workers.....	Wage cuts; conditions.....	Pending.....	July 6	-----	450	40
Hirsch & Sons Cloak Manufacturing Co., Chicago, Ill.	do.....	Cloak makers.....	Discrimination against union shops alleged.	Adjusted. Settled by compromise.	July 8	July 14	300	-----
Pattern makers, Detroit, Mich.	Threatened strike.....	Pattern makers.....	Working conditions.....	Adjusted. Hours shortened to 11 per day.	do.....	July 16	275	2,500
Miners, Haileyville, McAlester, and Wilburton, Okla.	Strike.....	Miners.....	Wages and conditions.....	Unable to adjust.....	July 7	July 22	425	-----
Brewery building, St. Louis, Mo.	Controversy.....	Boilermakers vs. iron workers.	Jurisdiction of work on building.....	Pending.....	July 8	-----	25	-----
Shell Oil Co., California	do.....	Oil workers.....	Renewal of agreement.....	do.....	July 1	-----	5,000	-----
Boilermakers, Chicago, Ill.	Strike.....	Boilermakers.....	Proposed wage cut in new agreement.	Adjusted. Many returned pending adoption of national code.	June 14	July 19	150	-----
Hotel and restaurant employees, Cleveland, Ohio.	do.....	Hotel and restaurant workers.	Working conditions.....	Pending.....	July 5	-----	200	-----
Cigar makers, Scranton, Pa.	do.....	Cigar makers.....	Wages and conditions.....	Adjusted. Returned pending adoption of national code.	July 11	July 21	20	380
Mohawk Rubber Co., Akron, Ohio.	do.....	Rubber workers.....	do.....	Adjusted. Allowed 10 percent increase.	do.....	July 19	125	-----
Keith and Loew's Theaters, Dayton, Ohio.	do.....	Engineers.....	do.....	Pending.....	July 3	-----	4	-----
Pants makers, Scranton, Pa.	do.....	Pants makers.....	Asked increase of wages.....	Adjusted. Returned; agreed on temporary code.	July 12	July 22	20	180
Silk throwers, Scranton, Pa.	do.....	Silk throwers.....	Organization of union.....	Unable to adjust. Plant closed indefinitely.	do.....	July 15	45	-----
LaMode Garment Co., Chicago, Ill.	do.....	Garment makers.....	Alleged discrimination for union affiliation.	Adjusted. All returned; union agreement signed.	do.....	July 25	400	-----

INDUSTRIAL DISPUTES

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LABOR DISPUTES HANDLED BY CONCILIATION SERVICE DURING JULY 1933—Continued

600

MONTHLY LABOR REVIEW

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved—	
					Begin-ning	End-ing	Di-rectly	Indi-rectly
Conemaugh Mines, Saltsburg, Pa.	Strike.....	Miners.....	Asked for checkweighman; other conditions.	Pending.....	1933 July 12	1933	100	125
Philadelphia Storage Battery Co., Philadelphia, Pa.	.....do.....	Employees.....	Wages, hours, and conditions.....	.....do.....	.....do.....		2,700	600
Race-track workers, Absecon, N.J.	Controversy.....	Building workers.....	Wages.....	.....do.....	July 14		(¹)	
Theater workers, Davenport, Iowa	Lockout.....	Employees.....	Wage cut, number of employees.....	Adjusted. Former scale restored with back pay.	July 10	July 23	50	300
Pottery workers, Ford City, Pa., Zanesville, and Brooksville, Ohio.	Strike.....	Pottery workers.....	Alleged discrimination.....	Pending.....	July 13		100	
The Gross Cleaners, Detroit, Mich.	.....do.....	Cleaners, inside workers.....	Wages and conditions.....	.....do.....	July 7		400	1,900
Monarch Rubber Co., Hartsville, Ohio.	.....do.....	Rubber workers.....	.....do.....	Adjusted. Minimum for men 40 cents per hour, women 32½ cents. Certain classes 10 percent additional.	July 18	July 19	185	
Radio workers, Philadelphia, Pa.	.....do.....	Radio workers.....	Increased wages; shorter hours.....	Adjusted. Increase of 6 to 25 percent allowed; 40-hour week.	July 11	July 15	2,700	600
Matthiessen & Hegeler Zinc Co., Ottawa, Ill.	.....do.....	Employees.....	Wages; discharges.....	Adjusted. Returned; shop committee appointed.	July 18	July 18	200	450
Lewis Bros., Inc., Newark, N.J.	.....do.....	Candy workers.....	Asked 25 percent increase of wages.	Adjusted. Allowed \$1 per week increase and ½ cent per box increase on piecework.	July 10	July 17	225	
Truck drivers, Pittsburgh, Pa.	.....do.....	Drivers.....	Working conditions.....	Pending.....	July 13		22	
U.S. Glass Co., Glassport, Pa.	.....do.....	Glass workers.....	Wages.....	Adjusted. Increases, union recognition.	July 17	July 17	750	900
Feigenspan's Brewery, Newark, N.J.	Controversy.....	Carpenters, iron-workers and machinists.	Working conditions.....	Pending.....	.....do.....		30	40
Merit Leather Strap Co., Newark, N.J.	Strike.....	Leather workers.....	Unionization of plant.....	.....do.....	July 14		100	25
C. K. Eagle & Co., Shamokin, Pa.	Threatened strike.	Silk workers.....	Wages and conditions.....	Adjusted. Resumed work; satisfactory settlement.	July 12	July 19	200	
Gendron Wheel Co., Toledo, Ohio.	Lockout.....	Metal polishers.....	Protest discharges and longer hours.	Adjusted. All reinstated except 4 men.	July 17	July 22	25	
M. H. Miller Co., Jeannette, Pa.	Strike.....	Workers.....	Wages. Plant closed.	Pending.....	July 14		(¹)	
Dairymen's Association, Bellingham, Wash.	Controversy.....	Truck drivers.....	Wage cuts; asked restoration of wages.	.....do.....	.....do.....		165	
Hudson Motor Co., Detroit, Mich.	.....do.....	Pattern makers.....	Wages and conditions.....	.....do.....	July 16		(¹)	

Brewery workers, Cleveland, Ohio.	do	Brewery workers	Jurisdiction of certain work	do	July 17		(1)	
Typographical workers, Detroit, Mich.	do	Typographical workers	Working conditions	Unclassified. Arbitration award made and rejected.	July 14	July 19	100	
Wilkerson, Becker and Reading Laundries, Reading, Pa.	Strike	Laundry workers	Wages, hours, and union recognition.	Pending.	July 10		240	
Landy Towel Co., Reading, Pa.	do	do	do	Adjusted. Closed-shop agreement, \$10 per week minimum and 45-hour week.	do	July 14	25	
Naumkeag Steam Cotton Co., Salem, Mass.	do	Cotton mills	Number of looms; other conditions.	Adjusted. Allow 20 percent increase; shorter hours.	May 8	July 15	2,000	
Joe Brooks & Sons, A. & D. Dress Shop and Bregar & Weiner Co., Bayonne, N.J.	do	Dressmakers	Asked 20 percent increase of wages.	Adjusted. Allowed beginners \$2 to \$5 per week; others same pay for 46 hours as formerly for 49.	July 13	July 17	205	
9 silk mills, Pawtucket, R.I.	do	Silk workers	Asked 66 percent increase of wages.	Adjusted. Allowed 52 percent increase.	July 17	July 26	1,000	400
Troy Laundry Co., Des Moines, Iowa.	Controversy.	Laundry workers	Alleged discrimination for union affiliation.	Pending.	July 6		(1)	
Flynn Dairy Co., Des Moines, Iowa.	do	Dairy workers	Refusal to allow organization	do	July 18		66	
Reyburn Manufacturing Co., Philadelphia, Pa.	Strike	Tag and ticket makers.	Asked 20 percent increase of wages.	Adjusted. Allowed 10 percent increase.	July 17	July 19	285	
York Shirt Co., Glens Falls, N.Y.	do	Shirt makers	Asked reemployment.	Unable to adjust. Others having been employed, company refused to reinstate former workers.	July 14	July 22	5	
Stunzi Sons Silk Co., Reading and Ephrata, Pa.	do	Silk workers	Asked 55 percent increase of wages.	Adjusted. Allowed 55 percent increase, 40-hour week, and abolished penalties.	July 7	July 23	300	
Schrecker Co. Inc., Gloversville, N.Y.	Threatened strike.	Glove cutters	Asked increase; protest tax system.	Adjusted. Remained at work; no change.	July 10	July 14	125	515
The Superba Glove Co., Johnston, N.Y.	Strike	do	do	Adjusted. Returned to work; committee to fix terms.	July 12	do	90	414
Stephens Elkhorn Fuel Corp., Prestonburg, Pa.	do	Miners	Working conditions	Adjusted. Returned pending adoption of national code.	July 21	July 26	75	
Bridge over Mississippi River, New Orleans, La.	Controversy.	Bridge workers	Protest small wages and long hours.	Pending.	July 17		800	200
James Lee & Sons Co., Bridgeport, Pa.	Strike	Woolen-yarn makers	Organization of workers	Adjusted. Terms arranged in conference; 40-hour week; increase.	July 14	July 20	1,700	150
Sharp's Water Ice Co., Wilmington, Del.	do	Ice-cream workers	Asked increase and 40-hour week	Unclassified. Places filled by others.	July 17	July 19	5	
Conkling Armstrong Terra Cotta Co., Philadelphia, Pa.	do	Employees	Asked increase 45 cents per hour.	Pending	July 18		27	
Columbia Piece Dye Co., Paterson, N.J.	do	Dyers	Asked increase from 37 to 62½ cents per hour	Adjusted. Allowed 45 cents per hour; 40-hour week.	July 24	July 25	200	
Wheeling Structural Steel Co., Martins Ferry, Ohio.	do	Steel workers	Wages	Pending	July 17		100	
Follansbee Steel Co., Follansbee, W.Va.	do	do	Asked increase	Adjusted. Accepted steel code when effective, retroactive to July 16, 1933.	July 24	July 30	100	1,100
Moore Coal Co., Jellico, Tenn.	Controversy.	Miners	Wages and conditions	Adjusted. Reinstated all men discharged.	July 1	July 22	26	350

¹ Not reported.

LABOR DISPUTES HANDLED BY CONCILIATION SERVICE DURING JULY 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved—	
					Beginning	Ending	Directly	Indirectly
Oak Park Theater, Sacramento, Calif.	Controversy.	Operators.....	Discharge of operators; owner doing own work.	Pending.....	1933 July 3	1933	2	
Theater workers, Scranton and vicinity, Pa.	Strike.....	Ushers and others.....	Asked increase.....	Adjusted. Small increases allowed.	July 13	July 17	33	38
National Cash Register Co., Dayton, Ohio.	Controversy.	Metal polishers.....	Discharges.....	Adjusted. Part rehired, others when and if needed.	July 10	July 15	25	
Alabama Hosiery Mills, Decatur, Ala.	.....do.....	Hosiery workers.....	Protest long hours.....	Pending.....	July 22		250	
Blackstone Plush Co., Pawtucket, R.I.	Strike.....	Weavers.....	Asked increase of wages.....	Adjusted. 30 percent increase; recognition; other concessions.	July 24	July 25	100	
Royal Weaving Co. and National Weaving Co., Providence, R.I.	.....do.....	.....do.....	.....do.....	Adjusted. 4 looms per weaver; \$1.85 per thousand picks; other increases of about 50 percent.	July 22	July 27	1,400	
Jeannette Shade Ink Novelty Co., Jeannette, Pa.	.....do.....	Novelty workers.....	.....do.....	Adjusted. Increased 10 to 12 percent.	July 15	July 25	100	125
Road workers, Turtle Creek, Pa.	.....do.....	Road workers.....	.....do.....	Adjusted. Allowed increase to 40 and 50 cents per hour.	July 20	.....do.....	10	150
Climax Neckwear Co., Perkasio, Pa.	.....do.....	Neckwear workers.....	.....do.....	Unable to adjust. Plant closed.	July 21	July 28	26	
Capital-Creighton Theaters, Fort Wayne, Ind.	Controversy.	Operators.....	Working conditions.....	Pending.....	July 25		2	
Edwin & Louis Bry, Inc., Norristown, Pa.	Strike.....	Woolen workers.....	Asked increase of wages; conditions.	Adjusted. Agreed in conference.	July 17	July 25	459	
Container Corporation, Chicago, Ill.	.....do.....	Machinists.....	Organization of employees.....	Pending.....	July 20		550	
Clifton Yarn Mills, Inc., Conshohocken, Pa.	.....do.....	Twisters and winders.....	Asked increase of wages and shorter hours.	Adjusted. Allowed increase and 40-hour week.	July 17	July 25	300	
Building, Somerville, N.J.	Lockout.....	Plumbers, steam fitters.	Wage cut.....	Pending.....	July 20		(1)	
Dyeing and printing, Paterson, N.J.	Strike.....	Dyers and print workers.	Wages.....	Adjusted. Satisfactory wage agreement.	July 26	Aug. 1	200	
Grigsby-Grunow Co., Chicago, Ill.	Controversy.	Machinists.....	Organization.....	Pending.....	.....do.....		(1)	
Motion-picture studio workers, Hollywood, Calif.	Strike.....	Film and sound workers.	Wages.....	.....do.....	.....do.....		3,000	30,000
High-school building, Albany, N.Y.	Controversy.	Bricklayers.....	Working conditions.....	Adjusted. Returned under compromise agreement.	July 22	July 26	25	
Richmond Radiator & Enamel Co., Uniontown, Pa.	Strike.....	Enamelers.....	Alleged discharges for union activity.	Adjusted. Recognition allowed.	.....do.....	.....do.....	700	

Orenstein Trunk Co., Inc., Newark, N.J.	do	Trunk makers	Organization disturbances	Pending	July 25		30	
Eastern Shoe Manufacturing Association, Boston, Lynn, and Chelsea, Mass.	Threatened strike	Shoe workers	Asked increase of wage	do	July 26		10,000	
Corsellette & Brassier Co., Glen Lyon, Pa.	Strike	Ladies' garment makers	do	Adjusted. Code to prevail; 40-hour week.	July 18	July 26	134	
G. & W.H. Corson Co., Plymouth Meeting, Pa.	do	Lime-plant workers	Asked increase of wages and equalization of work.	Adjusted. Allowed 10 percent increase; base rate 35 cents.	July 21	July 22	75	
Enterprise Manufacturing Co., Akron, Ohio.	Lockout	Employees	Working conditions	Pending	July 28		(1)	
Miners, Uniontown and vicinity, Pa.	Strike	Miners	Wages and working conditions	do	July 24		20,000	
Bakers, Seattle, Wash.	do	Bakers	Fixing of prices	do	July 26		10	1,000
S. Karoch Co. and others, Cleveland, Ohio.	do	Dress workers	Wages and conditions	do	do		1,500	
S. Karoch Co., Ashtabula, Ohio.	do	do	do	do	do		125	
Jacks-Evans, Belleville, Ill.	Lockout	Employees	Alleged discharges for union affiliation.	do	July 28		(1)	
Loggers and timber workers, Klamath Falls, Oreg.	Strike	Loggers and timber workers	Wages and conditions	do	July 27		1,000	
American Record Corporation, Scranton, Pa.	do	Employees	do	Adjusted. Increased 10, 15, and 20 percent and permanent agreement.	July 31	Aug 5	1,000	
Mann Pants Co., Pittston, Pa.	do	Pants workers	do	Adjusted. Union recognition and 20 percent increase.	July 14	July 24	5	70
Herbert Hosiery Mills, Norristown, Pa.	do	Hosiery workers	do	Adjusted. Recognition and 50 percent increase.	July 19	July 28	50	350
Tygart Valley Glass Co., Washington, Pa.	do	Glassworkers	do	Adjusted. Increased men from 40 to 45 cents; girls from 30 to 32½ cents per hour.	July 26	do	700	
Hazel Atlas Glass Co., Washington, Pa.	do	do	do	do	do	do	1,140	1,100
United Air Lines, Chicago, Ill.	Controversy	Air pilots	Dispute as to hourly or mileage basis	Adjusted. Company relinquished demands; national code to be accepted.	July 20	July 25	140	
Silk and rayon, Paterson, N.J.	Threatened strike	Silk and rayon workers	Objection to temporary code	Pending	July 27		(1)	
Superior Elevator & Forwarding Co., Buffalo, N.Y.	Strike	Grain-elevator workers	Working conditions	do	do		15	
Onondaga Silk Co., Ogdensburg, N.Y.	Controversy	Silk workers	Employment of local workers	Adjusted. Company will reemploy all workers if Chamber of Commerce will raise a bonus.	July 25		165	
Enterprise Cleaning Co., St. Louis, Mo.	Strike	Cleaners	Alleged 3 discharged for union affiliation.	Pending	July 27		3	
National Furniture Co., Evansville, Ind.	do	Furniture workers	Alleged 4 discharged for union affiliation.	Adjusted. All returned	July 21	July 29	250	25
Commercial Dye & Print Co., Paterson, N.J.	do	Print and dye workers	Alleged discharges for union affiliation.	Adjusted. Accepted code agreement.	July 27	July 31	200	
Imhoff Berg Co., Paterson, N.J.	do	do	do	do	July 21	Aug. 1	450	

¹ Not reported.

LABOR DISPUTES HANDLED BY CONCILIATION SERVICE DURING JULY 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Dearborn Coach Co., Detroit, Mich.	Threatened strike.	Bus operators.....	Alleged discharges for union affiliation.	Pending.....	1933 July 27	1933	(1)	-----
Debonair Hosiery Mills, Cleveland, Ohio.	Strike.....	Hosiery workers.....	Asked increase of wages.....	Adjusted. Returned under code conditions.	July 5	July 26	60	95
Oaks Furniture Co., North Wilkesboro, N.C.	.....do.....	Furniture workers.....	Wages.....	Pending.....	July 10	-----	(1)	-----
Murray Automobile Body Co., Detroit, Mich.	Threatened strike.	Automobile-body makers.	Working conditions.....	do.....	July 27	-----	(1)	-----
Diamond Coal Co., Knoxville, Tenn.	Controversy.	Miners.....	do.....	Adjusted. All reinstated.	July 10	July 31	8	292
Ladies' garment workers, Bayonne, N.J.	Threatened strike.	Ladies' garment makers.	Wages and organization difficulties.	Adjusted. No objection to organization.	July 29	Aug. 4	400	-----
Elk Mine Co., Sealack, Wash.	Controversy.	Miners.....	do.....	do.....	July 1	July 24	15	35
Great Lakes Dredge & Dock Co., Chicago, Ill.	.....do.....	Blacksmiths.....	Making of agreement.....	Adjusted. Agreement concluded.	July 25	Aug. 1	15	-----
Chic Manufacturing Co., Peoria, Ill.	Lockout.....	Ladies' garment workers.	Alleged discrimination for union activity.	Pending.....	July 26	-----	30	-----
Textile Dyeing & Printing Corporation of America, Fairlawn, N.J.	Strike.....	Print and dye workers.	Working conditions.....	Adjusted. Wage agreement concluded.	July 25	July 29	2,000	-----
Kapo Dyeing & Print Works, Haledon, N.J.	.....do.....	.....do.....	.....do.....	Adjusted. Temporary code accepted.	.....do.....	July 31	204	-----
A. H. Demijian Construction Co., Pell City, Ala.	Controversy.	Laborers.....	Protested low wages.....	Adjusted. Allowed 30 percent increase.	July 20	July 22	145	-----
Henry I. Seigal Co., Scranton, Pa.	Strike.....	Pants makers.....	Wages and hours.....	Adjusted. Will comply with code.	July 13	July 20	600	-----
Eckart Packing Co., East St. Louis, Ill.	Controversy.	Meat cutters.....	Alleged discrimination.....	Pending.....	Aug. 2	-----	1	180
Bridges Milk Co., Erie, Pa.	.....do.....	Milk drivers.....	Organization difficulty.....	do.....	do.....	-----	1	-----
Meat packers, Chicago, Ill.	.....do.....	Meat workers.....	Alleged discharge for union affiliation.	do.....	July 31	-----	1	-----
Sportwear Hosiery Mills, Philadelphia and Bethlehem, Pa.	Strike.....	Hosiery workers.....	Wages and conditions.....	Adjusted. Increased from 40 to 60 percent and organization allowed.	July 25	Aug. 3	300	-----
Columbian Steel Tank Co., Kansas City, Mo.	.....do.....	Employees.....	Alleged discharges for union affiliation.	Pending.....	Aug. 1	-----	14	-----
Key Boiler Equipment Co., East St. Louis, Ill.	Controversy.	do.....	do.....	do.....	July 27	-----	1	-----
Holgate Bros. Co., Kane, Pa.	.....do.....	do.....	do.....	Adjusted. Differences settled and all former workers to be employed.	July 30	Aug. 5	320	-----

Government construction									
Post offices:									
Butte, Mont.	do	Gas-connection workers.	Working conditions	Pending	July 8			10	
Oak Park, Ill.	do	Carpenters	Wages not all paid	Adjusted. Back wages paid	July 12	July 28		1	
Duncan, Okla.	do	Bricklayers	Prevailing wage	Adjusted. Parties at interest agreed on \$1 per hour.	July 18	July 21		10	
New Castle, Pa.	Strike	Carpenters and laborers.	Prevailing wage not being paid	Adjusted. Returned to work; satisfactory settlement.	July 14	Aug. 1		15	
Jackson, Mich.	do	Marble setters	Working conditions	Adjusted. Union conditions agreed upon.	July 3	July 18		20	100
Coatsville, Pa.	Controversy	Painters	Prevailing wage	Pending	July 25			12	
Macon, Ga.	do	Building trades	Investigation of all rates being paid.	do	do			150	
Norfolk, Va.	Strike	Brick and stone masons, laborers, mortar mixers, and hod carriers.	Rate reduced from \$1.25 to \$1.12½ per hour.	Adjusted. Rate \$1.25 restored	July 18	July 24		20	130
Detroit, Mich.	do		Company refused pay higher than laborers' rate to helpers.	Pending	July 27			25	
Interstate Commerce Building, Washington, D.C.	Controversy	Carpenters and ironworkers.	Installation of metal shoulders on radiators.	Adjusted. Awarded to ironworkers.	July 1	July 31		6	994
Department of the Interior Building, Ketchikan, Alaska.	do	Ironworkers.	Wages not paid in full	Adjusted. Paid in full	do	July 29		2	
Government buildings, Norristown, Lansdale, and Coatsville, Pa.	do	Trowel trades and carpenters.	Jurisdiction	Adjusted. Work divided between carpenters and bricklayers.	July 29	July 31		285	
Government buildings, Washington, D.C.	Lockout	Plasterers	Wage cut	Adjusted. Allowed \$14 till Sept. 8; then \$12 per day.	July 1	July 21		300	200
Marine Hospital, Philadelphia, Pa.	Controversy	Electricians	Long hours	Pending	July 22			(1)	
Government buildings, Fort Miley, Calif.	do	Ironworkers	Prevailing wage	Adjusted. Increased from \$7.20 to \$8 per day.	July 20	Aug. 5		20	20
Air Base, Sunnyvale, Calif.	do	Building	Complaints relative to prevailing rates.	Pending	July 3			100	
Total								73,090	46,973

¹ Not reported.

LABOR AWARDS AND DECISIONS

Wage Increase for Street-Railway Employees, Gary, Ind.

A BOARD of arbitration consisting of Judge E. Miles Norton, representing Division No. 517, Amalgamated Association of Street and Electric Railway Employees, J. C. Johnson, representing the Gary Railways Co., and John M. Fox, as impartial chairman, granted an increase in the wage rates of all the employees represented by Division No. 517.

The company demanded a 20 percent reduction in the wage rates of its employees who are members of Division No. 517. The union resisted the proposed reduction and requested arbitration. In presenting its case the union went into the financial history of the company and its connection with the Midland Utilities Co.

The award, effective August 1, 1933, is as follows:

That the hourly wage of all car operators and bus men shall be 66 cents per hour and that wages of all other employees covered by the present contract now in force between the Gary Railways Co. and Division No. 517 shall be increased 3 cents per hour.

It is further adjudged and decreed by this board that the hourly wage scale as fixed by this award shall remain in effect until the company shall have had a reasonable time in which to pay off its pressing, current, overdue operating accounts of approximately \$136,998.50 and that neither side shall demand arbitration on the question of raising or lowering the hourly wage scale until such reasonable time has elapsed: *Provided*, That the railway company shall furnish the union monthly financial statements showing receipts and expenditures including the amount applied each month on said debts and in case a good faith dispute shall arise over the meaning of "reasonable time" as used herein, same shall be submitted to arbitration.

Increase in Wage Rates of Mailers, Cleveland, Ohio

THE agreement between the Cleveland commercial printers and Mailers' Union No. 12 for the period May 1, 1932, to April 30, 1934, provides that journeyman mailers shall receive from May 1, 1932, to April 30, 1933, for day work \$44.75 per week of 6 consecutive days, and for night work \$46.75 per week of 6 consecutive nights. The agreement also provides that "journeyman mailers shall receive from May 1, 1933, to April 30, 1934, an amount to be agreed upon by the parties to this agreement. In determining such new rates, the guide will be general economic conditions and the trend of wage scales in the printing industry."

The parties to the agreement having failed to agree on new wage rates from May 1, 1933, to April 30, 1934, it was decided to refer their differences to arbitration. Marie R. Wing was selected as the fifth member and chairman of the arbitration board.

The employing printers asked for a 15 percent reduction from the wage scale paid for the year ending April 30, 1933, while the union asked for an increase of 25 percent.

The employers contended that general economic conditions and the trend of wage scales in the printing industry justified the decrease asked for. They referred to certain cost-of-living indexes published by the United States Government showing decreases in the cost of living from 1926 to the present, the greater part of which they claimed have taken place since June 1929. They asserted that due to competition from open-shop firms, prices must be lowered or orders will be lost. They cited reductions since 1931 of wages of printers and pressmen, and the fact that the mailers took a reduction in April 1932 of \$2.25 per week.

The union claimed that the decrease accepted by the mailers in 1932 set them back to the wage scale of 1925. It also urged that because of the increased cost of living which had already set in, and in view of the period of inflation inaugurated by the embargo on gold and the campaign of the Federal Government for industrial recovery, including increased wages, an increase of 25 percent should be granted. The union called attention to the irregularity of employment in the job field for mailers, stressing the fact that only about one third of the mailers work as much as 5 days a week and the other two thirds have work only on from 1 to 4 days a week.

In the opinion of the chairman the issue, reduced to its simplest terms, seems to be as follows:

Can a fair assumption be made on the basis of the evidence presented that prices and the cost of living are on the increase and will continue to rise during the months ending April 30, 1934? Is there a reasonable basis for the assumption that along with the rise in prices and the drive for industrial recovery, the economic situation of the printing industry will be proportionately improved? None of us can attempt too daring a prophecy as to the business and industrial conditions for the coming year, but it is my sincere opinion that evidence is at hand, and a fair assumption from this evidence leads to the conclusion that the trend of lowering prices and conditions of deflation has been checked, and that a beginning has been made toward higher prices and better business conditions; and that to award a decrease of wages at this time would be against the evidence as well as against good public policy. I do not feel, however, that indications warrant an increase of 25 percent. It is my opinion that in view of the probability of regular work, an increase of \$2.25 per week is a fair award.

My conclusion, therefore, is as follows: Journeyman mailers shall receive from May 1, 1933 to April 30, 1934, for day work \$47 per week of 6 consecutive days and for night work \$49 per week of 6 consecutive nights.

HOUSING

Building Operations in Principal Cities of the United States, July 1933

THERE was a decrease of 10.6 percent in the total number of building permits issued and a decrease of 11.3 percent in indicated expenditures for total building operations, comparing reports received for June and July 1933 by the Bureau of Labor Statistics from 776 identical cities of the United States having a population of 10,000 or over.

The information shown in the following tables applies to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Illinois, Massachusetts, New York, New Jersey, and Pennsylvania, through their departments of labor, are cooperating with the Federal bureau in the collection of these data.

Comparisons, June and July 1933

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 776 identical cities in the United States having a population of 10,000 or over, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 776 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JUNE AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	June 1933	July 1933	Percent of change	June 1933	July 1933	Percent of change
New England.....	\$2,177,056	\$2,102,948	-3.4	\$1,679,088	\$593,063	-64.7
Middle Atlantic.....	4,782,315	3,446,573	-27.9	4,925,404	2,875,935	-41.6
East North Central.....	1,609,083	1,647,339	+2.4	2,248,810	1,533,765	-31.8
West North Central.....	1,115,980	1,055,272	-5.4	794,687	3,962,225	+398.6
South Atlantic.....	1,232,971	1,007,084	-18.3	1,833,628	578,888	-68.4
South Central.....	791,655	924,445	+16.8	872,785	2,009,948	+130.3
Mountain and Pacific.....	2,255,566	2,556,330	+13.3	1,686,821	1,798,613	+6.6
Total.....	13,964,626	12,739,991	-8.8	14,041,223	13,352,437	-4.9

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	June 1933	July 1933	Percent of change	June 1933	July 1933	Percent of change	
New England.....	\$1,391,449	\$1,461,655	+5.0	\$5,247,593	\$4,157,666	-20.8	107
Middle Atlantic.....	6,275,797	4,026,475	-35.8	15,983,516	10,348,983	-35.3	179
East North Central.....	1,868,980	1,596,164	-14.6	5,726,873	4,777,268	-16.6	179
West North Central.....	937,129	894,062	-4.6	2,847,796	5,911,559	+107.6	72
South Atlantic.....	1,236,109	1,166,752	-5.6	4,302,708	2,752,724	-36.0	77
South Central.....	827,504	802,929	-3.0	2,491,944	3,737,322	+50.0	79
Mountain and Pacific.....	2,312,392	1,966,204	-15.0	6,254,779	6,321,147	+1.1	83
Total.....	14,849,360	11,914,241	-19.8	42,855,209	38,006,669	-11.3	776

New residential buildings decreased 8.8 percent in indicated expenditures comparing July with June. Decreases were shown in four and increases in three of the geographic divisions.

New nonresidential buildings decreased 4.9 percent. Large increases, however, were shown in the West North Central and the South Central States.

There was a decrease of 19.8 percent in the estimated expenditures for additions, alterations, and repairs. All geographic divisions, except the New England, showed decreases in expenditures for this type of construction.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 776 identical cities in the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 776 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JUNE AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New non-residential buildings		Additions, alterations, and repairs		Total construction	
	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933
New England.....	464	415	995	761	3,151	2,598	4,610	3,774
Middle Atlantic.....	682	604	1,481	1,321	6,507	5,960	8,670	7,885
East North Central.....	344	318	1,337	1,306	3,597	3,189	5,278	4,813
West North Central.....	323	292	717	687	1,698	1,494	2,738	2,473
South Atlantic.....	337	349	477	462	2,933	2,439	3,747	3,250
South Central.....	340	307	416	464	2,265	1,816	3,021	2,587
Mountain and Pacific.....	664	652	1,205	1,058	4,238	4,041	6,107	5,751
Total.....	3,154	2,937	6,628	6,059	24,389	21,537	34,171	30,533
Percent of change.....		-6.9		-8.6		-11.7		-10.6

Decreases were shown in the number of new residential buildings, new nonresidential buildings, and in the number of additions, alterations, and repairs, comparing July with June.

Table 3 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings, for which permits were issued in 776 identical cities during June and July.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 776 IDENTICAL CITIES IN JUNE AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933
New England.....	\$1,947,406	\$1,811,223	427	381	\$201,650	\$171,550	64	48
Middle Atlantic.....	2,747,530	2,654,309	562	547	615,100	331,825	195	86
East North Central.....	1,491,383	1,521,839	328	299	92,200	102,500	19	26
West North Central.....	1,091,780	1,028,572	320	287	24,200	26,700	5	10
South Atlantic.....	1,172,577	940,859	322	330	47,144	41,715	25	28
South Central.....	657,810	570,595	298	270	118,845	324,850	81	63
Mountain and Pacific.....	1,885,851	2,250,730	603	615	243,715	134,700	93	51
Total.....	10,994,337	10,778,127	2,860	2,729	1,342,854	1,143,840	482	312
Percent of change.....		-2.0		-4.6		-14.8		-35.3

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 776 IDENTICAL CITIES IN JUNE AND JULY 1933, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933	June 1933	July 1933
New England.....	\$28,000	\$113,000	12	46	\$2,177,056	\$2,095,773	503	475
Middle Atlantic.....	1,410,685	180,900	528	75	4,773,315	3,167,034	1,285	708
East North Central.....	25,500	23,000	20	14	1,609,083	1,647,339	367	339
West North Central.....	0	0	0	0	1,115,980	1,055,272	325	297
South Atlantic.....	13,250	24,510	7	15	1,232,971	1,007,084	354	373
South Central.....	0	19,000	0	22	776,655	924,445	379	355
Mountain and Pacific.....	126,000	170,900	62	80	2,255,566	2,556,330	758	746
Total.....	1,603,435	531,310	629	252	13,940,626	12,453,277	3,971	3,293
Percent of change.....		-66.9		-59.9		-10.7		-17.1

There were decreases in the number of families provided for and in the amounts of money expended for each type of dwelling comparing July with June. The total number of families provided for decreased 17.1 percent, while the indicated expenditures for all kinds of housekeeping dwellings decreased 10.7 percent.

Table 4 shows the index number of families provided for, the index numbers of indicated expenditures for new residential buildings, new nonresidential buildings, additions, alterations, and repairs, and for total building operations.

TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New non-residential buildings	Additions, alterations, and repairs	Total building construction
1930					
June.....	54.4	45.1	82.5	74.6	63.3
July.....	49.9	44.1	86.7	77.4	64.8
1931					
June.....	43.4	33.4	41.7	56.5	39.4
July.....	35.8	27.6	53.7	57.8	41.7
1932					
June.....	10.6	7.9	24.6	28.2	17.3
July.....	8.2	5.6	16.1	22.6	12.0
1933					
January.....	4.9	3.4	26.8	16.2	14.7
February.....	5.6	4.6	8.9	14.2	7.9
March.....	7.2	4.2	6.9	20.9	7.8
April.....	7.4	4.6	9.9	22.6	9.5
May.....	11.9	8.1	33.8	29.8	21.7
June.....	12.3	8.8	11.5	33.3	13.8
July.....	10.2	8.0	10.9	26.7	12.2

The July index numbers of families provided for, of new residential buildings, of additions, alterations, and repairs, and of total building construction showed increases as compared with July 1932, but a decrease as compared with June 1933.

The index number of new nonresidential buildings showed a decrease as compared with both July 1932 and June 1933.

These index numbers are worked on the chain system with the monthly average of 1929 equaling 100.

Comparisons of Indicated Expenditures for Public Buildings

TABLE 5 shows the value of contracts awarded for public buildings by the various agencies of the United States Government and by the various State governments during the months of July 1932 and June and July 1933, by geographic divisions.

TABLE 5.—VALUE OF CONTRACTS FOR PUBLIC BUILDINGS AWARDED BY THE UNITED STATES GOVERNMENT AND BY STATE GOVERNMENTS, JULY 1932 AND JUNE AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	Federal			State		
	July 1932	June 1933	July 1933 ¹	July 1932	June 1933	July 1933 ¹
New England.....	\$769, 440	\$11, 651	\$169, 169	\$797, 071	\$1, 462	\$73, 500
Middle Atlantic.....	1, 160, 179	53, 656	13, 851	1, 071, 507	1, 761, 209	832, 321
East North Central.....	675, 423	477, 762	20, 659	489, 595	232, 047	4, 210
West North Central.....	2, 671, 151	190, 891	225, 806	331, 764	329, 213	205, 595
South Atlantic.....	2, 506, 840	93, 659	38, 347	278, 811	1, 040, 892	28, 525
South Central.....	1, 048, 442	150, 596	6, 120	866, 655	320, 014	66, 202
Mountain and Pacific.....	1, 197, 881	61, 089	54, 430	73, 510	159, 856	63, 631
Total.....	10, 029, 356	1, 039, 304	528, 382	3, 908, 913	3, 844, 693	1, 273, 984

¹ Subject to revision.

Contracts awarded for Federal buildings during July 1933 amounted to \$528,382. This is only slightly more than one half of the June total and only about one twentieth of the July 1932 total.

The value of State government awards during July 1933 was \$1,273,984. This was less than one third of the value of building contracts awarded by State governments during July 1932 or June 1933.

Comparisons, July 1933 with July 1932

TABLE 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 345 identical cities of the United States having a population of 25,000 or over, for the months of July 1932 and July 1933, by geographic divisions.

TABLE 6.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 345 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN JULY 1932 AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	July 1932	July 1933	Percent of change	July 1932	July 1933	Percent of change
New England.....	\$856, 107	\$1, 047, 275	+22. 3	\$3, 703, 037	\$413, 916	-88. 8
Middle Atlantic.....	1, 699, 823	2, 564, 182	+50. 8	5, 260, 485	2, 461, 717	-53. 2
East North Central.....	948, 074	1, 243, 934	+31. 2	2, 681, 120	1, 227, 193	-54. 2
West North Central.....	566, 070	883, 115	+56. 0	2, 838, 961	3, 783, 594	+33. 3
South Atlantic.....	870, 067	815, 538	-6. 3	2, 913, 057	453, 958	-84. 4
South Central.....	569, 223	859, 300	+51. 0	1, 345, 322	1, 838, 167	+36. 6
Mountain and Pacific.....	1, 201, 095	2, 181, 715	+81. 6	1, 124, 264	1, 540, 938	+37. 1
Total.....	6, 710, 459	9, 595, 059	+43. 0	19, 866, 246	11, 719, 483	-41. 0

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	July 1932	July 1933	Percent of change	July 1932	July 1933	Percent of change	
New England.....	\$1, 090, 079	\$1, 184, 347	+8. 6	\$5, 649, 223	\$2, 645, 538	-53. 2	53
Middle Atlantic.....	2, 567, 093	3, 714, 341	+44. 7	9, 527, 401	8, 740, 240	-8. 3	69
East North Central.....	1, 493, 108	1, 400, 803	-6. 2	5, 122, 302	3, 871, 930	-24. 4	93
West North Central.....	673, 444	761, 867	+13. 1	4, 078, 475	5, 428, 576	+33. 1	23
South Atlantic.....	1, 131, 112	1, 033, 660	-8. 6	4, 914, 236	2, 303, 156	-53. 1	39
South Central.....	810, 150	730, 415	-9. 8	2, 724, 695	3, 427, 882	+25. 8	31
Mountain and Pacific.....	1, 129, 716	1, 740, 211	+54. 0	3, 455, 075	5, 462, 864	+58. 1	37
Total.....	8, 894, 702	10, 565, 644	+18. 8	35, 471, 407	31, 880, 186	-10. 1	345

Increases were shown in indicated expenditures for new residential buildings and for additions, alterations, and repairs comparing July 1933 with the same month of the previous year.

New nonresidential buildings and total building operations, however, showed decreases in indicated expenditures comparing these two periods.

Table 7 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 345 identical cities having a population of 25,000 or over, for the months of July 1932 and July 1933, by geographic divisions.

TABLE 7.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 345 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN JULY 1932 AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933
New England.....	172	196	489	477	1, 989	2, 147	2, 650	2, 820
Middle Atlantic.....	330	449	1, 166	1, 018	3, 963	5, 387	5, 459	6, 854
East North Central.....	210	253	1, 192	1, 134	2, 316	2, 851	3, 718	4, 238
West North Central.....	182	231	559	575	920	1, 234	1, 661	2, 040
South Atlantic.....	217	254	456	408	2, 321	2, 228	2, 994	2, 890
South Central.....	214	263	347	379	1, 401	1, 541	1, 962	2, 183
Mountain and Pacific.....	371	560	825	910	2, 833	3, 425	4, 029	4, 895
Total.....	1, 696	2, 206	5, 034	4, 901	15, 743	18, 813	22, 473	25, 020
Percent of change.....		+30. 1		-2. 6		+19. 5		+15. 3

Increases were shown in the number of new residential buildings, of additions, alterations, and repairs, and of total building operations, comparing these two months. There was, however, a decrease in the number of new nonresidential buildings.

Table 8 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings, for which permits were issued in 345 identical cities during July 1932 and July 1933, by geographic divisions.

TABLE 8.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 345 IDENTICAL CITIES IN JULY 1932 AND JULY 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933
	New England.....	\$760, 107	\$960, 275	159	186	\$82, 000	\$59, 000	23	16
Middle Atlantic.....	1, 297, 664	1, 835, 643	285	401	244, 159	268, 100	69	73
East North Central.....	784, 584	1, 133, 934	197	237	62, 490	95, 000	15	24
West North Central.....	547, 270	867, 615	179	228	18, 000	15, 500	6	6
South Atlantic.....	820, 617	765, 313	206	243	19, 000	31, 715	11	16
South Central.....	473, 361	510, 450	189	229	78, 712	329, 850	37	57
Mountain and Pacific.....	937, 245	1, 944, 315	335	530	144, 650	103, 000	55	41
Total.....	5, 620, 848	8, 017, 545	1, 550	2, 054	649, 811	902, 165	216	233
Percent of change.....		+42. 6		+32. 5		+38. 8		+7. 9

Geographic division	Mult fam'ly dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933	July 1932	July 1933
	New England.....	\$14, 000	\$28, 000	4	12	\$856, 107	\$1, 047, 275	186	214
Middle Atlantic.....	158, 000	180, 900	44	75	1, 699, 823	2, 284, 643	398	549
East North Central.....	31, 000	15, 000	8	9	878, 074	1, 243, 934	220	270
West North Central.....	0	0	0	0	566, 070	883, 115	185	234
South Atlantic.....	30, 450	18, 510	13	8	870, 067	815, 538	230	267
South Central.....	17, 150	19, 000	21	22	569, 223	859, 300	247	308
Mountain and Pacific.....	59, 200	134, 400	31	71	1, 141, 095	2, 181, 715	421	642
Total.....	309, 800	395, 810	121	197	6, 580, 459	9, 315, 520	1, 887	2, 484
Percent of change.....		+27. 8		+62. 8		+41. 6		+31. 6

There were increases in indicated expenditures in July 1933 as compared with the same month of 1932 in the case of each type of housekeeping dwellings. Increases in the number of family-dwelling units provided were also shown for each type of dwelling.

Details by Cities

TABLE 9 shows the estimated expenditures for new residential buildings, for new nonresidential buildings, for total building operations, together with the number of families provided for in new dwellings, in each of the cities having a population of 10,000 or over for which reports were received for July 1933.

Permits were issued in July for the following important building projects: In St. Louis, Mo., for a municipal auditorium to cost \$3,000,000; in the Borough of Manhattan for repairs and alterations to cost nearly \$850,000; in Fort Worth, Tex., for a public-utility building to cost \$400,000; in Houston, Tex., for a school building to cost \$450,000; and in Portland, Oreg., for mercantile buildings to cost over \$500,000.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933

New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Connecticut:					Massachusetts—				
Ansonia.....	\$1,500	0	\$3,000	1	Continued				
Bridgeport.....	61,400	\$9,200	79,880	10	Lawrence.....	\$8,500	\$2,210	\$18,505	2
Bristol.....	1,100	2,110	10,407	2	Leominster.....	2,300	925	9,992	4
Danbury.....	0	1,000	6,420	0	Lowell.....	1,000	225	17,145	1
Derby.....	0	0	3,085	0	Lynn.....	4,500	5,275	30,128	1
East Hartford.....	4,600	1,250	9,500	3	Malden.....	0	5,390	11,735	0
Fairfield.....	49,100	5,430	58,430	9	Marlborough.....	5,500	700	6,200	2
Greenwich.....	97,500	36,540	149,260	8	Medford.....	36,100	3,185	46,085	8
Hamden.....	59,400	3,225	74,375	11	Melrose.....	57,400	1,150	62,687	9
Hartford.....	5,000	2,050	52,731	1	Milton.....	36,175	4,500	57,300	5
Manchester.....	1,500	4,090	9,190	1	Needham.....	20,000	1,800	23,425	4
Meriden.....	13,700	2,140	27,565	2	New Bedford.....	0	1,250	18,625	0
Middletown.....	40,500	1,350	51,735	11	Newburyport.....	1,500	0	4,950	1
Milford.....	10,200	1,826	16,526	4	Newton.....	150,000	4,560	177,345	18
Naugatuck.....	12,000	6,250	21,175	3	North Adams.....	5,500	615	13,505	2
New Britain.....	0	6,820	16,908	0	Northampton.....	10,000	2,864	14,614	1
New Haven.....	6,000	5,590	45,190	1	North Attleborough.....	1,500	450	4,150	3
Norwalk.....	42,000	575	58,752	6	Norwood.....	10,400	2,200	25,120	1
Norwich.....	0	25	23,100	0	Peabody.....	19,000	3,850	42,850	4
Stamford.....	13,500	16,150	43,129	2	Pittsfield.....	71,200	2,650	80,425	9
Stratford.....	27,948	2,458	34,788	11	Plymouth.....	7,850	450	9,000	3
Torrington.....	0	390	1,647	0	Quincy.....	9,600	3,245	22,535	2
Wallingford.....	9,800	0	11,650	3	Revere.....	4,500	150	8,400	1
Waterbury.....	16,000	1,600	28,875	4	Salem.....	14,000	7,000	56,740	2
West Hartford.....	13,500	515	30,799	2	Saugus.....	8,700	3,235	12,410	7
Williamantic.....	0	350	685	0	Somerville.....	0	1,776	19,504	0
Maine:					Southbridge.....	8,500	0	8,500	2
Auburn.....	190,000	48,500	238,500	49	Springfield.....	13,550	4,160	39,420	7
Biddeford.....	0	1,250	2,525	0	Stoneham.....	23,000	2,000	26,000	5
Lewiston.....	28,000	6,900	37,700	12	Swampscott.....	26,500	1,700	28,790	2
Portland.....	7,450	4,900	25,500	3	Taunton.....	500	4,930	10,070	1
South Portland.....	2,050	1,330	5,790	3	Waltham.....	10,300	1,275	15,015	4
Westbrook.....	5,750	0	6,318	3	Watertown.....	7,800	1,200	10,350	3
Massachusetts:					Wellesley.....	116,000	5,250	142,450	12
Arlington.....	44,800	1,375	48,370	9	Westfield.....	6,550	815	12,924	2
Attleboro.....	6,500	475	7,675	3	West Springfield.....	4,800	960	12,283	1
Belmont.....	55,700	2,150	69,418	10	Winchester.....	60,300	475	62,485	7
Beverly.....	12,500	1,075	18,825	3	Winthrop.....	5,200	0	13,813	1
Boston ¹	129,500	64,525	651,482	31	Woburn.....	0	1,300	6,360	0
Braintree.....	5,000	3,600	19,300	1	Worcester.....	32,475	2,775	66,035	10
Brockton.....	2,500	3,725	31,730	1	New Hampshire:				
Cambridge.....	0	16,600	53,774	0	Berlin.....	500	390	5,110	1
Chelsea.....	0	1,500	12,825	0	Concord.....	5,000	300	17,300	3
Chicopee.....	9,000	15,335	37,270	3	Manchester.....	12,425	1,845	23,019	5
Dedham.....	59,250	19,800	92,821	23	Rhode Island:				
Easthampton.....	0	30,075	30,075	0	Bristol.....	0	0	0	0
Everett.....	2,500	0	6,900	1	Central Falls.....	0	580	5,280	0
Fairhaven ²	1,800	450	4,505	2	Cranston.....	23,800	4,050	28,645	9
Fall River.....	0	4,275	12,733	0	East Providence.....	18,600	39,175	62,710	5
Fitchburg.....	1,600	575	3,563	1	Newport.....	9,000	4,150	16,120	2
Frammingham.....	2,300	555	3,530	2	North Providence.....	0	600	8,100	1
Gardner.....	7,500	1,229	8,819	2	Pawtucket.....	3,000	61,253	70,132	1
Gloucester.....	18,500	300	20,925	6	Providence.....	75,300	38,550	220,450	10
Haverhill.....	3,475	1,445	10,755	3					
Holyoke.....	0	4,250	14,400	0					

¹ Applications filed.

² Not included in totals.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

New England States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Rhode Island—Continued					Vermont:				
Warwick	\$18,400	\$2,950	\$36,000	12	Bennington	0	0	0	0
Westerly	8,000	2,275	13,010	4	Burlington	\$21,000	\$600	\$23,800	3
West Warwick ²	4,000	2,500	6,500	3	Rutland	19,000	1,175	20,745	6
Woonsocket	4,100	2,027	19,050	2	Total	2,102,948	593,063	4,157,666	475

Middle Atlantic States

New Jersey:					New York:				
Asbury Park	0	0	\$5,250	0	Albany	\$88,300	\$28,480	\$152,960	20
Atlantic City	0	\$10,125	24,845	0	Amsterdam	24,500	970	25,470	7
Bayonne	0	92,000	112,250	0	Auburn	10,950	275	20,375	5
Belleville	\$3,000	4,700	10,050	1	Batavia	11,500	3,850	15,350	2
Bloomfield	20,000	1,500	24,000	4	Binghamton	20,100	12,980	70,554	7
Bridgeton	3,000	33,297	36,297	1	Buffalo	39,050	292,115	396,650	9
Burlington	0	1,800	2,301	0	Cohoes	0	0	2,320	0
Camden	2,500	3,329	38,354	1	Corning	8,000	665	9,415	1
Clifton	25,300	8,875	38,150	5	Dunkirk	0	670	2,847	0
Dover	0	3,400	3,400	0	Elmira	0	849	7,204	0
East Orange	12,350	4,590	28,715	2	Endicott	0	1,915	3,580	0
Elizabeth	5,000	148,000	158,000	1	Freeport	10,100	3,500	17,300	3
Englewood	1,800	0	5,400	1	Fulton	0	2,187	2,437	0
Garfield	8,600	1,400	15,675	2	Glen Cove	21,425	2,000	26,505	4
Hackensack	11,000	6,725	23,861	3	Glens Falls	8,000	415	10,260	2
Harrison	0	23,800	24,550	0	Gloversville	18,400	2,530	37,455	4
Hillside Twp.	0	4,850	9,250	0	Hempstead	25,400	900	32,550	6
Hoboken	0	0	18,806	0	Herkimer	0	0	0	0
Irvington	8,400	18,700	36,511	4	Hornell	0	0	0	0
Kearny	0	1,225	1,940	0	Irondequoit	31,000	2,235	33,460	6
Linden	3,000	1,425	5,675	1	Ithaca	15,500	3,050	22,500	3
Long Branch	25,000	1,200	30,350	5	Johnstown	0	40,675	44,157	0
Lyndhurst	0	0	10,850	0	Johnson City	0	0	6,200	0
Maplewood Twp.	37,000	1,300	41,859	5	Kenmore	4,000	7,600	11,710	1
Montclair	39,500	3,250	61,679	5	Kingston	12,500	700	24,360	3
Morristown	4,500	13,350	24,542	1	Lackawanna	5,000	100	5,600	2
Newark	17,500	287,050	395,975	4	Lockport	0	16,315	19,235	0
New Brunswick	3,500	300	6,640	1	Lynbrook	4,250	10,499	18,487	1
Nutley	26,325	525	27,910	5	Mamaroneck	0	0	5,228	0
Orange	0	9,800	23,566	0	Massena	2,400	800	7,000	1
Passaic	16,000	46,300	72,375	2	Middletown	24,300	0	30,360	6
Paterson	26,650	20,257	87,251	5	Mount Vernon	77,800	29,610	116,866	10
Perth Amboy	3,000	2,025	10,672	1	Newburgh	5,500	2,200	17,100	1
Phillipsburg	3,000	0	3,420	1	New Rochelle	45,000	11,900	65,000	4
Plainfield	16,393	963	47,501	4	New York City:				
Pleasantville	0	0	50	0	The Bronx ¹	190,875	165,100	613,034	55
Red Bank	0	11,540	11,940	0	Brooklyn ¹	442,500	141,670	1,564,440	100
Ridgefield Park	5,000	2,375	10,975	1	Manhattan ¹	0	39,900	889,763	0
Ridgewood	31,000	1,555	34,025	3	Queens ¹	438,760	143,630	874,339	115
Roselle ²	1,500	400	2,950	1	Richmond ¹	74,040	235,935	350,280	26
Rutherford	0	900	6,760	0	Niagara Falls	7,800	5,675	28,383	2
South Orange	0	440	3,515	0	North Tonawanda	0	2,200	9,188	0
South River	0	0	3,150	0	Ogdensburg	0	550	550	0
Summit	10,000	25,100	36,150	5	Olean	0	650	2,950	0
Teaneck Twp.	44,180	4,902	54,475	8	Oneida	0	1,850	3,000	0
Trenton	5,250	4,250	27,940	2	Oneonta	15,000	1,500	23,500	3
Union City	0	0	16,000	0	Ossining	9,000	2,000	13,200	2
Union Twp.	40,900	62,700	111,750	10	Oswego	0	25,000	25,250	0
Weehawken	0	0	4,535	0	Peekskill	2,200	2,600	7,335	1
Westfield	15,444	2,515	21,209	2	Plattsburg	3,600	27,900	44,850	1
West New York	12,000	0	18,615	5	Port Chester	0	400	2,100	0
West Orange	38,500	2,070	42,545	5	Port Jervis	0	0	0	0
					Poughkeepsie	5,500	1,290	12,390	2

¹ Applications filed.² Not included in totals.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
New York—Continued					Pennsylvania—Continued				
Rensselaer.....	\$10,000	\$25,250	\$37,620	2	Jeannette.....	0	\$5,100	\$5,500	0
Rochester.....	15,500	129,351	187,485	2	Johnstown.....	0	210	3,440	0
Rockville Center.....	110,500	4,450	116,650	18	Kingston.....	\$6,000	275	6,575	2
Saratoga Springs.....	0	300	1,900	0	Lancaster.....	0	4,600	17,100	0
Schenectady.....	8,300	9,060	43,623	2	Latrobe.....	0	0	0	0
Syracuse.....	32,000	17,925	72,725	5	Lower Merion.....	90,587	3,960	139,035	6
Tonawanda.....	0	535	1,191	0	McKeesport.....	3,500	2,940	18,028	1
Troy.....	16,000	2,350	32,890	3	M c K e e s Rocks.....	0	0	0	0
Utica.....	6,000	10,700	38,700	2	Mahanoy City.....	0	0	0	0
Valley Stream.....	27,900	15,167	48,869	7	Meadville.....	0	7,000	16,575	0
Watertown.....	0	2,000	12,306	0	Monessen.....	3,000	50	5,650	1
White Plains.....	68,050	11,300	82,822	6	Mount Lebanon Twp.....	49,000	0	50,925	5
Yonkers.....	90,300	20,675	144,830	16	Munhall.....	5,800	570	6,915	2
Pennsylvania: Abington Twp.....	26,000	2,500	33,520	5	Nanticoke.....	3,000	3,250	7,550	1
Allentown.....	10,500	27,725	65,950	2	New Castle.....	14,700	8,060	25,560	3
Altoona.....	1,600	825	8,650	1	New Kensington.....	0	0	0	0
Ambridge ²	0	800	2,200	0	Norristown.....	0	1,300	12,673	0
Arnold.....	6,500	0	6,500	2	North Braddock.....	6,300	0	7,050	2
Berwick.....	500	2,600	3,100	1	Oil City.....	0	746	2,109	0
Bethlehem.....	18,000	1,425	22,474	2	Philadelphia.....	125,300	267,445	605,143	36
Braddock.....	0	0	0	0	Phoenixville.....	0	0	0	0
Bradford.....	6,000	320	10,580	1	Pittsburgh.....	73,100	65,400	239,303	27
Bristol.....	0	3,000	3,200	0	Pittston.....	0	0	0	0
Butler.....	0	200	2,085	0	Pottstown.....	0	650	7,700	0
Carlisle.....	0	450	850	0	Pottsville.....	0	20,625	21,940	0
Chambersburg ²	1,500	300	1,800	1	Seranton.....	7,800	4,384	60,872	4
Charleroi.....	0	7,600	7,700	0	Sharon.....	13,000	0	13,000	1
Clariton.....	0	200	1,760	0	Steelton.....	0	0	150	0
Coatesville.....	0	0	1,000	0	Sunbury.....	1,000	0	1,625	1
Connellsville.....	5,000	400	6,025	1	Swissvale.....	0	150	150	0
Conshohocken.....	0	150	2,540	0	Uniontown.....	0	585	1,185	0
Coraopolis.....	0	0	4,000	0	Upper Darby.....	7,000	4,200	13,600	1
Donora.....	0	0	0	0	Vandergrift.....	0	0	0	0
Du Bois.....	0	0	0	0	Warren.....	0	0	0	0
Duquesne.....	0	85	4,801	0	Washington.....	0	285	485	0
Easton.....	0	550	3,154	0	West Chester.....	0	1,175	2,025	0
Ellwood City.....	0	0	0	0	Wilkes-Barre.....	275,814	3,730	305,409	2
Erie.....	4,900	4,620	18,535	3	Wilkinsburg.....	4,200	5,020	11,070	1
Greensburg.....	0	0	5,500	0	Williamsport.....	4,500	1,010	9,513	1
Harrisburg.....	0	775	10,575	0	York.....	0	3,124	9,189	0
Haverford.....	39,080	1,400	47,168	3	Total.....	3,446,573	2,875,935	10,348,983	708
Hazleton.....	23,500	4,060	34,110	6					

East North Central States

Illinois:					Illinois—Con.				
Alton.....	\$12,235	\$80,700	\$95,862	3	Danville.....	0	0	\$12,709	0
Aurora.....	0	350	7,075	0	Decatur.....	\$10,000	\$3,900	15,985	2
Belleville.....	0	2,700	3,500	0	E a s t S t . Louis.....	1,800	1,035	18,305	2
Berwyn.....	0	1,400	6,200	0	Elgin.....	0	1,150	7,517	0
Bloomington.....	7,000	0	7,000	5	Elmhurst.....	0	1,000	6,025	0
Blue Island.....	2,000	325	7,632	1	E l m w o o d Park.....	0	0	250	0
Brookfield.....	0	750	2,050	0	Evanston.....	6,000	4,000	37,000	1
Cairo.....	0	0	0	0	Forest Park.....	0	1,600	4,090	0
C a l u m e t City.....	0	500	1,031	0	Freeport.....	3,000	2,925	8,725	1
Canton.....	0	0	545	0	Granite City.....	0	0	0	0
Centralia.....	0	0	45,000	0	Harvey.....	1,000	909	2,009	2
Champaign.....	0	5,500	8,095	0	H i g h l a n d Park.....	10,500	150	18,610	2
Chicago.....	46,600	186,931	442,140	14	Joliet.....	0	1,200	15,800	0
C h i c a g o Heights.....	5,300	0	5,300	2	Kankakee.....	5,000	10,650	21,700	1
Cicero.....	0	1,175	4,275	0					

² Not included in totals.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Illinois—Con.					Michigan—Con.				
La Grange.....	0	\$5,500	\$5,500	0	Marquette.....	\$8,000	0	\$8,700	5
Maywood.....	0	0	1,325	0	Mount Clemens.....	0	\$25	350	0
Melrose Park.....	0	47,000	47,195	0	Muskegon.....	2,400	2,100	5,375	1
Moline.....	\$7,400	2,061	14,557	3	Owosso.....	0	0	75	0
Mount Vernon.....	3,000	5,000	9,200	1	Pontiac.....	0	7,990	10,980	0
Oak Park.....	0	315	5,540	0	River Rouge.....	0	100,050	101,210	0
Ottawa.....	1,500	0	2,000	1	Royal Oak.....	3,000	8,150	11,464	1
Park Ridge.....	0	0	500	0	Saginaw.....	8,300	10,702	26,027	2
Peoria.....	14,000	10,755	41,245	4	Traverse City.....	500	150	12,650	1
Quincy.....	2,250	2,500	10,760	2	Wyandotte.....	4,500	400	17,505	1
Rockford.....	2,000	2,000	17,325	1	Ohio:				
Rock Island.....	0	6,750	25,608	0	Akron.....	68,500	136,195	230,615	9
Springfield.....	15,000	250	27,171	9	Alliance.....	1,000	2,075	3,475	1
Sterling.....	0	300	3,260	0	Ashtabula.....	7,000	375	9,965	2
Streator.....	0	1,300	3,780	0	Ashtabula.....	7,000	375	9,965	2
Urbana.....	5,000	2,300	14,520	1	Barberton.....	3,500	820	4,320	1
Waukegan.....	0	500	3,500	0	Bellaire.....	0	0	0	0
Wilmette.....	0	110	1,535	0	Bucyrus.....	0	0	0	0
Winnetka.....	13,400	22,150	37,000	2	Cambridge.....	0	1,700	1,700	0
Indiana:					Canton.....	5,000	6,855	16,725	1
Bedford.....	0	0	1,235	0	Cincinnati.....	287,000	159,930	522,185	44
Connersville.....	0	0	0	0	Cleveland.....	92,500	90,500	291,550	15
Crawfordsville.....	0	0	590	0	Cleveland Heights.....	55,100	1,525	61,400	7
East Chicago.....	0	2,070	9,882	0	Columbus.....	14,200	57,150	110,500	2
Elkhart.....	0	430	2,346	0	Cuyahoga Falls.....	0	100	100	0
Elwood.....	0	250	2,450	0	Dayton.....	0	14,646	42,428	0
Evansville.....	7,000	2,435	27,023	2	East Cleveland.....	0	6,040	7,165	0
Fort Wayne.....	0	5,312	10,463	0	Elyria.....	4,000	9,455	14,895	1
Gary.....	0	300	5,700	0	Euclid.....	11,500	100	18,700	2
Goshen.....	0	0	300	0	Findlay.....	0	5,800	9,300	0
Hammond.....	8,900	12,074	32,399	3	Fostoria.....	0	0	500	0
Huntington.....	0	0	115	0	Fremont.....	2,000	400	2,400	1
Indianapolis.....	43,100	52,166	144,338	13	Garfield Heights.....	0	0	0	0
Kokomo.....	1,000	245	3,875	1	Hamilton.....	0	1,225	5,195	0
Lafayette.....	0	200	2,700	0	Ironton.....	0	400	1,925	0
La Porte.....	0	875	1,970	0	Lakewood.....	5,500	595	7,170	2
Logansport.....	3,000	1,000	5,910	1	Lima.....	0	1,125	3,435	0
Marion.....	6,400	215	7,625	2	Lorain.....	0	2,535	3,795	0
Michigan:					Mansfield.....	9,500	4,000	15,299	2
City.....	4,500	140	4,795	1	Marietta.....	0	5,175	9,660	0
Mishawaka.....	0	110	1,720	0	Marion.....	0	150	225	0
Muncie.....	0	9,555	14,170	0	Massillon.....	0	505	1,755	0
New Castle.....	0	0	0	0	Middletown.....	7,500	300	14,440	1
Peru.....	0	900	1,000	0	Newark.....	3,500	700	4,350	1
Richmond.....	0	600	3,400	0	Norwood.....	0	45,025	54,928	0
South Bend.....	7,500	46,320	58,740	2	Parma.....	4,700	150	4,850	1
Terre Haute.....	6,500	1,345	33,447	2	Piqua.....	0	100	2,000	0
Vincennes.....	0	0	1,954	0	Portsmouth.....	0	625	1,170	0
Whiting.....	0	0	3,997	0	Salem.....	5,000	150	6,950	1
Michigan:					Sandusky.....	0	2,605	3,110	0
Adrian.....	5,300	1,800	7,100	2	Shaker Heights.....	149,500	13,600	163,800	7
Ann Arbor.....	7,000	23,785	48,585	2	Springfield.....	0	1,895	10,210	0
Battle Creek.....	6,000	5,300	12,300	3	Stuebenville.....	0	450	2,100	0
Bay City.....	11,500	14,775	34,120	2	Struthers.....	0	87	87	0
Benton Harbor.....	0	6,950	8,730	0	Tiffin.....	0	500	500	0
Dearborn.....	21,750	750	24,500	4	Toledo.....	19,800	6,535	39,520	5
Detroit.....	183,400	58,744	403,113	32	Warren.....	0	1,475	7,640	0
Escanaba.....	0	6,300	7,000	0	Wester.....	7,000	13,900	21,300	2
Ferdale.....	0	1,900	2,450	0	Xenia.....	4,500	6,200	10,700	1
Flint.....	9,949	5,253	47,737	3	Youngstown.....	600	8,620	18,311	1
Grand Rapids.....	2,000	15,575	34,790	1	Zanesville.....	0	400	650	0
Grosse Pointe Park.....	29,900	0	30,250	3	Wisconsin:				
Hamtramck.....	0	0	4,775	0	Appleton.....	48,050	1,045	52,445	13
Highland Park.....	0	8,479	11,806	0	Beloit.....	2,000	425	2,875	1
Holland.....	0	0	560	0	Cudahy.....	0	200	500	0
Ironwood.....	4,000	205	6,815	1	Eau Claire.....	29,700	1,500	37,650	11
Jackson.....	1,500	210	3,681	1	Fond du Lac.....	500	979	3,479	8
Kalamazoo.....	0	1,410	23,648	0	Green Bay.....	17,950	11,935	35,290	0
Lansing.....	4,000	3,800	10,075	1					
Lincoln Park.....	0	520	1,470	0					

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Wisconsin—Continued					Wisconsin—Continued				
Janesville.....	0	\$1,400	\$2,200	0	South Milwaukee.....	0	\$212	\$212	0
Kenosha.....	\$4,150	486	8,026	1	Superior.....	\$3,000	140	4,490	1
Madison.....	16,700	1,074	29,419	5	Two Rivers.....	0	0	2,610	0
Manitowoc.....	17,655	11,475	41,482	4	Waukesha.....	9,200	950	15,325	1
Marinette.....	5,000	5,475	11,580	2	Wausau.....	9,250	700	11,750	3
Milwaukee.....	51,900	21,030	229,415	12	Wauwatosa.....	47,500	370	49,720	8
Oshkosh.....	9,300	1,060	13,879	4	West Allis.....	0	775	11,192	0
Racine.....	16,500	2,900	24,330	2					
Sheboygan.....	8,700	16,470	41,170	2	Total.....	1,647,339	1,533,765	4,777,268	339
Shorewood.....	7,000	835	8,835	1					

West North Central States

Iowa:					Minnesota—Continued				
Ames.....	\$5,000	\$30,200	\$35,700	1	St. Cloud.....	\$8,515	\$3,335	\$19,959	4
Boone.....	0	300	1,025	0	St. Paul.....	173,340	285,550	509,345	34
Burlington.....	0	2,200	2,950	0	South St. Paul.....	7,000	271	8,496	2
Cedar Rapids.....	6,380	2,420	36,538	2	Winona.....	5,000	375	7,025	1
Council Bluffs.....	12,220	29,189	47,519	4	Missouri:				
Davenport.....	8,200	35,610	74,073	3	Cape Girardeau.....	2,950	2,625	6,870	1
Des Moines.....	41,645	46,710	104,700	15	Columbia.....	3,000	1,000	5,000	2
Dubuque.....	4,000	725	16,722	1	Hannibal.....	2,000	300	2,680	1
Fort Dodge.....	0	4,900	12,600	0	Independence.....	0	0	0	0
Iowa City.....	3,000	310	6,035	1	Jefferson City.....	16,200	450	47,350	3
Keokuk.....	4,900	475	5,375	1	Joplin.....	0	1,000	11,275	0
Marshalltown.....	0	3,200	7,520	0	Kansas City.....	57,000	8,000	89,750	15
Mason City.....	13,675	3,421	21,657	5	Maplewood.....	0	500	7,025	0
Muscatine.....	12,200	115	14,765	4	Moberly.....	1,675	3,400	6,925	2
Ottumwa.....	25,500	500	32,000	3	St. Charles.....	0	0	400	0
Sioux City.....	32,100	16,440	104,865	8	St. Joseph.....	5,000	3,810	15,235	2
Waterloo.....	1,000	1,350	53,135	2	St. Louis.....	205,440	3,230,757	3,557,587	42
Kansas:					Springfield.....	500	2,964	13,743	1
Arkansas City.....	0	0	225	0	Nebraska:				
Atchison.....	0	450	450	0	Beatrice.....	0	500	500	0
Dodge City.....	0	0	250	0	Fremont.....	0	550	839	0
Emporia.....	0	0	1,204	0	Grand Island.....	3,000	160	6,353	1
Fort Scott.....	0	5,570	5,570	0	Hastings.....	0	0	0	0
Independence.....	0	0	0	0	Lincoln.....	18,500	5,706	32,389	4
Kansas City.....	5,750	10,107	20,407	6	North Platte.....	0	0	0	0
Lawrence.....	7,900	450	9,450	3	Omaha.....	69,075	18,620	106,955	22
Leavenworth.....	4,000	5,750	10,475	1	North Dakota:				
Manhattan.....	8,800	410	9,360	2	Bismarck.....	11,350	0	11,950	6
Newton.....	0	13,310	15,270	0	Fargo.....	3,500	175	5,125	1
Pittsburg.....	5,000	0	6,175	1	Grand Forks.....	4,000	380	6,430	4
Salina.....	12,500	1,150	15,200	3	Minot.....	0	300	1,000	0
Topeka.....	10,550	2,890	20,945	7	South Dakota:				
Wichita.....	11,300	7,620	25,795	3	Aberdeen.....	937	200	3,145	1
Minnesota:					Huron.....	0	0	0	0
Albert Lea.....	1,850	75	2,275	1	Mitchell.....	0	0	0	0
Brainerd.....	2,500	55,000	58,600	1	Rapid City.....	0	630	1,110	0
Duluth.....	32,450	15,595	271,142	13	Sioux Falls.....	28,375	3,885	36,985	11
Faribault.....	3,250	6,350	10,400	2					
Hibbing.....	4,000	925	22,286	1	Total.....	1,055,272	3,962,225	5,911,559	297
Mankato.....	1,150	580	8,170	2					
Minneapolis.....	143,510	80,960	286,915	39					
Rochester.....	9,485	2,000	17,745	3					

South Atlantic States

Delaware:					Florida—Con.				
Wilmington.....	\$30,600	\$12,875	\$72,805	7	Key West.....	0	0	0	0
District of Columbia:					Miami.....	\$5,000	\$11,755	\$67,932	\$5
Washington.....	255,100	45,120	500,195	57	Orlando.....	7,500	2,900	22,658	6
Florida:					Pensacola.....	55,575	14,852	77,512	26
Gainesville.....	8,621	0	13,536	6	Sanford.....	0	500	1,110	0
Jacksonville.....	39,800	124,445	194,615	12	St. Augustine.....	3,000	0	5,022	5
					St. Petersburg.....	0	1,600	20,900	0

² Not included in totals.

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

South Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Florida—Con.					South Carolina:				
Tallahassee.....	\$23,000	0	\$28,775	17	Anderson.....	\$11,500	0	\$15,630	5
Tampa.....	5,515	\$7,145	47,754	6	Charleston.....	10,000	\$75	18,234	1
West Palm Beach.....	900	5,710	8,060	1	Columbia.....	14,175	150	19,246	6
Georgia:					Florence.....	8,000	700	12,700	7
Athens.....	8,250	0	10,005	3	Greenville.....	5,250	40	12,355	1
Atlanta.....	44,600	48,151	128,705	18	Greenwood.....	5,500	1,095	8,555	2
Augusta.....	4,400	6,400	29,061	2	Rock Hill.....	5,450	0	11,325	5
Brunswick.....	500	50	43,662	1	Spartanburg.....	0	50	4,000	0
Columbus.....	0	350	2,944	0	Sumter.....	13,700	600	14,300	6
Lagrange.....	1,525	0	2,135	1	Virginia:				
Macon.....	10,750	524	30,027	9	Alexandria.....	30,500	3,925	46,263	7
Rome.....	5,000	50	6,750	5	Charlottes-				
Savannah.....	43,400	2,375	52,465	11	ville.....	5,300	275	7,668	2
Maryland:					Danville.....	1,800	1,500	4,301	3
Annapolis.....	4,500	0	5,700	1	Hopewell.....	0	130	460	0
Baltimore.....	39,000	29,100	387,200	12	Newport.....				
Cumberland.....	2,500	348	3,748	1	News.....	4,650	920	13,396	3
Frederick.....	0	175	2,710	0	Norfolk.....	49,360	27,995	89,161	17
Hagerstown.....	14,810	780	18,525	3	Petersburg.....	700	1,125	1,910	1
Salisbury.....	8,500	26,625	35,510	10	Portsmouth.....	8,250	785	21,825	3
North Carolina:					Richmond.....	51,800	42,920	170,292	13
Asheville.....	4,058	440	5,428	1	Roanoke.....	5,000	1,777	16,957	2
Charlotte.....	24,000	1,135	30,295	7	Staunton.....	0	500	1,145	0
Concord.....	0	2,550	4,350	0	Suffolk.....	9,200	755	11,073	2
Durham.....	31,250	39,010	74,925	12	Winchester.....	9,000	0	9,095	4
Gastonia.....	0	500	900	0	West Virginia:				
Goldsboro.....	2,500	2,000	4,500	1	Bluefield.....	4,500	715	7,375	1
Greensboro.....	5,000	2,336	13,361	2	Charleston.....	3,800	6,975	35,230	2
High Point.....	5,500	1,075	19,200	1	Clarksburg.....	0	6,025	7,925	0
Kinston.....	0	0	3,900	0	Fairmont.....	0	7,750	8,950	0
New Bern.....	4,000	0	4,000	8	Huntington.....	6,420	1,460	10,525	5
Raleigh.....	2,475	3,275	15,950	4	Martinsburg.....	4,000	600	7,100	1
Rocky Mount.....	3,700	100	4,150	1	Morgantown.....	0	4,800	6,928	0
Shelby.....	0	69,000	69,000	0	Parkersburg.....	0	175	5,745	0
Statesville.....	5,000	0	5,700	1	Wheeling.....	12,000	1,250	33,560	3
Thomasville.....	0	35	285	0	Total.....	1,007,084	578,888	2,752,724	373
Wilson.....	5,000	0	25,000	1					
Winston-Salem.....	12,400	535	18,530	7					

South Central States

Alabama:					Louisiana—				
Anniston.....	0	\$100	\$900	0	Continued				
Bessemer.....	0	2,000	2,554	0	Lafayette.....	0	\$400	\$540	0
Birmingham.....	\$19,300	3,750	66,625	5	Monroe.....	0	10,250	12,500	0
Decatur.....	0	0	0	0	New Orleans.....	\$30,550	2,980	68,506	10
Dothan.....	0	0	675	0	Shreveport.....	16,067	5,858	30,611	11
Fairfield.....	0	0	2,463	0	Mississippi:				
Gadsden.....	2,165	50	4,005	4	Clarksdale.....	3,650	0	4,650	2
Huntsville.....	0	0	200	0	Columbus.....	0	0	0	0
Mobile.....	0	3,200	20,772	0	Greenwood.....	0	0	0	0
Montgomery.....	15,650	4,400	32,140	6	Hattiesburg.....	0	0	0	0
Selma.....	3,815	6,967	14,347	3	Jackson.....	2,900	13,000	28,253	5
Tuscaloosa.....	4,700	0	4,700	3	Laurel.....	0	250	250	0
Arkansas:					Meridian.....	0	0	1,370	0
Fort Smith.....	1,100	2,880	7,503	2	Oklahoma:				
Hot Springs.....	0	250	250	0	Ada.....	0	0	0	0
Little Rock.....	0	7,643	18,209	0	Ardmore.....	0	7,515	7,515	0
Texarkana.....	1,100	2,300	4,850	2	Bartlesville.....	0	0	1,000	0
Kentucky:					Chickasha.....	3,900	0	4,100	2
Fort Thomas.....	0	0	0	0	Enid.....	0	0	9,440	0
Henderson.....	0	0	0	0	McAlester.....	2,000	4,000	6,000	1
Lexington.....	1,750	70,375	80,836	2	Oklahoma				
Louisville.....	50,200	16,050	167,975	10	City.....	25,000	419,240	467,490	6
Middlesboro.....	0	0	0	0	Oklmulgee.....	0	250	500	0
Paducah.....	8,500	10,600	19,100	2	Sapulpa.....	1,500	0	1,500	1
Louisiana:					Seminole.....	0	0	0	0
Alexandria.....	0	5,000	16,918	0	Shawnee.....	2,250	200	10,700	2
					Tulsa.....	10,000	53,975	72,565	2

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

South Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Tennessee:					Texas—Contd.				
Chattanooga	\$1,500	\$11,750	\$39,361	2	Galveston	\$25,520	\$2,569	\$51,644	19
Jackson	0	250	4,200	0	Harlingen	0	24,600	25,170	0
Kingsport	0	8,950	8,950	0	Houston	325,680	590,740	931,447	60
Knoxville	15,660	5,772	46,512	7	Lubbock	5,305	75,150	82,055	2
Memphis	29,250	12,220	130,130	15	Pampa	0	3,000	4,300	0
Nashville	26,700	44,782	93,892	27	Paris	1,750	0	5,375	1
Texas:					Port Arthur	0	190	7,299	0
Abilene	0	8,945	9,515	0	San Angelo	7,100	1,000	15,920	2
Amarillo	2,500	30,125	35,233	1	San Antonio	39,000	23,614	78,165	17
Austin	97,768	12,791	186,631	38	Sherman	0	25	3,459	0
Beaumont	0	21,225	37,513	0	Sweetwater	0	0	600	0
Big Spring	0	0	965	0	Temple	0	0	1,000	0
Cleburne	0	0	0	0	Texarkana	1,500	60	2,290	2
Corsicana	7,750	300	9,200	3	Tyler	22,660	17,244	49,051	17
Dallas	69,420	3,860	148,682	33	Waco	2,550	11,650	25,375	4
Del Rio	0	1,095	2,620	0	Wichita Falls	0	1,500	7,652	0
Denison	0	0	3,200	0	Total	924,445	2,009,948	3,737,322	355
El Paso	3,485	14,415	22,249	2					
Fort Worth	33,250	428,643	475,155	22					

Mountain and Pacific States

Arizona:					Colorado:				
Phoenix	\$1,200	\$3,900	\$13,512	1	Boulder	\$1,900	\$4,580	\$7,740	1
Tucson	1,650	885	12,878	2	Colorado Springs				
California:					Denver	77,000	17,050	161,683	16
Alameda	3,000	1,938	20,153	1	Fort Collins	900	150	4,585	1
Alhambra	35,500	1,725	40,250	9	Grand Junction	0	280	1,235	0
Anaheim	0	3,037	3,037	0	Greeley	6,400	370	6,845	0
Bakersfield	21,150	4,260	13,200	2	Pueblo	1,800	423	6,167	1
Berkeley	55,850	56,799	126,307	14	Idaho:				
Beverly Hills	158,200	44,400	230,049	21	Boise	1,500	11,882	30,160	1
Burlingame	22,000	1,200	25,180	8	Pocatello	2,600	15,905	22,325	2
Eureka	625	1,380	11,870	3	Montana:				
Fresno	8,700	4,620	63,162	3	Butte	4,390	1,580	5,970	4
Gardena	0	1,145	2,860	0	Great Falls	0	3,350	4,750	0
Glendale	66,500	10,760	87,580	17	Helena	3,750	6,500	12,325	3
Huntington Park	3,200	10,680	25,475	2	Missoula	24,000	0	24,700	7
Inglewood	3,500	14,713	20,216	2	Nebraska:				
Long Beach	52,600	68,975	488,110	25	Reno	12,000	200	19,250	3
Los Angeles	833,400	287,674	1,422,791	256	New Mexico:				
Modesto	0	0	3,871	0	Albuquerque	2,400	1,500	17,563	1
Monrovia	2,800	100	9,778	1	Roswell	1,500	1,500	3,750	2
Oakland	64,200	129,640	266,570	17	Oregon:				
Ontario	0	2,175	4,195	0	Astoria	3,800	0	6,735	3
Palo Alto	9,000	500	16,325	2	Eugene	2,000	1,120	7,690	1
Pasadena	64,400	8,629	122,468	9	Medford	0	900	8,615	0
Pomona	5,300	12,500	22,829	2	Portland	108,250	547,325	781,990	26
Redlands	4,800	0	10,217	1	Utah:				
Richmond	0	2,750	4,823	0	Ogden	2,800	47,500	51,252	2
Riverside	5,000	3,845	13,870	2	Provo	0	90	480	0
Sacramento	20,500	18,234	74,215	5	Salt Lake City				
Salinas	8,400	0	13,343	5	City	9,150	3,435	30,873	5
San Bernardino	0	5,740	13,123	0	Washington:				
San Diego	96,607	46,383	170,834	33	Aberdeen	2,750	5,540	11,905	1
San Francisco	468,898	154,667	756,834	133	Bellingham	0	75	6,085	0
San Jose	15,800	23,045	97,670	5	Bremerton	22,500	1,000	41,100	11
San Leandro	9,400	145	10,780	3	Hoquiam	0	0	1,947	0
San Mateo	34,200	0	36,748	5	Longview	0	160	2,910	0
Santa Ana	15,000	0	26,745	3	Olympia	0	7,245	15,070	0
Santa Barbara	0	5,615	14,520	0	Seattle	53,675	51,165	322,250	15
Santa Cruz	5,050	105	7,755	4	Spokane	13,450	2,035	51,198	5
Santa Monica	36,630	45,440	88,089	10	Tacoma	21,590	53,475	91,990	6
Santa Rosa	3,000	2,300	12,800	2	Walla Walla	0	200	7,037	0
South Gate	0	405	10,228	0	Wenatchee	0	50	1,000	0
South Pasadena	0	0	8,127	0	Yakima	1,000	350	4,725	1
Stockton	14,640	4,270	28,825	6	Wyoming:				
Vallejo	15,600	2,750	26,583	4	Casper	0	0	0	0
Whittier	0	20,000	23,355	0	Total	2,556,330	1,798,613	6,321,147	746

TABLE 9.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JULY 1933—Continued

Hawaii

City	New residential buildings	New non-residential buildings	Total (including repairs)	Families provided for
Honolulu.....	\$83,527	\$12,916	\$116,814	57

Building Operations in Principal Cities, First Half of 1933, by Types of Buildings

DATA for the 6 months ending June 30, 1933, concerning building permits issued for all cities combined, having a population of 100,000 or over, by types of building, are shown in the following tables. Preliminary data appeared in the August issue of the Monthly Labor Review, giving a general summary, by cities, of building expenditures and families provided for during the same period. The basic data from which the following tables were prepared were obtained from the monthly reports of building permits from the 94 cities having a population of 100,000 or over. The figures here shown refer to the cost of the buildings only and do not include land costs.

Table 1 shows the total number of new buildings and the estimated cost of the different kinds of new buildings for which permits were issued in 94 cities having a population of 100,000 or over, during the first 6 months of 1933; the percent that each kind forms of the total number; the percent that the cost of each kind forms of the total cost; and the average cost per building.

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 94 CITIES, FIRST HALF OF 1933, BY KIND OF BUILDING

Kind of building	Buildings for which permits were issued				
	Number	Percent	Estimated cost		
			Amount	Percent	Average per building
Residential buildings:					
1-family dwellings.....	5,843	24.5	\$20,418,491	15.4	\$3,495
2-family dwellings.....	509	2.1	2,841,458	2.1	5,582
1-family and 2-family dwellings with stores.....	81	.3	429,749	.3	5,306
Multifamily dwellings.....	156	.7	10,224,924	7.7	65,544
Multifamily dwellings with stores.....	4	(¹)	29,850	(¹)	7,463
Hotels.....	0	0	0	0	0
Lodging houses.....	5	(¹)	77,000	.1	15,400
All other.....	8	(¹)	154,370	.1	19,296
Total residential buildings.....	6,606	27.6	34,175,842	25.9	5,173
Nonresidential buildings:					
Amusement buildings.....	129	.5	1,983,351	1.5	15,375
Churches.....	71	.3	1,320,081	1.0	18,593
Factories and workshops.....	251	1.1	5,093,404	3.9	20,292
Public garages.....	112	.5	556,163	.4	4,966
Private garages.....	10,310	43.2	2,552,146	1.9	2,048
Service stations.....	1,001	4.2	2,049,875	1.6	2,048
Institutions.....	22	.1	9,058,304	6.9	411,741
Office buildings.....	20	.1	912,658	.7	45,633
Public buildings.....	34	.1	17,197,858	13.0	505,819
Public works and utilities.....	62	.3	47,073,292	35.6	759,247
Schools and libraries.....	22	.1	2,350,334	1.8	106,833
Sheds.....	3,246	13.6	855,902	.6	264
Stables and barns.....	99	.4	49,656	(¹)	502
Stores and warehouses.....	1,633	6.8	6,737,088	5.1	4,126
All other.....	270	1.1	222,818	.2	825
Total nonresidential buildings.....	17,282	72.4	98,012,930	74.1	5,671
Grand total, new buildings.....	23,888	100.0	132,188,772	100.0	5,534

¹ Less than one tenth of 1 percent.

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During the first half of 1933, permits were issued in these 94 cities for 23,888 new buildings to cost \$132,188,772. Of these buildings, 27.6 percent were residential and 72.4 percent nonresidential. Of the estimated expenditures for new buildings, 25.9 percent were for residential buildings and 74.1 percent were for nonresidential buildings. The most numerous class of buildings for which permits were issued during this period was private garages, comprising 43.2 percent of all new buildings. The next most numerous class was 1-family dwellings. More money was spent for buildings for public works and utilities than for any other class of building in these 94 cities. This type of structure accounted for 35.6 percent of the indicated expenditures for all new buildings during the first half of 1933. One-family dwellings and public buildings were the only other kinds of buildings to account for more than 10 percent of the total expenditures.

The average cost of all new buildings was \$5,534. Residential buildings averaged \$5,173, and nonresidential buildings, \$5,671. The highest average cost for any type of structure was shown by buildings for public works and utilities, these costing \$759,247 apiece. Public buildings, institutions, and schools and libraries each averaged over \$100,000 per building.

Building Trend, First Half of 1932 and 1933

TABLE 2 shows the number and cost of the different kinds of buildings for which permits were issued in 94 identical cities for the first half of 1933, as compared with the first half of 1932.

TABLE 2.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 94 CITIES, FIRST HALF OF 1932 AND OF 1933, BY KIND OF BUILDING

Kind of building	New buildings for which permits were issued during first half of—				Percent of change, 1933 as compared with 1932	
	1932		1933		Number	Cost
	Number	Cost	Number	Cost		
Residential buildings:						
1-family dwellings.....	9,024	\$36,964,472	5,843	\$20,418,491	-35.3	-44.8
2-family dwellings.....	874	5,586,511	509	2,841,458	-41.8	-49.1
1-family and 2-family dwellings with stores.....	106	776,588	81	429,749	-23.6	-44.7
Multifamily dwellings.....	253	10,351,211	156	10,224,924	-38.3	-1.2
Multifamily dwellings with stores.....	13	237,500	4	29,850	-69.2	-87.4
Hotels.....	0	0	0	0	0	0
Lodging houses.....	2	3,000	5	77,000	+150.0	+2,466.7
All other.....	8	1,076,525	8	154,370	0	-85.7
Total residential buildings.....	10,280	54,995,807	6,606	34,175,842	-35.7	-37.9
Nonresidential buildings:						
Amusement buildings.....	167	9,178,192	129	1,983,351	-22.8	-78.4
Churches.....	89	4,836,440	71	1,320,081	-20.2	-72.7
Factories and workshops.....	344	7,791,765	251	5,093,404	-27.0	-34.6
Public garages.....	149	1,416,570	112	556,163	-24.8	-60.7
Private garages.....	15,547	4,302,359	10,310	2,552,146	-33.7	-40.7
Service stations.....	1,157	2,458,532	1,001	2,049,875	-13.5	-16.6
Institutions.....	32	6,622,485	22	9,058,304	-31.2	+36.8
Office buildings.....	67	6,033,096	20	912,658	-70.1	-84.9
Public buildings.....	83	56,616,440	34	17,197,858	-59.0	-69.6
Public works and utilities.....	128	10,722,416	62	47,073,292	-51.6	+339.0
Schools and libraries.....	92	21,241,660	22	2,350,334	-76.1	-88.9
Sheds.....	3,299	872,186	3,246	855,902	-1.6	-1.9
Stables and barns.....	96	66,757	99	49,656	+3.1	-25.6
Stores and warehouses.....	1,989	11,145,926	1,633	6,737,088	-17.9	-39.6
All other.....	700	645,066	270	222,818	-61.4	-65.5
Total nonresidential buildings.....	23,939	143,949,890	17,282	98,012,930	-27.8	-31.9
Total new buildings.....	34,219	198,945,697	23,888	132,188,772	-30.2	-33.6
Additions, alterations, and repairs.....	71,542	46,521,706	72,208	43,785,680	+0.9	-5.9
Grand total, all building.....	105,761	245,467,403	96,096	175,974,452	-9.1	-28.3

During the first half of 1933, indicated expenditures for all building operations reached a total of \$175,974,452, a decrease of 28.3 percent as compared with the same period of 1932. The estimated cost of residential buildings decreased 37.9 percent. All classes of residential buildings, except lodging houses, showed a decrease both in number and in indicated expenditures, comparing the first 6 months of 1933 with the same period of 1932.

The number of nonresidential buildings decreased 27.8 percent, while the indicated expenditures for this class of building decreased 31.9 percent comparing the two periods under discussion. All classes in the nonresidential-buildings group except stables and barns showed a decrease in number, while all except institutions and buildings for public works and utilities showed decreases in indicated expenditures.

The number of additions, alterations, and repairs increased nine tenths of 1 percent, while expenditures for this type of structure decreased 5.9 percent.

It will be noted that no permits were issued for hotels during either the first half of 1932 or the first half of 1933 in these larger cities.

Families Provided for, First Half of 1932 and 1933

TABLE 3 shows the number and percent of families provided for in each of the different kinds of dwellings for which permits were issued in 94 identical cities during the first half of 1932 and the first half of 1933.

TABLE 3.—NUMBER AND PERCENT OF FAMILIES TO BE HOUSED IN NEW DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 94 IDENTICAL CITIES, FIRST HALF OF 1932 AND OF 1933, BY KIND OF DWELLING

Kind of dwelling	Number of dwellings for which permits were issued		Families provided for			
			Number		Percent	
	First half 1932	First half 1933	First half 1932	First half 1933	First half 1932	First half 1933
1-family dwellings.....	9,024	5,843	9,024	5,843	63.4	57.5
2-family dwellings.....	874	509	1,748	1,018	12.3	10.0
1-family and 2-family dwellings with stores.....	106	81	157	99	1.1	1.0
Multifamily dwellings.....	253	156	3,245	3,181	22.8	31.3
Multifamily dwellings with stores.....	13	4	55	14	.4	.1
Total.....	10,270	6,593	14,229	10,155	100.0	100.0

During the first 6 months of 1933 permits were issued for 6,593 dwellings to house 10,155 families. Of these families, 57.5 percent were to be domiciled in 1-family dwellings, as compared with 31.3 percent in apartment houses.

Table 4 shows the number and percentage distribution of families provided for in the different kinds of dwellings in 65 identical cities from which reports were received for the first 6 months of each year, 1922 to 1933. For convenience, 1-family and 2-family dwellings with stores are grouped with 2-family dwellings, and multifamily dwellings with stores are grouped with multifamily dwellings.

TABLE 4.—NUMBER AND PERCENT OF FAMILIES PROVIDED FOR IN EACH SPECIFIED KIND OF DWELLING IN 65 IDENTICAL CITIES, FIRST HALF OF EACH YEAR, 1922 TO 1933

Period	Number of families provided for in—				Percent of families provided for in—		
	1-family dwellings	2-family dwellings ¹	Multi-family dwellings ²	All classes of dwellings	1-family dwellings	2-family dwellings ¹	Multi-family dwellings ²
First half of—							
1922	63,892	32,321	51,006	147,249	43.4	22.0	34.6
1923	77,875	39,314	77,826	195,015	39.9	20.2	39.9
1924	82,514	50,904	69,619	203,037	40.6	25.1	34.3
1925	87,783	39,320	80,291	207,394	42.3	19.0	38.7
1926	71,818	26,727	100,201	198,746	36.1	13.4	50.4
1927	57,899	24,204	95,448	177,551	32.6	13.6	53.8
1928	50,724	19,261	111,268	181,252	28.0	10.6	61.2
1929	36,237	12,815	81,205	130,257	27.8	9.8	62.3
1930	20,410	6,101	19,930	46,441	43.9	13.1	42.9
1931	20,334	5,268	23,870	49,472	41.1	10.6	48.2
1932	7,884	1,732	3,203	12,819	61.5	13.5	25.0
1933	5,016	1,056	3,168	9,240	54.3	11.4	34.3

¹ Includes 1-family and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Of the 9,240 family-dwelling units provided during the first half of 1933 in the 65 cities, 54.3 were in 1-family dwellings, 11.4 in 2-family dwellings, and 34.3 percent in multifamily dwellings.

For the second consecutive year more than one half the dwelling units in these larger cities of the United States were provided in 1-family dwellings, although there was a decided falling off in this percentage as compared with the first half of 1932. The total number of family-dwelling units provided has fallen from 207,394 during the first half of 1925 to only 9,240 during the first 6 months of 1933, a decrease of 95.5 percent.

Building Operations, 1922 to 1933

TABLE 5 shows the total number and estimated cost of all buildings for which permits were issued in the 65 identical cities from which reports were received for the first half of each year, 1922 to 1933.

TABLE 5.—NUMBER AND ESTIMATED COST OF ALL BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 65 IDENTICAL CITIES, FIRST HALF OF EACH YEAR, 1922 TO 1933

Period	Buildings for which permits were issued		Estimated cost		Period	Buildings for which permits were issued		Estimated cost	
	Number	Index number	Amount	Index number		Number	Index number	Amount	Index number
First half of—					First half of—				
1922	243,479	100.0	\$1,062,464,771	100.0	1928	216,509	88.9	\$1,462,560,722	137.7
1923	283,289	116.4	1,418,779,382	133.5	1929	182,379	74.9	1,479,460,210	139.2
1924	299,769	123.1	1,518,088,421	142.9	1930	146,410	60.1	679,064,355	63.9
1925	289,014	118.7	1,620,413,012	152.5	1931	130,127	53.4	577,931,724	54.4
1926	254,564	104.6	1,539,207,242	144.9	1932	89,477	36.7	222,953,519	21.0
1927	237,853	97.7	1,443,232,520	135.8	1933	75,699	31.1	161,278,854	15.2

With the first half of 1922 equaling 100, the index number of new buildings for which permits were issued in these 65 cities fell to a low of 31.1 during the first half of 1933.

Indicated expenditures for new building operations rose each year to a peak of 152.5 in 1925, and have shown an almost steady decrease since that period, reaching a low of 15.2 during the first half of 1933.

Table 6 shows the five cities which led in total expenditures for all classes of building for the first half of each year, 1922 to 1933.

TABLE 6.—CITIES LEADING IN TOTAL EXPENDITURES FOR ALL CLASSES OF BUILDINGS DURING FIRST HALF OF EACH YEAR, 1922 TO 1933

City and year	Expenditure	City and year	Expenditure
<i>1922</i>		<i>1928</i>	
New York City.....	\$339, 143, 976	New York City.....	\$557, 561, 891
Chicago.....	108, 699, 025	Chicago.....	184, 650, 200
Los Angeles.....	59, 459, 250	Detroit.....	65, 175, 361
Philadelphia.....	52, 429, 145	Philadelphia.....	63, 195, 840
Detroit.....	40, 650, 143	Los Angeles.....	52, 002, 570
<i>1923</i>		<i>1929</i>	
New York City.....	427, 633, 386	New York City.....	694, 118, 064
Chicago.....	189, 914, 112	Chicago.....	118, 898, 940
Los Angeles.....	93, 889, 185	Philadelphia.....	58, 533, 385
Philadelphia.....	75, 217, 095	Detroit.....	55, 855, 545
Detroit.....	61, 616, 302	Los Angeles.....	54, 071, 599
<i>1924</i>		<i>1930</i>	
New York City.....	548, 161, 458	New York City.....	202, 975, 234
Chicago.....	166, 436, 214	Chicago.....	41, 953, 917
Detroit.....	87, 195, 800	Los Angeles.....	39, 712, 901
Los Angeles.....	78, 828, 738	Philadelphia.....	34, 569, 340
Philadelphia.....	72, 573, 485	Washington.....	30, 522, 416
<i>1925</i>		<i>1931</i>	
New York City.....	461, 513, 809	New York City.....	234, 253, 030
Chicago.....	204, 239, 810	Chicago.....	37, 651, 195
Detroit.....	89, 562, 885	Washington.....	24, 421, 984
Philadelphia.....	85, 884, 680	Los Angeles.....	23, 096, 177
Los Angeles.....	83, 175, 457	Boston.....	17, 583, 794
<i>1926</i>		<i>1932</i>	
New York City.....	510, 263, 696	New York City.....	52, 658, 671
Chicago.....	183, 577, 891	Washington.....	44, 037, 364
Detroit.....	96, 204, 092	Los Angeles.....	11, 307, 409
Philadelphia.....	70, 379, 825	Philadelphia.....	7, 884, 358
Los Angeles.....	63, 161, 395	Baltimore.....	7, 521, 309
<i>1927</i>		<i>1933</i>	
New York City.....	490, 119, 588	San Francisco.....	50, 627, 839
Chicago.....	210, 210, 475	New York City.....	39, 989, 671
Detroit.....	78, 742, 327	Los Angeles.....	6, 652, 720
Philadelphia.....	61, 683, 600	Philadelphia.....	6, 640, 183
Los Angeles.....	58, 192, 977	Washington.....	5, 060, 833

Table 7 shows the cost of new buildings for which contracts were awarded by the different agencies of the Federal Government and by the different State governments during the first half of 1932 and 1933, by geographic divisions.

Federal-building contracts during the first half of 1933 were considerably less than one half the value of the Federal contracts during the like period of 1932.

The value of contracts awarded by the State governments fell more than 40 percent comparing these periods.

TABLE 7.—FEDERAL AND STATE CONTRACTS FOR PUBLIC BUILDINGS, FIRST HALF OF 1932 AND OF 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	Contracts let by Federal Government		Contracts let by State governments	
	First half of 1932	First half of 1933	First half of 1932	First half of 1933
New England.....	\$2,442,968	\$933,300	\$1,237,447	\$220,673
Middle Atlantic.....	9,301,076	10,798,386	7,539,486	9,555,932
East North Central.....	9,339,976	2,300,250	3,087,354	101,987
West North Central.....	4,352,098	4,929,184	1,095,010	522,986
South Atlantic.....	44,631,683	4,265,859	2,432,217	1,762,975
South Central.....	8,703,133	6,331,243	5,923,087	1,085,209
Mountain and Pacific.....	7,008,543	4,372,534	2,982,149	415,686
Total.....	85,779,477	33,930,756	24,296,750	13,665,448

Housing Problems in Philadelphia

TWO studies of housing conditions in Philadelphia, independently conducted, have recently appeared, both of which emphasize the fact that a serious situation is developing or has already developed, and that under present conditions this seems likely to grow worse rather than to improve. One study, made by the Philadelphia Housing Association, deals especially with the rental situation; the other, made in connection with the department of social economy and social research of Bryn Mawr College, and published by a firm of architects, deals especially with the housing situation found to exist among a group of skilled workers. Both give much valuable detail, and both express the opinion that special efforts must be made if housing conditions are not to grow definitely worse in the near future.

Housing of Families of Full-Fashioned Hosiery Workers

THIS study¹ is based on a survey covering approximately 1,400 families of hosiery workers, made in the summer of 1932. Most work in hosiery mills, it is pointed out, requires intelligence and skill, so that the hosiery workers represent a high type. They are the largest and best-organized group of wage earners in Philadelphia, and are predominantly American born, in general, they are apt to be young, since the industry's period of rapid growth was from 1919 to 1929, and about 57 percent are women. During the period of expansion their wages had been high, knitters in some cases earning up to \$100 a week. No statement is made as to wage rates at the time of the inquiry, but the industry had been hard hit, and the workers had suffered accordingly. Data as to income were secured from 1,137 families.

Twenty percent of the families visited received no income whatsoever the week before they were visited. The average income for the entire group reporting, including those having no income, amounted to \$21.40. Almost 9 percent received between 1 cent and \$10, while 22 percent received between \$10 and \$20. * * * The average weekly wages of families receiving any wages whatsoever reached \$26.75.

¹ Jeanes, W. W. Housing of families of the American Federation of Full-Fashioned Hosiery Workers, Local Nos. 1 and 39, Philadelphia, June-July 1932. Philadelphia, Kastner & Stonorov, Architects, 1933.

Status as to Home Ownership

Definite information on this point was received from 1,354 families, of whom 22.7 percent owned their homes clear, 43 percent owned mortgaged homes, 29.2 percent rented, and 5.1 percent boarded with others. The families were classified in two groups, a younger group in which no member was over 30 years old, and an older group in which this age limit was exceeded, the two numbering, respectively, 227 and 1,127 families. Among the older group, 70.5 percent owned their homes (26 percent clear and 44.5 percent with mortgages); among the younger group, 41.9 percent owned their homes (6.2 percent clear and 35.7 percent with mortgages). In the older group 25.1 percent rented homes and 4.4 percent boarded, while in the younger group 49.8 percent rented and 8.3 percent boarded.

Difficulties of Home Ownership

The percentage of home ownership is said to be unusually high, especially for a wage-earning group, but it will be noticed that home owners are far more numerous, relatively, among the older than among the younger families, the majority of the latter having either found it impossible or considered it unwise to attempt to purchase homes.

The usual way of financing homes consists of a 20 percent or more payment as equity; the remainder is taken care of by either one or two mortgages. In the case of two mortgages, the second is usually held by a building and loan association. Among hosiery workers it was found that at the present time 49 percent of the mortgaged owners are encumbered with one building and loan mortgage only. * * * Twenty-six percent are financed with one straight mortgage and one building and loan mortgage, and 25 percent with one straight mortgage alone. * * * The initial cost price of mortgaged homes, including remodeling expenses, varies between \$4,460 and \$6,900, according to district, with an average of \$5,720. Forty-two percent of the total cost price of homes in all sections bought after 1919 is carried by mortgage.

Of the owners with mortgaged houses, 21 percent were in arrears, but most of these were not more than 6 months behind. This, however, is not an adequate measure of their difficulty in meeting payments. Ordinarily, foreclosures are not made unless a mortgagor is more than 6 months behind on his payments, and on this account owners strive not to exceed this limit.

It may be an impossibility to bring payments entirely to date, but whenever possible back payments are being met when money comes in. Thus arrears are reported as only a few months back, but the struggle to maintain payments has extended over a great deal longer period with consequent impairment of other living standards month after month.

Forty-nine families had lost their homes through inability to keep up their payments.

Tenants of Rented Houses

Renters formed the second largest class, 29.2 percent of the whole group. Of the younger group 50, and of the older, 26 percent are renting. The average rent for the entire group is \$28.35, ranging from an average of less than \$25 a month in the older sections to an average of about \$33 in the new sections. The greatest number pay from \$25 to \$30 a month. The rental includes water, but rarely anything else.

The renters also have difficulty in meeting their payments, but do not risk such heavy losses as the owners, since if they cannot pay they can move without much cost, "and sometimes with a net gain, the moving expense being less than the arrears in rent."

The result is difficult for the owner; it is no doubt morally unsound; yet it is the inevitable result of a desperate situation in periods of unemployment. The percentage who are in arrears in rent is extremely high (29 percent), and is practically the same for both young and old groups.

Over two thirds of those in arrears owed for 3 months or less, but, as in the case of owners with mortgages, this is not a real measure of their difficulties in meeting the rent. Eviction is apt to occur at the end of a 3-month period, and consequently the tenant makes such payments as he can to keep from exceeding the limit. There had been no general reduction of rents during the 2 years preceding. There was no change for almost half the group, excluding those who had moved and consequently had very likely obtained quarters with a lower rent. The total average reduction in rental charges amounted to only 10 percent, the range being from 4 percent to 12 percent in the different districts.

Architects' Discussion of the Problem

Much information of sociological interest is given concerning the families studied, and the survey closes with a discussion of the general problem of housing workers, in the light of the facts ascertained. Anyone planning such an enterprise, it is pointed out, should be exceedingly careful to keep rental costs down to an absolute minimum. It is suggested that rents might be calculated on close to the minimum-wage level in the industry, "and in some way should be made flexible enough to correspond somewhat with the index number of the wage payments." Attention is called to the fact that at present, in spite of numerous vacant houses, there are more families than houses in Philadelphia, so that whenever times improve a real shortage will be found to exist. In meeting this shortage the actual needs of the workers should be studied, a site convenient for a given group should be chosen, and there should be a sufficient number of different types of accommodation to take care of families of varying sizes. It is suggested that the home-ownership campaign is not suited to the means and needs of the workers considered.

Should the dwellings be owned or rented? The amazing fact must be recognized that among this once highly paid group of workers only 23 percent own their homes outright, and that almost all of these are in the older group. Also, only 2.5 percent of all the families, excluding boarders, own houses built in the last 11 years and clear of mortgages. It is impossible to suggest a project for home ownership in the face of what has happened within the last few years. Renting is the only basis on which housing for hosiery workers can be considered. Home ownership can only be encouraged when the worker has practically the entire cost price as equity. Few workers are in a position to offer such terms.

It is also suggested that while multiple dwellings may be an economic necessity in the case of workers, care should be taken to supply conveniences and amenities which are difficult for an individual house owner to secure, but which might be provided at reasonable cost by community action. It will be necessary to recognize that housing means, or should mean, far more than mere shelter, and that it has become necessary to "work for the creation of planned communities rather than agglomerations of human beings."

The shorter working week calls for better communities, equipped with cultural advantages and recreational facilities. Housing, in the last analysis, is no longer a question of naked shelter only. It is the demand for the reorganization of rotten communities into stable, sane, and healthy societies.

Rental Situation in Philadelphia

THE survey made in December 1932 by the Philadelphia Housing Association² covered 3,197 one-family rental houses in 8 industrial districts, of which 2,380 were occupied by white and 817 by colored tenants. During the calendar year rent reductions had been made in the case of 62.2 percent of these properties, and the rent had been raised in the case of 1.5 percent. Rent reductions were not so numerous proportionately for houses occupied by colored persons, only 60 percent having had reductions as against 62.9 percent of those occupied by whites; decreases in gross rents were, however, slightly greater in the case of the colored, being 11.7 percent as compared with 10.6 percent among the whites.

A study of rental changes over a period of 10 years shows that from 1923 up to and including 1926 rents rose continuously and decreases were few. Beginning with 1927 the percentage of properties with decreases exceeded those with increases, and, except for 1929, rent reductions have been steadily mounting ever since. This trend toward lower rentals began only 2 years after the peak year of new dwelling construction and at a time when less than 2 percent of the dwellings of the city were vacant and suitable for rent.

Rental Changes

From 1923 to 1926 the steady rise in rentals threw more properties into the ranges from \$30 and up, with a consequent reduction in the number in the lower rental groups. From 1927 to 1931 the properties renting at over \$30 were most affected by reductions, while those under \$20 were comparatively stable, so that the properties in the \$20 to \$29 group showed a relative increase in number. In 1931 and 1932, however, the higher rental range rapidly receded, and the range under \$20 rapidly increased. Data are given to show that the higher the rent range the greater the percentage of properties reduced and the larger the amount of the reduction. This results naturally from the fact that when earnings decrease rent is one of the first expenses to be cut down. Families move into smaller quarters, or double up, and the larger, more expensive dwellings stand empty or must be let at reduced rates, while the increasing demand for small, low-rent dwellings gives their landlords a better chance to maintain their rents.

Three years before there was an appreciable decrease in rents throughout the city, rents for properties in the higher ranges had begun to decline. Obviously dwellings in the higher value ranges are less profitable both for occupant and investment owners since they are subject to greater fluctuations of demand. There is always more need for low-cost housing whether for ownership or for rental. It is sounder policy to cater to such need than to build at a price which can be profitable only in peak periods of housing shortage.

A rather striking fact is that rent reductions have been more frequent, proportionately, in the case of modern, well-equipped houses than in those lacking modern equipment. The explanation given is that "most of the well-equipped houses were, and still are, in the higher rent ranges, while the substandard structures have been in the lower ranges."

² Philadelphia Housing Association. *Rent Changes in Industrial Housing*, Philadelphia, 1932. Philadelphia, 1933. (Mimeographed.)

Arrearages and Changes of Tenancy

Nearly 40 percent of the tenants interviewed admitted being behind in their rent for periods varying from 1 month to 2 years. Proportionately, more colored than white tenants were in arrears, but the whites were, on the whole, in arrears for longer periods. Of the houses covered, 35.5 percent had had a change of tenancy during the year, about the same rate as in 1931. Rent reductions were more numerous among houses which had had a change of tenants than in the group as a whole—77 percent as against 62 percent in the entire study. Rent arrearages, it is pointed out, often mean a serious loss to the landlord, and not infrequently lead to character deterioration in the tenant, who, unfortunately, "is too frequently losing his sense of moral responsibility both for the rent he owes and for the care of the house." The heavy losses involved in these rent arrearages "may have a decidedly unfavorable reaction upon the maintenance of rental dwellings."

Rental Outlook

It is generally considered that the period of rapid population growth in American cities is over, and that the curve of population increase will tend to level off. In Philadelphia, however, there are some 28,000 families now sharing quarters with other families, who, as soon as conditions improve and they can afford separate homes, will form a large group of potential house seekers. The available supply of vacancies in Philadelphia, suitable for occupancy, is not sufficient for this group. Moreover, construction of new dwellings is practically at a standstill and old structures are being demolished in increasing numbers. The Housing Association recognizes that these conditions must lead to a shortage of dwellings in Philadelphia, and feels that there are serious difficulties in the way of supplying the need. Surveying the whole position, it draws certain deductions as to the rental situation in that city:

1. Rents are not on an income-producing basis. Landlords are continually cutting down to the level of tenants' capacity to pay, even to the point, in many cases, where payments in any sum are accepted.
2. Notwithstanding this adjustment in rents to a lower basis, thousands of families are not paying rent and, apparently, there is no chance of getting rent from them.
3. Confronted with material reductions in rent return in some cases, and entire loss in others, owners of rental properties are forced to meet the interest on their mortgages and to pay taxes. Unable to meet such bills, thousands of owners have [been] and still are losing their homes.
4. The bankruptcy of home owners as well as owners of rental properties may have a serious effect on future investments in dwellings and may curtail dwelling construction by limiting the number of buyers. If this occurs: (a) Rents are bound to rise to levels induced by a housing shortage; (b) Existing dwellings will be subdivided and thrown into tenement types, cutting down the number of rooms per family and stimulating congested occupancy with all the evils attendant thereon.
5. The families now doubled up will, when times improve, demand separate housing accommodations. Individual ownership, lessened by the unwillingness of investors to tie up their funds in dwellings that have proven so hazardous in times of economic distress, may force a change in the type of ownership; a decrease in the number of owners of small groups of houses may force the organization of large home-management companies, placing housing in the public utility field.

A further deduction is that the economic distress of landlords is leading to an increase in the number of dwellings which are unsafe, insanitary, or in bad repair, that tenants are growing accustomed to substandard conditions, and that even when times improve, owners will not for a long time be able to bring their houses up to a proper standard. "Housing betterment, therefore, will make slow progress for some time to come." Also, the owner's situation affects other interests:

There is a growing tendency throughout the country to recognize the burden which the investment owner of dwellings is carrying. Mortgage interest, and taxes are being demanded as rigidly as ever, even where rental returns have stopped; scores of thousands of foreclosures are the inevitable result. Thus the vicious cycle continues, affecting the income of municipalities and threatening the stability of their loans; banks and other mortgage agencies are accumulating more real estate than they can manage successfully; individual owners, coping with vacancies and delinquencies, have lost their savings in real estate investments and their buying power is curtailed.

The whole situation constitutes a problem as serious as any of the many problems which have arisen during, or were causative factors in, the creation and prolongation of the present depression

WAGES AND HOURS OF LABOR

Index Numbers of Wages per Hour, 1840 to 1932

THE Bureau of Labor Statistics presents in the table below a general index of wages or earnings per hour for each year, 1840 to 1932, for the wage earners of the country as a whole, exclusive of agricultural wage earners, with the 1913 earnings per hour as the base or 100. The index is a composite of all satisfactory data available. Agriculture was excluded because of the seasonal character of that industry and the wide variety of the perquisites so often forming part of the compensation of farm hands.

The general wage index was first published by the Bureau for the years from 1840 to 1920, was later extended to 1926 and again to 1929, and is now brought down to 1932. Sufficient data are not available to warrant an index number for 1933, and the index for 1932 is subject to possible revision as further data may become available. The figures are based on wages as paid in currency.

The figures of the table are for average wage rates or earnings per hour for wage earners actually at work. They cannot be taken as reflecting earnings per day or per week.

INDEX NUMBERS OF WAGES PER HOUR, 1840 TO 1932 (EXCLUSIVE OF AGRICULTURE)

[On currency basis during Civil War period. 1913=100]

Year	Index number	Year	Index number	Year	Index number	Year	Index number
1840	33	1864	50	1888	67	1912	97
1841	34	1865	58	1889	68	1913	100
1842	33	1866	61	1890	69	1914	102
1843	33	1867	63	1891	69	1915	103
1844	32	1868	65	1892	69	1916	111
1845	33	1869	66	1893	69	1917	128
1846	34	1870	67	1894	67	1918	162
1847	34	1871	68	1895	68	1919	184
1848	35	1872	69	1896	69	1920	234
1849	36	1873	69	1897	69	1921	218
1850	35	1874	67	1898	69	1922	208
1851	34	1875	67	1899	70	1923	217
1852	35	1876	64	1900	73	1924	223
1853	35	1877	61	1901	74	1925	226
1854	37	1878	60	1902	77	1926	229
1855	38	1879	59	1903	80	1927	231
1856	39	1880	60	1904	80	1928	232
1857	40	1881	62	1905	82	1929	233
1858	39	1882	63	1906	85	1930	229
1859	39	1883	64	1907	89	1931	217
1860	39	1884	64	1908	89	1932	186
1861	40	1885	64	1909	90		
1862	41	1886	64	1910	93		
1863	44	1887	67	1911	95		

¹ Subject to revision.

The table shows that the general trend of wages per hour has been upward. There was a sevenfold increase in the 80 years from 1840 to 1920, the peak year, the index rising from 33 to 234 in that time. Unusual increases were made during each of the two great wars. From 1840 to 1861 the increase was but 21 percent. Between 1861 and 1865 the increase was 45 percent. After the Civil War there was an increase each year to 1872, when rates or earnings per hour were 72 percent higher than in 1861. From 1914 to 1919, or during the World War, the increase was from an index of 102 to 184 or 80 percent. In 1920 the wage level was 129 percent higher than in 1914 and 134 percent higher than in 1913, the base year of the index.

The year 1921 was one of depression, unemployment, and wage-rate decreases. The general level of wage rates or earnings per hour in that year was 7 percent and in 1922 was 11 percent less than in 1920. From 1922 there was an increase each year to 1929. The depression began late in that year and has continued through 1930, 1931, 1932, and into 1933. The level for 1929 was but a fraction of 1 percent lower than in 1920. The level for 1930 was 1.7 percent lower than in 1929; for 1931 it was 6.9 percent lower; and for 1932 it was 20.2 percent lower.

Hours and Earnings in Bituminous-Coal Mining, 1933

THE 1931 and 1933 figures for average days, hours, and earnings in this article are summaries of the results of studies by the Bureau of Labor Statistics of wages and hours of labor of wage earners in the bituminous-coal mining industry in the United States in those years. The averages were computed from wage material covering days, hours, and earnings of each individual wage earner included in the study in each year. The material, except for a few companies which made transcripts of their records for the Bureau, was collected by agents of the Bureau directly from the pay rolls and other records of representative coal mines in 11 States for a 2-week or half-monthly pay period in January or February, and is for a total of 137,788 wage earners of 469 mines in 1931 and 120,334 wage earners of 444 mines in 1933. Summaries of the results of studies of the industry by the Bureau in 1922, 1924, 1926, and 1929 are also shown in this report. Details for these 4 years are given in Bulletins Nos. 316, 416, 454, and 516.

Between 1931 and 1933 average days worked per half month by *miners and loaders* increased from 7 to 7.1; average hours in the half month based on time at face increased from 56.5 to 57.2; average earnings per hour based on time at face decreased from 59.9 to 39.5 cents, while the average based on total time in mine fell from 54.6 to 35.7 cents per hour; average earnings per day (start) declined from \$4.82 to \$3.18; and average actual earnings in a half-monthly pay period dropped from \$33.82 to \$22.59. Miners and loaders include the various occupations shown in table 3, page 638. Together they cut or dig and blast the coal from the seam and load it into mine cars or onto moving conveyors. The conveyors carry the coal from the face to mine cars for transfer from the mine. The 1933 average earnings per hour for miners and loaders, based on time at face, is 34.1 percent less than the 1931 average.

The average days worked in the half month by wage earners in all occupations found in the industry *other than miners and loaders* listed in table 4 fell from 8.3 in 1931 to 8 in 1933; average hours actually worked in the half month dropped from 69.8 in 1931 to 67.1 in 1933; average earnings per half month decreased from \$41.58 in 1931 to \$29.46 in 1933; average earnings per day (start) declined from \$5.02 in 1931 to \$3.68 in 1933; and average earnings per hour fell from 59.5 cents in 1931 to 43.9 cents in 1933. The 1933 average earnings per hour for all wage earners other than miners and loaders is 26.2 percent less than the 1931 average.

The 1933 wage figures in this report are for 26.7 percent of the 450,213 mine workers reported by the United States Bureau of Mines as engaged in the mining of bituminous coal in 1931; in the 11 States covered by this study they represent 29.7 percent of those in the industry in 1931. Of the 120,334 mine workers included in the report, 107,463, or 89.3 percent, were underground or "inside"

employees. The remaining 12,871 are known as surface or "outside" employees, though a comparatively few of them may at times work underground.

The three basic occupations in bituminous-coal mining are those of hand or pick miners, machine miners (and their helpers), and hand loaders. They represent 63.7 percent of all wage earners covered in the study of the industry in 1933. The wage earners in these occupations are usually paid a rate per ton of 2,000 pounds, run of mine (that is, of coal as mined, including "slack").

Hand or pick miners undercut coal with a pick, cutting some distance back from the "face", separate the coal from the seam with pick or explosives, and shovel the coal from the floor of the mine into mine cars. The term "face" means the perpendicular surface of the seam of coal on which the men are working, or, broadly speaking, their place of work in the mine. Machine miners undercut the seam of coal with electric or compressed-air coal-mining machines. After the seam of coal has been undercut, hand loaders usually blast the coal from the seam or bed, and with hand shovels load it into mine cars, or onto conveyors which empty into the cars. Shot firers do the blasting in some mines. Contract loaders, machine loaders and helpers, and gang miners are of much less importance in numbers, the three occupations combined comprising only 1.8 percent of the wage earners covered in the 1933 study.

As the miners and loaders are usually paid at tonnage instead of time rates, very few companies keep a daily time record for such employees. It was necessary, therefore, in order to ascertain the hours worked by the miners and loaders, to arrange with mine officials to keep a special day-by-day record of the hours of each employee for a sample pay period. Employees in all occupations inside and outside the mines, except miners and loaders, are usually paid at time rates; that is, rates per hour or day, and in a few instances per week or month. In some localities, where the mining and loading is done by mechanical means, the miners and loaders also are paid time rates. The hours worked by time workers and the earnings of both time workers and tonnage workers are of regular record.

Trend of Hours and Earnings, 1922 to 1933

TABLE 1 shows for all States combined, for specified years from 1922 to 1933, the average number of days and hours worked and average earnings made in a half month by miners and loaders as a group. "Miners", as here used, include gang miners, hand or pick miners, and machine miners and helpers. "Loaders" include contract loaders, hand loaders, and machine loaders and helpers. The number of mines decreased from 535 in 1929 to 469 in 1931 and to 444 in 1933, and the number of miners and loaders decreased from 99,405 in 1929 to 90,063 in 1931 and to 78,896 in 1933, due to the fact that many of the mines covered in 1929 were not in operation in 1931 and still more of them were not in operation in 1933.

The average hours and average earnings per hour as presented are based on (1) time at the face, including time for lunch, and (2) total time in mine, including time for lunch and travel time inside the mine from its opening to the face and return. The time for lunch was usually about 30 minutes, except in some mechanized mines where it was estimated that the men consumed 15 to 20 minutes for lunch while waiting for mine cars. The round-trip travel time in the

different mines ranged from 10 minutes to 2 hours. The weighted average time of travel in the mine, from the opening to the place of work and return, for the 78,896 miners and loaders in the 444 mines covered in the 1933 study was 54 minutes per day, or 27 minutes each way.

The average number of starts (days or parts of days) worked in the half month by miners and loaders were more in 1926 (9.5) and less in 1931 (7.0) than in any other year in the table. The 1933 average is 1.4 percent more than the 1931 average. The average actual hours worked in a half month, based on time at the face including whatever time was taken for lunch, decreased from 68.1 in 1922 to 64.6 in 1924, increased to 75.4 in 1926, then dropped to 72.6 in 1929, to 56.5 in 1931, and increased to 57.2 in 1933. The net decrease between 1929 and 1933 is 21.2 percent. The average hours per start based on time at the face including lunch showed a gradual increase from 7.7 in 1922 to 8.0 in 1929, 1931, and 1933. The average hours per start based on total time in mine showed more than a corresponding increase from 1929 to 1933, because the nonproductive average round-trip travel time was one tenth of an hour (or 6 minutes) less in 1931 than in 1933.

The miners and loaders' average earnings per hour, based on time at the face, have shown a steady decrease since 1922, the decline from 1929 to 1931 amounting to 12.8 percent and from 1931 to 1933 to 34.1 percent. Except for an increase in 1926 the same is true of the average earnings per half month; from 1929 to 1931 the decrease in semimonthly earnings represented 32.2 percent. The decrease between 1931 and 1933 was 33.2 percent. The earnings per start (day) have also shown a decrease in each period as compared with the previous period; since 1922 they have fallen from \$7.03 to \$3.18. During the 2-year period 1931 to 1933, there has been a decrease of 34 percent, or approximately the same as earnings per hour. Over the period 1929 to 1933, earnings per hour based on hours at the face decreased 42.5 percent, earnings per day (start) 42.2 percent, and earnings in half month decreased 54.7 percent. The decreases in both earnings per hour and earnings per start are far less than the percentage of decrease in earnings in the half month, showing that the miners and loaders mined and loaded more coal on days when there was opportunity for work in 1933 than in 1929.

TABLE 1.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1922, 1924, 1926, 1929, 1931, AND, 1933
[Data in this table are for wage earners who are usually paid tonnage rates]

Year	Number of mines	Number of wage earners	Average number of starts (days) worked in half month	Average hours				Average earnings			
				In half month based on—		Per start (day) based on—		Per hour based on—		In half month	Per start (day)
				Time at face including lunch	Time in mine	Time at face including lunch	Time in mine	Time at face including lunch	Time in mine		
1922 ¹	200	33,360	8.9	68.1	73.7	7.7	8.3	\$0.915	\$0.845	\$62.30	\$7.03
1924.....	599	91,167	8.3	64.6	70.0	7.8	8.5	.843	.777	54.44	6.60
1926.....	556	96,010	9.5	75.4	82.2	7.9	8.6	.817	.749	61.61	6.46
1929.....	535	99,405	9.1	72.6	79.6	8.0	8.8	.687	.626	49.85	5.50
1931.....	469	90,063	7.0	56.5	61.9	8.0	8.8	.599	.546	33.82	4.82
1933.....	444	78,896	7.1	57.2	63.2	8.0	8.9	.395	.357	22.59	3.18

¹ Includes data for Utah, Washington, and Wyoming.

Table 2 shows for all employees, both inside and outside the mines, in all occupations in the industry other than miners and loaders, average days, hours, and earnings in a half month for the same years shown in table 1. The group of employees in table 2 are time-workers—that is, they are paid rates per hour or day in most cases, though a few are paid weekly or monthly rates. The averages are for hours actually worked, excluding time for lunch.

Except for 1929 to 1931, the variations in the averages from year to year for this group were much the same as those for miners and loaders, which were explained in connection with table 1. The average half-monthly earnings showed a smaller decrease than those of miners and loaders from 1929 to 1933—44 percent as against 54.7 percent for miners and loaders. The decrease in earnings per hour from 1929 to 1933 represented 27.4 percent, as compared with 42.5 percent for miners and loaders, and the decrease in earnings per start during the same period represented 28.8 percent, as against 42.2 percent for miners and loaders, indicating smaller changes in the time rates.

TABLE 2.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF ALL WAGE EARNERS **OTHER THAN MINERS AND LOADERS**, 1922, 1924, 1926, 1929, 1931, AND 1933

[Data in this table are for wage earners who are usually paid time rates]

Year	Num-ber of mines	Num-ber of wage earners	Average number of starts (days) worked in half month	Average actual hours—		Average earnings—		
				Worked in half month	Per start (day)	In half month	Per start (day)	Per hour
1922 ¹	200	19,388	² 10.1	\$7.8	² 8.7	\$66.17	² \$6.55	\$0.753
1924.....	599	49,552	9.8	83.1	8.5	57.81	5.92	.696
1926.....	556	52,145	10.7	91.7	8.6	60.87	5.70	.664
1929.....	535	52,806	10.2	87.0	8.6	52.57	5.17	.605
1931.....	469	47,725	8.3	69.8	8.4	41.58	5.02	.595
1933.....	444	41,438	8.0	67.1	8.4	29.46	3.68	.439

¹ Includes data for Utah, Washington, and Wyoming.

² Not including data for 777 wage earners whose starts were not reported.

Average Hours and Earnings, 1931 and 1933, by Occupation and State

TABLE 3 shows for each State and for all States combined, for 1931 and 1933, average number of days and hours worked, and average earnings made in a half month, and in 1 week based upon the half-monthly figures, by employees in each of the eight occupations named below. They make up the group of miners and loaders shown in table 1. For Kentucky, Pennsylvania, and West Virginia the averages for 1933 are shown also by State subdivisions. In 1931 no separate tabulation by State subdivisions was made. At the end of the table will be found the averages for all miners and loaders in each State and in all States combined. All averages, whether for the week or the half month, are true weighted averages.

The 1933 figures in table 3 cover 59,220 hand loaders, 11,807 hand or pick miners, 5,122 machine miners (cutters), 544 machine miners' helpers, 945 gang miners, 602 machine loaders, 417 machine loaders' helpers and clean-up men, and 239 contract loaders, or a total of 78,896 wage earners.

TABLE 3.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1931 AND 1933, IN SPECIFIED STATES OR SUBDIVISIONS

[Data in this table are for wage earners who are usually paid tonnage rates]

Occupation and State or subdivision	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average hours based on time—						Average earnings				
						At face, including lunch			In mine			In half month	In 1 week ¹	Per start (day)	Per hour based on time—	
				Half month	1 week ¹	In half month	In 1 week ¹	Per start (day)	In half month	In 1 week ¹	Per start (day)				At face, including lunch	In mine
Loaders, contract (hand):																
Alabama.....	1931	11	257	6.9	3.3	60.1	28.5	8.7	66.8	31.7	9.6	\$35.02	\$16.13	\$5.05	\$0.582	\$0.524
	1933	4	68	6.6	3.6	52.1	28.4	7.9	58.0	31.6	8.8	22.67	12.36	3.45	.435	.391
Kentucky.....	1931	17	80	7.4	3.7	58.5	29.0	7.9	64.2	31.9	8.7	58.50	29.09	7.93	1.001	.911
	1933	12	81	9.5	4.6	74.3	36.2	7.8	83.6	40.7	8.8	33.27	16.18	3.51	.448	.398
Pennsylvania.....	1931	1	3	10.0	4.3	94.5	40.5	9.5	104.5	44.8	10.5	193.21	82.80	19.32	2.045	1.849
	1933	2	6	10.0	4.6	102.0	47.1	10.2	112.0	51.7	11.2	78.00	36.00	7.80	.765	.697
Tennessee.....	1931	1	8	7.0	3.5	51.9	26.0	7.4	58.9	29.5	8.4	24.04	12.02	3.43	.463	.408
	1933	5	19	7.3	3.3	62.3	28.7	8.6	67.0	30.9	9.2	36.70	16.94	5.05	.589	.548
Virginia.....	1931	4	15	11.0	4.7	88.3	37.8	8.0	93.8	40.2	8.5	59.87	25.66	5.44	.678	.638
	1933	3	16	10.8	5.0	91.7	42.3	8.5	97.4	45.0	9.0	51.29	23.67	4.74	.559	.527
West Virginia.....	1931	8	42	7.5	3.5	72.0	33.4	9.5	77.0	35.6	10.2	80.74	38.02	10.70	1.121	1.049
	1933	9	49	10.2	4.8	83.1	38.6	8.1	91.7	42.6	9.0	51.82	24.08	5.07	.624	.565
Total.....	1931	42	405	7.3	3.4	62.2	29.5	8.6	68.5	32.5	9.4	46.27	21.73	6.37	.744	.676
	1933	35	239	8.7	4.3	70.7	34.6	8.1	78.3	38.3	9.0	36.66	17.77	4.20	.519	.468
Loaders, hand:																
Alabama.....	1931	17	3,028	6.1	2.8	51.2	23.2	8.4	56.7	25.7	9.3	19.28	8.68	3.17	.376	.340
	1933	18	2,302	5.6	2.7	48.7	23.9	8.7	53.8	26.4	9.7	11.93	5.83	2.14	.245	.222
Colorado.....	1931	14	1,240	7.5	3.3	60.3	26.5	8.0	65.2	28.8	8.7	44.04	19.25	5.86	.731	.676
	1933	16	1,160	6.3	3.1	47.9	23.0	7.5	51.7	24.8	8.1	27.12	12.99	4.27	.567	.525
Illinois.....	1931	30	7,265	5.6	2.7	46.2	22.1	8.2	50.3	24.0	8.9	40.22	19.28	7.12	.871	.800
	1933	26	6,723	5.2	2.4	43.4	19.8	8.3	47.5	21.7	9.1	26.50	12.11	5.06	.611	.568
Indiana.....	1931	10	1,411	5.2	2.2	39.7	17.0	7.6	42.9	18.4	8.2	37.30	15.98	7.15	.939	.869
	1933	10	1,049	7.2	3.3	59.0	27.3	8.2	64.6	29.8	9.0	37.28	17.21	5.17	.631	.577
Kansas.....	1931	1	89	3.9	1.7	32.5	13.9	8.4	33.8	14.5	8.8	20.70	8.87	5.37	.636	.612
	1933	3	192	8.6	3.7	60.0	25.7	7.0	65.7	28.2	7.6	19.63	8.41	2.28	.327	.299
Kentucky.....	1931	64	8,698	5.7	2.8	45.1	22.0	8.0	49.6	24.2	8.8	24.26	11.84	4.28	.538	.489
	1933	49	6,499	7.3	3.5	59.2	27.8	8.1	64.9	30.5	8.8	20.57	9.65	2.80	.348	.317
Eastern.....	1933	34	4,948	7.0	3.3	55.8	26.4	8.0	61.5	29.2	8.8	20.40	9.62	2.93	.366	.332
Western.....	1933	15	1,551	8.6	4.0	70.0	32.3	8.2	75.6	34.9	8.8	21.11	9.74	2.47	.302	.279

Ohio.....	1931	32	6,195	7.2	3.2	55.9	24.8	7.8	61.3	27.2	8.5	26.95	11.93	3.75	.482	.440
	1933	29	6,036	8.4	3.9	63.2	29.2	7.5	71.5	33.0	8.5	20.93	9.66	2.50	.331	.293
Pennsylvania.....	1931	108	19,287	7.8	3.6	62.0	28.5	7.9	68.4	31.4	8.7	33.15	15.24	4.23	.534	.485
	1933	101	18,047	7.0	3.3	56.7	26.3	8.1	62.9	29.2	8.9	18.63	8.66	2.65	.329	.296
Central.....	1933	47	7,186	6.7	3.1	54.5	25.2	8.2	60.6	28.0	9.1	19.86	9.18	2.98	.364	.328
Western.....	1933	54	10,861	7.3	3.4	58.1	27.0	8.0	64.4	29.9	8.8	17.81	8.32	2.45	.306	.277
Tennessee.....	1931	11	747	6.0	3.0	50.0	25.0	8.3	53.9	27.0	8.9	18.06	9.03	2.99	.362	.335
	1933	12	700	6.8	3.1	54.4	25.1	8.1	59.2	27.3	8.8	16.29	7.52	2.41	.300	.275
Virginia.....	1931	16	2,300	8.9	3.8	67.2	28.8	7.6	73.2	31.4	8.3	33.23	14.24	3.75	.494	.454
	1933	16	2,010	8.8	4.2	72.4	34.1	8.2	80.1	37.8	9.1	21.12	9.97	2.39	.292	.264
West Virginia.....	1931	110	14,912	7.4	3.3	60.3	27.1	8.2	66.1	29.7	9.0	32.16	14.50	4.36	.533	.486
	1933	115	14,502	7.0	3.6	55.1	28.0	7.9	61.1	31.1	8.7	19.93	10.13	2.84	.362	.326
Northern.....	1933	29	3,634	6.2	3.3	45.0	24.2	7.2	51.3	27.5	8.2	16.00	8.58	2.57	.355	.312
Southern.....	1933	86	10,868	7.3	3.6	58.5	29.3	8.0	64.3	32.2	8.8	21.25	10.65	2.92	.363	.330
Total.....	1931	413	65,172	7.0	3.2	56.0	25.7	8.0	61.5	28.2	8.8	31.40	14.43	4.49	.561	.511
	1933	395	59,220	7.0	3.3	55.8	26.6	8.0	61.8	29.4	8.8	20.58	9.78	2.94	.369	.333
Loaders, machine:																
Alabama.....	1931	2	50	5.1	2.3	46.2	20.3	9.0	51.3	22.5	10.0	21.65	9.55	4.21	.469	.422
	1933	3	55	3.9	2.1	38.8	21.0	10.0	41.4	22.4	10.6	9.35	5.03	2.40	.241	.226
Illinois.....	1931	11	138	8.2	3.8	68.5	31.9	8.4	73.5	34.3	9.0	80.59	37.55	9.85	1.177	1.096
	1933	10	143	7.8	3.5	66.6	29.6	8.5	72.3	32.1	9.3	54.66	24.29	7.01	.820	.756
Indiana.....	1931	5	71	9.5	4.1	76.5	32.8	8.0	79.8	34.2	8.4	80.53	34.51	8.43	1.053	1.010
	1933	8	127	9.3	4.3	76.7	35.8	8.3	82.0	38.3	8.8	62.67	29.31	6.75	.817	.764
Kentucky.....	1931	3	5	7.2	3.4	64.6	30.6	9.0	68.6	32.5	9.5	55.18	26.49	7.66	.854	.804
	1933	2	6	7.7	3.6	65.2	30.1	8.5	70.2	32.4	9.2	20.53	9.48	2.68	.315	.292
Eastern.....	1933	1	(¹)	(²)	(³)	(⁴)	(⁵)	(⁶)	(⁷)	(⁸)	(⁹)	(¹⁰)	(¹¹)	(¹²)	(¹³)	(¹⁴)
Western.....	1933	1	4	8.8	4.1	74.4	34.3	8.5	78.8	36.4	9.0	20.46	9.44	2.34	.275	.260
Ohio.....	1931	2	18	4.7	2.0	43.4	18.6	9.2	48.7	20.9	10.3	29.95	12.84	6.34	.690	.615
	1933	1	10	13.0	6.0	114.1	52.7	8.8	127.1	58.7	9.8	62.56	28.88	4.81	.548	.492
Pennsylvania.....	1931	6	214	6.6	2.8	52.1	22.6	8.0	55.9	24.3	8.5	35.38	15.31	5.40	.679	.632
	1933	5	234	4.8	2.2	38.3	17.7	8.0	41.7	19.2	8.7	19.04	8.79	3.99	.497	.457
Central.....	1933	4	230	4.6	2.1	37.3	17.2	8.0	40.5	18.7	8.7	18.61	8.59	4.00	.499	.459
Western.....	1933	1	4	11.8	5.4	96.5	44.6	8.2	108.3	50.0	9.2	43.99	20.30	3.74	.456	.406
Virginia.....	1931	1	4	8.0	3.4	90.3	38.7	11.3	99.6	42.7	12.4	56.06	24.03	7.01	.621	.563
	1933	2	2	11.5	5.3	110.8	51.2	9.6	121.1	55.9	10.5	47.92	22.12	4.17	.433	.396
West Virginia.....	1931	5	36	10.1	4.5	112.5	50.2	11.2	119.7	53.4	11.9	67.38	30.25	6.68	.599	.563
	1933	3	25	8.4	4.4	81.0	42.0	9.6	85.4	44.3	10.1	32.14	16.45	3.81	.397	.373
Total.....	1931	35	536	7.4	3.3	63.2	28.0	8.5	67.7	30.1	9.1	54.03	24.13	7.27	.855	.798
	1933	34	602	6.7	3.1	56.7	26.5	8.5	61.2	28.6	9.1	37.20	17.16	5.55	.656	.608

¹ As computed by the Bureau from wage figures for 1 half-monthly pay period.

² All wage earners in this occupation in this year were in eastern Kentucky; in 1931 no separate tabulation was made by State subdivision.

³ All wage earners in this occupation in this year were in central Pennsylvania; in 1931 no separate tabulation was made by State subdivision.

⁴ All wage earners in this occupation in this year were in southern West Virginia; in 1931 no separate tabulation was made by State subdivision.

⁵ Data included in total.

TABLE 3.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1931 AND 1933, IN SPECIFIED STATES OR SUBDIVISIONS—Continued

Occupation and State or subdivision	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average hours based on time—						Average earnings				
				Half month	1 week	At face, including lunch			In mine			In half month	In 1 week	Per start (day)	Per hour based on time—	
						In half month	In 1 week	Per start (day)	In half month	In 1 week	Per start (day)				At face, including lunch	In mine
Loaders, machine, helpers, and clean-up men:																
Alabama.....	1931	1	24	4.0	1.9	38.2	17.6	9.4	42.2	19.5	10.4	\$16.11	\$7.44	\$3.99	\$0.422	\$0.382
	1933	1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Illinois.....	1931	11	350	7.1	3.3	59.6	27.7	8.4	64.0	29.7	9.0	57.03	26.48	8.04	.956	.890
	1933	10	342	6.0	2.7	51.2	22.7	8.5	55.5	24.6	9.3	35.93	15.95	5.99	.702	.647
Kentucky.....	1931	3	7	5.9	2.8	50.6	23.8	8.6	53.9	25.3	9.2	30.09	14.31	5.14	.595	.558
	1933	2	11	8.2	3.8	69.6	32.1	8.5	74.5	34.4	9.1	18.67	8.62	2.28	.268	.251
	1933	1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Eastern.....	1933	1	9	8.6	3.9	73.6	34.0	8.6	77.9	36.0	9.1	18.15	8.38	2.12	.246	.233
Western.....	1931	1	8	8.1	3.5	77.8	33.4	9.6	88.7	38.0	10.9	47.07	20.17	5.79	.605	.531
Ohio.....	1933	1	47	12.4	5.7	106.7	49.3	8.6	119.2	55.0	9.6	40.64	18.76	3.27	.381	.341
Pennsylvania.....	1931	1	5	9.6	4.1	94.4	40.5	9.8	100.8	43.2	10.5	55.92	23.97	5.83	.592	.555
	6 1933	1	10	11.1	5.1	91.0	42.0	8.2	102.1	47.1	9.2	35.30	16.29	3.18	.388	.346
Virginia.....	1931	1	13	7.8	3.3	86.0	36.8	11.1	95.0	40.7	12.2	45.14	19.35	5.81	.525	.475
	1933	2	2	11.0	5.1	107.0	49.4	9.7	117.1	54.1	10.6	34.90	16.11	3.17	.326	.298
West Virginia.....	1931	4	49	9.8	4.3	97.8	42.6	10.0	106.0	46.1	10.8	47.48	20.71	4.84	.485	.448
	4 1933	1	3	10.7	4.9	93.7	43.2	8.8	99.0	45.7	9.3	37.52	17.32	3.52	.401	.370
Total.....	1931	22	456	7.3	3.3	63.9	29.2	8.8	69.0	31.5	9.5	52.91	24.33	7.27	.828	.767
	1933	18	417	6.9	3.1	59.4	26.7	8.5	64.9	29.1	9.3	35.86	16.03	5.16	.604	.553
Miners, gang:																
Colorado.....	1933	2	12	6.6	3.6	50.8	27.7	7.7	54.6	29.8	8.3	30.33	16.54	4.61	.597	.556
Illinois.....	1931	5	179	9.6	4.2	78.6	34.0	8.2	84.6	36.5	8.8	72.04	31.12	7.47	.916	.852
	1933	9	279	6.6	3.0	55.2	25.4	8.4	59.7	27.5	9.1	36.92	17.00	5.62	.668	.618
Indiana.....	1933	2	125	8.2	3.8	63.4	29.3	7.7	67.5	31.2	8.2	44.78	20.67	5.47	.706	.663
Kentucky.....	1931	3	12	7.3	3.5	66.3	31.3	9.0	70.9	33.5	9.7	38.66	18.48	5.27	.584	.546
	1933	4	24	8.2	3.9	72.5	34.4	8.9	79.3	37.5	9.7	34.59	16.41	4.24	.477	.436
Eastern.....	1933	3	17	8.9	4.3	80.4	38.4	9.0	88.2	42.0	9.9	40.35	19.26	4.51	.502	.458
Western.....	1933	1	7	6.3	2.9	53.4	24.7	8.5	57.6	26.6	9.2	20.60	9.51	3.28	.386	.358
Ohio.....	1931	1	6	14.0	6.0	119.0	51.0	8.5	123.7	53.0	8.8	114.20	48.94	8.16	.960	.923
	1933	3	39	9.1	4.2	76.6	35.4	8.5	89.6	41.3	9.9	27.89	12.87	3.08	.364	.311

Pennsylvania.....	1931	8	174	10.5	4.7	91.6	41.0	8.7	101.7	45.5	9.7	58.84	26.44	5.60	.643	.578	
	³ 1933	9	466	8.6	4.0	71.8	33.1	8.4	79.8	36.8	9.3	25.40	11.72	2.96	.354	.318	
West Virginia.....	⁷ 1931	1	7	4.0	2.0	34.0	17.0	8.5	38.0	19.0	9.5	44.15	22.08	11.04	1.299	1.162	
Total.....	1931	18	378	9.9	4.4	84.0	37.0	8.5	91.8	40.5	9.2	65.05	28.68	6.55	.774	.709	
	1933	29	945	7.9	3.7	65.7	30.4	8.3	72.3	33.4	9.1	31.76	14.69	4.01	.483	.439	
Miners, hand or pick:																	
Alabama.....	1931	7	942	5.6	2.5	49.1	22.2	8.8	54.2	24.5	9.7	22.71	10.23	4.06	.463	.419	
	1933	7	635	4.5	2.1	40.5	19.1	8.9	44.3	20.9	9.7	9.68	4.55	2.13	.239	.219	
Colorado.....	1931	10	959	4.2	2.0	35.0	16.4	8.3	38.4	18.0	9.1	23.27	10.74	5.52	.664	.607	
	1933	17	923	4.9	2.4	38.4	19.2	7.9	41.6	20.7	8.5	20.64	10.27	4.24	.537	.496	
Illinois.....	1931	13	2,523	6.9	3.0	54.2	23.8	7.9	58.2	25.6	8.4	38.17	16.88	5.53	.705	.656	
	1933	7	1,035	10.1	4.7	82.4	38.0	8.1	91.1	42.0	9.0	41.90	19.33	4.13	.509	.460	
Indiana.....	1931	7	805	5.6	2.4	32.5	13.9	5.8	34.9	14.9	6.2	27.84	11.93	4.95	.856	.798	
	1933	4	270	10.4	4.8	66.6	30.7	6.4	72.6	33.5	7.0	44.49	20.53	4.26	.668	.613	
Kansas.....	1931	7	1,486	5.1	2.2	39.9	17.1	7.9	41.9	17.9	8.3	24.54	10.52	4.84	.615	.586	
	1933	5	868	4.1	1.8	30.6	13.1	7.4	32.4	13.9	7.8	12.15	5.21	2.93	.397	.375	
Kentucky.....	1931	25	1,082	6.4	3.2	53.6	26.8	8.4	59.5	29.7	9.3	29.00	14.50	4.54	.541	.488	
	³ 1933	14	662	6.0	3.1	48.1	24.7	8.1	51.7	26.5	8.7	15.36	7.80	2.58	.319	.297	
Pennsylvania.....	1931	79	7,264	7.7	3.7	61.3	29.0	7.9	68.2	32.2	8.8	34.30	16.24	4.44	.560	.503	
	1933	69	5,507	8.0	3.6	66.1	30.1	8.3	74.5	33.9	9.3	22.50	10.23	2.81	.340	.302	
Central.....	1933	42	4,009	8.3	3.7	68.6	30.8	8.2	78.0	35.1	9.4	23.72	10.64	2.85	.346	.304	
Western.....	1933	27	1,498	7.1	3.3	59.6	28.0	8.4	65.2	30.7	9.1	19.23	9.13	2.70	.323	.295	
Tennessee.....	1931	10	436	7.7	3.8	64.8	32.4	8.4	68.6	34.3	8.9	23.87	11.94	3.11	.368	.348	
	1933	12	491	7.2	3.3	55.3	25.5	7.7	59.1	27.3	8.2	15.38	7.10	2.15	.278	.260	
Virginia.....	⁸ 1933	2	106	7.0	3.2	65.4	30.2	9.3	68.9	31.8	9.8	13.77	6.35	1.96	.210	.200	
West Virginia.....	1931	43	1,466	7.1	3.3	56.3	26.2	8.0	61.6	28.6	8.7	34.12	15.90	4.83	.606	.554	
	1933	45	1,310	7.6	4.0	59.8	31.6	7.8	64.9	34.3	8.5	21.74	11.48	2.85	.364	.335	
Northern.....	1933	1	108	11.0	5.5	78.5	39.3	7.1	84.0	42.0	7.6	27.76	13.88	2.51	.354	.330	
Southern.....	1933	44	1,202	7.3	3.9	58.1	30.9	7.9	63.2	33.6	8.6	21.20	11.26	2.90	.365	.335	
Total.....	1931	201	16,963	6.8	3.2	54.0	25.1	7.9	59.2	27.5	8.7	31.83	14.73	4.67	.589	.537	
	1933	182	11,807	7.3	3.4	59.2	27.8	8.1	65.6	30.7	8.9	22.25	10.43	3.03	.376	.339	
Miners, machine (cutters):																	
Alabama.....	1931	17	131	6.7	3.0	63.9	28.7	9.5	70.0	31.4	10.4	56.24	25.32	8.37	.880	.803	
	1933	17	120	5.7	2.8	53.3	25.8	9.4	58.5	28.3	10.3	26.65	13.04	4.68	.500	.456	
Colorado.....	1931	14	122	8.4	3.7	68.5	29.9	8.1	73.5	32.2	8.7	76.02	33.36	9.05	1.111	1.034	
	1933	15	90	7.2	3.5	56.8	27.7	7.9	61.2	29.8	8.5	50.99	24.74	7.13	.898	.834	
Illinois.....	1931	32	1,084	6.0	2.8	49.8	23.5	8.3	53.9	25.4	9.0	58.16	27.42	9.66	1.167	1.079	
	1933	30	950	6.0	2.7	50.3	22.8	8.4	54.9	24.9	9.1	40.68	18.41	6.77	.808	.741	
Indiana.....	1931	14	227	7.0	3.0	55.3	23.7	7.9	58.8	25.2	8.4	66.37	28.44	9.49	1.200	1.129	
	1933	13	236	8.9	4.2	73.4	34.3	8.3	79.0	36.9	8.9	62.48	29.23	7.03	.852	.791	

² All wage earners in this occupation in this year were in eastern Kentucky; in 1931 no separate tabulation was made by State subdivision.

³ All wage earners in this occupation in this year were for central Pennsylvania; in 1931 no separate tabulation was made by State subdivision.

⁴ All wage earners in this occupation in this year were in southern West Virginia; in 1931 no separate tabulation was made by State subdivision.

⁵ Data included in total.

⁶ All wage earners in this occupation in this year were in western Pennsylvania; in 1931 no separate tabulation was made by State subdivision.

⁷ No wage earners reported for this occupation in 1933.

⁸ No wage earners reported for this occupation in 1931.

TABLE 3.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF MINERS AND LOADERS, 1931 AND 1933, IN SPECIFIED STATES OR SUBDIVISIONS—Continued

Occupation and State or subdivision	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average hours based on time—						Average earnings					
				Half month	1 week	At face, including lunch			In mine			In half month	In 1 week	Per start (day)	Per hour based on time—		
						In half month	In 1 week	Per start (day)	In half month	In 1 week	Per start (day)				At face, including lunch	In mine	
Miners, machine (cutters)—Continued.																	
Kansas.....	1931	1	9	4.0	1.7	34.0	14.6	8.5	35.3	15.1	8.8	\$27.46	\$11.77	\$6.87	\$0.808	\$0.777	
	1933	3	15	8.2	3.5	66.6	28.5	8.1	72.1	30.9	8.8	40.58	17.39	4.95	.609	.563	
Kentucky.....	1931	63	684	6.3	3.1	54.3	26.4	8.6	58.9	28.6	9.4	47.38	23.09	7.53	.873	.805	
	1933	50	543	8.2	3.9	70.2	33.2	8.5	75.9	35.9	9.2	38.41	18.07	4.66	.548	.506	
Eastern.....	1933	34	369	7.5	3.6	64.3	30.9	8.6	69.9	33.5	9.3	38.50	18.27	5.13	.599	.551	
Western.....	1933	16	174	9.8	4.5	82.6	38.1	8.4	88.7	41.0	9.1	38.21	17.64	3.90	.463	.431	
Ohio.....	1931	32	608	8.3	3.7	66.0	29.2	8.0	72.3	32.0	8.7	46.45	20.61	5.62	.704	.642	
	1933	29	524	9.6	4.4	79.0	36.5	8.2	88.5	40.8	9.2	43.26	19.97	4.51	.547	.489	
Pennsylvania.....	1931	104	1,497	8.7	4.0	73.0	33.3	8.4	80.0	36.5	9.2	67.01	30.58	7.67	.918	.837	
	1933	100	1,469	7.6	3.5	62.4	29.0	8.2	68.9	32.1	9.1	35.55	16.54	4.68	.570	.516	
Central.....	1933	46	521	7.4	3.4	61.3	28.4	8.3	67.9	31.4	9.2	33.49	15.49	4.53	.546	.493	
Western.....	1933	54	948	7.7	3.6	63.0	29.4	8.2	69.5	32.4	9.0	36.68	17.11	4.76	.582	.528	
Tennessee.....	1931	11	38	7.4	3.7	68.6	34.3	9.3	75.9	38.0	10.3	36.96	18.48	5.00	.539	.487	
	1933	11	35	5.9	2.7	55.5	25.6	9.3	59.9	27.6	10.1	25.52	11.78	4.29	.460	.426	
Virginia.....	1931	16	152	9.2	3.9	85.9	36.8	9.4	92.0	39.4	10.0	62.92	26.97	6.85	.733	.684	
	1933	16	130	9.4	4.3	87.4	40.0	9.3	95.7	43.7	10.2	41.25	18.89	4.40	.472	.431	
West Virginia.....	1931	107	1,002	8.4	3.7	76.3	34.1	9.1	82.8	37.0	9.9	73.49	32.74	8.78	.964	.887	
	1933	114	1,010	7.9	4.1	69.9	35.7	8.8	76.6	39.1	9.6	44.15	22.47	5.55	.631	.577	
Northern.....	1933	28	294	6.9	3.7	56.2	30.2	8.1	62.8	33.8	9.1	36.64	19.65	5.32	.652	.583	
Southern.....	1933	86	716	8.4	4.2	75.6	38.0	9.0	82.2	41.3	9.8	47.23	23.63	5.63	.625	.575	
Total.....	1931	411	5,554	7.7	3.5	65.2	29.7	8.5	71.0	32.4	9.3	61.32	27.97	8.01	.940	.864	
	1933	398	5,122	7.7	3.6	65.0	30.8	8.5	71.3	33.8	9.3	40.68	19.25	5.29	.626	.571	
Miners', machine (cutters'), helpers:																	
Alabama.....	1931	15	109	6.7	3.0	61.9	27.8	9.3	68.5	30.7	10.3	34.34	15.42	5.16	.555	.501	
	1933	12	73	6.4	3.0	61.1	28.7	9.6	66.8	31.4	10.5	22.22	10.45	3.48	.364	.333	
Colorado.....	1931	5	18	6.1	2.9	50.0	23.4	8.2	56.1	26.4	9.2	43.35	20.36	7.09	.866	.773	
	1933	5	19	6.9	3.4	56.2	27.2	8.1	60.5	29.2	8.7	34.76	16.82	5.00	.619	.575	
Kansas.....	1931	1	10	3.7	1.6	31.5	13.5	8.5	32.7	14.0	8.8	23.35	10.01	6.31	.743	.715	
	1933	3	26	8.4	3.6	67.5	28.9	8.0	73.1	31.3	8.7	34.39	14.74	4.08	.509	.470	
Kentucky.....	1931	36	233	6.7	3.2	59.0	28.6	8.8	64.2	31.2	9.6	36.20	17.52	5.40	.614	.563	
	1933	24	182	8.6	4.0	76.8	35.9	8.9	83.8	39.1	9.7	33.12	15.48	3.83	.431	.395	
Eastern.....	1933	13	87	8.2	3.9	77.0	36.5	9.4	84.3	39.9	10.3	32.27	15.30	3.95	.419	.383	
Western.....	1933	11	95	9.1	4.2	76.7	35.4	8.4	83.3	38.4	9.2	33.90	15.65	3.74	.442	.407	

Ohio.....	1931	1	5	5.4	2.7	45.9	22.9	8.5	48.6	24.3	9.0	24.30	12.15	4.50	.529	.500
Pennsylvania.....	1931	15	75	6.1	2.9	55.7	26.8	9.1	61.6	29.6	10.1	45.57	22.13	7.48	.818	.740
	1933	11	75	6.7	3.1	53.3	24.6	7.9	59.5	27.5	8.8	25.84	11.93	3.88	.485	.434
Central.....	1933	8	44	5.6	2.6	43.7	20.2	7.8	50.0	23.1	8.9	21.72	10.03	3.89	.497	.434
Western.....	1933	3	31	8.4	3.9	67.0	30.9	8.0	73.0	33.7	8.7	31.69	14.63	3.78	.473	.434
Tennessee.....	1931	9	36	6.5	3.3	61.3	30.7	9.4	65.7	32.9	10.1	23.43	11.72	3.60	.382	.357
	1933	9	30	6.5	3.0	59.9	27.6	9.3	65.1	30.0	10.1	19.11	8.82	2.95	.319	.294
Virginia.....	1931	10	49	8.5	3.6	89.8	38.5	10.6	94.9	40.7	11.2	49.84	21.36	5.87	.555	.525
	1933	8	36	8.9	4.1	92.8	42.9	10.4	99.1	45.7	11.1	37.56	17.33	4.21	.404	.379
West Virginia.....	1931	20	64	7.4	3.5	76.4	36.6	10.3	82.5	39.6	11.1	44.53	21.40	6.00	.583	.539
	1933	22	103	6.6	3.3	57.6	29.2	8.8	62.3	31.6	9.5	25.68	12.85	3.91	.446	.412
Northern.....	1933	1	6	7.8	3.6	49.0	22.6	6.3	64.7	29.8	8.3	54.22	25.02	6.92	1.107	.838
Southern.....	1933	21	97	6.5	3.3	58.1	29.6	6.0	62.2	31.7	9.6	28.92	12.09	3.69	.412	.385
Total.....	1931	112	599	6.7	3.2	62.8	29.6	9.3	68.3	32.2	10.1	38.17	18.01	5.66	.608	.559
	1933	94	544	7.5	3.5	66.8	31.5	8.9	72.8	34.3	9.7	28.89	13.58	3.84	.433	.397
Total, miners and loaders:																
Alabama.....	1931	19	4,541	6.0	2.7	51.8	23.5	8.6	57.3	26.0	9.5	22.32	10.07	3.69	.431	.389
	1933	20	3,255	5.4	2.6	47.5	23.2	8.8	52.3	25.5	9.7	12.45	6.07	2.31	.262	.238
Colorado.....	1931	17	2,339	6.2	2.8	50.3	22.5	8.1	54.5	24.5	8.8	37.19	16.51	6.00	.740	.682
	1933	20	2,204	5.8	2.8	44.4	21.6	7.7	47.9	23.4	8.3	25.46	12.38	4.41	.574	.531
Illinois.....	1931	39	11,539	6.1	2.8	49.4	23.0	8.1	53.6	25.0	8.8	42.94	20.14	7.05	.869	.802
	1933	34	9,472	6.0	2.7	49.3	22.5	8.3	54.0	24.7	9.1	30.68	13.99	5.15	.622	.568
Indiana.....	1931	19	2,514	5.6	2.4	39.9	17.1	7.1	42.8	18.4	7.6	38.12	16.34	6.77	.956	.890
	1933	16	1,807	8.1	3.8	63.6	29.4	7.8	69.1	32.0	8.5	43.95	20.37	5.41	.691	.636
Kansas.....	1931	8	1,594	5.0	2.1	39.4	16.9	7.9	41.3	17.7	8.3	24.33	10.43	4.88	.617	.589
	1933	6	1,101	5.1	2.2	37.1	15.9	7.3	39.7	17.0	7.8	14.37	6.16	2.83	.387	.362
Kentucky.....	1931	65	10,801	5.8	2.8	47.0	23.0	8.1	51.6	25.2	8.9	26.74	13.08	4.60	.569	.518
	1933	50	8,008	7.3	3.5	59.6	28.2	8.1	65.2	30.9	8.9	21.80	10.29	2.97	.366	.334
Eastern.....	1933	34	6,168	6.9	3.3	56.1	26.8	8.1	61.6	29.5	8.9	21.34	10.14	3.08	.381	.346
Western.....	1933	16	1,840	8.7	4.0	71.5	33.0	8.2	77.2	35.6	8.9	23.37	10.79	2.69	.327	.303
Ohio.....	1931	32	6,840	7.3	3.2	56.9	25.2	7.8	62.3	27.7	8.6	28.79	12.75	3.96	.506	.462
	1933	29	6,656	8.5	3.9	64.9	29.9	7.6	73.3	33.8	8.6	22.93	10.58	2.69	.353	.313
Pennsylvania.....	1931	125	28,519	7.9	3.6	62.5	28.9	8.0	69.0	31.9	8.8	35.45	16.40	4.51	.567	.513
	1933	114	25,814	7.3	3.4	59.1	27.3	8.1	65.8	30.4	9.0	20.58	9.52	2.83	.348	.313
Central.....	1933	58	12,462	7.3	3.3	59.6	27.3	8.2	66.8	30.6	9.2	21.89	10.01	3.02	.367	.327
Western.....	1933	56	13,352	7.3	3.4	58.7	27.3	8.0	64.9	30.2	8.9	19.36	9.06	2.65	.330	.298
Tennessee.....	1931	14	1,265	6.7	3.3	56.0	28.0	8.4	60.0	30.0	9.0	20.82	10.41	3.12	.372	.347
	1933	17	1,275	6.9	3.2	55.0	25.4	8.0	59.5	27.4	8.6	16.56	7.65	2.40	.301	.279
Virginia.....	1931	16	2,533	8.9	3.8	69.1	29.6	7.8	75.1	32.2	8.5	35.59	15.25	4.01	.515	.474
	1933	16	2,302	8.8	4.1	73.4	34.4	8.3	81.0	38.0	9.2	22.42	10.53	2.54	.305	.277
West Virginia.....	1931	115	17,578	7.4	3.3	61.2	27.6	8.2	67.0	30.2	9.0	34.96	15.79	4.72	.572	.522
	1933	122	17,002	7.1	3.6	56.5	28.8	7.9	62.4	31.8	8.8	21.66	11.04	3.04	.353	.347
Northern.....	1933	29	4,042	6.4	3.4	46.7	25.1	7.3	53.0	28.4	8.3	17.87	9.55	2.79	.382	.337
Southern.....	1933	93	12,960	7.3	3.7	59.5	30.0	8.1	65.4	32.9	8.9	22.84	11.50	3.11	.384	.349
Total.....	1931	469	90,063	7.0	3.2	56.5	25.9	8.0	61.9	28.4	8.8	33.82	15.54	4.82	.599	.546
	1933	444	78,896	7.1	3.4	57.2	27.1	8.0	63.2	30.0	8.9	22.59	10.69	3.18	.395	.357

⁷ No wage earners for this occupation reported in 1933.

Between 1931 and 1933, in 3 of the 8 occupations, all States combined, there was an increase in number of starts (days) in the half month, in 3 there was a decrease, and in 2 there was no change. Average hours in the half month, based on time at the face, increased in 3 and decreased in the other 5 occupations. One occupation showed an increase in average hours per day, based on time at the face, 4 showed a decrease, and 3 showed no change. In all 8 occupations there was a very marked decrease in earnings per hour, per day, per week, and per half month.

For hand loaders, the most important occupation in number of wage earners, the table shows a total of 65,172 in 1931 and 59,220 in 1933. In 1931 the lowest State average earnings per hour, based on time at the face including lunch, shown is 36.2 cents, as compared with 24.5 cents for the State having the lowest average in 1933. The highest corresponding State average shown in 1931 is 93.9 cents, as compared with 63.1 cents in 1933.

Average Days, Hours, and Earnings, 1931 and 1933, by Occupation

TABLE 4 presents for 1931 and 1933 average days, hours, and earnings for nine of the important inside and four of the important outside occupations in the industry, and also for two groups of "other employees" in which the wage earners are usually paid time rates. The groups include all timeworkers in all inside and outside occupations other than the important occupations specified. No occupation in either group is considered of sufficient importance to warrant separate tabulation. The wage earners for which averages are shown in this table are the same as those for which summary figures are shown in table 2.

Average days and hours per half month and per week were greater for engineers and pumpmen than for any other occupation in the table because many of the wage earners in these two occupations frequently work on Sunday and may also work overtime during the week.

Average earnings per hour, day, week, and month for each inside and outside occupation and also for each of the groups of "other employees" were less in 1933 than in 1931. In 1931 brakemen, the first occupation in the table, earned an average of \$36.05 per half month, \$16.71 in 1 week, \$4.89 per day, and 57.6 cents per hour, and in 1933 they earned \$25.74 per half month, \$12.20 in 1 week, \$3.55 per day, and 42.1 cents per hour.

TABLE 4.—AVERAGE NUMBER OF STARTS (DAYS) AND AVERAGE HOURS AND EARNINGS OF ALL WAGE EARNERS OTHER THAN MINERS AND LOADERS, 1931 AND 1933, BY OCCUPATION

[Data in this table are for wage earners who are usually paid time rates]

Place of work, and occupation	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average actual hours, excluding time for lunch			Average earnings			
				Half month	1 week ¹	Worked in—		Per start (day)	In half month	In 1 week ¹	Per start (day)	Per hour at face excluding time for lunch
						Half month	1 week ¹					
<i>Inside work</i>												
Brakemen.....	1931	454	4,339	7.4	3.4	62.6	29.0	8.5	\$36.05	\$16.71	\$4.89	\$0.576
	1933	413	3,792	7.3	3.5	61.1	29.3	8.4	25.74	12.20	3.55	.421
Bratticemen and timbermen.....	1931	409	2,669	8.1	3.8	65.6	30.4	8.1	41.10	19.08	5.08	.626
	1933	369	2,388	7.5	3.5	60.2	28.4	8.0	28.27	13.24	3.77	.470
Cagers.....	1931	163	284	8.6	3.9	74.7	34.2	8.7	49.89	22.83	5.79	.668
	1933	142	258	8.1	3.8	70.7	32.8	8.7	35.39	16.36	4.35	.500
Drivers.....	1931	237	2,945	7.4	3.4	59.8	27.4	8.1	36.02	16.53	4.86	.602
	1933	180	1,981	7.8	3.7	62.1	29.3	8.0	28.07	13.20	3.60	.452
Laborers.....	1931	415	6,500	7.3	3.4	59.9	27.9	8.2	32.50	15.14	4.43	.542
	1933	376	4,852	7.0	3.3	56.8	27.0	8.1	22.42	10.59	3.20	.395
Motormen.....	1931	444	4,527	7.9	3.7	68.3	31.6	8.6	42.59	19.71	5.37	.624
	1933	419	4,143	7.6	3.6	64.9	31.0	8.5	29.70	14.05	3.89	.457
Pumpmen.....	1931	347	882	11.1	5.1	96.7	44.2	8.7	51.17	23.35	4.62	.529
	1933	315	810	10.7	5.1	95.7	46.3	8.7	35.28	16.93	3.31	.369
Trackmen.....	1931	466	4,151	8.2	3.8	66.9	30.8	8.2	40.65	18.78	4.97	.608
	1933	431	3,419	8.0	3.8	64.2	30.5	8.0	28.62	13.51	3.59	.446
Trappers (boys)....	1931	127	388	6.6	3.0	53.3	24.4	8.1	17.88	8.19	2.71	.335
	1933	97	268	7.7	3.6	61.0	29.0	7.9	15.64	7.41	2.04	.257
Other employees....	1931	461	7,531	9.2	4.2	77.0	35.5	8.4	55.92	25.87	6.11	.726
	1933	434	6,656	8.4	4.0	70.5	33.2	8.4	38.33	17.96	4.57	.544
Total (inside).....	1931	469	34,246	8.1	3.7	67.4	31.1	8.3	41.58	19.37	5.18	.621
	1933	444	28,567	7.8	3.7	64.5	30.7	8.3	29.67	13.97	3.81	.460
<i>Outside work</i>												
Blacksmiths.....	1931	452	642	9.3	4.3	80.8	37.0	8.6	52.47	24.06	5.61	.650
	1933	424	585	8.9	4.2	75.5	36.1	8.5	36.06	17.04	4.05	.478
Carpenters and car repairmen....	1931	418	1,334	9.2	4.2	77.6	35.9	8.5	45.04	20.87	4.91	.581
	1933	385	1,078	8.4	4.0	69.9	33.5	8.3	29.88	14.27	3.55	.427
Engineers.....	1931	271	540	12.8	5.9	109.5	50.3	8.5	76.13	35.10	5.94	.695
	1933	248	547	11.5	5.4	100.4	47.3	8.7	51.30	24.09	4.45	.511
Laborers.....	1931	462	6,954	7.7	3.6	66.7	30.9	8.7	31.53	14.58	4.09	.473
	1933	441	6,164	7.5	3.6	63.9	30.5	8.5	21.97	10.41	2.93	.344
Other employees....	1931	456	4,009	9.9	4.6	86.5	40.4	8.7	49.13	22.94	4.96	.568
	1933	437	4,497	9.5	4.5	81.9	38.9	8.6	34.80	16.47	3.65	.425
Total (outside).....	1931	465	13,479	8.8	4.1	76.1	35.3	8.7	40.89	18.96	4.65	.538
	1933	444	12,871	8.5	4.1	72.8	34.6	8.5	29.00	13.73	3.40	.399
Total (inside and outside)....	1931	469	47,725	8.3	3.8	69.8	32.3	8.4	41.58	19.25	5.02	.595
	1933	444	41,438	8.0	3.8	67.1	31.9	8.4	29.46	13.90	3.68	.439

¹ As computed by the Bureau from wage figures for 1 half monthly pay period.

Average Days, Hours, and Earnings, 1931 and 1933, by State

TABLE 5 shows for 1931 and 1933 average days, hours, and earnings for the wage earners covered in each State and in all States combined in all occupations found in the industry except miners and loaders; that is, for the same occupations for which averages are shown in table 4. It also shows 1933 averages for certain subdivisions of Kentucky, Pennsylvania, and West Virginia. No separate tabulation by State subdivisions was made in 1931.

Average earnings per half month, per day, and per hour for each State and all States combined were less in 1933 than in 1931. Average earnings in the half month ranged, by States, in 1931 from a low of \$25.74 to a high of \$54.31 and in 1933 from \$14.43 to \$51.44, and for all States combined averaged \$41.58 in 1931 and \$29.46 in 1933.

The wage earners covered in western Kentucky in 1933 worked an average of 85.2 hours in the half month and earned an average of \$29.14, and in eastern Kentucky, 68 hours and \$25.52; in central Pennsylvania they worked an average of 73.4 hours and earned an average of \$33.37, and in western Pennsylvania, 60.7 hours and \$24.99; in northern West Virginia they worked an average of 55.7 hours and earned an average of \$20.97, and in southern West Virginia, 69.1 hours and \$26.51.

TABLE 5.—AVERAGE NUMBER OF STARTS (DAYS), HOURS, AND EARNINGS OF WAGE EARNERS OTHER THAN MINERS AND LOADERS, 1931 AND 1933, BY STATE OR SUBDIVISION

State or subdivision	Year	Number of wage earners		Average starts (days) in—		Average actual hours, excluding time for lunch			Average earnings			
				Half month	1 week ¹	Worked in—		Per start (day)	In half month	In 1 week ¹	Per start (day)	Per hour at face, excluding time for lunch
						Half month	1 week ¹					
Alabama.....	1931	19	2,476	7.5	3.3	64.0	28.7	8.6	\$25.74	\$11.58	\$3.45	\$0.402
	1933	20	2,000	5.7	2.9	51.4	25.7	9.0	14.43	7.14	2.52	.281
Colorado.....	1931	17	1,142	7.5	3.4	62.6	28.1	8.3	48.63	21.84	6.45	.777
	1933	20	1,131	7.6	3.8	63.6	31.2	8.3	35.46	17.32	4.64	.557
Illinois.....	1931	39	7,646	8.0	3.8	65.4	30.8	8.2	51.59	24.33	6.45	.789
	1933	34	7,721	7.3	3.3	60.4	26.9	8.2	36.65	16.45	5.03	.611
Indiana.....	1931	19	1,473	8.8	3.8	69.4	29.9	7.9	54.31	23.43	6.18	.783
	1933	16	1,490	10.4	4.8	83.3	38.9	8.0	51.44	24.09	4.96	.617
Kansas.....	1931	8	310	6.8	2.9	55.7	27.4	8.2	35.94	15.44	5.31	.646
	1933	6	180	7.7	3.4	63.1	27.9	8.2	31.19	13.56	4.03	.494
Kentucky.....	1931	65	6,755	6.9	3.4	58.5	28.6	8.4	31.26	15.29	4.50	.534
	1933	50	4,716	8.6	4.0	72.5	34.2	8.5	26.47	12.45	3.09	.365
Eastern.....	1933	34	3,477	8.0	3.8	68.0	32.3	8.5	25.52	12.09	3.20	.375
Western.....	1933	16	1,239	10.2	4.7	85.2	39.4	8.3	29.14	13.46	2.85	.342
Ohio.....	1931	32	2,392	8.8	3.9	71.4	31.8	8.2	38.88	17.35	4.44	.544
	1933	29	2,243	10.0	4.6	81.2	37.5	8.1	32.49	15.01	3.24	.400
Pennsylvania.....	1931	125	11,819	9.1	4.2	77.3	36.1	8.5	47.18	22.00	5.20	.610
	1933	114	9,480	8.0	3.7	66.0	30.6	8.3	28.48	13.21	3.57	.432
Central.....	1933	58	3,949	8.4	3.9	73.4	33.7	8.7	33.37	15.30	3.95	.455
Western.....	1933	56	5,531	7.6	3.6	60.7	28.4	8.0	24.99	11.72	3.27	.412
Tennessee.....	1931	14	518	8.2	4.1	66.6	33.2	8.1	26.13	13.04	3.19	.393
	1933	17	529	8.6	3.9	71.2	32.8	8.3	22.75	10.50	2.66	.320
Virginia.....	1931	16	1,899	8.7	3.7	76.5	32.7	8.8	34.56	14.81	3.96	.452
	1933	16	1,445	9.3	4.3	82.6	38.1	8.9	26.90	12.41	2.89	.326
West Virginia.....	1931	115	11,295	8.5	3.9	72.9	33.3	8.6	38.83	17.72	4.57	.532
	1933	122	10,503	7.9	4.0	66.7	33.9	8.5	25.51	12.91	3.25	.383
Northern.....	1933	29	1,893	7.1	3.8	55.7	29.5	7.9	20.97	11.12	2.97	.377
Southern.....	1933	93	8,610	8.0	4.1	69.1	34.8	8.6	26.51	13.30	3.30	.384
Total.....	1931	469	47,725	8.3	3.8	69.8	32.3	8.4	41.58	19.25	5.02	.595
	1933	444	41,438	8.0	3.8	67.1	31.9	8.4	29.46	13.90	3.68	.439

¹ As computed by the Bureau from wage figures for 1 half-monthly pay period.

Average Days, Hours, and Earnings, in Five Specified Occupations, 1931 and 1933, by State

TABLE 6 shows for each State, 1931 and 1933, average days and hours worked and average earnings in a half month and in 1 week, based on the half-monthly figures, by employees in each of five representative timework occupations. For Kentucky, Pennsylvania, and West Virginia the averages are shown also by State subdivisions. In 1931 no separate tabulation by State subdivisions was made.

Between 1931 and 1933, average earnings per hour which are based on time actually worked, excluding time for lunch, for each of the five occupations in each of the States included in the study showed a marked decrease.

For laborers outside the mine, the most important timework occupation in number of wage earners, the table shows a total of 6,954 in 1931 who earned an average of 47.3 cents per hour, as compared with 6,164 in 1933 who earned 34.4 cents per hour. The lowest average earnings per hour, by States, shown in the table are 29.7 cents in 1931 as compared with 20.2 cents in 1933. The highest corresponding State average shown in 1931 is 69.3 cents, as compared with 54.5 cents in 1933.

TABLE 6.—AVERAGE NUMBER OF STARTS (DAYS), HOURS, AND EARNINGS OF WAGE EARNERS IN 5 SPECIFIED OCCUPATIONS **OTHER THAN MINERS AND LOADERS**, 1931 AND 1933, BY PLACE OF WORK AND STATE OR SUBDIVISION

[Data in this table are for wage earners who are usually paid time rates]

Place of work, occupation and State or subdivision	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average actual hours, excluding time for lunch			Average earnings			
				Half month	1 week ¹	Worked in—		Per start (day)	In half month	In 1 week ¹	Per start	Per hour at face excluding time for lunch
						Half month	1 week ¹					
<i>Inside work</i>												
Brakemen:												
Alabama.....	1931	18	227	6.3	2.9	53.8	24.5	8.5	\$20.64	\$9.39	\$3.26	\$0.383
	1933	16	161	4.6	2.3	41.1	20.4	9.0	10.51	5.13	2.31	.256
Colorado.....	1931	16	57	4.9	2.3	40.2	18.5	8.2	32.85	15.08	6.71	.817
	1933	16	64	5.3	2.6	42.6	20.7	8.0	23.39	11.38	4.39	.549
Illinois.....	1931	38	676	7.2	3.4	59.9	28.4	8.3	45.87	21.76	6.34	.765
	1933	33	693	6.6	2.9	54.4	24.2	8.3	33.27	14.80	5.06	.612
Indiana.....	1931	18	144	7.3	3.1	56.8	24.3	7.8	43.36	18.58	5.92	.764
	1933	14	143	9.8	4.6	77.7	36.5	7.9	47.71	22.50	4.86	.614
Kansas.....	1931	4	10	5.7	2.4	45.6	19.5	8.0	28.50	12.21	5.00	.625
	1933	4	10	6.8	2.9	54.9	23.5	8.1	27.30	11.70	4.02	.497
Kentucky.....	1931	64	663	6.1	3.0	51.5	25.4	8.5	27.79	13.57	4.51	.534
	1933	50	498	7.2	3.4	62.1	30.0	8.6	21.49	10.31	3.01	.351
Eastern.....	1933	34	434	6.9	3.3	59.6	28.5	8.7	21.10	10.05	3.07	.354
Western.....	1933	16	64	9.6	4.4	79.4	36.6	8.3	26.28	12.13	2.74	.331
Ohio.....	1931	29	141	8.4	3.7	67.4	29.9	8.1	35.92	15.94	4.29	.533
	1933	25	151	9.6	4.4	77.3	35.7	8.1	29.84	13.77	3.12	.386
Pennsylvania.....	1931	122	866	8.1	3.8	70.6	32.7	8.7	43.85	20.32	5.38	.621
	1933	106	695	7.0	3.3	59.2	27.5	8.4	25.78	11.96	3.67	.436
Central.....	1933	54	352	7.4	3.4	65.1	29.8	8.8	29.18	13.31	3.93	.448
Western.....	1933	52	343	6.6	3.1	53.1	25.2	8.0	22.30	10.56	3.36	.420
Tennessee.....	1931	14	66	6.9	3.5	56.4	25.2	8.1	20.33	10.16	2.93	.360
	1933	14	65	7.5	3.4	62.7	28.9	8.4	18.25	8.42	2.44	.291
Virginia.....	1931	16	256	7.9	3.4	70.1	30.0	8.8	30.98	13.28	3.90	.442
	1933	16	181	8.8	4.1	79.5	36.7	9.0	24.25	11.19	2.74	.305
West Virginia.....	1931	115	1,233	7.7	3.5	66.3	30.3	8.6	33.91	15.49	4.40	.512
	1933	119	1,131	7.4	3.8	62.6	32.1	8.4	22.48	11.49	3.03	.359
Northern.....	1933	26	167	5.7	3.1	45.9	24.6	8.0	16.75	9.00	2.91	.365
Southern.....	1933	93	964	7.7	3.9	65.5	33.4	8.5	23.47	11.93	3.04	.359
Total.....	1931	454	4,339	7.4	3.4	62.6	29.0	8.5	36.05	16.71	4.89	.576
	1933	413	3,792	7.3	3.5	61.1	29.3	8.4	25.74	12.20	3.55	.421

¹ As computed by the Bureau from wage figures for 1 half-monthly pay period.

TABLE 6.—AVERAGE NUMBER OF STARTS (DAYS), HOURS, AND EARNINGS OF WAGE EARNERS IN 5 SPECIFIED OCCUPATIONS **OTHER THAN MINERS AND LOADERS**, 1931 AND 1933, BY PLACE OF WORK AND STATE OR SUBDIVISION—Continued

Place of work, occupation and State or subdivision	Year	Number of mines	Average starts (days) in—		Average actual hours, excluding time for lunch			Average earnings				
			Number of wage earners	Half month	1 week	Worked in—		Per start (day)	In half month	In 1 week	Per start	Per hour at face, excluding time for lunch
						Half month	1 week					
<i>Inside work—Con.</i>												
Laborers:												
Alabama	1931	19	439	6.6	3.0	55.5	25.3	8.4	\$20.83	\$9.48	\$3.14	\$0.375
	1933	17	269	4.7	2.3	41.3	20.3	8.7	10.30	4.99	2.17	.249
Colorado	1931	15	106	5.5	2.5	45.0	20.7	8.1	36.45	16.78	6.50	.810
	1933	12	21	5.9	2.9	47.3	23.4	8.0	25.70	12.70	4.35	.544
Illinois	1931	39	986	7.3	3.4	58.0	27.1	8.0	43.58	20.39	6.01	.752
	1933	32	987	6.5	3.0	52.2	23.8	8.0	31.30	14.28	4.82	.600
Indiana	1931	16	95	6.6	2.8	51.8	22.2	7.8	38.94	16.69	5.86	.752
	1933	13	117	8.7	4.0	69.3	32.1	8.0	40.33	18.70	4.64	.582
Kansas	1931	5	20	6.7	2.9	54.8	23.5	8.2	34.22	14.66	5.11	.625
	1933	3	8	5.6	2.4	46.3	19.8	8.2	21.68	9.29	3.85	.469
Kentucky	1931	63	1,138	6.2	3.1	50.5	25.0	8.2	24.60	12.18	3.97	.487
	1933	43	651	7.6	3.6	62.1	29.2	8.2	19.62	9.21	2.59	.316
Eastern	1933	30	531	7.0	3.3	57.0	27.0	8.1	17.82	8.42	2.64	.313
Western	1933	13	120	10.1	4.7	84.7	39.1	8.4	27.58	12.73	2.73	.326
Ohio	1931	25	178	7.7	3.4	62.3	27.4	8.1	32.09	14.13	4.15	.515
	1933	23	148	9.3	4.3	74.7	34.5	8.0	27.71	12.79	2.97	.371
Pennsylvania	1931	98	1,577	8.0	3.8	65.2	30.6	8.1	37.13	17.44	4.62	.569
	1933	95	1,151	7.1	3.3	55.4	25.8	7.8	21.47	10.00	3.03	.388
Central	1933	43	423	7.8	3.6	64.8	29.5	8.3	26.03	11.83	3.32	.402
Western	1933	52	728	6.7	3.1	49.9	23.6	7.5	18.83	8.93	2.83	.377
Tennessee	1931	9	40	8.6	4.3	67.6	33.8	7.9	22.73	11.36	2.64	.336
	1933	14	42	7.3	3.4	59.6	27.5	8.2	17.18	7.93	2.37	.288
Virginia	1931	15	411	7.3	3.1	60.9	26.1	8.4	24.83	10.64	3.42	.408
	1933	15	213	8.4	3.9	71.4	32.9	8.5	19.80	9.14	2.37	.277
West Virginia	1931	111	1,540	7.8	3.6	64.8	29.8	8.3	31.49	14.44	4.03	.486
	1933	109	1,245	6.8	3.5	56.6	28.8	8.3	18.61	9.42	2.72	.329
Northern	1933	21	188	6.4	3.4	48.6	25.8	7.6	15.55	8.23	2.43	.320
Southern	1933	88	1,057	6.9	3.5	58.0	29.3	8.4	19.15	9.63	2.77	.330
Total	1931	415	6,530	7.3	3.4	59.9	27.9	8.2	32.50	15.14	4.43	.542
	1933	376	4,852	7.0	3.3	56.8	27.0	8.1	22.42	10.59	3.20	.395
Motormen:												
Alabama	1931	16	190	6.7	3.1	57.4	26.2	8.5	25.69	11.71	3.83	.448
	1933	16	157	5.0	2.5	45.4	22.6	9.1	13.72	6.73	2.74	.302
Colorado	1931	7	36	10.6	4.6	86.2	37.2	8.1	72.47	31.28	6.85	.840
	1933	9	38	7.2	3.4	58.0	27.7	8.1	35.18	16.79	4.90	.607
Illinois	1931	39	687	7.5	3.6	62.0	30.0	8.4	54.57	25.97	7.30	.866
	1933	34	730	6.5	2.9	55.1	24.5	8.5	36.54	16.26	5.61	.663
Indiana	1931	19	160	8.0	3.4	62.9	27.0	7.9	52.18	22.36	6.54	.829
	1933	16	180	9.8	4.6	79.6	37.1	8.1	52.52	24.54	5.34	.659
Kansas	1931	6	21	6.4	2.7	50.9	21.8	8.0	34.70	14.87	5.44	.682
	1933	5	10	6.8	2.9	55.6	23.8	8.2	28.91	12.39	4.25	.520
Kentucky	1931	65	707	6.6	3.2	56.5	27.8	8.6	32.38	15.94	4.91	.573
	1933	50	505	7.9	3.8	68.7	32.5	8.7	27.12	12.81	3.43	.395
Eastern	1933	34	434	7.6	3.6	66.5	31.7	8.7	26.16	12.42	3.43	.393
Western	1933	16	71	9.7	4.5	81.8	37.7	8.4	32.99	15.23	3.39	.403
Ohio	1931	32	191	8.2	3.6	68.0	29.9	8.3	36.43	16.05	4.44	.536
	1933	29	192	10.0	4.6	82.1	37.9	8.2	32.19	14.86	3.22	.392
Pennsylvania	1931	115	1,052	8.4	3.9	73.4	34.1	8.7	47.54	21.95	5.65	.697
	1933	109	942	7.3	3.4	61.4	28.5	8.4	28.22	13.11	3.87	.460
Central	1933	55	472	7.4	3.4	65.6	30.1	8.8	30.35	13.90	4.08	.463
Western	1933	54	470	7.1	3.4	57.2	27.0	8.0	26.08	12.31	3.66	.456
Tennessee	1931	14	62	8.1	4.1	65.4	32.7	8.1	28.56	14.28	3.52	.437
	1933	15	66	8.8	4.1	75.0	34.6	8.5	25.81	11.91	2.92	.344
Virginia	1931	16	225	9.1	3.9	81.7	35.0	9.0	40.00	17.14	4.41	.489
	1933	16	164	9.8	4.5	89.1	41.1	9.1	30.39	14.03	3.10	.341
West Virginia	1931	115	1,196	8.4	3.8	73.5	33.5	8.7	40.22	18.37	4.76	.547
	1933	120	1,159	7.8	4.0	66.2	34.0	8.5	25.87	13.24	3.32	.391
Northern	1933	27	186	6.3	3.4	50.7	27.3	8.1	19.32	10.40	3.08	.381
Southern	1933	93	973	8.1	4.1	69.2	35.3	8.6	27.13	13.78	3.36	.392
Total	1931	444	4,527	7.9	3.7	68.3	31.6	8.6	42.59	19.71	5.37	.624
	1933	419	4,143	7.6	3.6	64.9	31.0	8.5	29.70	14.05	3.89	.457

TABLE 6.—AVERAGE NUMBER OF STARTS (DAYS), HOURS, AND EARNINGS OF WAGE EARNERS IN 5 SPECIFIED OCCUPATIONS (OTHER THAN MINERS AND LOADERS, 1931 AND 1933, BY PLACE OF WORK AND STATE OR SUBDIVISION—Continued

Place of work, occupation and State or subdivision	Year	Number of mines	Number of wage earners	Average starts (days) in—		Average actual hours, excluding time for lunch			Average earnings			
				Half month	1 week	Worked in—		Per start (day)	In half month	In 1 week	Per start	Per hour at face, excluding time for lunch
						Half month	1 week					
<i>Inside work—Con.</i>												
<i>Trackmen:</i>												
Alabama.....	1931	19	104	7.3	3.3	60.5	27.1	8.3	\$26.91	\$12.07	\$3.68	\$0.444
	1933	20	78	5.0	2.5	44.6	22.3	8.9	13.25	6.54	2.64	.297
Colorado.....	1931	17	85	8.3	3.7	67.0	29.7	8.1	55.79	24.71	6.73	.832
	1933	16	55	8.4	4.1	67.5	33.4	8.1	40.18	19.85	4.80	.595
Illinois.....	1931	39	786	7.9	3.7	63.7	30.0	8.0	48.59	22.93	6.12	.763
	1933	33	745	7.3	3.3	58.5	26.2	8.0	36.35	16.27	4.97	.621
Indiana.....	1931	19	157	7.8	3.3	60.2	25.8	7.7	45.38	19.45	5.85	.754
	1933	16	141	10.1	4.7	79.6	37.1	7.8	47.38	22.11	4.67	.595
Kansas.....	1931	8	23	7.0	3.0	57.0	24.4	8.1	35.65	15.28	5.06	.625
	1933	6	12	7.7	3.3	60.5	25.9	7.9	28.09	12.04	3.66	.464
Kentucky.....	1931	65	658	6.8	3.3	55.5	27.1	8.2	30.28	14.80	4.46	.545
	1933	50	421	8.5	4.0	68.0	32.1	8.0	25.04	11.79	2.96	.368
Eastern.....	1933	34	311	7.8	3.7	62.7	29.9	8.1	23.99	11.39	3.09	.383
Western.....	1933	16	110	10.5	4.8	83.0	38.3	7.9	27.99	12.92	2.68	.337
Ohio.....	1931	31	171	9.3	4.1	74.7	33.0	8.0	40.45	17.87	4.36	.541
	1933	29	155	10.7	4.9	85.1	39.3	8.0	33.46	15.44	3.14	.393
Pennsylvania.....	1931	125	828	8.9	4.1	72.9	33.8	8.2	46.02	21.37	5.18	.631
	1933	112	654	7.6	3.6	60.1	27.9	7.9	26.00	12.07	3.40	.432
Central.....	1933	56	266	7.9	3.6	63.9	29.4	8.1	28.50	13.06	3.60	.446
Western.....	1933	56	388	7.5	3.5	57.5	27.0	7.7	24.29	11.40	3.25	.422
Tennessee.....	1931	14	47	8.8	4.4	70.5	35.2	8.0	29.18	14.59	3.31	.414
	1933	15	32	8.6	3.9	69.1	31.9	8.1	23.28	10.74	2.72	.337
Virginia.....	1931	16	168	9.1	3.9	74.8	32.1	8.3	35.88	15.38	3.96	.481
	1933	15	124	9.8	4.5	81.0	37.4	8.3	27.01	12.47	2.76	.334
West Virginia.....	1931	113	1,124	8.4	3.8	70.5	32.0	8.3	38.00	17.28	4.50	.539
	1933	119	1,002	7.7	3.9	63.1	32.1	8.2	23.65	12.03	3.06	.375
Northern.....	1933	28	192	6.7	3.6	52.8	28.0	7.8	19.04	10.09	2.83	.361
Southern.....	1933	91	810	8.0	4.0	65.5	33.1	8.2	24.75	12.49	4.11	.378
Total.....	1931	466	4,151	8.2	3.8	66.9	30.8	8.2	40.65	18.78	4.97	.608
	1933	431	3,419	8.0	3.8	64.2	30.5	8.0	28.62	13.51	3.59	.446
<i>Outside work</i>												
<i>Laborers:</i>												
Alabama.....	1931	18	316	7.1	3.2	61.0	27.2	8.6	18.10	8.08	2.55	.297
	1933	20	281	5.4	2.7	47.9	24.0	8.9	9.68	4.81	1.81	.202
Colorado.....	1931	17	193	6.3	2.9	55.3	24.9	8.7	34.82	15.61	5.49	.629
	1933	19	224	6.4	3.2	54.7	27.7	8.6	23.65	11.87	3.72	.433
Illinois.....	1931	39	887	7.7	3.6	63.2	29.9	8.2	43.83	20.70	5.70	.693
	1933	34	852	7.3	3.3	59.9	26.8	8.2	29.44	13.16	4.01	.491
Indiana.....	1931	19	177	7.9	3.4	62.9	27.0	8.0	42.44	18.19	5.37	.675
	1933	16	211	9.6	4.5	77.8	36.4	8.1	42.37	19.91	4.40	.545
Kansas.....	1931	8	26	6.3	2.7	51.0	21.9	8.1	28.21	12.09	4.50	.553
	1933	6	16	6.0	2.6	49.9	21.4	8.3	20.47	8.77	3.41	.410
Kentucky.....	1931	64	976	6.1	3.0	53.1	25.7	8.7	22.55	10.93	3.69	.425
	1933	50	681	8.3	3.9	72.6	34.0	8.8	21.09	9.87	2.55	.291
Eastern.....	1933	34	476	7.8	3.7	69.8	33.0	9.0	20.52	9.67	2.65	.294
Western.....	1933	16	205	9.5	4.4	79.1	36.5	8.3	22.42	10.35	2.36	.284
Ohio.....	1931	31	405	7.6	3.4	62.3	27.8	8.2	28.84	12.94	3.78	.463
	1933	29	391	9.3	4.3	75.4	34.8	8.1	26.08	12.03	2.80	.346
Pennsylvania.....	1931	121	1,618	8.5	4.0	74.9	35.0	8.8	34.97	16.27	4.10	.467
	1933	114	1,356	7.4	3.4	63.3	29.2	8.6	20.87	9.62	2.82	.330
Central.....	1933	58	652	7.3	3.4	66.0	30.3	9.0	22.71	10.41	3.10	.344
Western.....	1933	56	704	7.5	3.5	60.9	28.3	8.2	19.17	8.89	2.57	.315
Tennessee.....	1931	14	98	8.0	4.0	66.3	33.2	8.3	20.70	10.35	2.59	.312
	1933	16	101	7.2	3.3	58.7	27.1	8.1	15.35	7.09	2.13	.261
Virginia.....	1931	16	286	9.5	4.1	85.7	33.7	9.0	30.28	12.98	3.18	.354
	1933	16	230	9.2	4.2	82.8	38.2	9.0	20.77	9.58	2.26	.251
West Virginia.....	1931	115	1,972	7.8	3.6	68.9	31.8	8.9	29.78	13.67	3.83	.432
	1933	121	1,821	7.0	3.6	60.6	30.9	8.6	18.59	9.44	2.64	.307
Northern.....	1933	29	327	6.7	3.6	50.9	27.2	7.6	15.10	8.08	2.26	.297
Southern.....	1933	92	1,494	7.1	3.6	62.7	31.7	8.8	19.25	9.73	2.71	.308
Total.....	1931	462	6,954	7.7	3.6	66.7	30.9	8.7	31.53	14.58	4.09	.473
	1933	441	6,164	7.5	3.6	63.9	30.5	8.5	21.97	10.41	2.93	.344

Average Working Day, 1903 to 1931

THE figures in table 7, compiled by the United States Bureau of Mines, show for each of the years 1903 to 1931 (1909 excepted) the percent of total bituminous-coal mine employees having a normal working day of 8, 9, and 10 hours, together with the weighted average working day for each year. It will be observed that in 1903, 56.4 percent of the employees were on an 8-hour day basis, 17.1 percent on a 9-hour day, and 26.5 percent on a 10-hour day; the weighted average working day was 8.7 hours. In comparison, the 1931 figures show that 93 percent of all bituminous employees had an 8-hour day, 6.1 percent a 9-hour day, and 0.9 percent a 10-hour day; the weighted average working day was 8.08 hours.

TABLE 7.—PERCENT OF MEN EMPLOYED IN BITUMINOUS-COAL MINES WHO HAD AN ESTABLISHED WORKING DAY OF 8, 9, OR 10 HOURS, 1903 TO 1931¹

[From United States Bureau of Mines: Coal in 1931]

Year	Percent of total employees in mines working—			Weighted average working day (hours)	Year	Percent of total employees in mines working—			Weighted average working day (hours)
	8-hour day	9-hour day	10-hour day			8-hour day	9-hour day	10-hour day	
1903	56.4	17.1	26.5	8.7	1918	90.6	6.7	2.7	8.12
1904	62.1	13.8	24.1	8.6	1919	95.5	3.5	1.0	8.06
1905	61.1	13.6	25.3	8.6	1920	97.1	2.0	.9	8.04
1906	63.0	13.5	23.5	8.6	1921	96.6	2.9	.5	8.04
1907	64.0	11.6	24.4	8.6	1922	95.1	4.0	.9	8.06
1908	63.5	11.1	25.4	8.6	1923	94.7	4.2	1.1	8.06
1910	62.1	11.3	26.6	8.6	1924	93.7	5.1	1.2	8.08
1911	62.9	10.9	26.2	8.6	1925	93.5	5.4	1.1	8.08
1912	61.6	11.5	26.9	8.6	1926	93.7	5.5	.8	8.07
1913	61.9	15.2	22.9	8.6	1927	93.4	5.6	1.0	8.08
1914	60.7	15.4	23.9	8.6	1928	93.1	6.1	.8	8.08
1915	59.6	17.0	23.4	8.6	1929	92.5	6.7	.8	8.08
1916	58.6	17.4	24.0	8.6	1930	92.4	6.6	1.0	8.09
1917	79.0	12.6	8.4	8.3	1931	93.0	6.1	.9	8.08

¹ Percentages are calculated on basis of total number of men in mines definitely reported as having worked an 8, 9, or 10-hour day. A small number of mines that work more than 10 hours or less than 8 hours have been excluded, as have also all mines for which the reports were defective or in which the working day was changed during the year.

Hours and Earnings in the Iron and Steel Industry, 1933

A SUMMARY of the results of the 1933 survey of hours and earnings in the 10 major departments of the iron and steel industry, made by the Bureau of Labor Statistics, is given in this article. The survey covered 53,365 wage earners in 200 plants located in various sections of the country as far west as Colorado. The number of wage earners covered equals 19.2 percent of all blast-furnace, steelworks, and rolling-mill employees shown by the 1931 Census of Manufactures. The pay-roll period selected for the study covered the last half of March, and as operations were very low in the industry at that time, it is estimated that the 53,365 employees represent nearly 30 percent of all employees working in the 10 departments at that time.

The plants studied were in the main those from which information was collected for the 1931 study. In a few cases it was necessary to substitute new plants and in some instances to select a pay-roll period other than the last half of March. However, in 74 percent of the cases the figures relate to a pay-roll period in March, in 8 percent to 1 in February, and in 10 percent to 1 in January; of the remaining 8 percent practically all were for a period in April, but in the case of 1 standard rail mill the data cover the last half of December 1932.

To avoid possible identification of plants the information is presented by geographical districts rather than by States. The eastern district covers plants in New Jersey, Delaware, and the eastern parts of New York, Pennsylvania, and Maryland. The Pittsburgh district includes the plants in Pittsburgh and in western Pennsylvania, those along the border line of Ohio from Youngstown south to Bellaire, and those located in the panhandle of West Virginia. The Great Lakes and Middle West district includes plants scattered along the Great Lakes and also some in the inland territory in Ohio, Indiana, and Illinois as well as the States of Missouri and Colorado. The southern district includes plants in Virginia, Tennessee, Kentucky, Alabama, and Georgia as well as those bordering on the Ohio River south and west of Bellaire.

Table 1 shows for 1933 the distribution of plants and wage earners by departments, and presents average full-time hours per week, actual hours worked in 1 week,¹ average earnings per hour, and average actual earnings in 1 week¹ by department and geographical district, as well as for all departments and districts combined.

Average full-time hours per week for all employees in all departments combined were 51.5, ranging from 45.2 hours for sheet-mill employees of the Pittsburgh district to 60.5 hours for plate-mill em-

¹ Average hours worked and average earnings made in 1 week (7 calendar days) were arrived at by dividing the aggregate actual hours worked in the various pay periods by the number of days in such periods and multiplying this result by 7. To illustrate: The aggregate actual hours worked in all 16-day pay-period schedules were divided by 16 and this result was multiplied by 7, while the aggregate actual hours worked in 15-day pay-period schedules were divided by 15 and this result multiplied by 7. The same procedure was followed for other pay periods of varying lengths. While there is no standard length pay-roll period in the iron and steel industry, most companies pay twice each month, the first period running from the 1st to the 15th and the second from the 16th to the last day of the month.

ployees of the eastern district. Considering employees of all departments in the various districts, the lowest average full-time hours (49) were in the Pittsburgh district, and the highest (56.4 and 56.5) in the southern and eastern districts, respectively. Among the departments of the industry the highest full-time hours per week were those in blast furnaces (55.1 hours) while the shortest normal week occurred in the sheet and tin-plate mills (46.9 hours each). The long hours in the blast furnaces are due to the fact that this department is one of continuous operation.

As previously stated, operations in the steel industry were very low during the early part of 1933. As companies were endeavoring to provide some work for all of their employees the number of hours available to each worker was limited. This is shown by the fact that, for all departments combined, the average actual hours worked per employee in 1 week were 24.2 as compared with normal full time of 51.5 hours. Employees in the southern district worked an average of 33.1 hours per week as against only 21.2 for employees in the Great Lakes and Middle West district. The hours worked by employees in the eastern and Pittsburgh districts were practically the same, 25.1 and 25.0, respectively.

The greatest disparity between normal and actual hours was in the plate mills of the Pittsburgh district where the employees actually worked only 11.1 hours as compared with normal week of 50.7 hours—or only about 22 percent of full time. From this point employment ranged up to 34.4 of the normal 46.9 hours, in tin-plate mills, or about 73 percent of full time.

Average hourly earnings for all employees in all departments were 48.5 cents; this is close to the averages of the Pittsburgh and the Great Lake and Middle West districts, but is 5.5 cents higher than that shown for the eastern district and 8.7 cents higher than for the southern district. However, in making these comparisons it must be borne in mind that neither of the latter districts is represented by the higher-wage departments such as Bessemer converters, sheet and tin-plate mills, and also that there is no information covering standard rail mills in the southern district.

The highest average hourly earnings were those of employees in the standard rail mills (52.3 cents) from which point they ranged down to a low of 31.6 cents for employees of bar mills in the southern district. Earnings per hour for employees in hand and mechanically operated sheet mills were 47.3 cents. This is the first report of the Bureau in which employees in sheet mills whose product is mechanically produced have been included.

As already stated the southern district showed the lowest average hourly earnings of all the districts. This district, however, furnished the largest proportion of full-time employment to its employees (nearly 59 percent, as compared with from 40 to 51 percent in the other districts). Because of that fact, the actual earnings of the employees there in the week for which data were obtained averaged \$13.19 as compared with earnings in the other districts ranging from \$10.60 to \$12.55 and as compared with a general average of \$11.71.

The highest actual earnings in any group were those of tin-plate-mill employees (\$17.84), while at the other end of the scale were those of plate-mill workers in the Pittsburgh district (\$5.61).

In the March report on trend of employment issued by this Bureau, average hours worked per week were given as 25.6 and per capita weekly earnings as \$12.73, as compared with 24.2 hours and \$11.71 shown in table 1 of this report. These differences are mainly due to the fact that the employment reports cover the first 15 days in March, while the present study is based, in the main, on information covering the last half of that month. Further, the two reports do not cover identical plants.

TABLE 1.—AVERAGE HOURS AND EARNINGS IN 10 MAJOR DEPARTMENTS OF THE IRON AND STEEL INDUSTRY, 1933, BY DISTRICTS

Department and district	Number of plants	Number of wage earners	Average full-time hours worked per week	Average hours actually worked in 1 week	Average earnings per hour	Average actual earnings in 1 week
All departments.....	200	53,365	51.5	24.2	\$0.485	\$11.71
Eastern district.....	35	5,188	56.5	25.1	.430	10.77
Pittsburgh district.....	68	25,693	49.0	25.0	.501	12.55
Great Lakes and Middle West district.....	71	19,169	52.6	21.2	.499	10.60
Southern district.....	26	3,315	56.4	33.1	.398	13.19
Blast furnaces.....	33	6,749	55.1	28.7	.444	12.77
Eastern district.....	3	784	55.6	29.1	.403	11.75
Pittsburgh district.....	12	2,485	54.0	24.8	.471	11.66
Great Lakes and Middle West district.....	12	2,369	55.2	28.1	.481	13.50
Southern district.....	6	1,111	57.3	38.5	.371	14.41
Steel-works division:						
Bessemer converters.....	8	1,331	52.7	22.0	.490	10.79
Pittsburgh district.....	4	574	51.3	19.9	.473	9.40
Great Lakes and Middle West district.....	4	757	53.7	23.6	.502	11.84
Open-hearth furnaces.....	33	11,401	53.3	22.2	.513	11.39
Eastern district.....	6	1,457	55.2	22.7	.475	10.74
Pittsburgh district.....	10	5,024	50.2	20.9	.509	10.62
Great Lakes and Middle West district.....	12	4,215	55.8	21.1	.543	11.48
Southern district.....	5	705	56.0	36.6	.476	17.67
Rolling-mills division:						
Puddling mills ¹	8	979	52.8	30.5	.474	14.46
Blooming mills.....	32	4,514	52.5	22.7	.488	11.09
Eastern district.....	5	378	54.5	25.3	.379	9.56
Pittsburgh district.....	10	1,904	49.3	21.8	.506	11.03
Great Lakes and Middle West district.....	13	1,893	44.6	20.9	.505	10.55
Southern district.....	4	339	56.8	35.3	.455	16.18
Plate mills.....	17	3,835	53.5	15.3	.449	6.88
Eastern district.....	6	974	60.5	25.3	.385	9.74
Pittsburgh district.....	5	1,644	50.7	11.1	.502	5.61
Great Lakes and Middle West district.....	6	1,217	51.8	13.0	.487	6.32
Standard rail mills ¹	6	1,648	53.2	16.3	.523	8.47
Bar mills.....	42	5,781	54.1	17.0	.425	7.22
Eastern district.....	9	853	55.7	20.1	.404	8.14
Pittsburgh district.....	12	2,195	52.4	14.0	.475	6.69
Great Lakes and Middle West district.....	12	1,788	53.7	15.5	.467	7.23
Southern district.....	9	945	57.0	24.2	.316	7.64
Sheet mills.....	14	8,636	46.9	23.7	.473	11.22
Pittsburgh district.....	8	4,756	45.2	25.5	.468	11.94
Great Lakes and Middle West district.....	6	3,880	48.9	21.5	.480	10.33
Tin-plate mills ¹	7	8,491	46.9	34.4	.517	17.84

¹Not reported by districts but included in district totals for all departments.

For the first time since the Bureau began its wage studies in this industry, the hourly earnings of employees in the tin-plate department were greater than those of employees in sheet mills. This is due in a measure to operating conditions in the two departments during the period covered, as well as to changes in sheet-mill equipment and the increased amount of level and 3-handed work on a 1-man position in that department.

Average full-time weekly earnings for all employees in all departments were \$24.98 in 1933—almost \$10 less than in 1931 and over \$20

less than in 1920. In this connection it must be remembered that full-time weekly earnings reflect changes not only in average hourly earnings but also in average full-time hours per week. Although decreased earnings were reported in every department from 1931 to 1933, in all but one department the 1933 full-time weekly earnings were nevertheless well above the 1913 level. The one exception was sheet mills in which the 1933 figures (\$22.18) was the lowest ever reported for this department and was \$3.08 less than the 1913 average. The average reported for bar-mill employees (\$22.99) was the lowest reported for this department since 1915. The smallest decrease in average weekly earnings between 1931 and 1933 occurred in standard rail mills.

Table 2 shows, for the whole labor force, both skilled and unskilled, average hours and earnings for 1933, together with similar averages for preceding years in which the Bureau made studies. It also contains index numbers, 1913 being used as the base year except in the case of puddling mills, for which 1914 is used as no data were collected for this department in 1913.

Average full-time hours per week for all departments combined were 51.5 in 1933; this was a decrease of 1.7 percent from the average of 52.4 in 1931 and of 22.1 percent from the base year, 1913. From 1931 to 1933 decreases in full-time hours occurred in every department, ranging from 0.1 hour for tin-plate and blooming mills to 3.2 hours for plate mills.

Average earnings per hour for all employees in all departments combined were 48.5 cents in 1933 as compared with 66.3 cents in 1931. This is a decrease of 26.8 percent from that year and is 28 percent less than the average of 67.4 cents for the March period of 1929. Decreased earnings per hour as compared with 1931 are also shown in every department of the industry covered.

These decreases in earnings between 1931 and 1933 were due to several factors, namely, wage changes, small tonnage produced, irregular operating schedules causing more than the usual number of gas turns, and increases in the number of men at a given position (as, for instance, placing 2 men at a 1-man position, 3 men at a 2-man position, and in some cases 3 men at a 1-man position). The last-mentioned procedure was resorted to in order to prevent unemployment, and caused an increase in the number of man-hours without a compensating increase in the amount of pay roll, as much of this class of work is on a tonnage basis and the earnings of the position in question were divided among the number of men at the position. There have also been changes in equipment; this is especially true of the sheet mills, which have eliminated wholly or in part some very skilled positions. These changes include the installation of pack furnaces, the partial elimination of hand rolling, etc.

Table 3 (p. 657) shows for 1931 and 1933 the percentage distribution of all wage earners, by department and for all departments combined, according to their average full-time hours per week.

The classified hours are average hours for the individual worker and not for the position. As these classified hours are "averages" they do not clearly show the long normal hours an employee is expected to work one week which may be offset by shorter normal hours the next. Thus employees listed as over 60 and under 72 may have normal hours of 60 one week and 70 the next, making an average of 65 per week.

TABLE 2.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS THEREOF, IN SPECIFIED DEPARTMENTS OF THE IRON AND STEEL INDUSTRY IN SPECIFIED YEARS, 1913 TO 1933

Department and year	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers (1913=100) ¹		
				Full-time hours per week	Earnings per hour	Full-time weekly earnings
All departments:						
1913	66.1	\$0.301	\$18.89	100.0	100.0	100.0
1914	64.9	.301	18.60	98.2	100.0	98.5
1915	65.5	.297	18.65	99.1	98.7	98.7
1920	63.1	.745	45.65	95.5	247.5	241.7
1922	63.2	.513	31.67	95.6	170.4	167.7
1924	55.2	.644	35.22	83.5	214.0	186.4
1926	54.4	.637	34.41	82.3	211.6	182.2
1929	54.6	.674	36.48	82.6	223.9	193.1
1931	52.4	.663	34.58	79.3	220.3	183.1
1933	51.5	.485	24.98	77.9	161.1	132.2
Blast furnaces:						
1913	76.9	.205	15.76	100.0	100.0	100.0
1914	74.8	.206	15.41	97.3	100.5	97.8
1915	74.9	.207	15.50	97.4	101.0	98.4
1920	72.1	.571	41.17	93.8	278.5	261.2
1922	72.3	.398	28.78	94.0	194.1	182.6
1924	59.7	.520	31.04	77.6	253.7	197.0
1926	59.8	.517	30.92	77.8	252.2	196.2
1929	60.7	.528	32.05	78.9	257.6	203.4
1931	57.2	.551	31.52	74.4	268.8	200.0
1933	55.1	.444	24.46	71.7	216.6	155.2
Steel-works division:						
Bessemer converters:						
1913	70.0	.284	19.88	100.0	100.0	100.0
1914	68.4	.255	17.44	97.7	89.8	87.7
1915	68.7	.264	18.14	98.1	93.0	91.2
1920	70.3	.677	47.59	100.4	238.4	239.4
1922	68.7	.470	32.29	98.1	165.5	162.4
1924	52.3	.624	32.64	74.7	219.7	164.2
1926	52.6	.641	33.72	75.1	225.7	169.6
1929	53.7	.643	34.53	76.7	226.4	173.7
1931	53.3	.664	35.39	76.1	233.8	178.0
1933	52.7	.490	26.82	75.3	172.5	129.9
Open-hearth furnaces:						
1913	76.7	.237	18.18	100.0	100.0	100.0
1914	74.5	.237	17.66	97.1	100.0	97.1
1915	74.4	.246	18.30	97.0	103.8	100.7
1920	68.7	.671	46.10	89.6	283.1	253.6
1922	70.8	.480	33.98	92.3	202.5	186.9
1924	58.0	.635	36.83	75.6	267.9	202.6
1926	57.1	.677	38.66	74.4	285.7	212.7
1929	57.7	.714	41.20	75.2	301.3	226.6
1931	53.8	.703	37.82	70.1	296.6	208.0
1933	53.3	.513	27.34	69.5	216.5	150.4
Rolling-mills division:						
Puddling mills:						
1914	53.2	.328	17.45	100.0	100.0	100.0
1915	52.2	.315	16.44	98.1	96.0	94.2
1920	53.9	.885	47.70	101.3	269.8	273.4
1922	52.1	.496	25.84	97.9	151.2	148.1
1924	55.7	.721	40.16	104.7	219.8	230.1
1926	52.1	.657	34.23	97.9	200.3	196.2
1929	50.3	.686	34.51	94.5	209.1	197.8
1931	53.0	.692	31.38	99.6	180.5	179.8
1933	52.8	.474	25.03	99.2	144.5	143.4
Blooming mills:						
1913	73.0	.265	19.35	100.0	100.0	100.0
1914	70.5	.269	18.96	96.6	101.5	98.0
1915	71.0	.268	19.03	97.3	101.1	98.3
1920	67.5	.659	44.48	92.5	248.7	229.9
1922	68.0	.472	32.10	93.2	178.1	165.9
1924	54.6	.613	33.47	74.8	231.3	173.0
1926	54.2	.627	33.98	74.2	236.6	175.6
1929	55.0	.666	36.63	75.3	251.3	189.3
1931	52.6	.664	34.93	72.1	250.6	180.5
1933	52.5	.488	25.62	71.9	184.2	132.4
Plate mills:						
1913	69.9	.255	17.82	100.0	100.0	100.0
1914	69.0	.258	17.80	98.7	101.2	99.9
1915	69.8	.270	18.58	99.9	105.9	104.3
1920	68.8	.671	46.16	98.4	263.1	259.0
1922	66.2	.476	31.51	94.7	186.7	176.8

¹ Except for puddling mills for which 1914=100.

TABLE 2.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS THEREOF, IN SPECIFIED DEPARTMENTS OF THE IRON AND STEEL INDUSTRY, IN SPECIFIED YEARS, 1913 TO 1933—Continued

Department and year	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Index numbers (1913=100)		
				Full-time hours per week	Earnings per hour	Full-time weekly earnings
Rolling-mills division—Continued						
Plate mills—Continued						
1924.....	57.2	\$0.562	\$32.15	81.8	220.4	180.4
1926.....	55.8	.606	33.81	79.8	237.6	189.7
1929.....	58.0	.639	37.06	83.0	250.6	208.0
1931.....	56.7	.627	35.55	81.1	245.9	199.5
1933.....	53.5	.449	24.02	76.5	176.1	134.8
Standard rail mills:						
1913.....	70.9	.254	18.01	100.0	100.0	100.0
1914.....	70.1	.252	17.67	98.9	99.2	98.1
1915.....	70.9	.246	17.44	100.0	96.9	96.8
1920.....	61.2	.632	38.68	86.3	248.8	214.8
1922.....	61.5	.470	28.91	86.7	185.0	160.5
1924.....	57.4	.573	32.89	81.0	225.6	182.6
1926.....	55.5	.595	33.02	78.3	234.3	183.3
1929.....	56.0	.628	35.17	79.0	247.2	195.3
1931.....	54.9	.613	33.65	77.4	241.3	186.8
1933.....	53.2	.523	27.82	75.0	205.9	154.5
Bar mills:						
1913.....	61.5	.288	17.71	100.0	100.0	100.0
1914.....	61.7	.278	17.15	100.3	96.5	96.8
1915.....	61.4	.266	16.33	99.8	92.4	92.2
1920.....	61.8	.713	44.06	100.5	247.6	248.8
1922.....	61.2	.486	29.74	99.5	168.8	167.9
1924.....	55.6	.585	32.53	90.4	203.1	183.7
1926.....	54.7	.591	32.33	88.9	205.2	182.6
1929.....	55.6	.625	34.75	90.4	217.0	196.2
1931.....	55.0	.588	32.34	89.4	204.2	182.6
1933.....	54.1	.425	22.99	88.0	147.6	129.8
Sheet mills:						
1913.....	52.3	.483	25.26	100.0	100.0	100.0
1914.....	52.3	.488	25.52	100.0	101.0	101.0
1915.....	52.5	.450	23.63	100.4	93.2	93.5
1920.....	50.3	1.039	52.26	96.2	215.1	206.9
1922.....	51.1	.694	35.46	97.7	143.7	140.4
1924.....	50.2	.809	40.61	96.0	167.5	160.8
1926.....	48.9	.759	37.12	93.5	157.1	147.0
1929.....	48.9	.793	38.78	93.5	164.2	153.5
1931.....	47.8	.747	35.71	91.4	154.7	141.4
1933.....	46.9	.473	22.18	89.7	97.9	87.8
Tin-plate mills:						
1913.....	46.1	.417	19.22	100.0	100.0	100.0
1914.....	46.0	.425	19.55	99.8	101.9	101.7
1915.....	50.4	.428	21.57	109.3	102.6	112.2
1920.....	50.6	.949	48.02	109.8	227.6	249.8
1922.....	49.9	.650	32.44	108.2	155.9	168.8
1924.....	48.8	.795	38.80	105.9	190.6	201.9
1926.....	48.1	.704	33.86	104.3	168.8	176.2
1929.....	47.4	.732	34.70	102.8	175.5	180.5
1931.....	47.0	.714	33.56	102.0	171.2	174.6
1933.....	46.9	.517	24.25	101.7	124.0	126.2

A percentage distribution of all wage earners for all departments combined is given for the first time, and covers the years 1931 and 1933. Information for each separate department is also shown for these years only; similar percentages for each department prior to 1931 may be found in Bulletin No. 567 of this Bureau.

Of the 53,365 employees covered in 1933, almost one half, or 48 percent, had a normal working week of 48 hours or less, while 34 percent had a normal working week of over 48 and less than 60 hours, and 15 percent had a normal working week of 60 hours. In other words 82 percent of all employees in 1933 had a normal working week of less than 60 hours compared with 78 percent in 1931.

A general tendency toward shorter full-time hours is shown in all departments except blooming mills, where practically no change is evident as between 1931 and 1933. The smallest proportion (19

percent) of employees with a normal working week of less than 48 hours was found in the blast-furnace department; however, this is almost twice as many as in 1931.

TABLE 3.—PERCENT OF WAGE EARNERS IN EACH DEPARTMENT OF THE IRON AND STEEL INDUSTRY, WORKING EACH CLASSIFIED NUMBER OF AVERAGE FULL-TIME HOURS PER WEEK, 1931 AND 1933

Department and year	Number of wage earners	Percent of wage earners whose average full-time hours per week were—						
		48 and under	Over 48 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84 and over
All departments:								
1931.....	66,865	42	36	16	4	1	(1)	1
1933.....	53,365	48	34	15	2	1	(1)	(1)
Blast furnaces:								
1931.....	9,825	10	57	22	4	5	(1)	2
1933.....	6,749	19	57	18	3	2		1
Steel-works division:								
Bessemer converters:								
1931.....	1,990	43	30	24	3			
1933.....	1,331	42	40	17	1			
Open-hearth furnaces:								
1931.....	12,795	27	57	11	3	(1)	(1)	1
1933.....	11,401	35	53	10	1	(1)	(1)	1
Rolling-mills division:								
Puddling mills:								
1931.....	980	19	72	4	1	1	1	1
1933.....	979	28	64	4	2	1	1	(1)
Blooming mills:								
1931.....	5,285	47	32	18	2	1	(1)	(1)
1933.....	4,514	47	32	18	1	1	(1)	(1)
Plate mills:								
1931.....	4,090	31	25	23	10	5	3	2
1933.....	3,835	47	18	25	6	2	1	1
Standard rail mills:								
1931.....	2,897	22	39	33	5			
1933.....	1,648	44	30	26				
Bar mills:								
1931.....	7,104	27	39	28	5	1	(1)	(1)
1933.....	5,781	34	35	28	2	(1)	(1)	(1)
Sheet mills:								
1931.....	11,816	77	9	12	1	1	(1)	
1933.....	8,636	77	8	13	1	1		(1)
Tin-plate mills:								
1931.....	10,083	72	20	4	3	(1)	(1)	(1)
1933.....	8,491	74	19	4	2	1	(1)	(1)

¹ Less than 1 percent.

Table 4 shows the percentage distribution of all employees in each department and for all departments combined according to their customary working turns per week. It also shows to a great extent the effect of relief systems which are operating in many plants. Practically all of the positions in blast furnaces are on a 7-day basis. This is also true to a great extent in open-hearth furnaces. Of the 200 plants covered, 140 had a system of relief for all or part of their employees working on straight 7-day or 7-night turns per week, or at continuous-process positions. The relief provided varies from 1 day off each week, 1 day off in 2 weeks, 1 day off in 19 days, to 1 day off in 4 weeks.

Information for all departments has been combined for the first time in 1933 and is presented only for the years 1931 and 1933.

Ten percent of all employees covered in 1933 had a normal working week of 7 days as compared with 12 percent in 1931. Ten percent worked 18 out of 19 days, as compared with 9 percent in 1931.

Fifty percent had a 6-day week in 1933, which is more than had these turns in 1931 (48 percent). Twenty-five percent of all employees covered in 1931 had an average work week of less than 6 days as compared with 26 percent in 1933.

In the blast-furnace department 22 percent of all employees in 1933 averaged a 7-day week each week, which is 6 less than in 1931. Almost one half, or 45 percent, had a straight week of 6 days in 1933.

In the steel-works division, 26 percent of all employees in open-hearth furnaces averaged a 7-day week; however, this was 8 less than in 1931. Fifty percent had a straight week of 6 days in 1933, as compared with 42 percent in 1931. While this department had more 7-day workers than did the blast-furnace department, the average full-time hours per week (as shown by table 2) were less in the blast furnaces, due to the fact that a greater percentage were on 8-hour turns. In the Bessemer-converter department 7 percent of all employees in 1933 averaged a 7-day week, while 66 percent had a working schedule of 6 days each week.

TABLE 4.—PERCENT OF WAGE EARNERS IN EACH DEPARTMENT OF THE IRON AND STEEL INDUSTRY WORKING SPECIFIED NUMBER OF TURNS PER WEEK, 1931 AND 1933

Department and year	Number of wage earners	Percent of wage earners whose customary turns per week were—											
		5	5, 5, 5 and 6 in rotation	5, 5 and 6 in rotation	5 and 6 alternately	5, 6 and 6 in rotation	6	6 and 7 alternately	6, 6 and 7 in rotation	Work 18 days, then off 1 day	6, 7 and 7 in rotation	7	
All departments:													
1931.....	66,865	2		16	3	4	48	1	3	9	2	12	
1933.....	53,365	3	1	14	3	5	50	(1)	2	10	1	10	
Blast furnaces:													
1931.....	9,825						43	1	(1)	28	(1)	28	
1933.....	6,749						45	(1)		30	2	22	
Steel-works division:													
Bessemer converters:													
1931.....	1,990				(1)		72	2	6	6	8	7	
1933.....	1,331						66		2	11	14	7	
Open-hearth furnaces:													
1931.....	12,795	(1)			(1)		42	1	(1)	21	2	34	
1933.....	11,401	(1)					50	(1)		22	2	26	
Rolling-mills division:													
Puddling mills:													
1931.....	980	21			41		36	1				1	
1933.....	979	23			49		27	1				1	
Blooming mills:													
1931.....	5,285	(1)		(1)	1	(1)	71	1	7	6	5	9	
1933.....	4,514	(1)		(1)	1		70	1	6	6	5	11	
Plate mills:													
1931.....	4,090	(1)			3		69	5	9	1	8	4	
1933.....	3,835				(1)	6	75	2	11	2	1	2	
Standard-rail mills:													
1931.....	2,897						65	7	9	4	10	5	
1933.....	1,648						85	(1)	9	4		2	
Bar mills:													
1931.....	7,104	9			6	4	70	1	8	(1)	(1)	1	
1933.....	5,781	15			8	4	66	(1)	6			1	
Sheet mills:													
1931.....	11,816	(1)		41	3	22	33	(1)				1	
1933.....	8,636	1	8	32	2	21	36					(1)	
Tin-plate mills:													
1931.....	10,083	5		57	4	1	32	(1)	(1)			1	
1933.....	8,491	6		55	3	3	31	(1)	1		(1)	1	

¹ Less than 1 percent.

In the rolling-mills division 7-day work was not so prevalent. The greatest percentage was found in blooming mills, where 11 percent worked a week of this length. Other percentages for this department for 1933 show but slight or no change from 1931. In plate mills 75 percent of all employees covered in 1933 had a normal working week of 6 days and only 2 percent averaged a 7-day week. In the rail-mill department there was a great increase in 6-day workers from 1931 to 1933 (from 65 to 85 percent). In the bar-mill department there was a decrease in the percentage of 6-day workers and an increase in the percentage working 5 days, the former decreasing from 70 to 66 and the latter increasing from 9 to 15. The sheet-mill department was the only one having less than 1 percent of regular 7-day workers and the only one in which any employees had a normal working cycle of 5 days, 5 days, 5 days, and 6 days per week in rotation. This is due to some employees having a normal working day of 6 hours, which under 24-hour operation requires 4 turns per day. In the tin-plate department practically all employees, both in 1931 and 1933, had a normal working week of 6 days or less, the greater percentage working 5 days, 5 days, and 6 days per week in rotation.

Union Scales of Wages and Hours of Labor in 1933

Part 1. Preliminary Report for Selected Cities

THE Bureau of Labor Statistics collected, as of May 15, 1933, information concerning the union scales of wages and hours of labor in the principal time-work trades in 67 of the leading cities of the United States. In some instances the matter of agreement as to the rate in effect on May 15, 1932, was in such a chaotic state in a few cities, due to revision of scales and arbitration proceedings, that the information was reported for a slightly later date in those cities, when a definite rate was established. All the rates shown for 1933 are effective as of May 15. In some cities and some groups of trades the hours per week are affected by restrictions and curtailments provided for by union edict. Where definite agreement between the union and employers was found, the short-time work week is shown. A full compilation of the figures is now in progress and will be published as a bulletin of the Bureau.

In this article an abridged compilation is made of the 1933 data for 20 important trades in 40 localities, with comparative figures for the years 1913, 1929, 1930, 1931, and 1932, insofar as effective scales were found in those years. Data for 1914 to 1928, inclusive, are omitted for lack of space, but figures for those years may be obtained by referring to the September 1925 and September 1932 issues of the *Monthly Labor Review*.

The trades here covered are:

Bricklayers.
Building laborers.
Carpenters.
Cement finishers.
Compositors: Book and job.
Compositors, daywork: Newspaper.
Electrotypers:
 Finishers.
 Molders.
Granite cutters, inside.
Hod carriers.
Inside wiremen.

Painters.
Plasterers.
Plasterers' laborers.
Plumbers.
Sheet-metal workers.
Stonecutters.
Structural-iron workers.
Typesetting-machine operators: Book and job.
Typesetting-machine operators, daywork: Newspaper.

The union scale represents the minimum rate and the maximum hours agreed upon between the unions and the employers. However, a higher rate was paid to some or perhaps all of the members of a union in some cities and some members are paid less for some classes of work established during the past two years to care for repair and renovation work to increase employment of more union members. Reports indicate, however, that such provisions have not been very productive in furnishing employment to the members.

Two or more quotations of rates and hours are shown for some occupations in some cities. Such quotations indicate that there were two or more agreements with different employers and possibly made also by different unions, or for subclassifications of a specific occupation, such as building laborers.

This report affords 685 comparisons of wage rates per hour as between 1932 and 1933. There are 13 cases of increase, 278 cases of decrease, and 394 cases of no change in rates. There are 685 comparisons of full-time hours per week. Of this number 17 are increases, 67 are decreases, and 601 instances of no change.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES

Bricklayers

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta.....	45.0	125.0	125.0	125.0	112.5	112.5	53	44	44	44	44	44
Baltimore.....	62.5	162.5	175.0	175.0	125.0	100.0	¹ 45	40	40	40	40	40
Birmingham.....	70.0	150.0	150.0	150.0	100.0	100.0	² 44	44	44	44	44	44
Boston.....	65.0	150.0	150.0	150.0	130.0	130.0	44	44	44	40	40	40
Buffalo.....	65.0	150.0	150.0	150.0	150.0	112.5	48	44	44	44	40	40
Charleston, S.C.....	40.0	100.0	100.0	100.0	100.0	100.0	53	44	44	44	44	44
Chicago.....	75.0	162.5	170.0	170.0	137.5	137.5	44	44	44	44	40	40
Cincinnati.....	65.0	162.5	162.5	162.5	137.5	137.5	45	44	40	40	40	40
Cleveland.....	65.0	162.5	162.5	162.5	137.5	137.5	48	44	40	40	40	40
Dallas.....	87.5	162.5	175.0	175.0	100.0	100.0	44	44	40	40	40	40
Denver.....	75.0	150.0	150.0	150.0	131.3	131.3	44	44	44	40	40	40
Detroit.....	65.0	157.5	157.5	150.0	125.0	125.0	³ 48	44	40	40	40	40
Fall River.....	55.0	125.0	125.0	125.0	125.0	125.0	48	44	44	40	40	40
Indianapolis.....	75.0	162.5	162.5	162.5	130.0	100.0	44	44	40	40	40	40
Jacksonville.....	62.5	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44
Kansas City, Mo.....	75.0	150.0	150.0	162.5	132.5	132.5	44	44	44	40	40	40
Little Rock.....	75.0	150.0	150.0	125.0	125.0	125.0	⁴ 44	44	44	44	44	44
Los Angeles.....	75.0	137.5	137.5	137.5	100.0	100.0	44	44	40	40	40	40
Louisville.....	65.0	150.0	150.0	150.0	125.0	100.0	48	40	40	40	40	40
Manchester.....	55.0	150.0	150.0	150.0	150.0	130.0	48	40	40	40	40	40
Memphis.....	75.0	162.5	162.5	162.5	137.5	137.5	44	44	40	40	40	40
Milwaukee.....	67.5	140.0	140.0	140.0	100.0	100.0	44	44	44	40	40	40
Minneapolis.....	65.0	137.5	137.5	137.5	125.0	125.0	48	44	44	44	44	40
Newark, N.J.....	65.0	175.0	193.8	193.8	168.8	168.8	44	44	40	40	40	40
New Haven.....	60.0	150.0	150.0	165.0	140.0	120.0	44	44	44	40	40	40
New Orleans.....	62.5	150.0	150.0	100.0	100.0	100.0	44	44	44	44	44	44
New York.....	70.0	187.5	192.5	192.5	165.0	⁵ 165.0	44	40	40	40	40	40
Omaha.....	70.0	125.0	125.0	125.0	100.0	100.0	44	44	44	44	44	44
Philadelphia.....	62.5	162.5	175.0	175.0	150.0	150.0	44	40	40	40	⁶ 24	40
Pittsburgh.....	70.0	170.0	175.0	175.0	150.0	150.0	44	44	40	40	40	40
Portland, Oreg.....	75.0	150.0	150.0	150.0	120.0	120.0	44	40	40	40	40	40
Providence.....	65.0	150.0	150.0	150.0	125.0	125.0	44	44	44	40	40	40
Richmond, Va.....	65.0	150.0	150.0	150.0	150.0	125.0	45	44	⁷ 44	⁸ 44	40	40
St. Louis.....	70.0	175.0	175.0	175.0	150.0	150.0	44	44	44	40	40	40
St. Paul.....	65.0	125.0	125.0	125.0	125.0	110.0	48	44	44	44	44	44
Salt Lake City.....	75.0	137.5	137.5	137.5	112.5	112.5	44	44	44	44	44	44
San Francisco.....	87.5	137.5	137.5	137.5	137.5	137.5	44	44	40	40	40	40
Scranton.....	60.0	150.0	150.0	150.0	150.0	150.0	⁹ 44	44	44	44	40	40
Seattle.....	75.0	150.0	150.0	150.0	120.0	120.0	44	¹⁰ 40	¹⁰ 40	¹⁰ 40	¹⁰ 40	30
Washington.....	62.5	162.5	175.0	175.0	175.0	150.0	¹¹ 45	44	40	40	40	40

¹ 44½ hours per week, November to March, inclusive.

² 48 hours per week, October to December, inclusive.

³ 44 hours per week, October to April, inclusive.

⁴ 48 hours per week, October to April, inclusive.

⁵ \$3.20 per day, held in trust pending arbitration decision.

⁶ Work 3 days per week.

⁷ 40 hours per week, June to August, inclusive.

⁸ 40 hours per week, June to September, inclusive.

⁹ 48 hours per week, September to April, inclusive.

¹⁰ 44 hours per week, September to April, inclusive.

¹¹ 44½ hours per week, October to April, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Building laborers

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Boston.....	35.0	80.0	80.0	80.0	70.0	70.0	48	48	48	48	40	40
Chicago.....	40.0	90.0	97.5	97.5	82.5	60.0						44
		105.0	112.5	112.5	97.5	82.5						44
		120.0	127.5	127.5	112.5	88.8						40
Cincinnati.....	20.0	60.0	60.0	60.0	45.0	70.5	44	44	44	44	44	40
Cleveland.....		87.5	87.5	87.5	72.0	45.0	60	50	50	45	40	40
Denver.....				62.5	50.0	72.0		44	40	40	40	40
Detroit.....		60.0	60.0	65.0	50.0	50.0		44	44	44	44	40
Kansas City, Mo.....	27.5	75.0	75.0	82.5	70.0	70.0	48	44	44	40	44	40
Los Angeles.....	34.4	62.5	62.5	62.5	62.5	62.5	44	44	40		40	40
Louisville.....	21.9	50.0	50.0	40.0		50.0	48	44	44	44	44	44
Milwaukee.....		75.0	75.0	75.0	75.0	62.5		44	44	44	44	44
Minneapolis.....		55.0	65.0	65.0	65.0	55.0		44	44	44	44	44
Newark, N.J.....		112.5	125.0	125.0	95.0	95.0		44	40	40	40	40
New Haven.....		75.0	75.0	70.0	60.0	50.0		44	44	40	40	40
New York.....	22.5	93.8	103.1	103.1	103.1	82.5	48	44	40	40	40	40
		120.0										
Philadelphia.....		60.0	50.0	50.0	50.0	50.0		44	44	44	44	44
Pittsburgh.....	25.0	112.5	112.5	112.5	112.5	90.0	54	44	44	40	40	40
Portland, Oreg.....	37.5	80.0	80.0	80.0	80.0	70.0		48	44	40	40	40
St. Louis.....	25.0	68.8	75.0	75.0	60.0	60.0	44	44	40	40	40	40
		1461.5	87.5	87.5	78.8	78.8	44	44	44	44	40	40
		1275.0										
St. Paul.....	25.0	1387.5	87.5	87.5	78.8	78.8	44	44	44	44	40	40
		1392.5										
Salt Lake City.....		55.0	55.0	55.0	50.0	50.0		44	44	44	44	44
San Francisco.....	27.8	68.8	68.8	68.8	68.8	68.8	54	44	44	40	40	40
Scranton.....	25.0	75.0	75.0	70.0	70.0	50.0	54	48	48	48	48	48
Seattle.....	37.5	70.0	70.0	70.0	59.4	59.4	44	44	44	44	44	44

Carpenters

Atlanta.....	40.0	80.0	80.0	90.0	90.0	90.0	50	44	44	44	44	44
Baltimore.....	43.8	110.0	110.0	110.0	100.0	65.0	48	40	40	40	40	44
Birmingham.....	52.5	100.0	100.0	100.0	100.0	75.0	48	44	40	40	44	44
Boston.....	50.0	137.5	137.5	137.5	117.5	117.5	44	44	44	40	40	44
Buffalo.....	50.0	125.0	125.0	125.0	100.0	100.0	48	44	44	44	40	40
Charleston, S.C.....	33.3	60.0	60.0	60.0	60.0	60.0	53	44	44	44	44	44
Chicago.....	65.0	75.0	75.0	75.0	75.0	75.0		44	44	44	44	40	40
Cincinnati.....	50.0	150.0	162.5	162.5	131.3	131.3	44	44	44	44	40	40
Cleveland.....	50.0	137.5	140.0	140.0	120.0	120.0	44½	44½	44½	40	40	40
Dallas.....	55.0	137.5	137.5	137.5	112.5	112.5	48	44	40	40	40	40
Denver.....	60.0	112.5	112.5	125.0	100.0	75.0	44	44	44	40	40	40
Detroit.....	60.0	125.0	125.0	125.0	109.4	109.4	44	40	40	40	40	30
Fall River.....	50.0	115.0	115.0	100.0	100.0	100.0	48	44	44	44	44	44
Indianapolis.....	42.0	100.0	100.0	100.0	85.0	85.0	48	44	44	40	40	40
Jacksonville.....	50.0	122.5	122.5	122.5	100.0	100.0	44½	44½	44½	44½	44½	44½
Kansas City, Mo.....	31.3	80.0	80.0	80.0	80.0	80.0	48	44	44	44	44	44
		70.0	70.0									
Little Rock.....	55.0	125.0	125.0	137.5	112.5	112.5	44	44	44	40	40	40
Los Angeles.....	50.0	100.0	100.0	80.0	80.0	80.0	48	44	44	44	44	44
Louisville.....	50.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	40
Manchester.....	45.0	100.0	112.5	100.0	80.0	80.0	44	44	44	40	40	40
Memphis.....	40.0	100.0	100.0	100.0	80.0	80.0	48	44	44	44	44	44
Milwaukee.....	50.0	100.0	100.0	100.0	87.5	87.5	44	44	40	40	40	40
Minneapolis.....	50.0	110.0	110.0	110.0	110.0	92.5	44	44	44	40	40	40
Newark, N.J.....	50.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	40
New Haven.....	50.0	150.0	150.0	165.0	140.0	140.0	44	44	44	40	40	40
	47.5	125.0	125.0	125.0	106.3	106.3	44	44	44	40	40	40

¹² Old scale; strike pending at time of report.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Carpenters—Continued

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
New Orleans.....	40.0	90.0	90.0	90.0	90.0	75.0	48	44	44	44	44	44
New York.....	62.5	150.0	165.0	165.0	125.0	140.0	44	44	40	40	40	40
Omaha.....	50.0	100.0	100.0	100.0	80.0	80.0	44	44	44	44	44	44
Philadelphia.....	50.0	125.0	125.0	125.0	105.0	100.0	44	44	7 44	7 44	7 44	40
Pittsburgh.....	55.0	150.0	150.0	150.0	125.0	125.0	44	44	40	40	40	40
Portland, Oreg.....	50.0	112.5	112.5	112.5	90.0	90.0	44	13 44	40	40	40	40
Providence.....	50.0	117.5	117.5	117.5	100.0	100.0	44	44	44	44	44	44
Richmond.....	37.5	90.0	-----	90.0	-----	80.0	48	44	-----	44	-----	44
St. Louis.....	62.5	150.0	150.0	150.0	125.0	125.0	44	40	40	40	40	40
St. Paul.....	50.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Salt Lake City.....	62.5	112.5	112.5	112.5	90.0	90.0	44	44	44	44	44	44
San Francisco.....	62.5	112.5	112.5	112.5	90.0	90.0	44	44	44	40	40	40
Scranton.....	42.5	125.0	118.8	125.0	112.5	112.5	48	44	44	44	40	40
Seattle.....	56.3	112.5	112.5	112.5	90.0	90.0	44	10 40	10 40	10 40	10 40	10 40
Washington.....	50.0	125.0	137.5	137.5	137.5	100.0	44½	44	40	40	40	40

Cement finishers

Atlanta.....	-----	100.0	100.0	100.0	100.0	100.0	-----	44	44	44	44	44
Baltimore.....	-----	125.0	137.5	137.5	100.0	100.0	-----	40	40	40	40	40
Birmingham.....	50.0	125.0	125.0	-----	100.0	100.0	48	44	40	-----	40	40
Boston.....	62.5	137.5	137.5	137.5	125.0	125.0	48	44	44	44	44	40
Buffalo.....	50.0	112.5	112.5	112.5	112.5	90.0	48	44	44	44	40	40
Chicago.....	65.0	150.0	162.5	162.5	131.3	131.3	44	44	44	44	40	44
Cincinnati.....	50.0	130.0	132.5	132.5	102.5	102.5	50	44½	44½	44	40	40
Cleveland.....	60.0	137.5	137.5	137.5	112.5	112.5	48	44	40	40	40	40
Dallas.....	50.0	125.0	137.5	125.0	125.0	100.0	48	48	48	48	48	48
Denver.....	68.8	125.0	125.0	125.0	109.4	109.4	44	44	44	44	44	44
Detroit.....	50.0	112.5	112.5	112.5	112.5	90.0	54	44	44	44	44	44
Fall River.....	-----	125.0	125.0	125.0	125.0	125.0	-----	44	44	40	40	40
Indianapolis.....	50.0	117.5	117.5	117.5	94.0	70.0	50	44	44	44	44	44
Kansas City, Mo.....	62.5	125.0	125.0	137.5	112.5	112.5	44	44	44	40	40	40
Little Rock.....	55.6	125.0	125.0	125.0	125.0	125.0	54	44	44	44	44	44
Los Angeles.....	62.5	125.0	125.0	125.0	125.0	100.0	48	44	44	44	44	44
Louisville.....	45.0	125.0	125.0	125.0	100.0	75.0	60	44	44	44	44	40
Manchester.....	-----	150.0	150.0	150.0	150.0	130.0	-----	40	40	40	40	40
Memphis.....	50.0	112.5	112.5	112.5	112.5	112.5	54	44	44	44	44	44
Milwaukee.....	45.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Minneapolis.....	-----	100.0	125.0	100.0	100.0	100.0	-----	44	44	44	44	44
Newark, N.J.....	62.5	175.0	193.8	193.8	168.8	168.8	44	44	40	40	40	40
New Haven.....	-----	150.0	150.0	165.0	140.0	120.0	-----	44	44	40	40	40
New York.....	62.5	150.0	165.0	165.0	140.0	140.0	44	44	40	40	40	40
Omaha.....	-----	112.5	112.5	112.5	100.0	100.0	-----	44	44	44	44	44
Philadelphia.....	45.0	125.0	125.0	125.0	105.0	105.0	49½	44	44	44	44	44
Pittsburgh.....	-----	135.0	135.0	140.0	140.0	140.0	-----	44	40	40	40	40
Portland, Oreg.....	62.5	112.5	112.5	112.5	90.0	90.0	48	40	40	40	40	40
Providence.....	-----	115.0	115.0	125.0	115.0	100.0	-----	44	40	44	44	44
Richmond.....	-----	125.0	125.0	-----	125.0	100.0	-----	44	44	-----	44	44
St. Louis.....	60.0	150.0	157.5	157.5	131.3	131.3	44	40	40	40	40	40
St. Paul.....	50.0	100.0	125.0	100.0	100.0	85.0	48	44	44	44	44	44
Salt Lake City.....	62.5	112.5	112.5	100.0	100.0	100.0	48	44	44	44	44	44
San Francisco.....	75.0	112.5	112.5	112.5	112.5	112.5	44	44	40	40	40	40
Scranton.....	-----	150.0	150.0	150.0	150.0	100.0	-----	40	40	40	40	40
Seattle.....	62.5	112.5	112.5	112.5	90.0	90.0	48	44	44	44	44	44
Washington.....	-----	112.5	125.0	125.0	125.0	125.0	-----	44	44	44	44	44

7 40 hours per week, June to August, inclusive.
10 44 hours per week, September to April, inclusive.
13 40 hours per week, October to April, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued*Compositors: Book and job*

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta	34.4	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Baltimore	37.5	90.9	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Birmingham	40.6	92.5	92.5	92.5	82.5	82.5	48	44	44	44	44	44
Boston	41.7	96.0	96.0	96.0	96.0	86.4	48	44	44	44	44	44
Buffalo	39.6	100.0	100.0	100.0	100.0	90.9	48	44	44	44	44	44
Charleston, S.C.	33.3	84.1	84.1	90.9	90.9	90.9	48	44	44	44	44	44
Chicago	46.9	122.7	129.5	129.5	129.5	122.5	48	44	44	44	44	40
Cincinnati	40.6	115.9	118.2	118.2	118.2	106.8	48	44	44	44	40	44
Cleveland	39.6	111.4	111.4	111.4	104.5	100.0	48	44	44	44	44	44
Denver	54.2	102.3	102.3	102.3	102.3	92.0	48	44	44	44	44	44
Detroit	38.5	122.0	125.0	125.0	125.0	112.5	48	44	44	44	44	44
Fall River	33.3	81.8	81.8	81.8	81.8	81.8	48	44	44	44	44	44
Indianapolis	43.8	106.8	111.4	111.4	111.4	100.0	48	44	44	44	44	44
Jacksonville	37.5	98.9	98.9	98.9	98.9	98.9	48	44	44	44	44	44
Kansas City, Mo.	41.7	102.3	102.3	102.3	95.0	95.0	48	44	44	44	44	44
Little Rock	37.5	92.0	94.3	94.3	94.3	94.3	48	44	44	44	44	44
Los Angeles	46.9	106.8	106.8	106.8	106.8	106.8	48	44	44	44	44	44
Louisville	37.5	86.4	86.4	86.4	86.4	86.4	48	44	44	44	44	44
Manchester	35.4	79.5	79.5	79.5	79.5	79.5	48	44	44	44	44	44
Memphis	40.0	81.8	81.8	81.8	81.8	81.8	48	44	44	44	44	44
Milwaukee	41.7	102.3	104.5	106.8	96.3	96.3	48	44	44	44	40	40
Minneapolis	43.8	95.5	95.5	95.5	95.5	95.5	48	44	44	44	44	44
Newark, N.J.	47.9	125.0	127.3	129.5	129.5	120.5	48	44	44	44	44	44
New Haven	40.6	86.4	86.4	86.4	86.4	86.4	48	44	44	44	44	44
New Orleans	43.8	78.4	78.4	78.4	78.4	78.4	48	44	44	44	44	44
New York	50.0	129.5	131.8	134.1	136.4	125.0	48	44	44	44	44	40
Omaha	37.5	100.0	100.0	100.0	93.8	93.8	48	44	44	44	44	44
Philadelphia	39.6	90.0	95.5	95.5	95.5	86.4	48	44	44	44	44	44
Pittsburgh	39.6	104.5	106.8	113.6	113.6	96.0	48	44	44	44	44	44
Portland, Oreg.	53.1	105.7	105.7	105.7	95.1	85.6	48	44	44	44	44	44
Providence	37.5	90.9	90.9	90.9	90.9	90.9	48	44	44	44	44	44
Richmond	33.3	---	---	---	---	---	48	---	---	---	---	44
St. Louis	43.8	103.0	103.0	103.0	103.0	95.8	48	44	44	44	44	44
St. Paul	43.8	95.5	95.5	95.5	95.5	87.8	48	44	44	44	44	44
Salt Lake City	62.5	---	---	---	93.2	83.8	48	---	---	---	---	44
San Francisco	50.0	115.9	118.2	118.2	118.2	111.4	48	44	44	44	44	44
Scranton	43.8	104.5	104.5	104.5	104.5	96.6	48	44	44	44	44	44
Seattle	53.1	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Washington	40.0	102.3	104.5	104.5	104.5	104.5	48	44	44	44	44	44

Compositors, daywork: Newspaper

Atlanta	43.8	103.1	103.1	103.1	103.1	92.8	48	48	48	48	48	40
Baltimore	50.0	114.8	114.8	114.8	114.8	103.3	42	44	44	44	44	44
Birmingham	52.5	100.0	102.5	102.5	95.0	95.0	14 42	14 42	14 42	14 42	14 42	14 42
Boston	63.0	125.0	125.0	125.0	125.0	125.0	15 42	15 44	15 44	15 44	15 44	15 44
Buffalo	50.0	106.3	108.3	108.3	108.3	102.5	48	48	48	48	48	40
Charleston, S.C.	33.3	92.7	92.7	94.0	94.0	84.6	48	48	48	48	48	40
Chicago	62.0	140.0	140.0	140.0	140.0	128.0	16 45	45	45	45	45	37½
Cincinnati	52.1	118.3	122.8	122.8	122.8	115.1	47½	45	45	45	45	37½
Cleveland	53.8	119.0	119.0	119.0	119.0	113.5	48	45	45	45	45	45
Dallas	55.0	106.3	106.3	106.3	106.3	96.7	48	48	48	48	48	48
Denver	63.3	114.8	119.9	119.9	119.9	109.6	45	44	44	44	44	44
Detroit	55.0	130.0	131.0	131.0	126.0	126.0	17 48	45	45	45	45	45
Fall River	37.5	87.5	93.8	95.8	95.8	95.8	48	48	48	48	48	48
Indianapolis	50.0	110.9	110.9	110.9	110.9	100.0	48	46	46	46	46	46
Jacksonville	37.5	100.0	100.0	100.0	100.0	81.3	48	48	48	48	48	48

¹⁴ Minimum; maximum, 8 hours per day.¹⁵ Actual hours worked; minimum, 6; maximum, 8 hours per day.¹⁶ Actual hours worked; minimum, 7; maximum, 8 hours per day.¹⁷ Maximum; minimum, 7 hours per day.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Compositors, daywork: Newspaper—Continued

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Kansas City, Mo.	59.5	108.3	108.3	108.3	108.3	98.0	48	48	48	48	48	40
Little Rock	47.9	91.3	95.5	95.5	94.0	84.6	48	46	44	44	42	42
Los Angeles	62.5	117.8	117.8	117.8	117.8	109.6	45	45	45	45	45	45
Louisville	49.0	93.8	93.8	93.8	93.8	84.4	48	48	48	48	48	48
Manchester	35.4	83.3	88.9	88.9	88.9	84.4	48	48	45	45	45	45
Memphis	57.8	100.0	100.0	100.0	93.0	93.0	45	45	45	45	45	45
Milwaukee	45.8	110.4	117.8	117.8	117.8	111.1	48	48	45	45	45	37½
Minneapolis	54.0	121.4	121.4	123.8	123.8	111.4	48	42	42	42	42	42
Newark, N.J.	60.9	134.8	134.8	134.8	134.8	117.4	46	46	46	46	46	46
New Haven	46.9	91.7	93.8	95.8	95.8	86.3	48	48	48	48	48	48
New York	66.7	144.4	144.4	144.4	144.4	130.0	45	45	45	44	18 32	45
Omaha	50.0	99.0	100.0	100.0	93.8	93.8	48	48	48	48	48	48
Philadelphia	41.7	91.3	91.3	91.3	91.3	93.3	48	46	46	46	46	45
Pittsburgh	55.0	126.7	128.9	128.9	121.1	115.7	48	45	45	45	45	37½
Portland, Oreg.	68.3	113.3	113.3	113.3	106.7	100.0	45	45	45	45	48	45
Providence	47.9	108.3	112.5	116.7	118.8	118.8	48	48	48	48	48	48
Richmond, Va.	33.3	94.8	94.8	94.8	87.5	85.4	48	48	48	48	48	48
St. Louis	58.7	114.1	120.7	120.7	120.7	108.5	46	46	46	46	46	46
St. Paul	54.5	101.3	101.3	101.3	101.3	91.1	48	48	48	48	48	46½
Salt Lake City	62.5	104.3	104.3	104.3	104.3	100.0	48	46	46	46	46	45
San Francisco	64.4	120.0	120.0	120.0	120.0	108.0	45	45	45	45	45	45
Scranton	47.9	114.9	114.9	114.9	114.9	103.3	48	47	47	47	47	47
Seattle	75.0	123.2	123.2	123.2	123.2	123.2	42	42	42	42	42	42
Washington	60.7	128.6	128.6	128.6	128.6	115.0	42	42	42	42	42	35

Electrotypers: Molders

Atlanta	45.8	96.6	96.6	102.3	102.3	95.5	48	44	44	44	44	44
Baltimore	43.8			{ 90.3 96.8 }	90.3	85.4	48			46½	46½	48
Birmingham	50.0	105.7	105.7	108.0	108.0	108.0	48	44	44	44	44	44
Boston	50.0	99.0	105.7	104.2	104.2	104.2	48	48	{ 48 44	44	44	44
Buffalo	43.8	93.8	97.9	109.1	109.1	109.1	48	48	19 48	20 44	21 44	36
Chicago	54.2	145.5	150.0	150.0	150.0	140.9	48	44	44	44	44	44
Cincinnati	47.9	97.9	100.0	116.7	113.6	106.8	48	48	48	42	44	44
Cleveland	43.8	104.3	111.4	113.6	113.6	104.5	48	46	44	44	44	44
Dallas	43.8	113.6	113.6	113.6	113.6	100.0	48	44	44	44	44	44
Denver	52.1	90.9	90.9	90.9	90.9	90.9	48	44	44	44	44	44
Detroit	37.5	125.0	127.3	131.8	131.8	113.6	48	44	44	44	44	44
Indianapolis	45.8	100.0	104.5	106.8	100.0	95.5	48	44	44	44	44	44
Kansas City, Mo.	43.8	104.5	109.1	113.6	98.7	90.9	48	44	44	44	44	44
Los Angeles	50.0	113.6	104.2	104.2	104.2	104.2	48	44	48	48	48	48
Louisville		96.6	102.3	90.9	90.9	90.9		44	44	44	44	44
Memphis	45.8	113.6	113.6	113.6	113.6	113.6	48	44	44	44	44	44
Milwaukee	43.8	93.8	102.3	113.6	113.6	90.9	48	44	44	44	44	44
Minneapolis	36.1	97.9	100.0	100.0	104.3	109.1	54	48	48	48	46	44
Newark, N.J.		145.5	145.5	150.0	150.0	141.0		44	44	44	44	44
New York	62.5	145.5	145.5	150.0	150.0	141.0	44	44	44	44	44	44
Omaha	43.8	102.3	102.3	102.3	102.3	92.0	48	44	44	44	44	44
Philadelphia	45.8	118.8	131.8	134.1	134.1	118.2	48	48	44	44	44	44
Pittsburgh	50.0	93.8	93.8	104.2	113.6	102.3	48	48	48	48	44	44
Portland, Oreg.	50.0	119.3	119.3	119.3	107.4	96.3	48	44	44	44	44	44
Richmond				104.2	104.2	91.1				48	48	43¾
St. Louis	47.9	115.9	118.2	118.2	118.2	113.6	48	44	44	44	44	44
St. Paul	50.0	97.9	100.0	100.0	104.3	100.0	48	48	48	48	46	44
San Francisco	56.3	125.0	125.0	125.0	113.6	102.3	48	44	44	44	44	44
Scranton	47.9	106.8	106.8	106.8	106.8	106.8	48	44	44	44	44	44
Seattle	52.1	119.3	119.3	118.2	118.2	106.3	48	44	44	44	44	44
Washington	50.0	113.6	118.2	122.7	122.7	122.7	44	44	44	44	44	44

¹⁸ Work 4 days per week.

¹⁹ 44 hours per week, June to September, inclusive.

²⁰ 48 hours and same pay per week, November to April, inclusive.

²¹ 48 hours and same pay per week, November to February, inclusive.

MONTHLY LABOR REVIEW

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued*Electrotypers: Finishers*

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta.....	45.8	96.6	96.6	102.3	102.3	95.5	48	44	44	44	44	44
Baltimore.....	41.7			90.3 96.8	90.3	85.4	48				46½	46½
Birmingham.....	50.0	105.7	105.7	108.0	108.0	108.0	48	44	44	44	44	44
Boston.....	50.0	99.0	104.2	104.2	104.2	104.2	48	48	44	44	44	44
Buffalo.....	43.8	93.8	97.9	109.1	109.1	104.5	48	48	44	44	44	44
Chicago.....	49.0	145.5	150.0	150.0	150.0	149.9	48	48	19 48	20 44	21 44	21 44
Cincinnati.....	43.8	97.9	100.0	116.7	113.6	106.8	48	48	48	44	44	44
Cleveland.....	41.7	104.3	111.4	113.6	113.6	104.5	48	46	44	44	44	44
Dallas.....	37.5	113.6	113.6	113.6	113.6	100.0	48	44	44	44	44	44
Denver.....	43.8	90.9	90.9	90.9	90.9	90.9	48	44	44	44	44	44
Detroit.....	37.5	125.0	127.3	131.8	131.8	113.6	48	44	44	44	44	44
Indianapolis.....	43.8	100.0	104.5	106.8	100.0	95.5	48	44	44	44	44	44
Kansas City, Mo.....	43.8	104.5	109.1	109.1	98.7	90.9	48	44	44	44	44	44
Los Angeles.....	50.0	113.6	104.2	104.2	104.2	104.2	48	44	48	48	48	48
Louisville.....		96.6	102.3	90.9	90.9	90.9		44	44	44	44	44
Memphis.....	45.8	113.6	113.6	113.6	113.6	113.6	48	44	44	44	44	44
Milwaukee.....	43.8	93.8	102.3	113.6	113.6	90.9	48	48	44	44	44	44
Minneapolis.....	36.1	97.9	100.0	100.0	104.3	109.1	54	48	48	48	46	44
Newark, N.J.....		145.5	145.5	150.0	150.0	141.0		44	44	44	44	44
New York.....	62.5	145.5	145.5	150.0	150.0	141.0	44	44	44	44	44	44
Omaha.....	43.8	102.3	102.3	102.3	102.3	92.0	48	44	44	44	44	44
Philadelphia.....	41.7	118.8	131.8	134.1	134.1	118.2	48	48	44	44	44	44
Pittsburgh.....	43.8	93.8	93.8	104.2	113.6	102.3	48	48	48	48	44	44
Portland, Oreg.....	50.0	119.3	119.3	119.3	107.4	96.3	48	44	44	44	44	44
Richmond.....				104.2	104.2	91.1					48	48
St. Louis.....	45.8	115.9	118.2	118.2	118.2	113.6	48	44	44	44	44	44
St. Paul.....	43.8	97.9	100.0	100.0	104.3	100.0	48	48	48	48	46	44
San Francisco.....	56.3	125.0	125.0	125.0	113.6	102.3	48	44	44	44	44	44
Scranton.....	41.7	106.8	106.8	106.8	106.8	106.8	48	44	44	44	44	44
Seattle.....	52.1	119.3	119.3	118.2	118.2	106.3	48	44	44	44	44	44
Washington.....	50.0	113.6	118.2	122.7	122.7	122.7	44	44	44	44	44	44

Granite cutters, inside

Baltimore.....	50.0	118.8	118.8	118.8	100.0	100.0	44	44	44	44	40	8 44
Boston.....	45.6	118.0	124.0	124.0	115.0	100.0	44	44	22 44	22 44	22 44	44
Buffalo.....	43.8	118.8	118.8	118.8	118.8	106.3	44	40	40	40	40	44
Charleston, S.C.....	45.0	105.0	105.0	105.0	105.0	105.0	44	44	23 44	23 44	44	44
Cincinnati.....	50.0	112.5	112.5	112.5		106.3	48	24 44	24 44	24 44		44
Cleveland.....	50.0	118.8	125.0	125.0	118.8	118.8	44	25 44	25 44	25 44	25 44	40
Dallas.....		112.5	125.0		112.5	112.5		44	44			40
Denver.....	57.0	112.5	112.5	112.5	112.5	112.5	44	44	44	40	44	44
Los Angeles.....	62.5	112.5	112.5	112.5	106.3	106.3	48	44	44	40	40	40
Manchester.....	40.6	112.5	112.5	112.5	100.0	100.0	44	44	25 44	26 44	44	40
New Haven.....	41.0	112.5	112.5	112.5	112.5	112.5	44	27 44	27 44	27 44	40	40
New York.....	50.0	137.5	150.0	150.0	125.0	125.0	44	44	40	40	40	40
Philadelphia.....	50.0	125.0	125.0	125.0	125.0	100.0	44	44	7 44	7 44	7 44	40
Pittsburgh.....	50.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44
Portland, Oreg.....		112.5	112.5	112.5	112.5	100.0		28 44	28 44	28 44	28 44	28 44
Providence.....	40.6	115.0	115.0	115.0	100.0	100.0	44	44	40	40	40	40
Richmond, Va.....	43.8	100.0	112.5	112.5	112.5	100.0	44	44	44	44	44	40
St. Louis.....	50.0	112.5	112.5	112.5	100.0	100.0	44	44	44	44	22 44	22 44
Salt Lake City.....	62.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44
San Francisco.....	62.5	112.5	112.5		106.3	106.3	44	44	44		40	40
Seattle.....	62.5	112.5	112.5	112.5	112.5	100.0	44	23 44	23 44	23 44	23 44	44
Washington.....	45.0	125.0	125.0	125.0	125.0	125.0	44	44	40	40	40	40

⁷ 40 hours per week, June to August, inclusive.⁸ 40 hours per week, June to September, inclusive.¹⁹ 44 hours per week, June to September, inclusive.²⁰ 48 hours and same pay per week, November to April, inclusive.²¹ 48 hours and same pay per week, November to February, inclusive.²² 40 hours per week, July to March, inclusive.²³ 40 hours per week, October to March, inclusive.²⁴ 40 hours per week, November to March, inclusive.²⁵ 40 hours per week, June to February, inclusive.²⁶ 40 hours per week, Nov. 16 to Mar. 15.²⁷ 40 hours per week, November to February, inclusive.²⁸ 40 hours per week, January, February, June to August, inclusive, and December.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Hod carriers

City	Rates per hour (cents)						Hours per week						
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933	
Boston.....	35.0	85.0	85.0	85.0	70.0	70.0	44	44	44	44	40	40	
Chicago.....	40.0	90.0	97.5	97.5	82.5	82.5	44	44	44	44	44	40	
Cincinnati.....	42.5	97.5	100.0	100.0	70.0	70.0	45	45	45	40	40	40	
Cleveland.....	31.3	87.5	87.5	87.5	72.0	72.0	48	44	40	40	40	40	
Denver.....	{ 37.5 40.6	{ 81.3 84.4	{ 81.3 84.4	{ 81.3 84.4	} 75.0		78.1	44	44	44	40	40	40
Indianapolis.....	{ 40.0 42.5	} 92.5		95.0	82.5	76.0	62.5	44	44	40	40	40	40
Kansas City, Mo.....	37.5	90.0	90.0	99.0	80.0	80.0	44	44	44	40	40	40	
Louisville.....	{ 35.0 38.0	} 90.0		90.0	65.0	50.0	50.0	48	44	40	40	44	
Milwaukee.....	32.5	75.0	75.0	75.0		75.0	48	44	44	44		40	
Minneapolis.....					85.0	85.0						44	
Newark, N.J.....	35.0	112.5	125.0	125.0	95.0	95.0	44	44	40	40	40	40	
New Haven.....	28.0	75.0	85.0	75.0	65.0	75.0	44	44	44	40	40	40	
New York.....	37.5	{ 112.5 118.8	} 123.8		123.8	100.0	75.0	44	40	40	40	40	40
Pittsburgh.....	{ 25.0 40.0	} 112.5		112.5	112.5	90.0	{ 44 49	} 44		44	40	40	40
Portland, Oreg.....	50.0	100.0	100.0	112.5	90.0	90.0	48	44	40	40	40	40	
St. Louis.....	{ 42.5 45.0	} 115.0		115.0	115.0	100.0	100.0	44	44	44	40	40	40
St. Paul.....		85.0	85.0	85.0	85.0	75.0		44	44	44	44	44	
Salt Lake City.....	{ 37.5 50.0	} 100.0		100.0	100.0	81.3	81.3	44	44	44	44	44	
San Francisco.....	50.0	87.5	87.5	87.5	87.5	87.5	44	44	40	40	40	40	
Scranton.....	30.0	70.0	70.0	70.0	70.0	70.0	48	44	44	44	44	40	
Seattle.....	43.8	87.5	87.5	87.5	70.0	70.0	44	¹⁰ 40	¹⁰ 40	¹⁰ 40	¹⁰ 40	¹⁰ 40	

Inside wiremen

Atlanta.....		112.5	112.5	112.5	112.5	112.5		44	44	44	44	44
Baltimore.....	43.8	150.0	165.0	165.0	{ 100.0 165.0	100.0	48	40	40	40	40	40
Birmingham.....	62.5	125.0	125.0	125.0	125.0	125.0	44	40	40	40	40	40
Boston.....	55.0	137.5	150.0	150.0	150.0	125.0	44	44	40	40	40	40
Dallas.....	45.0	137.5	137.5	150.0	130.0	100.0	48	44	44	40	40	40
Chicago.....	75.0	162.5	162.5	162.5	150.0	150.0	44	44	44	44	40	40
Cincinnati.....	50.0	137.5	140.0	140.0	125.0	125.0	44½	44½	44½	40	40	40
Cleveland.....	57.5	150.0	150.0	150.0	150.0	137.5	48	44	40	40	40	40
Dallas.....	56.3	137.5	137.5	137.5	100.0	80.0	44	40	40	40	40	44
Denver.....	56.3	137.5	137.5	137.5	137.5	90.0	44	44	40	40	40	30
Detroit.....	46.9	150.0	155.0	155.0	140.0	140.0	48	44	40	40	40	40
Fall River.....	37.5	100.0	100.0	100.0	90.0	90.0	48	44	44	44	44	44
Indianapolis.....	47.5	150.0	150.0	125.0	125.0	125.0	¹⁰ 48	44	44	40	40	40
Jacksonville.....	45.0	125.0	125.0	125.0	{ 110.0 100.0	110.0	} 48		44	44	44	40
Kansas City, Mo.....	62.5	125.0	137.5	150.0	150.0	125.0	48	44	44	40	40	40
Little Rock.....	50.0	87.5	87.5	87.5	87.5	87.5	48	44	44	44	44	44
Los Angeles.....	50.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Louisville.....	40.0	131.3	131.3	131.3	100.0	100.0	48	44	44	40	40	40
Manchester.....	31.3	100.0	100.0	100.0	85.0	85.0	48	44	44	44	40	40
Memphis.....	45.0	112.5	125.0	125.0	100.0	100.0	48	44	40	40	40	40
Milwaukee.....	45.0	125.0	125.0	125.0	125.0	125.0	44	44	44	40	40	40
Minneapolis.....	50.0	100.0	112.5	112.5	100.0	100.0	48	44	44	44	44	44
Newark, N.J.....	56.3	162.5	162.5	175.0	175.0	150.0	44	44	44	40	40	40
New Haven.....		106.3	112.5	125.0	112.5	112.5		44	44	44	44	44
New Orleans.....	45.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	40
New York.....	56.3	165.0	165.0	165.0	165.0	140.0	44	40	40	40	40	40
Omaha.....	50.0	125.0	125.0	125.0	100.0	100.0	44	44	44	44	44	44
Philadelphia.....	45.0	125.0	125.0	150.0	150.0	125.0	44	40	40	40	40	40
Pittsburgh.....	57.5	156.3	156.3	156.3	156.3	156.3	48	40	40	40	40	40
Portland, Oreg.....	56.3	125.0	125.0	125.0	100.0	100.0	44	40	40	40	40	40

¹⁰ 44 hours per week, September to April, inclusive.

¹⁹ 44 hours per week, June to September, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS
1913 TO 1933, BY CITIES—Continued*Inside wiremen—Continued*

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Providence.....	43.8	110.0	110.0	110.0	100.0	100.0	44	44	44	44	44	44
Richmond, Va.....	43.8	87.5	87.5	87.5	80.0	80.0	48	44	44	44	40	40
St. Louis.....	65.0	150.0	165.0	165.0	167.5	³⁰ 167.5	44	40	40	40	40	40
St. Paul.....	46.9	100.0	112.5	112.5	112.5	100.0	44	44	44	44	44	44
Salt Lake City.....	56.3	112.5	112.5	112.5	100.0	100.0	44	44	44	44	44	44
San Francisco.....	62.5	112.5	112.5	112.5	100.0	100.0	44	44	40	40	40	40
Scranton.....	46.9	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44
Seattle.....	62.5	137.5	137.5	137.5	112.5	112.5	44	40	40	40	40	30
Washington.....	55.0	150.0	150.0	165.0	165.0	165.0	44	40	40	40	40	40

Painters

Atlanta.....	33.3	85.0	85.0	85.0	85.0	85.0	53	44	44	44	44	44
Baltimore.....	37.5	110.0	110.0	112.5	100.0	100.0	48	40	40	40	40	40
Birmingham.....	45.0	100.0	100.0	100.0	75.0	75.0	48	44	40	40	40	40
Boston.....	50.0	137.5	137.5	137.5	112.5	112.5	44	40	40	40	40	40
Buffalo.....	43.8	112.5	125.0	125.0	100.0	100.0	48	44	40	44	40	40
Charleston, S.C.....	25.0	55.0	55.0	{ 55.0 75.0 }	55.0	55.0	48	44	44	44	44	44
Chicago.....	65.0	162.5	175.0	175.0	141.0	141.0	44	40	40	40	40	40
Cincinnati.....	50.0	131.3	133.8	133.8	110.0	115.0	44	40	40	40	40	40
Cleveland.....	50.0	125.0	131.3	137.5	112.5	112.5	44	44	40	40	40	40
Dallas.....	50.0	112.5	112.5	112.5	100.0	100.0	44	44	44	40	40	40
Denver.....	50.0	125.0	125.0	125.0	109.4	75.0	44	40	40	40	40	40
Detroit.....	45.0	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44
Fall River.....	37.5	90.0	90.0	75.0	75.0	75.0	44	44	44	44	44	44
Indianapolis.....	47.5	122.5	125.0	125.0	100.0	100.0	44	40	40	40	40	40
Jacksonville.....	37.5	{ 75.0 62.5 }	{ 75.0 50.0 }	{ 75.0 75.0 }	75.0	75.0	48	44	44	44	44	44
Kansas City, Mo.....	60.0	125.0	125.0	137.5	112.5	112.5	44	44	44	40	40	40
Little Rock.....	50.0	100.0	100.0	87.5	87.5	87.5	48	44	44	44	44	44
Los Angeles.....	43.8	100.0	100.0	100.0	100.0	100.0	48	44	44	40	40	40
Louisville.....	45.0	112.5	112.5	112.5	90.0	90.0	48	40	40	40	40	40
Manchester.....		90.0	90.0	90.0	80.0	70.0		44	44	44	44	44
Memphis.....	50.0	112.5	112.5	112.5	75.0	62.5	44	44	44	44	40	40
Milwaukee.....	50.0	112.5	112.5	112.5	100.0	100.0	44	44	44	40	40	40
Minneapolis.....	50.0	100.0	100.0	100.0	87.5	87.5	44	44	44	40	40	40
Newark, N.J.....	44.0	150.0	150.0	150.0	131.3	100.0	44	40	40	40	40	40
New Haven.....	40.9	100.0	100.0	112.5	106.3	106.3	44	44	44	40	40	40
New Orleans.....	40.0	90.0	90.0	90.0	90.0	75.0	48	44	44	44	44	44
New York.....	50.0	150.0	{ 165.0 150.0 }	{ 165.0 150.0 }	{ 140.0 125.0 100.0 }	{ 140.0 125.0 }	44	40	40	40	40	40
Omaha.....	50.0	100.0	100.0	100.0	80.0	80.0	44	44	44	40	40	40
Philadelphia.....	42.5	105.0	105.0	112.5	100.0	100.0	44	44	44	7 44	7 44	7 44
Pittsburgh.....	55.0	150.0	150.0	150.0	127.5	87.5	44	44	44	40	40	40
Portland, Oreg.....	50.0	105.0	110.0	110.0	88.0	88.0	48	40	40	40	40	40
Providence.....	45.5	106.3	112.5	112.5	90.0	90.0	44	44	40	40	40	40
Richmond, Va.....	37.5	80.0	80.0	80.0	80.0	80.0	48	44	44	44	44	44
St. Louis.....	57.0	143.8	150.0	150.0	125.0	125.0	44	40	40	40	40	40
St. Paul.....	50.0	100.0	100.0	100.0	90.0	80.0	44	44	44	44	44	44
Salt Lake City.....	56.3	100.0	100.0	100.0	90.0	90.0	44	44	44	40	44	44
San Francisco.....	56.3	112.5	112.5	112.5	112.5	87.5	44	44	40	40	40	40
Scranton.....	40.0	112.5	112.5	112.5	¹² 112.5	85.0	48	40	40	40	40	40
Seattle.....	56.3	112.5	112.5	112.5	95.6	75.0	44	40	40	40	40	30
Washington.....	50.0	125.0	137.5	137.5	137.5	137.5	44	44	40	40	40	40

⁷ 40 hours per week, June to August, inclusive.¹² Old scale; strike pending at time of report.³⁰ No member may earn more than \$60 in two weeks.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Plasterers

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta	45.0	125.0	125.0	100.0	100.0	100.0	53	44	44	44	44	44
Baltimore	62.5	175.0	175.0	175.0	175.0	125.0	44	40	40	40	40	40
Birmingham	62.5	125.0	125.0		100.0	100.0	44	44	40		40	40
Boston	65.0	150.0	162.5	162.5	137.5	137.5	44	40	40	40	40	40
Buffalo	60.0	150.0	162.5	162.5	162.5	100.0	48	40	40	40	40	40
Charleston, S. C.	40.0	100.0	100.0	100.0	100.0	100.0	³¹ 53	44	44	44	44	44
Chicago	75.0	162.5	170.0	170.0	137.5	137.5	44	44	40	40	40	40
Cincinnati	68.8	150.0	150.0	162.5	137.5	137.5	44½	44½	44½	40	40	40
Cleveland	62.5	162.5	162.5	162.5	137.5	137.5	44	44	40	40	40	40
Dallas	75.0	162.5	162.5	162.5	125.0	100.0	44	40	40	40	40	40
Denver	75.0	150.0	150.0	150.0	131.3	100.0	44	44	44	40	40	40
Detroit	68.8	162.5	162.5	137.5	137.5	100.0	44	44	44	44	44	44
Fall River	55.0	125.0	125.0	125.0	125.0	125.0	48	44	44	40	40	40
Indianapolis	62.5	157.5	157.5	157.5	132.5	100.0	44½	40	40	40	40	40
Jacksonville	56.3	125.0	100.0	100.0	100.0	62.5	48	44	44	44	44	44
Kansas City, Mo.	75.0	150.0	150.0	162.5	132.5	132.5	44	44	40	40	40	40
Little Rock	62.5	150.0	150.0	125.0	125.0	125.0	48	44	44	44	40	40
Los Angeles	75.0	150.0	150.0	150.0	112.5	112.5	44	40	40	40	40	40
Louisville	65.0	162.5	162.5	162.5	143.8	100.0	44	40	40	40	40	40
Manchester	50.0	150.0	150.0	150.0	150.0	130.0	48	40	40	40	40	40
Memphis	75.0	156.3	156.3	156.3	125.0	125.0	44	40	40	40	40	40
Milwaukee	65.0	150.0	150.0	150.0	100.0	100.0	44	44	44	40	40	40
Minneapolis	70.0	150.0	150.0	150.0	125.0	125.0	44	44	44	44	44	44
Newark, N. J.	65.0	175.0	193.8	193.8	168.8	168.8	44	44	40	40	40	40
New Haven	60.0	150.0	150.0	165.0	140.0	120.0	44	44	44	40	40	40
New Orleans	62.5	125.0	125.0	125.0	100.0	100.0	48	45	45	45	45	45
New York	68.8	175.0	192.5	192.5	150.0	150.0	44	40	40	40	40	40
Omaha	75.0	137.5			100.0	100.0	44	44			44	44
Philadelphia	62.5	150.0	162.5	162.5	162.5	137.5	44	40	40	40	⁶ 24	40
Pittsburgh	62.5	166.3	166.3	166.3	166.3	150.0	44	40	40	40	40	40
Portland, Ore.	75.0	150.0	150.0	150.0	120.0	120.0	44	40	40	40	40	40
Providence	62.5	150.0	150.0	150.0	131.3	131.3	44	40	40	40	40	40
Richmond, Va.	37.5	125.0	125.0	100.0	100.0	100.0	48	44	44	44	44	44
St. Louis	75.0	175.0	175.0	175.0	150.0	150.0	44	40	40	44	44	44
St. Paul	62.5	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44
Salt Lake City	75.0	150.0	150.0	125.0	125.0	125.0	44	44	44	44	44	44
San Francisco	87.5	137.5	137.5	137.5	110.0	125.0	44	44	40	40	40	40
Scranton	55.0	150.0	150.0	150.0	150.0	100.0	44	40	40	40	40	40
Seattle	75.0	150.0	150.0	150.0	120.0	120.0	44	40	40	40	40	30
Washington	62.5	162.5	162.5	175.0	175.0	175.0	44	40	40	40	40	40

Plasterers' laborers

Boston	{ 40.0 41.5	110.0	110.0	110.0	95.0	95.0	44	40	40	40	40	40
Chicago	48.0	96.8	103.8	103.8	88.8	88.8	44	44	44	44	44	40
Cincinnati	45.0	97.5	100.0	100.0	70.0	70.0	45	45	45	40	40	40
Cleveland	35.0	87.5	87.5	87.5	100.0	72.0	48	44	40	40	40	40
Denver	43.8	87.5	87.5	87.5	75.0	81.3	44	44	44	40	40	40
Indianapolis				82.5	80.0	62.5				40	40	40
Kansas City, Mo.	37.5	90.0	90.0	90.0	80.0	80.0	44	44	44	40	40	40
Louisville	38.0	90.0	90.0	90.0	60.0	50.0	44	40	40	40	40	40
Milwaukee	32.5	90.0	90.0	90.0	75.0	75.0	48	44	44	40	40	40
Minneapolis	40.6	95.0	95.0	95.0	85.0	85.0	48	44	44	44	44	44
Newark, N. J.		112.5	125.0	125.0	95.0	95.0				40	40	40
New Haven		85.0	85.0	85.0	75.0	75.0		44	44	40	40	40
New York	40.6	{ 121.9 125.0	134.0	134.0	{ 106.3 109.4	106.3	44	40	40	40	40	40
Philadelphia	43.8	112.5	106.3	106.3	106.3	90.0	44	44	44	44	44	44
Pittsburgh	40.0	112.5	112.5	112.5	112.5	90.0	44	44	44	40	40	40
Portland, Ore.	50.0	112.5	112.5	112.5	90.0	90.0	48	40	40	40	40	40
St. Louis	³² 56.3	125.0	125.0	125.0	106.3	106.3	44	40	44	40	40	40
St. Paul				85.0	85.0	60.0				44	44	44
Salt Lake City	56.3	100.0	100.0	100.0	81.3	81.3	44	44	44	44	44	44
San Francisco	62.5	100.0	100.0	100.0	93.8	93.8	44	44	40	40	40	40
Scranton		70.0	70.0	70.0	70.0	60.0		44	44	44	44	44
Seattle	50.0	100.0	100.0	100.0	80.0	80.0	¹⁰ 40	¹⁰ 40	¹⁰ 40	¹⁰ 40	¹⁰ 40	30
Washington	31.3		75.0	75.0	75.0	75.0	44		40	40	40	40

⁶ Work 3 days per week.

¹⁰ 44 hours per week, September to April, inclusive.

³¹ Work 53 hours; paid for 54.

³² For helpers.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Plumbers

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta	44.4	125.0	125.0	125.0	125.0	100.0	53	44	44	40	40	40
Baltimore	50.0	137.5	137.5	150.0	150.0	100.0	48	40	40	40	40	40
Birmingham	68.8	150.0	150.0	150.0	100.0	100.0	44	40	40	40	40	40
Boston	60.0	137.5	150.0	150.0	125.0	125.0	44	44	40	40	40	40
Buffalo	56.3	137.5	137.5	137.5	125.0	100.0	48	44	44	44	40	40
Charleston, S.C.	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44
Chicago	75.0	162.5	162.5	170.0	137.5	137.5	44	44	44	44	44	44
Cincinnati	61.8	137.5	140.0	140.0	125.0	125.0	44 ^{1/2}	44	44	40	40	40
Cleveland	62.5	150.0	150.0	150.0	125.0	125.0	44	44	40	40	40	40
Dallas	68.8	150.0	150.0	150.0	150.0	100.0	44	44	44	44	44	44
Denver	62.5	137.5	137.5	137.5	118.8	100.0	44	44	40	40	40	40
Detroit	56.3	150.0	150.0	150.0	125.0	125.0	48	44	44	40	40	40
Fall River	43.8	100.0	100.0	100.0	100.0	85.0	48	44	44	40	44	40
Indianapolis	62.5	150.0	150.0	150.0	125.0	112.5	44	40	40	40	40	40
Jacksonville	62.5	137.5	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Kansas City, Mo.	62.5	137.5	137.5	150.0	125.0	125.0	48	44	44	40	40	40
Little Rock	56.3	112.5	112.5	112.5	100.0	90.0	48	44	44	44	44	44
Los Angeles	56.3	112.5	112.5	112.5	112.5	112.5	48	44	44	40	40	40
Louisville	60.0	137.5	137.5	137.5	112.5	112.5	44	44	40	40	40	40
Manchester	31.3	105.0	112.5	112.5	100.0	100.0	48	44	40	40	40	40
Memphis	62.5	150.0	150.0	150.0	125.0	125.0	48	40	40	40	40	40
Milwaukee	62.5	118.8	118.8	118.8	100.0	100.0	44	44	44	44	44	44
Minneapolis	56.3	125.0	125.0	125.0	100.0	112.5	48	44	44	44	40	40
Newark, N.J.	62.5	165.0	165.0	165.0	150.0	150.0	44	40	40	40	40	40
New Haven	50.0	112.5	125.0	125.0	106.3	106.3	44	44	40	40	40	40
New Orleans	56.3	105.0	105.0	105.0	105.0	105.0	48	44	44	44	44	44
New York	68.8	150.0	165.0	165.0	140.0	150.0 140.0	44	44	40	40	40	40
Omaha	68.3	125.0	125.0	125.0	100.0	100.0	44	44	44	44	44	44
Philadelphia	43.8 50.0	115.0	125.0	125.0	104.0	104.0	44	44	40	40	40	40
Pittsburgh	62.5	156.3	162.5	171.9	171.9	150.0	44	44	40	40	40	40
Portland, Oreg.	75.0	137.5	137.5	137.5	110.0	110.0	44	40	40	40	40	40
Providence	56.3	127.5	127.5	135.0	120.0	120.0	44	44	44	40	40	40
Richmond	50.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44
St. Louis	66.3	162.5	162.5	162.5	162.5	143.8	48	40	40	40	40	40
St. Paul	62.5	112.5	125.0	125.0	125.0	100.0	44	44	44	44	44	44
Salt Lake City	75.0	120.0	120.0	120.0	120.0	100.0	44	44	44	40	40	40
San Francisco	75.0	125.0	125.0	125.0	125.0	125.0	48	44	40	40	40	40
Scranton	50.0	125.0	125.0	125.0	112.5	112.5	48	44	44	44	44	44
Seattle	81.3	137.5	137.5	137.5	110.0	110.0	44	40	40	40	40	30
Washington	50.0	143.7	150.0	150.0	150.0	150.0	48	40	40	40	40	40

Sheet-metal workers

Atlanta	33.3				90.0	90.0	53				44	44
Baltimore	40.0	131.3	137.5	137.5	112.5	112.5	48	40	40	40	40	40
Birmingham	55.0	115.0	115.0	115.0	100.0	75.0	44	44	40	40	44	41
Boston	55.0	137.5	137.5	137.5	117.5	117.5	44	44	44	44	40	40
Buffalo	45.0	115.0	125.0	130.0	110.0	110.0	48	44	44	44	40	40
Chicago	65.0	150.0	156.3	170.0	137.5	137.5	44	44	44	44	40	40
Cincinnati	45.0	122.5	125.0	125.0	107.5	107.5	44	48	48	40	40	40
Cleveland	45.0	137.5	137.5	137.5	112.5	112.5	48	44	40	40	40	40
Dallas	50.0	125.0	137.5	137.5	100.0	100.0	48	44	40	40	40	40
Denver	56.3	125.0	125.0	125.0	112.5	112.5	44	44	44	40	40	40
Detroit	40.0	125.0	125.0	125.0	100.0	100.0	48	44	40	44	44	44
Indianapolis	47.5	122.5	127.5	115.0	100.0	90.0	48	44	44	44	44	44
Kansas City, Mo.	57.5	125.0	125.0	137.5	137.5	112.5	44	44	44	40	40	40
Los Angeles	56.3	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44
Louisville	40.0	100.0	110.0	110.0	85.0	85.0	48	44	44	44	44	44

¹⁹ 44 hours per week, June to September, inclusive.

WAGES AND HOURS OF LABOR

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UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Sheet-metal workers—Continued

City	Rates per hour (cents)						Hours per week						
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933	
Manchester	34.4	100.0	100.0	100.0	90.0	90.0	48	44	44	44	44	44	44
Memphis	45.0	125.0	137.5	90.0	80.0	75.0		44	44	44	40	40	40
Milwaukee	42.5	105.0	105.0	105.0	92.5	92.5	48	44	44	44	44	40	40
Minneapolis	50.0	106.3	112.5	112.5	112.5	100.0	48	44	44	44	40	40	40
Newark, N.J.	60.0	150.0	165.0	165.0	165.0	140.0	44	44	40	40	40	40	40
New Haven	47.7	112.5	125.0	137.5	118.8	100.0	44	44	44	44	44	40	40
New York	59.4	150.0	165.0	165.0	140.0	140.0	44	44	40	40	40	40	40
Omaha	42.5	100.0	100.0	100.0	87.5	87.5	44	44	44	44	44	44	44
Philadelphia	50.0	125.0	125.0	130.0	130.0	125.0	44	44	44	44	40	40	40
Pittsburgh	55.0	150.0	150.0	156.3	131.3	131.3	44	44	44	40	40	40	40
Portland, Oreg.	56.3	118.8	118.8	125.0	100.0	100.0	44	40	40	40	40	40	40
Providence	46.0	110.0	125.0	125.0	110.0	95.0	44	44	44	44	44	40	40
St. Louis	60.0	150.0	150.0	150.0	125.0	125.0	44	40	40	40	40	40	40
St. Paul	50.0	106.3	112.5	112.5	112.5	100.0	48	44	44	44	44	40	40
San Francisco	68.8	112.5	112.5	112.5	112.5	90.0	44	44	40	44	40	40	40
Scranton	43.8	125.0	125.0	125.0	112.5	112.5	48	44	44	44	44	44	44
Seattle	56.3	125.0	125.0	125.0	100.0	100.0	44	40	40	40	40	40	40
Washington	50.0	137.5	150.0	150.0	150.0	129.0	44	44	44	44	40	40	40

Stonecutters

Baltimore	50.0	125.0	125.0	125.0	100.0	100.0	44½	44	44	44	40	44	44
Boston	56.3	137.5	137.5	137.5	117.5	117.5	44	44	44	40	40	40	40
Buffalo	56.3	137.5	137.5	137.5	137.5	120.0	48	44	44	44	44	44	44
Chicago	62.5	150.0	150.0	150.0	120.0	100.0	44	44	44	44	44	44	44
Cincinnati	56.3	150.0	150.0	150.0	137.5	125.0	44½	44	40	40	40	40	40
Cleveland	60.0	137.5	137.5	150.0	125.0	125.0	44	44	40	40	40	40	40
Denver	62.5	125.0	125.0	125.0	125.0	112.5	44	44	44	44	44	40	44
Detroit	62.5	137.5	137.5	137.5	112.5	100.0	44	44	44	44	44	44	44
Indianapolis	56.3	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44
Kansas City, Mo.	56.3	125.0	125.0	125.0	100.0	100.0	44	44	44	44	44	44	44
Little Rock	55.0	125.0	125.0	125.0	100.0	100.0	44	44	44	44	44	44	44
Louisville	56.3	115.0	115.0	-----	90.0	75.0	48	44	44	44	44	44	44
Milwaukee	50.0	125.0	125.0	112.5	87.5	87.5	44	44	44	44	44	44	44
Minneapolis	56.3	131.3	131.3	131.3	112.5	100.0	44	44	44	44	44	44	44
Newark, N.J.	68.8	168.8	168.8	168.8	168.8	150.0	44	44	44	40	40	40	40
New York	68.8	168.8	168.8	168.8	168.8	150.0	44	44	40	40	40	40	40
Philadelphia	50.0	131.3	131.3	131.3	131.3	100.0	44	44	44	44	44	44	44
Pittsburgh	-----	-----	-----	125.0	125.0	100.0	-----	-----	-----	44	44	44	44
Richmond, Va.	54.5	137.5	137.5	137.5	125.0	100.0	44	44	40	40	40	40	40
St. Louis	56.3	125.0	125.0	125.0	100.0	100.0	44	44	44	44	40	40	40
St. Paul	56.3	131.3	131.3	131.3	112.5	100.0	44	44	44	44	44	44	44
San Francisco	-----	112.5	112.5	112.5	112.5	85.0	-----	44	44	44	44	44	44
Scranton	50.0	125.0	125.0	125.0	112.5	100.0	48	44	44	44	44	44	40
Washington	54.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	40

Structural-iron workers

Atlanta	62.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44
Baltimore	56.3	150.0	165.0	165.0	137.5	137.5	44	40	40	40	40	40	40
Birmingham	62.5	125.0	125.0	125.0	125.0	125.0	44	44	44	40	40	40	40
Boston	62.5	137.5	137.5	137.5	120.0	120.0	44	44	44	44	44	40	40
Buffalo	60.0	137.5	137.5	137.5	137.5	100.0	48	44	44	44	44	44	40
Chicago	68.0	150.0	162.5	162.5	135.0	135.0	44	44	44	44	40	40	40
Cincinnati	62.5	137.5	140.0	140.0	125.0	125.0	44½	44	44	44	40	40	40
Cleveland	65.0	150.0	150.0	150.0	125.0	125.0	44	44	40	40	40	40	40
Dallas	62.5	125.0	125.0	125.0	112.5	100.0	44	44	44	44	44	44	44
Denver	56.3	125.0	125.0	125.0	109.4	109.4	44	44	44	40	40	40	40
Detroit	60.0	150.0	150.0	150.0	125.0	125.0	19 48	44	44	44	44	44	40
Indianapolis	65.0	145.0	145.0	145.0	116.0	116.0	44	44	44	44	44	44	44
Jacksonville	-----	125.0	125.0	125.0	100.0	100.0	-----	44	44	44	44	44	44
Kansas City, Mo.	62.5	125.0	125.0	137.5	112.5	112.5	44	44	44	40	40	40	40
Little Rock	-----	-----	-----	125.0	100.0	100.0	-----	-----	-----	44	44	44	44

⁴ 48 hours per week, October to April, inclusive.

¹⁹ 44 hours per week, June to September, inclusive.

³⁸ Old scale; lockout pending.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued*Structural-iron workers—Continued*

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Los Angeles.....	50.0	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44
Louisville.....	50.0	125.0	125.0	125.0	125.0	100.0	48	44	44	44	44	44
Memphis.....	62.5	125.0	125.0	125.0	125.0	100.0	44	44	44	44	44	40
Milwaukee.....	56.3	120.0	120.0	120.0	105.0	105.0	³⁴ 44	44	44	44	40	40
Minneapolis.....	56.3	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44
Newark, N.J.....	62.5	175.0	187.5	200.0	200.0	175.0	44	44	40	40	40	40
New Haven.....	62.5	137.5	150.0	165.0	137.5	137.5	44	44	44	40	40	40
New Orleans.....	62.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44
New York.....	62.5	175.0	192.5	192.5	150.0	165.0	44	44	40	40	40	40
Omaha.....	58.8	112.5	112.5	112.5	100.0	90.0	48	44	44	44	44	44
Philadelphia.....	60.0	150.0	150.0	165.0	137.5	137.5	44	44	⁷ 44	40	40	40
Pittsburgh.....	62.5	150.0	150.0	150.0	137.5	137.5	44	44	44	44	40	40
Portland, Oreg.....	62.5	125.0	137.5	137.5	110.0	110.0	44	44	44	40	40	40
Providence.....	56.3	125.0	125.0	125.0	125.0	125.0	44	44	44	40	40	40
Richmond, Va.....	56.3	137.5	137.5	150.0	125.0	125.0	44	44	44	44	44	44
St. Louis.....	65.0	150.0	175.0	175.0	147.0	147.0	44	40	40	40	40	40
St. Paul.....	56.3	125.0	125.0	125.0	125.0	112.5	48	44	44	44	44	44
Salt Lake City.....	62.5	112.5	112.5	112.5	100.0	100.0	44	44	44	44	44	44
San Francisco.....	75.0	137.5	137.5	137.5	120.0	120.0	44	44	40	40	40	40
Seranton.....	56.3	137.5	150.0	150.0	150.0	112.5	48	44	44	44	44	44
Seattle.....	62.5	125.0	125.0	125.0	110.0	110.0	44	44	44	44	44	44
Washington.....	56.3	165.0	165.0	165.0	165.0	165.0	44	44	40	40	40	40

Typesetting-machine operators: Book and job

Atlanta.....	43.8	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Baltimore.....	46.9	90.9	100.0	100.0	100.0	100.0	48	44	44	44	44	44
Birmingham.....	52.5	92.5	92.5	92.5	82.5	82.5	48	44	44	44	44	44
Boston.....	45.8	100.0	100.0	100.0	100.0	90.0	48	44	44	44	44	44
Buffalo.....	50.0	115.9	118.2	118.2	118.2	113.6	48	44	44	44	44	44
Charleston, S.C.....		88.6	88.6	90.9	90.9	90.9		44	44	44	44	44
Chicago.....	50.0	125.9	132.7	132.7	132.7	126.0	48	44	44	44	⁷ 44	40
Cincinnati.....	49.0	115.9	118.2	118.2	118.2	106.8	48	44	44	44	40	44
Cleveland.....	53.8	115.9	115.9	115.9	109.1	104.5	48	44	44	44	44	44
Denver.....	54.2	102.3	102.3	102.3	102.3	92.0	48	44	44	44	44	44
Detroit.....	55.0	130.0	131.0	131.0	126.0	126.0	48	44	44	44	44	44
Fall River.....		81.8	81.8	81.8	81.8	81.8		44	44	44	44	44
Indianapolis.....	50.0	106.8	111.4	111.4	111.4	100.0	48	44	44	44	44	44
Jacksonville.....	43.8	98.9	98.9	98.9	98.9	98.9	48	44	44	44	44	44
Kansas City, Mo.....	55.2	107.4	107.4	107.4	100.0	100.0	48	44	44	44	44	44
Little Rock.....	50.0	92.0	94.3	94.3	94.3	94.3	48	44	44	44	44	44
Los Angeles.....	58.3	120.5	120.5	120.5	120.5	120.5	48	44	44	44	44	44
Louisville.....	49.0	86.4		86.4	86.4	86.4	48	44		44	44	44
Manchester.....	35.4	79.5	79.5	79.5	79.5	79.5	48	44	44	44	44	44
Memphis.....	62.5				81.8	81.8	48				44	44
Milwaukee.....	47.9	102.3	104.5	106.8	96.3	96.3	48	44	44	44	40	40
Minneapolis.....	50.0	95.5	95.5	95.5	95.5	95.5	48	44	44	44	44	44
Newark, N.J.....	47.9	125.0	127.3	129.5	129.5	120.5	48	44	44	44	44	44
New Haven.....	45.8	86.4	86.4	86.4	86.4	86.4	48	44	44	44	44	44
New Orleans.....		78.4	78.4	78.4	78.4	78.4		44	44	44	44	44
New York.....	54.2	129.5	131.8	134.1	136.4	125.0	48	44	44	44	44	40
Omaha.....	50.0	100.0	100.0	100.0	93.8	93.8	48	44	44	44	44	44
Philadelphia.....	43.8	94.1	100.0	100.0	100.0	91.3	48	44	44	44	44	44
Pittsburgh.....	47.9	111.4	113.6	113.6	113.6	96.0	48	44	44	44	44	44
Portland, Oreg.....	65.6	114.8	114.8	114.8	103.3	93.0	48	44	44	44	44	44
Providence.....	47.9	97.7	97.7	97.7	97.7	97.7	48	44	44	44	44	44
Richmond.....					88.6							44
St. Louis.....	50.0	111.0	111.0	111.0	111.0	103.2	48	44	44	44	44	44
St. Paul.....	50.0	95.5	95.5	95.5	95.5	87.8	48	44	44	44	44	44
Salt Lake City.....	56.3				93.2	83.8	48					44
San Francisco.....	64.4	115.9	118.2	118.2	118.2	111.4	45	44	44	44	44	44
Seranton.....	45.8	104.5	104.5	104.5	104.5	96.6	48	44	44	44	44	44
Seattle.....		³⁴ 123.2	³⁴ 133.9	³⁴ 133.9	³⁴ 133.9	³⁴ 133.9		42	42	42	42	42
Washington.....	50.0	104.5	106.8	106.8	106.8	106.8	48	44	44	44	44	44

⁷ 40 hours per week, June to August, inclusive.³⁴ 48 hours per week, November to April, inclusive.³⁵ Tend own machines.

UNION SCALE OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS,
1913 TO 1933, BY CITIES—Continued

Typesetting-machine operators, daywork: Newspaper

City	Rates per hour (cents)						Hours per week					
	1913	1929	1930	1931	1932	1933	1913	1929	1930	1931	1932	1933
Atlanta	³⁶ 8.5	³⁶ 12.0	³⁶ 12.0	³⁶ 12.0	³⁶ 12.0	³⁶ 10.8	48	48	48	48	48	40
Baltimore	53.6	114.8	114.8	114.8	114.8	103.3	42	44	44	44	44	44
Birmingham	52.5	100.0	102.5	102.5	95.0	95.0	¹⁴ 42	¹⁴ 42	¹⁴ 42	¹⁴ 42	¹⁴ 42	¹⁴ 42
Boston	63.0	125.0	125.0	125.0	125.0	125.0	¹⁵ 42	¹⁴ 44	¹⁴ 44	¹⁴ 44	¹⁴ 44	44
Buffalo	50.0	106.3	108.3	108.3	108.3	102.5	48	48	48	48	48	40
Charleston, S.C.	³⁶ 9.0	92.7	92.7	94.0	94.0	84.6	¹⁴ 39	48	48	48	48	40
Chicago	³⁷ 50.0	140.0	140.0	140.0	140.0	128.0	¹⁴ 48	45	45	45	45	³⁷ ½
Cincinnati	52.1	³⁵ 113.0	³⁵ 113.0	³⁵ 113.0	³⁵ 113.0	³⁵ 102.5	³⁹ 47 ½	45	45	45	45	48
Cleveland	53.8	118.3	122.8	122.8	122.8	115.1	45	45	45	45	45	48
Dallas	³⁶ 16.3	119.0	119.0	119.0	119.0	113.5	48	45	45	45	45	45
Denver	63.3	³⁶ 16.3	³⁶ 16.3	³⁶ 16.3	³⁶ 16.3	³⁶ 13.9	39	¹⁴ 36	¹⁴ 36	¹⁴ 36	¹⁴ 36	¹⁴ 36
Detroit	55.0	118.3	122.8	122.8	122.8	115.1	45	44	44	44	44	44
Fall River	45.8	130.0	131.0	131.0	126.0	126.0	48	45	45	45	45	45
Indianapolis	50.0	87.5	95.8	95.8	95.8	95.8	48	48	48	48	48	48
Jacksonville	³⁶ 9.0	110.9	110.9	110.9	110.9	100.0	48	46	46	46	46	46
Kansas City, Mo.	59.4	100.0	100.0	100.0	100.0	81.3	45	48	48	48	48	40
Little Rock	³⁶ 9.5	108.3	108.3	108.3	108.3	98.0	48	48	48	48	48	40
Los Angeles	62.2	102.3	102.3	102.3	101.0	90.9	42	44	44	44	42	42
Louisville	49.0	117.8	117.8	117.8	117.8	109.6	45	45	45	45	45	45
Manchester	35.4	93.8	93.8	93.8	93.8	84.4	48	48	48	48	48	48
Memphis	³⁶ 9.5	83.3	88.9	88.9	88.9	84.4	48	48	45	45	45	45
Milwaukee	45.8	³⁶ 12.5	³⁶ 12.5	³⁶ 12.5	³⁶ 11.3	³⁶ 11.3	¹⁴ 45	45	45	45	45	45
Minneapolis	³⁶ 10.0	110.4	117.8	117.8	117.8	111.1	48	48	45	45	45	³⁷ ½
Newark, N.J.	60.9	123.8	123.8	123.8	123.8	111.4	⁴⁸ 42	42	42	42	42	42
New Haven	46.9	121.4	121.4	121.4	107.5	96.8	48	42	42	36	46 ½	46 ½
New York	66.7	134.8	134.8	134.8	134.8	117.4	46	46	46	46	46	46
Omaha	50.0	91.7	93.8	95.8	95.8	86.3	48	48	48	48	48	48
Philadelphia	45.8	144.4	144.4	144.4	144.4	130.0	45	45	45	45	37 ½	45
Pittsburgh	55.0	99.0	100.0	100.0	93.8	93.8	48	48	48	48	48	48
Portland, Ore.	68.3	126.7	126.7	126.7	126.7	115.7	48	46	46	46	46	45
Providence	47.9	113.3	113.3	113.3	106.7	100.0	45	45	45	45	45	45
Richmond, Va.	41.7	108.3	112.5	116.7	118.8	118.8	48	48	48	48	48	48
St. Louis	³⁶ 11.0	94.8	94.8	94.8	87.5	85.4	48	48	48	48	48	48
St. Paul	54.5	120.7	120.7	120.7	120.7	114.9	⁴⁰ 39	46	46	44	44	44
Salt Lake City	³⁶ 10.0	114.1	120.7	³⁶ 18.2	³⁶ 18.2	³⁶ 16.4	48	48	48	48	48	46 ½
San Francisco	64.4	101.3	101.3	101.3	101.3	91.1	48	48	48	48	48	48
Scranton	47.9	³⁶ 15.0	³⁶ 17.5	³⁶ 17.5	³⁶ 17.5	⁴¹ 16.3	48	⁴³ ½	⁴³ ½	⁴³ ½	⁴³ ½	⁴³ ½
Seattle	75.0	120.0	120.0	120.0	120.0	108.0	45	45	45	45	45	45
Washington	60.7	114.9	114.9	114.9	114.9	105.3	48	47	47	47	47	47

¹⁴ Minimum; maximum, 8 hours per day.
¹⁵ Actual hours worked; minimum, 6; maximum, 8 hours per day.
³⁶ Per 1,000 ems nonpareil.
³⁷ For 3,500 ems per hour; for 4,500 ems per hour, 55 cents and 1 cent bonus for each additional 100 ems per hour.
³⁸ For 4,500 ems per hour; 1 cent bonus for each additional 100 ems per hour.
³⁹ Work 47 ½ hours, paid for 48.
⁴⁰ Minimum; maximum, 7 ½ hours per day.
⁴¹ Per 46 lines 7 ½ point.

Wages and Hours of Union Upholsterers, and Carpet and Linoleum Mechanics

THE scales of wages and hours fixed by agreement between the Upholsterers, Carpet and Linoleum Mechanics' International Union of North America and the employers in various cities are shown in the following table. The table is based on reports from the local union secretaries and covers 3,236 members. The scales are those now in effect, though the dates of the agreements go back in some cases as far as 1931.

UNION SCALES OF WAGES AND HOURS OF UPHOLSTERERS AND CARPET AND LINO-
LEUM MECHANICS

Locality and occupation	Date of present agreement	Wage rate per hour		Hours per week	
		At present	Under preceding agreement	At present	Under preceding agreement
Boston, Mass.....	Mar. 1, 1932	\$1.00	\$1.375	44	44
Chicago, Ill.:					
First union.....	Dec. 15, 1932	1.00	1.25	18	18
Awning cutters.....	do.....	² 27.50	(³)	(³)	(³)
Operators, female.....	do.....	² 22.50	(³)	(³)	(³)
Second union.....	Mar. 15, 1932	.50	.65 ⁷ / ₁₁	25-40	44
Cleveland, Ohio.....	Apr. 1, 1932	1.00	1.00-1.16 ¹ / ₄	40-44	40-44
Cutters.....	do.....	.925-1.03	1.02 ³ / ₁₁ -1.20	40-44	40-44
Sewers.....	do.....	.45 ⁵ / ₁₁ - .49	.45 ⁵ / ₁₁ - .53 ⁷ / ₁₁	40-44	40-44
Measurmen.....	do.....	.875	.96 ¹³ / ₂₂	40-44	40-44
Dayton, Ohio.....	(³)	.90	.90	18	50
Inglewood, Calif.....	(³)	1.00	(³)	44	(²)
Jamestown, N.Y.....	(³)	¹ 3.00-4.00	¹ 5.00-8.00	6-30	48
Los Angeles, Calif.....	(³)	¹ 8.00	¹ 8.00-9.00	15-20	48
Lynn, Mass.:					
Journeywomen.....	Apr. 1, 1932	1.175	1.375	18	18
Journymen.....	do.....	.62	(³)	(³)	(³)
Newark, N.J.....	1931	1.25	1.25	44	44
Newport, R.I.....	(³)	² 40.00	² 44.00	40	40
New York, N.Y.:					
First union.....	May 1, 1932	1.25	(³)	40	(³)
Drapery and curtain cutters.....	do.....	1.355	(³)	40	(³)
Window-shade cutters.....	do.....	1.071	(³)	40	(³)
Window-shade hangers.....	do.....	1.003	(³)	40	(²)
Second union:					
Sewers.....	do.....	.625	(³)	40	(³)
Finishers.....	do.....	.576	(³)	40	(³)
Third union, carpet sewers.....	May 23, 1923	² 27.00	² 36.00	44	40
Oakland, Calif.....	May 2, 1932	¹ 7.00	¹ 8.00	44	44
Philadelphia, Pa.:	Sept. 1, 1932	1.25	(³)	40	(³)
Drapery and curtain hangers.....	do.....	1.25	(³)	40	(³)
Rug layers.....	do.....	1.15	(³)	40	(³)
Shade and awning cutters.....	do.....	1.25	(³)	40	(³)
Cover and drapery cutters.....	do.....	1.38	(³)	40	(³)
Estimators and measurmen.....	do.....	1.25	(³)	40	(³)
Portland, Oreg.....	June 1, 1932	¹ 8.00	¹ 8.00	44	44
Sacramento, Calif.....	(³)	¹ 8.00	¹ 9.00	40	40
San Francisco, Calif.....	May 1, 1932	¹ 8.00	¹ 9.00	40	44
San Jose, Calif.....	do.....	¹ 7.00	¹ 8.00	20	44
Washington, D.C.....	(³)	¹ 9.00	¹ 10.55	44	44

¹ Per day.² Per week.³ Not reported.

Wage Rates and Hours of Labor Set by Agreement in the Woodworking Industry

THE following table shows the hours and wages fixed by collective agreement in the woodworking industry. The scales shown are those now in effect and are based on reports to the Bureau of Labor Statistics from secretaries of locals of the International Wood Carvers' Association of North America, covering 833 members of the union.

UNION SCALES OF WAGES AND HOURS OF WOOD CARVERS

Locality and occupation	Date of present agreement	Wage rate per hour		Hours per week	
		At present	Under preceding agreement	At present	Under preceding agreement
Baltimore, Md.....	(¹)	\$1.00	\$0.45-\$0.75	40	54
Boston, Mass.....	Dec. 1, 1931	1.10	1.375	30	40
Chicago, Ill.....	(¹)	1.00- 1.25	1.50- 1.75	24-40	44
Cincinnati, Ohio:					
Custom.....	(¹)	1.00- 1.25	(¹)	40-44	(¹)
Market and furniture.....	(¹)	.60- .80	(¹)	50-60	(¹)
Cleveland, Ohio.....	Feb. 1, 1933	1.25	1.50	40	40
Grand Rapids, Mich.....	(¹)	.45	.85	(¹)	50
Los Angeles, Calif.....	(¹)	1.25	1.50	32	40
Milwaukee, Wis.....	(¹)	.70- 1.15	(¹)	48	(¹)
Minneapolis, Minn.....	Apr. 1, 1932	1.00- 1.15	1.10- 1.25	35	48
New York, N. Y.....	(¹)	² 10.00	² 13.50	40	40
Philadelphia, Pa.....	(¹)	³ 1.15	³ 1.25	40	44
Rochester, N. Y.....	(¹)	1.40	1.65	30	44
Rockford, Ill.....	(¹)	.35	.80	(¹)	50
Syracuse, N. Y.....	Aug. 1, 1932	.65- .70	1.10- 1.15	² 8	² 8

¹ Not reported.² Per day.³ Minimum.

Wage-Rate Changes in American Industries

Manufacturing Industries

IN THE following table is presented information concerning wage-rate adjustments occurring between June 15 and July 15, 1933, as shown by reports received from manufacturing establishments supplying employment data to this Bureau. Of the 18,090 manufacturing establishments included in the July survey, 17,422 establishments, or 96.3 percent of the total, reported no change in wage rates over the month interval. The 2,819,636 employees not affected by changes in wage rates constituted 93.2 percent of the total number of employees covered by the July trend of employment survey of manufacturing industries.

Six hundred and thirty manufacturing establishments in 69 industries reported increases in wage rates during the period June 15 to July 15, affecting 202,371 workers and averaging 10.7 percent. These increases represent voluntary raises in practically all instances, as the NRA codes did not become effective until after July 15.

The number of establishments reporting wage-rate decreases continued to decline, only 1,824 workers being affected in the 38 establishments reporting decreases in wage rates, which averaged 11.4 percent.

TABLE 1.—WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933

Industry	Estab-lish-ments report-ing	Total number of em-ployees	Number of establish-ments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases	No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases
All manufacturing industries.....	18,090	3,023,831	17,422	630	38	2,819,636	202,371	1,824
Percent of total.....	100.0	100.0	96.3	3.5	0.2	93.2	6.7	(1)
Food and kindred products:								
Baking.....	965	63,873	951	13	1	63,444	423	6
Beverages.....	359	22,943	349	9	1	22,167	765	11
Butter.....	311	5,857	310	1	—	5,851	6	—
Confectionery.....	320	32,095	317	1	2	31,946	102	47
Flour.....	423	16,540	415	8	—	15,615	925	—
Ice cream.....	365	12,711	361	4	—	12,611	100	—
Slaughtering and meat pack-ing.....	247	94,877	241	6	—	94,518	359	—
Sugar, beet.....	61	4,710	61	—	—	4,710	—	—
Sugar refining, cane.....	13	8,275	13	—	—	8,275	—	—
Textiles and their products:								
Fabrics:								
Carpets and rugs.....	27	16,133	27	—	—	16,133	—	—
Cotton goods.....	670	310,445	604	66	—	281,608	28,837	—
Cotton small wares.....	111	11,122	104	6	1	10,437	610	75
Dyeing and finishing tex-tiles.....	153	40,683	148	5	—	38,988	1,695	—
Hats, fur-felt.....	27	5,275	27	—	—	5,275	—	—
Knit goods.....	440	114,229	414	26	—	106,177	8,052	—
Silk and rayon goods.....	238	53,031	220	17	1	47,795	5,166	70
Woolen and worsted goods.....	237	77,753	209	27	1	69,348	8,241	164
Wearing apparel:								
Clothing, men's.....	397	70,285	365	32	—	62,369	7,916	—
Clothing, women's.....	543	25,802	538	5	—	25,584	218	—
Corsets and allied gar-ments.....	35	6,060	35	—	—	6,060	—	—
Men's furnishings.....	73	7,817	71	2	—	7,767	50	—
Millinery.....	140	8,195	139	1	—	7,762	433	—
Shirts and collars.....	115	17,331	108	7	—	16,332	999	—

¹ Less than one tenth of 1 percent.

TABLE 1.—WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933—Continued

Industry	Estab-lish-ments reporting	Total number of employees	Number of establish-ments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases	No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases
Iron and steel and their products, not including machinery:								
Bolts, nuts, washers, and rivets.....	70	10,920	67	3		10,391	529	
Cast-iron pipe.....	33	4,368	32	1		4,228	140	
Cutlery (not including silver and plated cutlery) and edge tools.....	126	8,552	122	3	1	8,340	187	25
Forgings, iron and steel.....	66	6,651	65	2		6,639	12	
Hardware.....	105	22,964	103	2		22,647	317	
Iron and steel.....	205	227,159	198	7		221,876	5,283	
Plumbers' supplies.....	68	8,682	67	1		8,547	135	
Steam and hot-water heating apparatus and steam fittings.....	98	16,233	96	2		15,944	289	
Stoves.....	160	19,220	151	5	4	18,892	239	89
Structural and ornamental metalwork.....	194	14,722	192		2	14,665		57
Tin cans and other tinware.....	61	9,543	59	2		9,447	96	
Tools (not including edge tools, machine tools, files, and saws).....	124	7,677	118	6		7,185	492	
Wirework.....	69	6,848	67	2		6,549	299	
Machinery, not including transportation equipment:								
Agricultural implements.....	78	7,192	75	3		6,935	257	
Cash registers, adding machines, and calculating machines.....	37	14,372	36	1		14,358	14	
Electrical machinery, apparatus, and supplies.....	282	89,748	261	19	2	72,293	17,410	45
Engines, turbines, tractors, and waterwheels.....	88	17,198	87	1		16,176	1,022	
Foundry and machine-shop products.....	1,048	109,377	1,022	25	1	101,137	8,204	36
Machine tools.....	146	11,265	142	4		11,201	64	
Radios and phonographs.....	42	22,730	41	1		22,450	280	
Textile machinery and parts.....	48	8,832	45	3		8,812	20	
Typewriters and supplies.....	16	8,297	16			8,297		
Nonferrous metals and their products:								
Aluminum manufactures.....	26	5,682	26			5,682		
Brass, bronze, and copper products.....	206	34,474	201	5		33,857	617	
Clocks and watches and time-recording devices.....	24	6,612	24			6,612		
Jewelry.....	134	6,918	134			6,918		
Lighting equipment.....	52	2,951	51		1	2,943		8
Silverware and plated ware.....	51	6,038	50	1		5,047	991	
Smelting and refining—copper, lead, and zinc.....	39	10,335	35	4		8,772	1,563	
Stamped and enameled ware.....	88	14,173	88			14,173		
Transportation equipment:								
Aircraft.....	29	7,113	29			7,113		
Automobiles.....	233	226,145	223	10		222,741	3,404	
Cars, electric and steam railroad.....	42	5,198	42			5,198		
Locomotives.....	11	1,663	11			1,663		
Shipbuilding.....	96	24,246	96			24,246		
Railroad repair shops:								
Electric railroad.....	390	19,437	388		2	19,278		159
Steam railroad.....	524	72,647	524			72,647		
Lumber and allied products:								
Furniture.....	440	46,074	413	27		39,884	6,190	
Lumber:								
Millwork.....	471	21,129	454	14	3	19,354	1,722	53
Sawmills.....	599	69,068	529	69	1	51,215	17,538	315
Turpentine and rosin.....	23	1,317	21	2		1,196	121	
Stone, clay, and glass products:								
Brick, tile, and terra cotta.....	652	21,842	614	37	1	18,120	3,687	35
Cement.....	122	16,072	108	14		13,482	2,590	
Glass.....	186	41,694	181	5		40,298	1,396	
Marble, granite, slate, and other products.....	217	5,369	214	2	1	5,217	146	6
Pottery.....	116	16,087	111	5		15,628	459	

TABLE 1.—WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933—Continued

Industry	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases	No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases
Leather and its manufactures:								
Boots and shoes.....	339	121,735	329	10		118,997	2,738	
Leather.....	153	29,613	142	11		25,763	3,850	
Paper and printing:								
Boxes, paper.....	318	22,606	311	6	1	21,938	633	35
Paper and pulp.....	400	84,026	374	26		79,389	4,637	
Printing and publishing:								
Book and job.....	766	41,296	757	4	5	40,960	231	105
Newspapers and period- icals.....	465	68,384	458	3	4	67,517	473	394
Chemicals and allied products:								
Chemicals.....	109	23,483	107	2		21,861	1,622	
Cottonseed, oil, cake, and meal.....	107	3,485	101	6		3,362	123	
Druggists' preparations.....	45	7,604	45			7,604		
Explosives.....	30	3,645	30			3,645		
Fertilizers.....	173	5,690	170	3		5,511	179	
Paints and varnishes.....	348	16,751	340	7	1	15,624	1,118	9
Petroleum refining.....	126	49,487	125	1		49,476	11	
Rayon and allied products.....	22	28,006	14	8		17,697	10,309	
Soap.....	95	15,104	91	4		15,079	25	
Rubber products:								
Rubber boots and shoes.....	9	10,385	8	1		9,501	884	
Rubber goods, other than boots, shoes, tires, and inner tubes.....	98	21,025	94	4		20,254	771	
Rubber tires and inner tubes.....	41	57,497	32	9		23,424	34,073	
Tobacco manufactures:								
Chewing and smoking tobac- co and snuff.....	33	9,674	32	1		9,596	78	
Cigars and cigarettes.....	208	43,459	206	1	1	43,373	6	80

Nonmanufacturing Industries

DATA concerning wage-rate changes occurring between June 15 and July 15, 1933, in 15 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite mining and telephone and telegraph industries. Both increases and decreases were reported in 10 of the remaining 13 industries over the month interval. The average percents of increase reported were as follows: Metalliferous mining and canning and preserving, 14.8 percent each; dyeing and cleaning, 13.9 percent; quarrying and nonmetallic mining, 13.5 percent; laundries, 12.9 percent; retail trade, 12.8 percent; bituminous-coal mining, 11.9 percent; banks, brokerage, insurance, real estate, 11.4 percent; wholesale trade, 9 percent; and hotels, 3 percent. The average percents of decrease reported were as follows: Laundries, 15 percent; banks, brokerage, insurance, and real estate, 12.7 percent; dyeing and cleaning, 12.5 percent; quarrying and non-metallic mining, 12.1 percent; hotels, 11.6 percent; retail trade, 11.3 percent; electric-railroad operation and maintenance, 7.5 percent; power and light, 7.4 percent; crude-petroleum producing, 7.3 percent; and canning and preserving, 3 percent.

TABLE 2.—WAGE-RATE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING JULY 15, 1933

Industrial group	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases	No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases
Anthracite mining	160	59,940	160			59,940		
Percent of total	100.0	100.0	100.0			100.0		
Bituminous-coal mining	1,471	191,024	1,359	112		165,455	25,569	
Percent of total	100.0	100.0	92.4	7.6		86.6	13.4	
Metalliferous mining	278	22,365	256	22		19,850	2,515	
Percent of total	100.0	100.0	92.1	7.9		88.8	11.2	
Quarrying and nonmetallic min- ing	1,134	33,044	1,115	17	2	32,264	751	29
Percent of total	100.0	100.0	98.3	1.5	.2	97.6	2.3	.1
Crude-petroleum producing	239	24,189	234		5	24,146		43
Percent of total	100.0	100.0	97.9		2.1	99.8		.2
Telephone and telegraph	8,316	247,238	8,316			247,238		
Percent of total	100.0	100.0	100.0			100.0		
Power and light	3,204	195,565	3,201		3	194,205		1,360
Percent of total	100.0	100.0	99.9		.1	99.3		.7
Electric-railroad and motor-bus operation and maintenance	560	130,995	558		2	129,999		996
Percent of total	100.0	100.0	99.6		.4	99.2		.8
Wholesale trade	2,924	75,870	2,899	25		75,365	505	
Percent of total	100.0	100.0	99.1	.9		99.3	.7	
Retail trade	17,560	334,147	17,510	18	32	333,765	182	200
Percent of total	100.0	100.0	99.7	.1	.2	99.9	.1	.1
Hotels	2,702	136,190	2,691	4	7	135,968	123	99
Percent of total	100.0	100.0	99.6	.1	.3	99.8	.1	.1
Canning and preserving	874	65,865	850	23	1	62,988	2,872	5
Percent of total	100.0	100.0	97.3	2.6	.1	95.6	4.4	(1)
Laundries	909	54,715	906	2	1	54,652	21	42
Percent of total	100.0	100.0	99.7	.2	.1	99.9	(1)	.1
Dyeing and cleaning	311	10,427	307	3	1	10,308	114	5
Percent of total	100.0	100.0	98.7	1.0	.3	98.9	1.1	(1)
Banks, brokerage, insurance, and real estate	4,475	168,656	4,425	36	14	167,346	1,190	120
Percent of total	100.0	100.0	98.9	.8	.3	99.2	.7	.1

¹ Less than one tenth of 1 percent.

Wage Changes Reported by Trade Unions and Municipalities Since May 1933

THE table following shows changes occurring in the wages and hours of trade unions and municipalities in the past 4 months, which were reported to the Bureau during the past month. The table covers 15,301 workers, of whom 2,240 were reported to have gone on the 5-day week.

WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST 1933

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Bakers:					
Bridgeport, Conn.:					
Daywork:		<i>Per week</i>	<i>Per week</i>		
Foremen.....	June 3	\$37.80	\$35.00	48	48
Dough mixers and ovenmen.....	do	33.30	30.80	48	48
Bench or machine hands.....	do	29.70	27.50	48	48
Nightwork:					
Foremen.....	do	40.50	37.50	48	48
Dough mixers and ovenmen.....	do	35.10	32.70	48	48
Bench or machine hands.....	do	32.40	30.00	48	48
Buffalo, N. Y.—Polish bakers:					
Daywork, first hands.....	May 1	35.00	30.00	48	45
Nightwork:					
First hands.....	do	37.00	32.00	48	45
Second hands.....	do	33.00	28.00	48	45
Chicago, Ill.—Hebrew bakers:					
Foremen.....	do	56.00	54.00	48	48
Second hands.....	do	53.00	51.00	48	48
Third hands.....	do	47.00	45.00	48	48
Dallas, Tex.:					
Foremen, less than 3 men.....	do	35.10	31.59	48	48
Second men.....	do	32.40	29.16	48	48
Detroit, Mich.:					
First hands, ovenmen and mixers, 1 oven.....	do	35.00	30.00	48	48
First hands, ovenmen and mixers, 2 ovens.....	do	37.00	32.00	48	48
Second hands.....	do	30.00	25.00	48	48
Newark, N. J.:					
Foremen, oven workers, dough mixers.....	do	41.00	39.00	48	48
Bench workers.....	do	36.00	34.00	48	48
Third hands.....	do	30.00	28.00	48	48
Portland, Oreg.:					
Foremen.....	do	42.00	37.80	48	48
Ovenmen and mixers.....	do	40.00	36.00	48	48
Bench and machine hands.....	do	38.00	34.20	48	48
Helpers.....	do	25.00	22.50	48	48
Rochester, N. Y.:					
Foremen or first hands.....	do	36.90	35.05	48	48
Second hands, oven workers or dough mixers.....	do	34.20	32.50	48	48
Third hands, bench and machine hands.....	do	32.40	30.80	48	48
Helpers.....	do	22.50	21.60	48	48
Rock Island, Ill., and vicinity:					
Daywork:					
Alone or with 1 helper.....	do	34.20	32.30	48	48
Benchmen.....	do	27.00	25.50	48	48
Nightwork:					
Foremen, 2 or more men.....	do	44.40	42.20	48	48
Alone or with 1 helper, ovenmen, dough mixers, and bench foremen.....	do	39.00	37.10	48	48
Benchmen.....	do	31.80	30.30	48	48
Spokane, Wash.:					
Foremen, dough mixers, and ovenmen.....	do	43.20	38.88	48	48
Bench hands and machine hands.....	do	40.50	36.45	48	48
Helpers.....	do	29.70	26.73	48	48
Worcester, Mass.—Hebrew bakers:					
Foremen.....	do	50.00	45.00	48	48
Second hands.....	do	45.00	40.00	48	48

WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Bakers—Continued					
Youngstown, Ohio:		<i>Per hour</i>	<i>Per hour</i>		
Foremen, 4 men or less	May 1	\$0.85	\$0.65	48	48
Second hands, ovenmen, or dough mixers	do	.70	.60	48	48
Third hands or benchmen	do	.65	.55	48	48
Barbers, Seattle, Wash.					
Brewery workers, San Francisco, Eureka, Oakland, and San Jose, Calif.	May 8	<i>Per week</i> ¹ 24.00	<i>Per week</i> ² 21.00	50	50
	June 19	40.00	42.00	44	44
Building-trades workers:					
Asbestos workers, Buffalo, N.Y.	May 1	<i>Per hour</i> 1.25	<i>Per hour</i> 1.00	(³)	40
Bricklayers and masons:					
Buffalo, N.Y.	May 2	1.25	1.12½	40	40
Cincinnati, Ohio	June 12	1.37½	1.25	40	40
Cleveland, Ohio	do	1.37½	1.25	40	40
Troy, Watervliet, and Green Island, N.Y.	May 1	1.40	1.00	40	40
Carpenters, Dallas, Tex.	do	1.00	.75	40	40
Cement finishers:					
Buffalo, N.Y.	June 12	.90	1.00	40	40
Toledo, Ohio	May 1	.90	1.00	40	44
Electrical workers:					
Buffalo, N.Y.	do	1.30	1.00	40	40
Concord, N.H.	June 8	1.00	.85	4 10-18	4 10-18
Portland, Oreg.:					
Linemen	May 10	<i>Per day</i> 7.40	<i>Per day</i> 6.29	44	40
Cable splicers	do	8.33	6.88	44	40
Reading, Pa.					
Youngstown, Ohio	May 1	<i>Per hour</i> 1.00	<i>Per hour</i> .80	44	44
Hod carriers and laborers:					
Butte, Mont., building and common laborers	May 1	<i>Per day</i> 5.75	<i>Per day</i> 4.90	48	48
Milwaukee, Wis.:					
Laborers	do	<i>Per hour</i> .75	<i>Per hour</i> .62½	44	44
Scaffold builders and mortar mixers	do	.80	.75	40	40
Marble setters' helpers	do	.75	.62½	40	40
St. Paul, Minn.:					
Plasterers' helpers	June 1	.85	.75	44	44
Plasterers' laborers	do	.65	.60	44	44
Hod carriers	do	.85	.75	44	44
Building laborers	do	.55	.50	44	44
Lathers:					
Buffalo, N.Y.	May 15	1.50	1.00	40	40
Detroit, Mich.	May 1	1.25	1.00	(³)	40
Grand Rapids, Mich.	May 16	1.00	.75	40	40
Houston, Tex.	do	1.00	.87½	40	40
Memphis, Tenn.:					
Wood	May 1	1.00	.75	40	40
Metal	do	1.25	1.12½	40	40
Omaha, Nebr.	Aug. 1	1.00	.87½	30	30
Painters:					
Augusta and Hallowell, Maine	May 1	.87½	.62½	44	40
Dayton, Ohio:					
Sign painters	May 4	1.25	1.12½	(³)	40
San Francisco, Calif.:					
Sign painters	May 23	1.35	1.12½	40	40
Plasterers:					
Buffalo, N.Y.	May 1	1.25	1.00	40	40
Troy, Watervliet, and Green Island, N.Y.	do	1.40	1.00	40	40
Plumbers:					
Buffalo, N.Y.	do	1.25	1.00	40	40
Cedar Rapids, Iowa	May 3	1.00	.90	44	40
Hartford, Conn.	May 1	1.18¾	1.00	40	40
Sheet-metal workers:					
Buffalo, N.Y.	June 1	1.10	1.00	40	40
St. Paul, Minn.	May 1	1.12½	1.00	44	44
Steamfitters:					
Cedar Rapids, Iowa	May 3	1.00	.90	44	40
Hartford, Conn.	May 1	1.18¾	1.00	40	40

¹ And 60 percent of receipts over \$38.² And 60 percent of receipts over \$32.³ Not reported.⁴ Actual hours worked

WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building-trades workers—Continued					
Structural-iron workers, Peoria, Ill.-----	May 1	<i>Per hour</i> \$1. 12½	<i>Per hour</i> \$1. 10	44	40
Terrazzo workers:					
St. Louis, Mo.-----	May 15	1. 37½	1. 17½	40	40
Troy, Watervliet, and Green Island, N. Y.-----	May 1	1. 40	1. 00	40	40
Tile setters:					
Kansas City, Mo.-----	do-----	1. 25	1. 00	40	40
Minneapolis, Minn.-----	do-----	1. 12½	1. 00	40	40
St. Paul, Minn.-----	do-----	1. 12½	1. 00	40	40
Troy, Watervliet, and Green Island, N. Y.-----	do-----	1. 40	1. 00	40	40
All building-trades workers, Peoria, Ill.-----	June 10	(³)	(³)	44	40
Chauffeurs and teamsters:					
Chicago, Ill.:					
General teamsters:		<i>Per week</i>	<i>Per week</i>		
1 ton or less, trucks-----	May 1	36. 00	32. 40	60	60
1½-ton trucks-----	do-----	37. 57	33. 81½	60	30
2-ton trucks-----	do-----	39. 87	35. 88	60	60
3-ton trucks-----	do-----	41. 02	36. 92	60	60
5-ton trucks-----	do-----	42. 75	38. 47½	60	60
Double-team drivers-----	do-----	37. 25	33. 52½	60	60
Packing-house drivers:					
Over 5-ton trucks-----	do-----	38. 70	34. 83	60	60
3- to 5-ton trucks-----	do-----	37. 80	34. 02	60	60
1- to 3-ton trucks-----	do-----	35. 10	31. 59	60	60
1 ton and under-----	do-----	32. 40	29. 16	60	60
Helpers, 5-ton trucks and over-----	do-----	34. 20	30. 78	60	60
City tractors-----	do-----	37. 80	34. 02	60	60
Dumpcart tractors-----	do-----	28. 50	25. 65	60	60
Dumpcart drivers-----	do-----	25. 60	23. 09	60	60
Delicatessen, special delivery-----	do-----	34. 20	29. 16	60	60
Regular helpers and others-----	do-----	31. 50	28. 35	60	60
Retail meat delivery salesmen-----	do-----	35. 50	33. 50	60	60
Cheese, butter, and egg drivers-----	do-----	38. 00	31. 00	(⁵)	(⁵)
Cleveland, Ohio:					
Furniture movers-----	May 12	37. 00	35. 00	54	54
Helpers-----	do-----	33. 00	31. 00	54	54
Ice-truck drivers:					
Route foremen-----	June 1	44. 00	39. 60	54	54
Experienced drivers-----	do-----	38. 00	34. 20	54	54
Supply trucks, 3 tons or more-----	do-----	38. 00	34. 20	54	54
Supply trucks, less than 3 tons-----	do-----	35. 00	31. 50	54	54
Dayton, Ohio:					
Beer-truck drivers-----	May 14	27. 00	30. 00	48	48
Helpers-----	do-----	25. 20	28. 00	48	48
East St. Louis, Ill.—Milk-wagon drivers:					
Route foremen-----	July 1	47. 25	46. 92	(⁵)	(⁵)
Route runners-----	do-----	43. 50	41. 45	(⁵)	(⁵)
Wholesale drivers-----	do-----	39. 25	36. 80	(⁵)	(⁵)
Retail drivers-----	do-----	38. 00	35. 88	(⁵)	(⁵)
Special deliverymen-----	do-----	30. 85	30. 36	(⁵)	(⁵)
Stablemen-----	do-----	34. 75	28. 06	(⁵)	(⁵)
Cooler foremen-----	do-----	37. 25	35. 20	54	54
Cooler helpers-----	do-----	32. 25	30. 48	54	54
Inside help-----	do-----	34. 25	32. 37	54	54
St. Louis, Mo., pie drivers-----	May 1	⁶ 33. 00	⁶ 25. 00	⁷ 60	⁷ 60
Clothing-trades workers: Garment cutters, Portland, Oreg.-----	July 17	23. 80	29. 75	44	40
Coopers, Rochester, N. Y.-----	July 6	33. 00	36. 00	48	44
Machinists, printing-press industry, Plain- field, N. J.-----	May --	<i>Per hour</i> . 80	<i>Per hour</i> . 70	48	40
Motion-picture operators and theatrical work- ers:					
Albany, N. Y., operators-----	June 1	<i>Per week</i> 55. 00-72. 00	<i>Per week</i> 42. 32-54. 40	42	42
New York, N. Y., stage hands, electricians, property men, carpenters-----	do-----	63. 00-70. 00	56. 70-63. 00	48	48
Paper and paper-goods workers, Corinth and Palmer, N. Y.-----	July 30	<i>Per hour</i> . 33- . 90	<i>Per hour</i> . 35- 1. 00	48	48

³ Not reported.⁵ Hours irregular.⁶ Plus commission.⁷ Average.

WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, MAY TO AUGUST 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Printing and publishing employees:					
Compositors and machine operators:					
Boston, Mass., job work.....	May 1	<i>Per hour</i> \$0.96-\$1.00	<i>Per hour</i> \$0.864-\$0.90	44	44
Chicago, Ill.:					
Hebrew text:					
Job work:		<i>Per week</i>	<i>Per week</i>		
Compositors.....	do.....	57.00	49.00	44	40
Machine operators.....	do.....	58.40	56.00	44	40
Newspaper, day.....	do.....	79.00	55.00	36	30
Newspaper, night.....	do.....	79.00	55.00	27	22½
Polish text, newspaper.....	do.....	57.00	43.55	39-44	32½-36½
Salt Lake City, Utah:		<i>Per day</i>	<i>Per day</i>		
Newspaper, day.....	do.....	8.00	7.50	46	45
Newspaper, night.....	do.....	8.50	8.00	46	45
Electrotypers:		<i>Per week</i>	<i>Per week</i>		
Kansas City, Mo.....	do.....	43.44	40.00	44	44
Portland, Oreg.....	May 15	47.25	50.05	44	44
Mailers, Cleveland, Ohio:					
Daywork.....	May 1	44.75	47.00	⁸ 6	⁸ 6
Nightwork.....	do.....	46.75	49.00	⁸ 6	⁸ 6
Photo-engravers:					
Boston, Mass.:					
Job work.....	do.....	55.00	50.00	44	40
Newspaper, day.....	do.....	60.00	55.20	44	44
Newspaper, night.....	do.....	63.00	58.20	44	44
Columbus, Ohio, job work.....	do.....	50.00	50.00	44	40
Stereotypers:		<i>Per day</i>	<i>Per day</i>		
Memphis, Tenn.....	May 8	8.00	7.33½	48	48
Portland, Maine:					
Daywork.....	June 1	6.90	6.20	48	48
Nightwork.....	do.....	7.35	6.66	48	48
St. Joseph, Mo.:					
Daywork.....	May 31	6.50	6.00	48	48
Nightwork.....	do.....	7.00	6.33½	48	48
Web pressmen, Houston, Tex.:					
Daywork.....	May 8	7.13	6.50	40	40
Nightwork.....	do.....	7.13	6.50	35	35
Foremen.....	do.....	7.63	7.00	40	40
Street-railway workers:		<i>Per hour</i>	<i>Per hour</i>		
Erie, Pa., 1-man car operators:					
First 3 months.....	May 1	.47	.42½	65-70	65-70
Next 9 months.....	do.....	.51	.46	65-70	65-70
After 1 year.....	do.....	.54	.48½	65-70	65-70
Bus drivers.....	do.....	.54	.48½	65-70	65-70
Portland, Maine, 1-man car operators.....	do.....	.60	.50	(⁹)	45
Portland, Oreg.:					
Motormen and conductors.....	do.....	.60	.54	(³)	(³)
1-man car operators.....	do.....	.66	.57	(³)	(³)
Bus drivers.....	do.....	.66	.57	(³)	(³)
Shreveport, La., motormen, shopmen, maintenance-of-way men.....	July 8	.50	.45	(⁵)	(⁵)
Youngstown, Ohio:					
Bus drivers.....	June 1	.55	.52	(⁵)	(⁵)
1-man car operators.....	do.....	.55	.52	(⁵)	(⁵)
Municipal employees:					
Atlantic City, N.J., teachers.....	July 1	(³)	(⁹)	(³)	(³)
Tucumcari, N.Mex.....	do.....	(³)	(¹⁰)	(³)	(³)

³ Not reported.
⁴ Hours irregular.

⁸ Days per week.
⁹ 5 percent reduction.

¹⁰ 10 percent increase.

Wages in Colorado, 1932

THE wages paid to males and females in Colorado in certain occupations during 1932 are shown in the following table, based on wage schedules returned to the Bureau of Labor Statistics of that State by the deputy factory inspectors. These figures and the other wage statistics in this article are taken from the twenty-third biennial report of that bureau.

In the industries included in the tabulation here presented female workers have an 8-hour day. For the most part male workers are employed 8 hours per day. Some, however, work 9 and even 10 hours per day.

TABLE 1.—WAGES IN SELECTED OCCUPATIONS IN COLORADO, 1932

Industry and occupation	Wage rate	Industry and occupation	Wage rate
Beet sugar factories:	<i>Per hour</i>	Hotels—Continued	
Mechanics and crane operators.....	\$0.55 — \$0.67½	Females:	<i>Per month</i>
Station foremen.....	.35 — .45	Waitresses.....	\$50.00
Power-machine operators.....	.35 — .45	Telephone operators.....	50.00
Station operators.....	.30 — .45	Laundries:	
Chemists.....	.37½ — .40	Males:	<i>Per week</i>
Station helpers.....	.30 — .37½	Drivers.....	25.00
Power-machine helpers.....	.32½ — .35	Engineers.....	35.00
Miscellaneous.....	.30 — .35	Firemen.....	30.00
Cleaning and dyeing:		Markers.....	22.50
Males:	<i>Per week</i>	Washers.....	25.00
Cleaners.....	25.00	Wringers.....	20.00
Dyers.....	27.50	Females:	
Drivers.....	30.00	Finishers.....	15.00
Pressers.....	27.50	Ironers.....	14.00
Spotters.....	22.50	Mangle girls.....	12.50
Females:		Office workers.....	12.15
Bushelwomen.....	15.00	Seamstresses.....	14.00
Office workers.....	17.50	Sorters.....	12.50
Pressers.....	22.50	Starchers.....	15.00
Spotters.....	22.50	Washers.....	15.00
Department stores:		Wrappers.....	12.00
Males:		Moving pictures:	
Sales people.....	18.00—45.00	Males:	
Clerical workers.....	14.00—16.00	Musicians.....	50.00
Receiving-room employees.....	15.00	Stage hands.....	30.00
Porters.....	16.00	Operators.....	30.00
Shipping clerks.....	19.00	Janitors.....	17.50
Watchmen.....	21.00	Door men.....	25.00
Engineers.....	22.00		
Furniture repairers.....	26.00	Ushers.....	<i>Per hour</i>
Window trimmers.....	38.00		.50
Tailors.....	30.00	Females:	<i>Per week</i>
Advertising employees.....	47.00	Cashiers.....	16.50
Messengers.....	8.00	Relief cashiers.....	6.00
Females:		Ore reducing and refining:	
Sales people.....	12.00—25.00	Males:	<i>Per month</i>
Maids.....	10.00	Chief clerks.....	200.00
Clerical workers.....	12.00—16.00	Chemists.....	200.00
Drug stores:		Laboratory assistants.....	90.00
Males:		Storekeepers.....	125.00
Pharmacists.....	30.00	Clerks.....	100.00
Delivery boys.....	10.00	Foremen.....	150.00
Porters.....	17.50	Treators.....	175.00
Soda-fountain help.....	21.00	Stablemen.....	100.00
Clerks.....	20.00	First engineers.....	135.00
Females:		Truck drivers.....	100.00
Cashiers.....	17.50		
Clerks.....	21.00	Boilermakers.....	<i>Per day</i>
Office workers.....	20.00	Still men.....	5.00
Soda-fountain help.....	14.00	Pumpers.....	5.00
Hotels:		Boiler-house engineers.....	5.35
Males:	<i>Per month</i>	Big boiler foremen.....	6.00
Cooks.....	125.00	Boiler-repair men.....	5.00
Yardmen.....	50.00	Car-repair men.....	5.00
Dishwashers.....	50.00	Lead burners.....	5.75
Bus boys.....	40.00	Refinery pumpers.....	5.00
Clerks.....	115.00	Pipe fitters.....	5.00
Bookkeepers.....	100.00	Still helpers.....	4.95
Porters.....	60.00	Boiler-house foremen.....	4.65
Bell boys.....	22.50	Still foremen.....	4.65
Elevator pilots.....	35.00		
Engineers.....	115.00		

TABLE 1.—WAGES IN SELECTED OCCUPATIONS IN COLORADO, 1932—Continued

Industry and occupation	Wage rate	Industry and occupation	Wage rate
Ore reducing and refining—Contd.		Restaurants—Continued	
Males—Continued	<i>Per day</i>	Males—Continued	<i>Per week</i>
Still cleaners.....	\$4.50	Bus boys.....	\$13.50
Car loaders.....	4.00	Store-room help.....	22.00
Boilermaker helpers.....	4.25	Head waiters.....	36.00
Car-repair helpers.....	4.00	Waiters.....	17.50
Coal unloaders.....	4.00	Females:	
Refinery pumphouse engineers.....	3.85	Cooks.....	20.00
Refinery gagers.....	3.75	Second cooks.....	15.00
Wells repair helpers.....	4.00	Dishwashers.....	12.00
Yield pumpers.....	3.25	Waitresses.....	14.00
Teamsters.....	3.75	Counters.....	17.50
Pipe fitter helpers.....	3.75	Pantry help.....	17.50
Watchmen.....	3.25	Cashiers.....	15.00
Laborers.....	2.00	Shoe repairing:	
Restaurants:		Males:	
Males:	<i>Per week</i>	Shoemakers.....	27.50
Cooks.....	30.00	Machine stitchers.....	22.50
Second cooks.....	25.00	Machine finishers.....	21.00
Dishwashers.....	14.00	Delivery boys.....	9.00
		Females:	
		Cashiers.....	12.50

Actual Earnings in Certain Occupations

VERY great variations in annual earnings in the same occupation in different localities in Colorado are indicated in the accompanying table:

TABLE 2.—ACTUAL ANNUAL EARNINGS IN SPECIFIED OCCUPATIONS IN 6 COLORADO CITIES¹

Occupation	Colorado Springs	Denver	Fort Collins	Fort Morgan	Greeley	Pueblo
Carpenters.....	\$1,600	\$2,000	\$1,250	\$1,100	\$1,250	\$1,900
Bricklayers.....	1,750	2,100	1,350	1,100	1,675	1,900
Painters.....	1,600	1,950	1,350	1,500	1,350	1,975
Hod carriers.....	1,450	1,500	1,100	1,100	900	1,500
Machinists.....	1,700	1,700	1,240	1,450	1,450	1,350
Blacksmiths.....	1,400	1,350	1,750	1,400	1,400	1,300
Bakers.....	1,400	1,450	1,300	1,750	1,700	1,200
Linemen.....	975	1,325	1,300	1,375	1,400	1,600
Bank tellers.....	1,300	1,300	1,275	1,300	1,200	1,200

¹ Date not specified.

Salaries of Teachers

THE table below gives the salaries of teachers in cities of different size, such salaries being the highest in Colorado cities with population of from 30,000 to 100,000.

TABLE 3.—SALARIES OF TEACHERS IN COLORADO¹

Cities having a population of—	Elementary schools		Junior high schools		Senior high schools	
	Teacher	Principal	Teacher	Principal	Teacher	Principal
2,500 to 5,000.....	\$1,226	\$1,545	\$1,375	\$2,250	\$1,625	\$2,700
5,000 to 10,000.....	1,400	1,765	1,495	2,350	1,745	3,200
10,000 to 30,000.....	1,475	1,940	1,645	2,575	1,810	3,500
30,000 to 100,000.....	1,575	2,350	1,940	3,075	2,075	4,100

¹ Date not specified.

Wages in Germany in 1933¹

WAGE rates contained in this article are those fixed by agreement between employers and employees, the latter usually being represented by their unions, of which the most important were the General Federation of German Trade Unions, with a membership of 5,178,832 in 1930, the Federation of German Christian Trade Unions, with a membership of 1,361,383, in 1930, and the Federation of Hirsch-Duncker Trade Unions, with a membership of 596,673 at the beginning of 1931. Although the labor unions have recently been brought under Government jurisdiction, the wages established prior to this move are being continued until such time as the "German Labor Front," a Government organization recently established to deal with labor matters, shall fix new standards.

In few instances do the figures here shown cover actual earnings of workers, the data furnished being largely made up of basic wage rates, known in Germany as "tariff rates." For recent surveys of earnings in various important trades and industries, see 1932 and 1933 issues of the Monthly Labor Review.

In many industries there are elaborate wage classifications, the scale being worked out for age and sex and degree of skill of the workers and according to the cost of living in the various localities. Where age is mentioned in the tables in this report, the rate given is usually for the highest age class.

Hours of labor.—The wage agreements now in force (early May 1933) for the most part are based on an 8-hour day and a 48-hour week, with the provision in some industries that the daily working hours may be distributed as desired; unless otherwise stated, in this article the 48-hour week applies in the industries covered. In actual practice, however, many industries are not operating on a full-time basis. Illuminating in this respect is a special study covering 3,028,000 members made by the former leading German Association of Labor Unions² at the end of February 1933, which showed that of every 100 members 46.7 were unemployed and 23.6 were working part time.

Indicative of the policy of previous governments³ with respect to working hours, is the fact that post-office workers are on a 42-hour week and workers in the car shops and freight depots of the national railways on a 40-hour week.

Overtime, Sunday, holiday, and night work.—In all industries there are special provisions for extra pay for overtime and work on Sundays and holidays. Many agreements also provide additional compensation for work performed during certain hours of the night. The rates for overtime range from regular rates to as high as double time.

Payments supplementary to wages.—Supplements to wages, such as family allowances for wives and children, allowances in kind, bonuses, extra pay for length of service, and special allowances to workmen living in expensive localities, are granted in many industries and enterprises. Instances thereof are noted throughout this report.

¹ This article was prepared from reports by American consular officers in Germany, as follows: C. W. Gray, Berlin; Augustus Ostertag, Bremen; Stephen B. Vaughan, Breslau; James H. Wright, Cologne; Maurice W. Altaffer, Dresden; Will L. Lowrie, Frankfurt-on-Main; John H. Bruins, Hamburg; Paul J. Reveley, Leipzig; Robert D. Longyear, Munich; and D. P. Medalie, Stuttgart.

² General Federation of German Trade Unions, now taken over by the National Socialist Organization.

³ Not yet changed by the present Government.

Leaves of absence with pay.—Leaves of absence with pay ranging from 1 to 18 days annually, depending on length of service, are usually granted to German workmen.

Deductions from wages.—Deductions from wages actually amount to between 15 and 20 percent of gross earnings. The principal deductions are 6 in number, all deducted at the source by the employer, 3 of which are for social insurance, the other 3 being the crisis, income, and poll tax. Social insurance contributions are composed of those for sickness insurance, amounting to about 6 percent of the worker's wages (two thirds paid by the worker); unemployment insurance, amounting to about 6½ percent of the wages (one half paid by the worker); and invalidity and old-age insurance (one half paid by the worker), ranging from 0.30 mark (7.1 cents) on wages up to 6 marks (\$1.43) a week to 2 marks (47.6 cents) on wages of over 36 marks (\$8.57).

The crisis tax, all of which is paid by the worker, is approximately 1½ percent of gross earnings in the case of incomes up to 125 marks (\$29.75) monthly, and 2½ percent on incomes between 125 and 300 marks (\$29.75 and \$71.40) monthly. The income tax is 10 percent of the net income after deducting 100 marks (\$23.80) monthly as a regular exemption and certain additional sums for dependent wives, children, and other exempted items. The poll tax, being a communal tax, varies throughout Germany, but in general it is 2.50 marks (59.5 cents) per month, and in some instances 3 marks (71.4 cents) per month.

In addition to the above, there is a "single person's tax"—deducted also at the source by the employer—amounting to 10 percent of the income tax, payable by unmarried persons (including widows, widowers, and separated persons, if without children) with incomes of more than 220 marks (\$52.36) per month. The church tax, equal to 10 percent of the income tax, is payable only by members of the church.

General Level of Wage Rates

BASIC hourly wage rates in Germany have tended to become progressively lower during 1932 and 1933, as is shown in the index numbers appearing in *Wirtschaft und Statistik*, 1933, No. 10:

	<i>Index numbers</i>
1928 (year)-----	100. 0
1932:	
January-----	88. 8
February-----	88. 8
March-----	88. 6
April-----	88. 6
1933:	
January-----	84. 8
February-----	84. 7
March-----	84. 2
April-----	84. 1

Wage Rates in Principal Industries, 1933

CURRENT hourly basic wage rates for workers in the highest age group in certain of the most important industries are given in table 1. Figures are shown for 2 months, January and April 1933. (These statistics are also taken from *Wirtschaft und Statistik*, No. 10, 1933.) The averages indicate that a reduction in wage rates has occurred among one or more groups of workers in the metal, building, and clothing trades and in the paper-manufacturing industry.

TABLE 1.—AVERAGE HOURLY BASIC WAGE RATES OF WORKERS IN SPECIFIED INDUSTRIES IN GERMANY, JANUARY AND APRIL 1933

[Conversions into United States currency on basis of the mark at par=23.8 cents]

Industry, sex, and skill group	Average hourly basic wage rate in—			
	January		April	
	German currency	United States currency	German currency	United States currency
Black coal industry, males:				
Skilled.....	0.955	22.7	0.955	22.7
Unskilled.....	.599	14.3	.599	14.3
Brown coal industry, males:				
Skilled.....	.752	17.9	.752	17.9
Semiskilled.....	.687	16.4	.687	16.4
Unskilled.....	.660	15.7	.660	15.7
Metal trades:				
Males:				
Skilled.....	.780	18.6	.779	18.5
Semiskilled.....	.711	16.9	.711	16.9
Unskilled.....	.619	14.7	.619	14.7
Females, unskilled.....	.452	10.8	.452	10.8
Building trades, males:				
Skilled.....	.855	20.3	.815	19.4
Unskilled.....	.676	16.1	.652	15.5
Paper production:				
Males:				
Skilled.....	.759	18.1	.759	18.1
Unskilled.....	.574	13.7	.574	13.7
Females, unskilled.....	.386	9.2	.386	9.2
Paper-goods industry:				
Males:				
Skilled.....	.929	22.1	.929	22.1
Semiskilled.....	.838	19.9	.838	19.9
Unskilled.....	.690	16.4	.690	16.4
Females:				
Skilled and semiskilled.....	.539	12.8	.530	12.6
Unskilled.....	.430	10.2	.430	10.2
Printing industry:				
Males:				
Skilled.....	.961	22.9	.961	22.9
Unskilled.....	.797	19.0	.797	19.0
Females, unskilled.....	.488	11.6	.488	11.6
Ceramic industry:				
Males:				
Skilled.....	.709	16.9	.709	16.9
Unskilled.....	.589	14.0	.589	14.0
Females:				
Skilled and semiskilled.....	.434	10.3	.434	10.3
Unskilled.....	.361	8.6	.361	8.6
Worsted-spinning industry:				
Males:				
Skilled.....	.639	15.2	1.639	15.2
Semiskilled.....	2.701	16.7	.701	16.7
Unskilled.....	.547	13.0	.547	13.0
Females:				
Skilled and semiskilled.....	.452	10.8	.452	10.8
Unskilled.....	.394	9.4	.394	9.4
Woolen industry:				
Males:				
Skilled.....	.612	14.6	1.612	14.6
Semiskilled.....	2.612	14.6	.612	14.6
Unskilled.....	.541	12.9	.541	12.9
Females:				
Skilled and semiskilled.....	.519	12.4	.519	12.4
Unskilled.....	.413	9.8	.413	9.8
Cotton industry:				
Males:				
Skilled.....	.635	15.1	1.635	15.1
Semiskilled.....	2.635	15.1	.635	15.1
Unskilled.....	.524	12.5	.524	12.5
Females:				
Skilled and semiskilled.....	.519	12.4	.519	12.4
Unskilled.....	.395	9.4	.395	9.4

¹ February.² March.

TABLE 1.—AVERAGE HOURLY BASIC WAGE RATES OF WORKERS IN SPECIFIED INDUSTRIES IN GERMANY, JANUARY AND APRIL 1933—Continued

Industry, sex, and skill group	Average hourly basic wage rate in—			
	January		April	
	German currency	United States currency	German currency	United States currency
Linen industry:				
Males:				
Skilled.....	<i>Marks</i> 0.596	<i>Cents</i> 14.2	<i>Marks</i> 10.596	<i>Cents</i> 14.2
Semiskilled.....	2.596	14.2	.596	14.2
Unskilled.....	.496	11.8	.496	11.8
Females:				
Skilled and semiskilled.....	.456	10.9	.456	10.9
Unskilled.....	.368	8.8	.368	8.8
Silk industry:				
Males:				
Skilled.....	.583	13.9	1.583	13.9
Semiskilled.....	2.583	13.9	.583	13.9
Unskilled.....	.544	12.9	.544	12.9
Females:				
Skilled and semiskilled.....	.513	12.2	.513	12.2
Unskilled.....	.419	10.0	.419	10.0
Velvet industry:				
Males:				
Skilled.....	.719	17.1	1.719	17.1
Semiskilled.....	2.719	17.1	.719	17.1
Unskilled.....	.616	14.7	.616	14.7
Females:				
Skilled and semiskilled.....	.537	12.8	.537	12.8
Unskilled.....	.409	9.7	.409	9.7
Ribbon industry:				
Males:				
Skilled.....	.653	15.5	1.653	15.5
Semiskilled.....	2.653	15.5	.653	15.5
Unskilled.....	.544	12.9	.544	12.9
Females:				
Skilled and semiskilled.....	.511	12.2	.511	12.2
Unskilled.....	.420	10.0	.420	10.0
Lace and curtain industry:				
Males:				
Skilled.....	.754	17.9	1.754	17.9
Semiskilled.....	2.754	17.9	.754	17.9
Unskilled.....	.559	13.3	.559	13.3
Females:				
Unskilled.....	.393	9.4	.393	9.4
Knit-goods industry:				
Males:				
Skilled.....	.657	15.6	1.657	15.6
Semiskilled.....	2.657	15.6	.657	15.6
Unskilled.....	.545	13.0	.545	13.0
Females:				
Skilled and semiskilled.....	.453	10.8	.453	10.8
Unskilled.....	.394	9.4	.394	9.4
Clothing trades:				
Males, skilled.....	.744	17.7	1.741	17.6
Females, skilled and semiskilled.....	.486	11.6	.486	11.6
Shoe industry:				
Males:				
Skilled.....	.792	18.8	1.792	18.8
Semiskilled.....	2.792	18.8	.792	18.8
Females, skilled and semiskilled.....	.599	14.3	2.599	14.3
Brewing industry:				
Males:				
Skilled.....	1.054	25.1	1.054	25.1
Unskilled.....	.933	22.2	.933	22.2
Females, unskilled.....	.596	14.2	.596	14.2
Confectionery industry:				
Males:				
Skilled.....	.802	19.1	.802	19.1
Unskilled.....	.685	16.3	.685	16.3
Females, unskilled.....	.460	10.9	.460	10.9
Railroad industry, males:				
Skilled.....	.783	18.6	.783	18.6
Semiskilled.....	.653	15.5	.653	15.5
Unskilled.....	.637	15.2	.637	15.2

¹ February.² March.

TABLE 1.—AVERAGE HOURLY BASIC WAGE RATES OF WORKERS IN SPECIFIED INDUSTRIES IN GERMANY, JANUARY AND APRIL 1933—Continued

Industry, sex, and skill group	Average hourly basic wage rate in—			
	January		April	
	German currency	United States currency	German currency	United States currency
Postal service, males:	<i>Marks</i>	<i>Cents</i>	<i>Marks</i>	<i>Cents</i>
Skilled.....	0.730	17.4	0.730	17.4
Semiskilled.....	.641	15.3	.641	15.3
Unskilled.....	.628	14.9	.628	14.9
Production industries, males:				
Skilled.....	.845	20.1	.832	19.8
Unskilled.....	.642	15.3	.631	15.0
Consumption industries, males:				
Skilled.....	.750	17.9	.748	17.8
Unskilled.....	.614	14.6	.614	14.6
All industries:				
Males:				
Skilled.....	.801	19.1	.793	18.9
Semiskilled.....	.684	16.3	.683	16.3
Unskilled.....	.630	15.0	.624	14.9
Females:				
Skilled and semiskilled.....	.523	12.4	.518	12.3
Unskilled.....	.435	10.4	.434	10.3

Table 2 shows the basic hourly or weekly rates in specified industries in Germany, in the various occupational classifications.

TABLE 2.—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933

[See also text comment on individual industries, following table. Conversions into United States currency on basis of mark at par=23.8 cents]

Industry, district, and occupational, etc., classification	Rate per hour		Industry, district, and occupational, etc., classification	Rate per week	
	German currency	United States currency		German currency	United States currency
<i>Boot and shoe</i>			<i>Brewing—Continued</i>		
Males over 21 years:	<i>Marks</i>		Skilled workers—Continued	<i>Marks</i>	
Class 1 localities.....	0.76	\$0.181	Bremen.....	52.25	\$12.436
Class 2 localities.....	.73	.174	Luebeck.....	48.15	11.460
Class 3 localities.....	.70	.167	Kiel.....	47.65	11.341
Class 4 localities.....	.67	.159	Hamburg.....	49.30	11.733
Class 5 localities.....	.64	.152	Muenster.....	45.00	10.710
Females over 21 years:			Brunswick.....	46.75	11.127
Class 1 localities.....	.57	.136	Rhenish Westphalia.....	50.00	11.900
Class 2 localities.....	.55	.131	Aachen.....	46.50	10.067
Class 3 localities.....	.53	.126	Frankfort-on-Main.....	48.00	11.424
Class 4 localities.....	.50	.119	Mainz-Wiesbaden.....	51.85	12.340
Class 5 localities.....	.48	.114	Mannheim.....	52.80	12.566
			Karlsruhe.....	51.85	12.340
			Stuttgart.....	57.60	13.708
<i>Brewing</i>			Bavaria (larger cities).....	47.80	11.376
			Unskilled workers: ¹		
Skilled workers: ¹	<i>Marks</i>		Breslau.....	39.75	9.461
Breslau.....	44.60	\$10.615	Stettin.....	40.80	9.710
Stettin.....	45.50	10.829	Berlin.....	46.35	11.031
Berlin.....	52.65	12.531	Magdeburg.....	43.61	10.379
Magdeburg.....	49.00	11.662	Leipzig.....	47.40	11.281
Leipzig.....	52.65	12.531	Dresden.....	46.60	11.091
Dresden.....	51.75	12.317	Erfurt.....	43.10	10.258
Erfurt.....	47.90	11.400	Kassel.....	47.85	11.388
Kassel.....	50.85	12.102	Hamburg.....	46.75	11.127
Hamburg.....	50.75	12.079	Bremen.....	48.00	11.424
			Luebeck.....	45.60	10.853
			Kiel.....	45.25	10.770

¹ In most places free beer (2 to 3 liters per day) is also furnished; in Hanover, Mannheim, Karlsruhe, Stuttgart, beer is furnished at greatly reduced prices and difference is compensated for in wage rate.

TABLE 2.—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933—Continued

Industry, district, and occupational, etc., classification	Rate per week		Industry, district, and occupational, etc., classification	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Brewing—Continued</i>			<i>Ceramic—Silesia</i>		
Unskilled workers—Continued	Marks		Group A factories: 4		
Hamburg	45.90	\$10.924	Males over 24 years:	Marks	
Muenster	41.68	9.896	Skilled	0.74	\$0.176
Brunswick	42.08	10.015	Unskilled	.605	.144
Rhenish Westphalia	45.00	10.710	Females over 20 years:		
Aachen	40.75	9.700	Skilled	.44	.105
Frankfort-on-Main	45.60	10.853	Unskilled	.375	.089
Mainz-Wiesbaden	50.85	12.102	Group B factories:		
Mannheim	50.20	11.948	Males over 24 years:		
Karlsruhe	46.70	11.115	Skilled	.655	.156
Stuttgart	51.85	12.340	Unskilled	.555	.132
Bavaria (larger cities)	42.10	10.020	Females over 20 years:		
			Skilled	.385	.092
			Unskilled	.34	.081
<i>Brick—Cologne District 2</i>			Group C factories:		
	Rate per hour		Males over 24 years:		
	Marks		Skilled	.645	.154
Skilled workers, male: 3	0.70	\$0.167	Unskilled	.545	.130
21 years of age and over	.65	.155	Females over 20 years:		
Machinists and stokers			Skilled	.38	.090
Semiskilled workers, male: 3			Unskilled	.315	.075
Silica mixers, formers, painters, setters, loaders, shunters	.61	.145	Entrance rates:		
Burners	.65	.155	Males over 24 years:		
Unskilled workers, male, 21 years of age and over 3	.59	.140	Trained	.645	.154
Females, 21 years of age and over	.43	.102	Other	.555	.132
			Females over 20 years:		
			Trained	.38	.090
			Other	.35	.083
			Piece rates:		
			Trained workers, male	.805	.192
			Other workers, male	.695	.165
			Trained workers, female	.475	.113
			Other workers, female	.435	.104
<i>Building</i>			<i>Porcelain</i>		
Hamburg:			Group A factories: 4		
Carpenters, over 20 years	1.12	.267	Skilled workers, male	.772	.184
Masons, concrete terrazzo workers	1.10	.262	Helpers, male	.627	.149
Brick and mortar carriers	1.10	.262	Skilled workers, female	.462	.110
Unskilled or semiskilled masons' helpers	.91	.217	Helpers, male	.396	.094
Painters, over 20 years of age	1.00	.238	Group B factories:		
Plumbers, gas and water installation	1.14	.271	Skilled workers, male	.681	.162
Plumbers' helpers:			Helpers, male	.572	.136
Over 25 years	.97	.231	Skilled workers, female	.423	.101
With 5 years' experience	1.03	.245	Helpers, female	.358	.085
Leipzig:			Group C factories:		
Stucco workers	1.20	.286	Skilled workers, male	.667	.159
Machinists	.97	.231	Helpers, male	.555	.132
Glaziers	.90	.214	Skilled workers, female	.418	.099
Stonecutters	1.18	.281	Helpers, female	.340	.081
Masons	.98	.233			
Carpenters	.985	.234			
Helpers	.77 to .82	.183 to .195			
Breslau:			<i>Chemical 5</i>		
Bricklayers and carpenters	.89	.212	Cologne district:		
Experienced laborers	.73	.174	Cologne and its environs:		
Excavation laborers	.62	.148	Craftsmen	.80	.190
Stuttgart:				.68	.162
Bricklayers	.89	.212	Plant workers, special	.70 to .70	.167 to .167
Unskilled laborers	.74	.176	Helpers	.69	.164
Tile workers	1.02	.243	Young workers, male	.63	.150
Stonemasons	.96	.228	Young workers, female	.44	.105
Foremen	1.10	.262	Boiler cleaners	.69	.164
Apprentices, 6th half year	.40	.095	Machinists and firemen	.71	.169

2 Rates are for time work; piecework earnings must exceed time rates by 15 percent.

3 Also family allowance of 2 pfennigs per hour for wife and each child under 14.

4 In this industry the factories are grouped according to the cost of living in locality in which factory is located.

5 Maximum rates.

TABLE 2.—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933—Continued

Industry, district, and occupational, etc., classification	Rate per hour		Industry, district, and occupational, etc., classification	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Chemical—Continued</i>			<i>Coopering</i>		
Cologne district—Continued			Free State of Thuringia: Gera	Marks 1.03	\$0.245
Wuppertal: ⁶			Free State of Saxony: Leipzig	.85	.202
Craftsmen	0.75	\$0.179	Prussian Province of Saxony:		
Plant workers, male	.65	.155	Erfurt	.998	.238
Plant workers, female	.46	.109	Halle	1.075	.256
Other parts of district:			Magdeburg	.85	.202
Craftsmen	.77	.183	<i>Coppersmiths—Hamburg district</i>		
Assistant craftsmen, including machine workers	.67	.159	Skilled workers, over 24 years	1.09	.259
Plant workers, adult	.65	.155	Trained workers	.94	.224
Young workers, male	.46	.109	Unskilled workers, over 24 years	.87	.207
Young workers, female	.43	.102	<i>Cutlery—Solingen</i>		
Hamburg district:			Males, 24 years and over:		
Factory labor, male	.75	.179	Molders and hot rollers	.80	.190
Factory labor, female	.50	.119	Turners, milling-machine operators, grinders, galvanizers, enginemen	.71	.169
Leipzig district:			Semiskilled workers	.59	.140
Workers, male	.71	.169	Unskilled workers	.55	.131
Workers, female	.475	.113	Females, 21 years and over	.41	.098
<i>Chocolate, confectionery, and soft drinks</i>			<i>Fish—Hamburg district</i>		
Dresden district (chocolate):			Fish smokers, over 21 years	.88	.209
Basic rates:			Laborers, male, over 21 years	.75	.179
Males over 23 years:			Laborers, female, first 3 months	.40	.095
Skilled	.830	.198	Rate per week		
Helpers	.715	.170	Teamsters, over 21 years	Marks 42.50	\$10.115
Females, over 20 years	.465	.111	Truck drivers	43.75	10.413
Females, 18 to 20 years	.395	.094	<i>Flour milling</i>		
Piecework earnings:			Rhineland and Westphalia: ¹⁰		
Males over 23 years:			Married workers, male:		
Skilled	1.005	.239	Craftsmen, roller operators, millers, enginemen, and stokers	49.07	11.678
Helpers	.865	.206	Sacking-department employees, over 18 years	46.73	11.122
Females over 20 years	.565	.134	Unmarried workers, male, over 18 years	44.28	10.539
Females, 18 to 20 years	.565	.134	Males under 18 years	16.82	4.003
Cologne district: ⁷			to	29.44	7.007
Males over 23 years:			Females—		
Skilled ²	.845	.201	Over 18 years	27.34	6.507
Helpers ²	.730	.174	Under 18 years	14.72	3.503
Females over 20 years ²	.475	.113	to	25.24	6.007
<i>Clothing</i>			Rate per hour		
Berlin district—Women's clothing:			Free State of Thuringia—Gera:		
Home workers making—			Mill workers, male:	Marks	
Suits, skirts, jackets, and coats	.55	.131	Skilled	0.75	\$0.179
Women's and children's underwear, men's shirts, and nightshirts	⁸ .44%	.107	Unskilled	.712	.169
Women's aprons	⁹ .40	.095	Females	.45	.107
Hamburg district—Tailoring:			Free State of Saxony—Leipzig:		
Males:			Mill workers, male:		
Independent workers, cutters, etc.	.88	.209	Skilled	.875	.208
Skilled workers, with experience of—			Unskilled	.831	.198
Over 3 years	.53	.126	Females	.525	.125
Over 4 years	.62	.148	Prussian Province of Saxony:		
Over 5 years	.70	.167	Erfurt: Mill workers, male:		
Over 6 years	.88	.209	Skilled	.906	.216
Repairers	.83	.198	Unskilled	.817	.194
Females:					
Ordinary workers	.53	.126			
Independent workers	.61	.145			
Independent workers who also press	.88	.209			

² Rates given are for time work; piecework earnings must exceed time rates by 15 percent.

⁶ Also family allowance of 70 pfennigs per week for wife and each dependent child.

⁷ Rates are for localities with highest living costs.

⁸ 5 percent more for quantities of between 6 and 12 and 10 percent more if less than 6.

⁹ 5 to 15 percent more for various types.

¹⁰ Rates are for localities with highest living costs; for family allowances, see text comment following table.

WAGES AND HOURS OF LABOR

TABLE 2—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933—Continued

Industry, district, and occupational, etc., classification	Rate per hour		Industry, district, and occupational, etc., classification	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Flour milling—Continued</i>			<i>Margarine—Cologne district</i> ¹⁸		
Prussian Province of Saxony—Con. Halle:			Locality group I: ¹⁹	Marks	\$
Mill workers, male:			Males	0.945	\$.225
Skilled	0.754	\$.179	Females	.630	.105
Unskilled	.717	.171	Locality group II:		
Females	.452	.108	Males	.835	.199
Magdeburg:			Females	.555	.132
Mill workers, male:			Locality group III:		
Skilled	.854	.203	Males	.735	.175
Unskilled	.811	.193	Females	.490	.117
Females	.512	.122	Locality group IV:		
<i>Iron and steel</i>			Males	.655	.156
Rhenish Westphalia: ¹¹			Females	.430	.102
Blast-furnace workers, coke and ore transportation workers, etc.	.793	.189	Locality group V:		
Martin steel workers	.853	.203	Males	.590	.140
Rolling-mill workers	.795	.189	Females	.395	.094
Siegerland: ¹²			<i>Metal</i>		
Time workers, over 24 years:			Berlin and Brandenburg:		
Skilled	.57	.136	Males over 21 years:		
Unskilled	.52	.124	Highly skilled	.93	.221
Females	.47	.112	Skilled	.82	.195
Apprentices, fourth-year	.17	.040	Semiskilled	.72	.171
Pieceworkers, over 24 years:			Unskilled	.66	.157
Skilled	13.46	13.109	Females over 18 years	(20)	(20)
Semiskilled	13.42	13.100	Silesia—Metal working:		
Unskilled	13.37	13.088	Males over 24 years, time workers:		
Females	14.25	14.060	Skilled	.665	.158
<i>Jewelry—Pforzheim</i>			Experienced	.595	.142
Males over 25 years:			Inexperienced	.530	.126
Skilled	.73	.174	Males over 24 years, pieceworkers:		
Semiskilled	.67	.159	Skilled	.620	.148
Unskilled	.59	.140	Experienced	.555	.132
Females over 25 years:			Inexperienced	.485	.115
Skilled	.54	.129	Females over 24 years, time workers:		
Semiskilled	.49	.117	Experienced	.375	.089
Unskilled	.41	.098	Inexperienced	.340	.081
<i>Lingerie, wash wear, corsets—Cologne district</i> ¹⁵			Females over 24 years, pieceworkers:		
Males:			Experienced	.340	.081
Head cutters	(16)	(16)	Inexperienced	.310	.074
Assistant cutters	.838	.199	Silesia—Electrotechnical:		
Ironers (skilled tailors), over 24 years	.828	.197	Time workers, over 24 years:		
Corset cutters	.820	.195	Mounters and other skilled workers	.735	.175
Packers	.752	.179	Assistant mounters	.690	.164
Females:			Helpers, experienced	.595	.142
Forewomen, and cutters designing patterns	.596	.142	Helpers, inexperienced	.530	.126
Cutters	.549	.131	Cologne: ²		
Seamstresses and ironers:			Males over 21 years: ³		
Over 20 years ¹⁷	.477	.114	Group I ²¹	.75	.179
After 6 months' service	.445	.106	Group II ²¹	.73	.174
Helpers, over 20 years, after 6 months' service	.419	.100	Group III ²¹	.72	.171
			Group IV ²¹	.65	.155
			Group V ²¹	.63	.150
			Model carpenters	.74	.176
			Males, 21 years:		
			Skilled	.65	.155
			Unskilled	.55	.131
			Apprentices, fourth year	.24	.057

² Rates are for timework; piecework earnings must exceed time rates by 15 percent.

³ Also family allowance of 2 pfennigs per hour for wife and each child under 14.

¹⁰ Also family allowance of 1 pfennig per hour for wife and 2 pfennigs per hour for each dependent child.

¹² Also family allowance of 1 pfennig per hour for wife and each dependent child.

¹³ Also special allowance of 4 pfennigs per hour.

¹⁴ Also special allowance of 2 pfennigs per hour.

¹⁵ Rates are for timework; piece rates must be such as to allow a normally efficient worker to earn at least 0.481 mark per hour.

¹⁶ Fixed by independent agreement.

¹⁷ Firms paying time rates only.

¹⁸ Rates given are for timework; piecework earnings must exceed time rates by 20 percent.

¹⁹ Localities are classified according to living costs.

²⁰ 70 percent of rate of men.

²¹ For occupations included in this group, see text comment following table.

TABLE 2.—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933—Continued

Industry, district, and occupational, etc., classification	Rate per hour		Industry, district, and occupational, etc., classification	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Metal—Continued</i>			<i>Musical instruments (small)</i>		
Cologne—Wire and cable: Workers over 21 years:			Saxony:		
Farmers, smiths, etc.....	Marks 0.75	\$0.179	Males over 22 years:	Marks 0.545	\$0.130
Cable workers, wire drawers.....	.73	.174	Trained, professional.....	.495	.118
Semiskilled workers.....	.66	.157	Skilled, professional.....	.46	.109
Unskilled workers.....	.64	.152	Helpers.....	.32	.076
Muenster: ²			Females over 22 years.....	.84	.200
Skilled workers, male, over 23 years: ²²			Artisans:		
Group A localities ¹⁹.....	.62	.148	Highly skilled.....	.77	.183
Group B localities.....	.61	.145	Experienced.....	.755	.180
Group C localities.....	.58	.138	Trained (over 23 years).....		
Semiskilled workers, male, over 23 years: ²²					
Group A localities.....	.57	.136	<i>Paper</i>		
Group B localities.....	.55	.131	Rhineland: ⁷		
Group C localities.....	.51	.121	Adult males: ²²		
Unskilled workers, male, over 23 years: ²²			Group I.....	.80	.190
Group A localities.....	.54	.129	Group II.....	.73	.174
Group B localities.....	.51	.121	Group III.....	.69	.164
Group C localities.....	.50	.119	Group IV.....	.66	.157
Females:			Group V.....	.64	.152
Semiskilled.....	(23)	(23)	Group VI.....	.73	.174
Unskilled.....	(24)	(24)	to.....	.80	.190
Mettmann: ²			Group VII.....	.66	.157
Males, 24 years and over:			to.....	.73	.174
Skilled.....	.67	.159	to.....	.18	.043
Semiskilled.....	.61	.145	Young workers, male.....	.57	.136
Helpers.....	.58	.138	to.....	.16	.038
Females 22 years and over.....	.40	.095	to.....	.46	.109
Hagen-Westphalia: ²			Females.....		
Males 24 years and over: ²²			to.....		
Skilled.....	.66	.157	Silesia: ¹⁸		
Semiskilled.....	.62	.148	Males over 21 years:		
Unskilled.....	.55	.131	Group A.....	.525	.125
Females 24 years and over.....	.38	.090	Group B.....	.555	.132
Dusseldorf: Males 21 years and over: ²⁵			Group C.....	.58	.138
Highly skilled ¹¹.....	.70	.167	Group D.....	.605	.144
Skilled (with at least 4 years' experience) ¹¹.....	.672	.160	Group E.....	.66	.157
Unskilled ¹¹.....	.55	.131	Group F.....	.71	.169
Frankfort:			to.....	.16	.038
Males over 24 years:			Group G: young male workers.....	.315	.075
Skilled.....	.72	.171	Group H: women.....	.35	.083
Semiskilled.....	.65	.155			
Unskilled.....	.60	.143	<i>Photographic apparatus—Dresden district</i>		
Females over 20 years.....	.42	.100	Adults over 23 years:		
Apprentices, fourth year.....	.23	.055	Basic rates:		
Apprentices, foundry.....	.28	.067	Skilled workers.....	.69	.164
Remscheid: ²			Helpers.....	.615	.146
Males over 24 years:			Women.....	.415	.099
Specialists.....	.68	.162	Minimum piece rates:		
Skilled.....	.66	.157	Skilled workers.....	.76	.181
Semiskilled.....	.62	.148	Helpers.....	.675	.161
Unskilled.....	.55	.131	Women.....	.455	.108
Females over 22 years.....	.41	.098			
to.....	.33	.079			
Apprentices, fourth year.....	to	to			
	.35	.083			

² Rates are for timework; piecework earnings must exceed time rates by 15 percent.

⁷ Rates are for localities with highest living costs.

¹¹ Also family allowance of 1 pfennig per hour for wife and 2 pfennigs per hour for each dependent child.

¹⁸ Rates are for timework; piecework earnings must exceed time rates by 20 percent.

¹⁹ Localities are classified according to living costs.

²² Also family allowance of 1.5 pfennigs per hour for wife and each child.

²³ 75 percent of rate of semiskilled male workers.

²⁴ 70 percent of rate of unskilled male workers.

²⁵ Rates are for timework; piecework earnings must exceed time rates by 10 percent.

TABLE 2.—WAGE RATES IN SPECIFIED INDUSTRIES AND DISTRICTS OF GERMANY, BY SEX AND OCCUPATION OF WORKERS, IN 1933—Continued

Industry, district, and occupational, etc., classification	Rate per week		Industry, district, and occupational, etc., classification	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Printing</i>			<i>Rubber—Cologne district—Con.</i>		
Hamburg—Printers:	Marks		Adult males—Continued	Marks	
Under 21 years.....	40.80	\$9.710	Semiskilled.....	0.67	\$0.159
21 to 23 years.....	44.40	10.567	Unskilled.....	.66	.157
Over 23 years.....	48.00	11.424	<i>Shipbuilding</i>		
	Rate per hour		Seagoing vessels: ²⁷		
Free State of Thuringia—Gera:	Marks		Hamburg:		
Male helpers over 24 years.....	0.69	\$0.164	Skilled workers.....	.72	.171
Females over 21 years:			Partly trained workers.....	.66	.157
Feeders.....	.47	.112	Unskilled workers.....	.58	.138
Others.....	.38	.090	North Sea:		
Free State of Saxony—Leipzig:			Skilled workers.....	.66	.157
Male helpers over 24 years.....	.82	.195	Partly trained workers.....	.60	.143
Females over 21 years:			Unskilled workers.....	.53	.126
Feeders.....	.56	.133	Baltic Sea:		
Others.....	.47	.112	Skilled workers.....	.65	.155
Prussian Province of Saxony:			Partly trained workers.....	.59	.140
Erfurt:			Unskilled workers.....	.53	.126
Male helpers over 24 years.....	.70	.167	<i>S Soap—Rhenish Westphalia¹⁸</i>		
Females over 21 years:			Males:		
Feeders.....	.48	.114	Group I localities.....	.68	.162
Others.....	.39	.093	Group II localities.....	.64	.152
Halle:			Group III localities.....	.55	.131
Male helpers over 24 years.....	.72	.171	Group IV localities.....	.54	.129
Females over 21 years:			Females:		
Feeders.....	.49	.117	Group I localities.....	.48	.114
Others.....	.40	.095	Group II localities.....	.45	.107
Prussian Province of Saxony:			Group III localities.....	.39	.093
Magdeburg:			Group IV localities.....	.38	.090
Male helpers over 24 years.....	.72	.171	<i>Sugar</i>		
Females over 21 years:			Cologne district: ²⁸		
Feeders.....	.49	.117	Craftsmen, over 20 years.....	.70	.167
Others.....	.40	.095	to	to	
Nordhausen:			Unskilled workers over 21	.74	.176
Male helpers over 24 years.....	.68	.162	years.....	.62	.148
Females over 21 years:			Females over 21 years.....	.40	.095
Feeders.....	.46	.109	Silesia: ³		
Others.....	.38	.090	Skilled workers.....	.62	.148
	Rate per week		to	to	
Stuttgart:	Marks		Experienced workers.....	.67	.159
Compositors and pressmen.....	47.04	\$11.196	Unskilled workers.....	.566	.135
Linotype operators.....	56.45	13.435	to	.515	.123
Proofreaders.....	50.57	12.036	<i>Woodworking—Cologne district</i>		
Apprentices, fourth year.....	16.46	3.917	Workers over 22 years: ²		
	Rate per hour		Specialists, male.....	.96	.228
<i>Rubber—Cologne district²</i>			Specialists, female.....	.62	.148
Adult males: ²⁶	Marks		Helpers, male.....	.80	.190
Specialists.....	0.69	\$0.164	Helpers, female.....	.53	.126
Skilled.....	.68	.162	Woodworking—machine operators.....	1.06	.252
			Apprentices.....	2 ¹⁰ 1.00	2 ⁹ 2.380

² Rates are for timework; piecework earnings must exceed time rates by 15 percent.

³ Also family allowance of 2 pfennigs per hour for wife and each child under 14.

¹⁸ Rates are for timework; piecework earnings must exceed time rates by 20 percent.

²⁶ Also family allowance of 1.14 marks per week for wife and each child.

²⁷ Also family allowance of 2 pfennigs per hour for each child attending school.

²⁸ Family allowances are paid as follows: Husband or wife, living together, 1 mark per week for spouse and for each child under 14; husband living apart, 1 mark for housekeeper and for each child under 14; widow or wife living apart, 1 mark for each child under 14.

²⁹ Rate per week.

Boot and shoe industry.—Wages in this industry are regulated by a uniform national agreement, local conditions being allowed for by classifying the various localities into 5 classes on the basis of living costs.

Brewing industry.—There are about 65,000 wage earners employed in this industry and the wages paid are among the highest in Germany. Practically no breweries are working full time, the average being 40 hours per week. The wages actually paid, therefore, may be considered as about one sixth less than those given in the table.

Brick industry.—In this industry in the Cologne district the working hours of all employees except burners are 48 hours per week. Burners work 60 hours per week.

Ceramic industry.—Wage rates given in the table are minimum rates; actual earnings are reported to be up to 50 percent above those given.

Chemical industry.—Wages in this industry are based not only upon age and skill but also on the relative cost of living in the various cities within a given district.

Clothing industry.—Berlin is the center of the women's clothing industry, in which home workers largely predominate. It is estimated that at the present time this industry gives employment to between 60,000 and 70,000 home workers in that city alone, as compared with 100,000 under normal conditions. Wages are governed by detailed agreements which fix the standard time for sewing one garment, one dozen garments, or parts thereof. Upon this basis the worker receives an hourly wage. Thread is furnished by the employer. It is reported on reliable authority that the rates shown in the table are not strictly followed and in some instances as little as half the agreement rate is paid.

Flour-milling industry.—A family allowance of 5 percent of the hourly rate is paid to the following: Married male workers; widows with their own households; single workers with dependents; and women whose husbands are unemployed or ill for more than 17 days. Such workers are entitled to 3 pounds of flour per week, free. If both husband and wife are employed in the same mill the wife receives an additional supply of 3 pounds of flour per week.

Iron and steel industry.—The agreement in the Rhenish Westphalia iron and steel industry fixes the basic wage for only certain classes of workers. Wages for smelters, rolling-mill workers, etc., are fixed by special agreement usually made between the various establishments and the local labor organization.

The Siegerland industry produces mainly steel plates. The normal working time is 48 hours per week, except in the blast-furnace and repair departments, Martin steel plants, and rolling mills producing thick plates, whose workers have a 57-hour week. Workers in rolling mills and hammer and drop-forge plants have a normal working time of 8 hours per day but must work 1 hour of overtime per day when required.

Metal trades.—Although the metal-working industry of Germany is scattered in various parts of the country, certain sections are important in the production of particular kinds of metal goods. In Berlin and Brandenburg some of the most important electrotechnical plants are located. The industry of Silesia includes the electro-technical, coach and chassis, auto repair, and orthopedic and chirurg-

gical branches; that of Cologne produces internal-combustion engines, hoisting machinery, refrigerating apparatus, boilers, steam engines, locomotives, railway cars and coaches, wire and cable, and foundry products. The industry in Muenster produces chiefly sheet-metal goods and wire products; that in Mettmann specializes in hardware; that in Hagen-Westphalia makes chiefly screws and rivets. The industry at Dusseldorf produces machine tools, cranes, boilers, and structural-iron and sheet-iron products; that in the Frankfort district manufactures metal articles, hardware, tools, machinery, etc.; while that in Remscheid specializes in tools.

In Silesia it is the general rule that so far as possible all work shall be done on the piece basis and timework shall be employed only when piecework is not practicable or possible. Employers are authorized to grant to workers on time rates a speed bonus of 12½ percent of the basic rate to workers of the highest skill and of 7½ percent to others. In auto-repair shops and coach and chassis shops a similar bonus may be granted to all time workers up to 15 percent of the basic time rates. In the electrotechnical industry the employer may, for economic or technical reasons, increase the working time from 48 to 51 hours per week.

In Cologne the workers are, for wage purposes, classified as follows:

Group I.—Hammer and drop-forge operators; foremen, blacksmiths, boiler-smiths, and springsmiths (locomotive construction); coppersmiths, anglesmiths, borderingsmiths, and toolsmiths; welders; clay and sand molders; and cast-steel formers.

Group II.—Hammer and drop-forge operators (light work); precision mechanics; engravers; sheet pressers; calibrating and cutting tool turners and polishers; boiler-smiths; core molders (difficult work); formers; and draftsmen.

Group III.—Riveters (strenuous work); coppersmiths on simple pipe work; iron and steel turners; sheet-iron strainers and beaters; plumbers; tool hardeners; grinders and polishers (on difficult and unhealthy work); electricians; armature winders; turners of fittings; operators of horizontal drilling machines; adjusters of automatic machine tools; round, inner, and flat grinders (difficult work); drillers, machine construction (difficult work); millers; planers; perforators; perforators and shear operators (difficult work); autogenous and electric welders; tube welders; nonferrous-metal casters; markers; shipbuilders; lead solderers; furnace workers; locomotive engineers; upholsterers and harness makers; painters; varnishers; tool grinders; head machinists and firemen; boiler stokers (trained); machinists and core molders (trained).

Group IV.—Mechanics, semiskilled; attendants of automatic machine tools; round and inner grinders, semiskilled; turners; riveters; boiler-smiths' helpers; coppersmiths' helpers; screw turners; polishers and grinders; millers; planers; perforators; drillers; autogenous and electric welders, rolled iron; tinnern; lead and zinc platers; machine formers; castings dressers (difficult work); operators, semiskilled, of drop forges, presses, and forging machines.

Group V.—Castings dressers (simple work); machine operators (simple work); painters (rough work); pump and motor attendants; coal trammers; unloaders of heavy logs; operators of cranes, elevators, and traveling platforms; shunters; section workers; packers;

and unskilled workers. The wages of female workers are computed on the basis of 75 percent of the basic rate for male workers of their respective ages and occupations. Grinders are entitled to a special allowance ranging from 1 pfennig per hour for those under 18 years to 3 pfennigs per hour for those over 20 years of age.

The rates shown in the table for the Frankfort district are minimum rates and the actual earnings are considerably higher in the case of experienced workers performing important and responsible work. It may be said, however, that the actual pay, even on the piecework basis, never exceeds double the "tariff rate." The highest compensation of a highly skilled and very useful worker is around 1.50 marks (35.7 cents) per hour. The method by which the actual rate of wages is fixed is that of "efficiency allowance." The tariff rate is always the nominal compensation and any amount paid above the tariff is in the form of an extra allowance determined by the management in each individual case. Piecework is also based on the tariff rate, which is the guaranteed minimum to which the piecework earnings are added.

Musical-instrument industry.—Most of this work is done on piece rates. These are established at a level at least 15 percent above the basic rates, but are usually considerably higher, ranging generally from 20 to 35 percent over the regular hourly rate, according to the efficiency of the worker. In the manufacture of harmonicas the operation is divided into a set number of processes, each of which has its own piece rate, which, however, is at least 15 percent above the highest basic hourly rate. Home workers are paid according to special agreements; the earnings of this class of workers are practically the same as those of the factory workers.

Paper industry.—In Rhineland the workers are, for wage purposes, classified as follows: *Group I.*—Paper-machine operators; rag engine millers on fine paper; hand paper makers. *Group II.*—Paper glazers, first; rag engine millers (printing, etc., papers); assistant operators, rotating paper machines; operators of gluing, pasting, and carding machines; tracers, couchers, calender operators; lye makers, evaporators and furnace workers in straw material plants. *Group III.*—Cardboard-machine operators; assistant paper-machine operators; second assistant operators, rotating paper machines; assistant millers; crushing-mill operators; millers, cardboard; glue and paint cooks; cellulose packers; bleach-house workers; moisteners, independent; rolling and cutting machine operators; counters; packers, pasters; box carpenters; wood glazers and teamsters. *Group IV.*—Assistant rag engine millers (fine paper); assistant operators, roll pasting machines; stuff grinder operators; wood dressers and peelers; pressers; boiling equipment operators; straw and rag cutters; yard workers; coal trammers; elevator operators. *Group V.*—Second assistant paper-machine operators; helpers in occupations of groups I to IV; packers. *Group VI.*—Skilled craftsmen, machinists, and firemen. *Group VII.*—Semiskilled craftsmen and helpers of group VI.

In Silesia male workers over 21 are classified as follows: *Group A.*—Assistant damping-machine operators; craftsmen's helpers; yard laborers, workers in cardboard factories porters, watchmen. *Group B.*—Laborers on chopping machines, circular and pendulum saws; ash and slag carriers, loaders, dumping-machine operators, wood peelers, and grinders; wet-machine operators; paper-machine greasers,

ream cutters. *Group C.*—Artisans, cylinder-machine operators, calender operators, wet-machine operators, assistant paper-machine operators, shunters, locomotive engineers (not certified); etc. *Group D.*—Steam-engine and steam-turbine attendants, firemen, and reserve machine operators. *Group E.*—Master firemen, alkali laborers, sulphate laborers, cooking-vessel attendant, grinder foremen, etc. *Group F.*—Paper and cardboard machine operators, automobile drivers, locomotive engineers (certified), artisans, bricklayers, and carpenters.

Photographic-apparatus industry.—Actual piecework earnings are on an average 30 to 50 percent higher than the minimum rates shown.

Printing industry.—In actual practice, in the Hamburg district, from 8 to 10 percent above the rates shown is being paid. In Stuttgart the majority of publishers are paying in excess of the scale shown in the table, the excess being about 10 marks per week in the case of copy readers, and 15 marks in the case of compositors, pressmen, and linotype operators.

Rubber industry.—In this industry in the Cologne district wages must be paid once a week and in no case later than Friday. Special allowances of from 1 to 2 pfennigs per hour are paid for work considered unhealthful. Female workers who are self-supporting are entitled to an allowance of 4 pfennigs per hour. Foremen, during their first year of service as such, receive an allowance of 4 pfennigs per hour, during the second year 5 pfennigs, and thereafter 7 pfennigs.

Sugar industry.—In this industry in the Cologne district unmarried workers receive 10 pounds and married workers 20 pounds of sugar per month, free. Foremen are paid 10 percent over the rates of their respective groups.

In normal times Silesia ranks as the second or third largest beet-sugar producing district in Germany. During the sugar-production season of 1929-30 there were 41 sugar mills in operation in this district; during 1930-31, however, the number was only 38.

Cigar and Cigarette Industry

Hamburg, cigars.—In the Hamburg district the localities are classified according to the cost of living therein, and the basic rates per hour in the various locality groups are as follows:

TABLE 3.—BASIC HOURLY RATES IN THE CIGAR INDUSTRY, HAMBURG DISTRICT, GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

Class of workers	Locality group I		Locality group II		Locality group III		Locality group IV	
	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency
Males:	Marks	Cents	Marks	Cents	Marks	Cents	Marks	Cents
Unmarried, over 23 years.....	0.465	11.1	0.520	12.4	0.565	13.4	0.605	14.4
Married.....	.525	12.5	.560	13.3	.605	14.4	.660	15.7
Females, over 20 years.....	.330	7.9	.355	8.4	.385	9.2	.415	9.9

In addition to the above, allowances are made for length of experience to workers of both sexes in all groups, as follows:

	<i>Pfennigs</i>
After 2 years.....	4 (1.0 cent)
After 3 years.....	5 (1.2 cents)
After 5 years.....	7 (1.7 cents)
After 10 years.....	9 (2.1 cents)

Female workers who keep house and have children under 14, as well as those who have disabled husbands, receive an extra 5 percent.

Dresden and Hamburg, cigarette and tobacco.—Table 4 shows the hourly and weekly rates in the various occupations or processes, by sex.

TABLE 4.—WAGE RATES IN THE CIGARETTE AND TOBACCO INDUSTRY OF DRESDEN AND HAMBURG, GERMANY

<i>Dresden district</i> ¹				
[Conversions into United States currency on basis of mark at par=23.8 cents]				
Sex and class of workers	Rate per hour		Rate per week	
	German currency	United States currency	German currency	United States currency
<i>Males</i>				
Machine operators on—				
Excelsior or U. K. model machines, with and without band knife.....	<i>Marks</i> 1.60	\$0.381	<i>Marks</i> 68.00	\$16.184
U. M. model machines, Atlas band or Halfter-Kreuzburg apparatus.....	1.66	.395	70.55	16.791
Band knives, capacity up to 650 revolutions.....	1.70	.405	72.25	17.196
U. G. I., Progress, Triumph I, capacity over 650 revolutions.....	1.78	.424	75.65	18.005
U. G. II, Victoria, Rapid, Triumph II.....	1.82	.433	77.35	18.409
Operators under training:				
First quarter of training.....	1.52	.362	64.60	15.375
Fourth quarter of training.....	1.58	.376	67.15	15.982
After first year as machine operator.....	1.60	.381	68.00	16.184
Locksmiths, turners, and operators on packing and banderoling machines, over 25 years.....	1.53	.364	65.02	15.475
Truck drivers, automobile.....	1.10	.262	46.75	11.127
Workers in filter plant.....	1.06	.252	45.05	10.722
Tobacco cutters, knife sharpeners, and premoisteners, over 21 years.....	1.10	.262	46.75	11.127
Mixers, over 21 years.....	1.02	.243	43.35	10.317
Workers in transit stores of tobacco department, in raw-tobacco stores, and in moistening room, over 21 years.....	1.02	.243	43.35	10.317
Other workers, over 21 years.....	1.00	.238	42.50	10.115
<i>Females</i>				
Machine operators on—				
Cigarette machines.....	.70	.167	29.75	7.081
Packing, banderoling, cutting, and filter machines.....	.66	.157	28.05	6.676
Workers on washing boxes, premoistening process, and work with raw tobacco.....	.66	.157	28.05	6.676
Workers loosening tobacco on endless bans or with machine.....	.76	.181	32.30	7.687
Other workers, over 18 years.....	.60	.143	25.50	6.069

Hamburg district

<i>Males</i>				
Machine operators on Triumph, Rapid U. G. I, U. G. II, Rekord, over 750 revolutions.....	<i>Marks</i> 2.14	\$0.509	<i>Marks</i> 77.35	\$18.409
Machinists' apprentices, fourth quarter of training.....	1.50	.357	63.75	15.173
Skilled laborers and bookbinders, over 25 years.....	1.50	.357	63.75	15.173
Tobacco cutters, over 25 years.....	1.30	.309	55.25	13.150
Knife sharpeners.....	1.18	.281	50.15	11.936
Helpers, over 21 years.....	1.09	.259	46.33	11.027
<i>Females</i>				
Workers in tobacco-working sections and machine shops, over 18 years.....	.70	.167	29.75	7.081
Other laborers, over 18 years.....	.66	.157	28.05	6.676
Pieceworkers.....	.62	.148	26.35	6.271
Operators on assembly and packing machines.....	.75	.179	31.88	7.587

¹ Rates shown for this district are for a 42½-hour week.

Table 5 shows the minimum hourly wage rates in the various departments of the Rhenish glass industry.

TABLE 5.—MINIMUM WAGE RATES IN THE RHENISH GLASS INDUSTRY, GERMANY
[Conversions into United States currency on basis of mark at par=23.8 cents]

Branch of industry, and class, sex, etc. of workers	Minimum rate per hour	
	German currency	United States currency
Bottles:		
Skilled and semiskilled workers, male—	<i>Marks</i>	<i>Cents</i>
Timework.....	0.690	16.4
Piecework.....	.800- .900	19.0-21.4
Helpers, male, over 21 years, timework.....	.580- .610	13.8-14.5
Females, timework.....	.330- .370	7.9- 8.8
Plate glass:		
Skilled and semiskilled workers, male—		
Timework.....	.700	16.7
Piecework.....	.900-1.000	21.4-23.8
Helpers, male, over 21 years, timework.....	.590- .600	14.0-14.3
Females, timework.....	.350- .390	8.3- 9.3
White hollow glass:		
Skilled and semiskilled workers, male—		
Timework.....	.700	16.7
Piecework.....	.800- .900	19.0-21.4
Helpers, male, over 21 years, timework.....	.590- .600	14.0-14.3
Females, timework.....	.330- .380	7.9- 9.0
Miscellaneous articles:		
Foremen—		
Tube makers.....	.801	19.1
Marble makers.....	.577	13.7
Tube drawers.....	.652	15.5
Furnace firemen.....	.561	13.4
Carriers.....	.221- .272	5.3- 6.5
Yardmen and packers.....	.468	11.1
Master smelters.....	.937	22.3
Grindstone toolmakers.....	.700	16.7

The basic hourly rates paid in the hollow-glass industry in the Ilmenau district of Thuringia are given in the table following.

TABLE 6.—HOURLY WAGE RATES IN THE HOLLOW-GLASS INDUSTRY OF ILMENAU DISTRICT, THURINGIA, GERMANY
[Conversions into United States currency on basis of mark at par=23.8 cents]

Occupation	Perfume bottles		Chemical and technical glassware	
	German currency	United States currency	German currency	United States currency
Foremen:	<i>Marks</i>	<i>Cents</i>	<i>Marks</i>	<i>Cents</i>
Smelters.....	0.674-0.840	16.0-20.0	0.937	22.3
Pattermakers.....	.....	.....	.743	17.7
Potmakers.....	.647- .726	15.4-17.3	.743	17.7
Glassmakers.....	.....	.....	.857	20.4
Finishers.....	.770	18.3	.....	.....
Smelters.....	.....	.....	.577	13.7
Potmakers.....	.437- .481	10.4-11.4	.481	11.4
Grinders.....	.612	14.6	.674	16.0
Glassmakers.....	.....	.....	.674	16.0
Blowers.....	.612	14.6	.....	.....
Furnace firemen.....	.527- .561	12.5-13.4	.561	13.4
Matrixmakers.....	.....	.....	.289- .314	6.9-7.5
Carriers.....	.195- .272	4.6- 6.5	.221- .272	5.3-6.5
Glass inspectors.....	.425- .468	10.1-11.1	.510	12.1
Emptiers.....	.425- .468	10.1-11.1	.468	11.1
Yardmen.....	.425- .468	10.1-11.1	.468	11.1
Packers.....	.425- .468	10.1-11.1	.468	11.1
Grinders, female.....	.306- .340	7.3- 8.1	.340	8.1
Helpers, female.....	.306- .340	7.3- 8.1	.340	8.1
Master smelters.....	.937	22.3	.937	22.3
Grindstone toolmakers.....	.700	16.7	.700	16.7

Leather Goods and Tanning Industries

Leather goods, Offenbach.—The branch of industry considered here is often referred to as "Offenbach goods" since it centers in the town of Offenbach-on-Main adjacent to Frankfort-on-Main. It includes the manufacture of saddlery, bags, portfolios, travel articles, sport articles, and trappings of all kinds, but does not cover shoe, glove, machine belting, or automotive upholstery. The wage rates and working conditions discussed are those applicable to the Prussian Province of Hesse-Nassau, State of Hesse, exclusive of the city of Mainz, and a few adjoining small districts.

Table 7 shows the basic hourly rates in this industry under the agreement effective in April 1933. The rates in the three locality groups shown are based on a uniform ratio of 100:95:90 for the first, second, and third locality classes, respectively; this ratio is based principally on the cost of living. The rates given are for timework; piecework earnings must be such as to yield at least 12½ percent above the time rates.

TABLE 7.—BASIC HOURLY RATES IN THE LEATHER-GOODS INDUSTRY OF HESSE AND HESSE-NASSAU, GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

Class of workers	Class 1 localities		Class 2 localities		Class 3 localities	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Skilled workers:	Marks	Cents	Marks	Cents	Marks	Cents
First and second years after apprenticeship.....	0.57	13.6	0.55	13.1	0.51	12.1
Third year after apprenticeship, up to 22 years of age.....	.75	17.9	.71	16.9	.67	15.9
Over 22 years.....	.88	20.9	.84	20.0	.79	18.8
Other workers, over 22 years:						
Unskilled, male.....	.77	18.3	.74	17.6	.70	16.7
Stitchers, cutters, and portfolio assistants, female.....	.57	13.6	.55	13.1	.51	12.1
Handbag workers, and skivers, female.....	.62	14.8	.59	14.0	.55	13.1
Other workers, female.....	.51	12.1	.49	11.7	.46	10.9

A large part of the leather-goods industry is carried on by "home workers." This term is not very definite, since it comprises all kinds of free-lance labor, from an individual taking his work home and performing it there with his own tools to a small factory employing a number of persons. A home worker takes the raw or semimanufactured materials from a leather-goods factory, finishes or improves them at home, and delivers them to his employer. He is paid at so much per piece, per dozen, or per gross. Home workers must be at least 23 years of age. They may work together with members of their families or hire outside help. Persons working in such home shops receive the fixed rates of pay.

There are no provisions to regulate the pay for ordinary home work, the rates being left to individual agreements.

Factory workers are not allowed to take work home or to act as home workers in their spare time.

Tanning, Worms district.—The tanning industry of Germany is concentrated mainly in and around Worms, in Hesse. The wage scales and working conditions in that district are, therefore, representative of those prevailing throughout the country.

Table 8 shows the scales in force in April 1933.

TABLE 8.—BASIC RATES FOR TIMEWORK AND PIECEWORK IN THE TANNING INDUSTRY, WORMS DISTRICT, GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

Class of workers	Basic hourly rates			
	Timework		Piecework	
	German currency	United States currency	German currency	United States currency
Skilled workers, over 25 years.....	Marks 0.785	Cents 18.7	Marks 0.755	Cents 18.0
Other workers, over 21 years:				
Semiskilled.....	.730	17.4	.680	16.2
Unskilled.....	.675	16.1	.640	15.2
Females.....	.450	10.7	.430	10.2

Lumber and Woodworking Industry

Tables 9 to 11 cover the various branches of the lumber industry in Germany, including forestry, logging, and lumber and sawmills.

Forestry.—Table 9 shows the hourly wage rates in the forestry industry of the Hamburg and Munich districts. In both districts the working week is 44 hours and extra allowances are made to heads of families, that in Hamburg being 3 pfennigs per hour per child, and that in Munich 4 pfennigs per hour or 9 pfennigs if the worker must live in camp. Foremen in Munich receive a supplement of 4 pfennigs per hour. Men engaged in boring for filling and firing explosives receive a supplement of 9 pfennigs per hour in Munich, as do also workers required to work in water if the work takes more than 4 hours.

TABLE 9.—HOURLY WAGE RATES IN THE FORESTRY INDUSTRY OF GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

District and class of workers	Rate per hour		District and class of workers	Rate per hour	
	German currency	United States currency		German currency	United States currency
<i>Hamburg district</i>			<i>Munich district</i> ¹		
Male workers:	Marks	Cents	Male workers:	Marks	Cents
18 and under 21 years.....	0.75	17.9	16 and under 18 years.....	0.31	7.4
21 years and over (after 3 years).....	.89	21.2	20 years and over.....	.51	12.1
Female workers:			Female workers—		
18 and under 21 years.....	.58	13.8	16 and under 18 years.....	.23	5.5
21 years and over (during third year).....	.72	17.1	20 years and over.....	.31	7.4

¹ In heavily forested mountain regions, i.e., where highest rate is paid.

Logging and lumbering, Bremen and Silesia.—The following table shows the basic hourly rates in the logging and lumbering industry of the Bremen district and of Silesia. Those for the Bremen district were established by an arbitration decision effective February 1, 1933, while those for Silesia were those fixed by an agreement of January 2, 1933, which reduced the previous rates by 10 to 15 percent. In the Bremen district 25 percent extra is paid for piecework, while in

Silesia piece rates are so calculated as to enable the worker to earn 16 percent over the timework scale. In the latter region, the wage scale of an unmarried employee over 18 years old is used as a basis for calculating the piece rates. Married employees receive 15 percent over the regular time rates.

TABLE 10.—WAGE RATES IN THE LOGGING AND LUMBERING INDUSTRY OF BREMEN AND SILESIA, GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

District, and class of workers	Rate per hour		District, and class of workers	Rate per hour	
	Ger- man cur- rency	United States cur- rency		Ger- man cur- rency	United States cur- rency
<i>Bremen district</i>			<i>Silesia</i>		
Able-bodied males over 21 years:	<i>Marks</i>	<i>Cents</i>	Able-bodied males over 18 years: ¹	<i>Marks</i>	<i>Cents</i>
Wage group I.....	0.52	12.4	Wage group I.....	0.34	8.1
Wage group II.....	.51	12.1	Wage group II.....	.35	8.3
Wage group III.....	.50	11.9	Wage group III.....	.36	8.6
Wage group IV.....	.49	11.7	Wage group IV.....	.37	8.8
Able-bodied females over 18 years:			Wage group V.....	.38	9.0
Wage group I.....	.31	7.4	Wage group VI.....	.39	9.3
Wage group II.....	.30	7.1	Wage group VII.....	.41	9.8
Wage group III.....	.29	6.9			
Wage group IV.....	.29	6.9			

¹ Women generally receive 60 percent of the rate for males in their age group.

If he so desires the employee may require his employer to supply him with provisions at the wholesale price prevailing in the nearest market town on the day of delivery, the provisions to be charged either against his hourly wage or to be paid for in money.

Wood for fuel is to be supplied to regularly employed workers at prices to be agreed upon.

In case living quarters are supplied they are to be considered only as a residence in connection with the worker's employment. Married employees who receive a residence from their employers are permitted to house only their own families therein. Persons other than those mentioned may reside therein only with the express consent of the employer. An allowance of 3 percent of the regular wage is made to all regularly employed forestry workers for the purchase of tools and for their depreciation through use.

In mountain districts, if the employee's home and place of work are more than 3 kilometers apart, he receives payment for the time spent going and coming at the regular wage scale.

Regularly employed workers, after 2 years' service in the same district are entitled to an annual vacation of 3 days, and after 5 years' service to one of 4 days. During the vacation period they are paid at the regular basic wage scale.

Sawmills, Munich and Silesia.—The table following shows the basic hourly rates established by agreement in the Munich and Silesia districts.

TABLE 11.—BASIC HOURLY RATES IN SAWMILLS OF THE MUNICH AND SILESIA DISTRICTS, GERMANY

[Conversions into United States currency on basis of mark at par=23.8 cents]

Locality	Males over 22 years doing—						Females over 22 years	
	Heavy work		Medium work		Light work			
	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency
<i>Munich district</i>								
Munich.....	Marks 0.71	Cents 16.9	Marks 0.67	Cents 15.9	Marks 0.64	Cents 15.2	Marks 0.46	Cents 10.9
Localities of—								
Group I ¹.....	.68	16.2	.65	15.5	.61	14.5	.44	10.5
Group II.....	.62	14.8	.59	14.0	.56	13.3	.40	9.5
Group III.....	.57	13.6	.54	12.9	.51	12.1	.37	8.8
Group IV.....	.52	12.4	.49	11.7	.47	11.2	.34	8.1
Group V.....	.47	11.2	.45	10.7	.42	10.0	.31	7.4
<i>Silesia district</i>								
	Skilled workers		Experienced workers		Unskilled workers			
	German currency	United States currency	German currency	United States currency	German currency	United States currency		
	Marks	Cents	Marks	Cents	Marks	Cents		
Lower Silesia.....	0.54	12.9	0.522	12.4	0.505	12.0		
Central Silesia.....	655-672	15.6-16.0			.629	15.0		
Glatz District.....	.47	11.2	.46	10.9	.445	10.6		
Brieg District.....	.48	11.4	.465	11.1	.445	10.6		
West Upper Silesia.....	.49	11.7	.48	11.4	.46	10.9		

¹ Classified according to cost of living.

Sawmills in Silesia, totaling several hundred, the majority being small, are widely scattered throughout the district and like in the lumbering and logging industry, the mills, for the purpose of wages, are grouped into many categories. For the past 2 years a very high percentage of the sawmills are at a standstill and employment has been reduced to very low figures.

The wage agreement for Lower and Central Silesia came into force January 1, 1932; that for Glatz district, September 9, 1932; that for Brieg, September 30, 1932; and that for West Upper Silesia, January 1, 1932.

Textile Industry

Table 12 shows the hourly rates of skilled and unskilled workers in the various branches of the textile industry, provided for by agreement during the first quarter of 1933:

TABLE 12.—AVERAGE HOURLY RATES OF WAGES IN SPECIFIED BRANCHES OF THE GERMAN TEXTILE INDUSTRY, APRIL 1, 1933
[Conversions into United States currency on basis of mark at par=23.8 cents]

Branch of industry	Males				Females			
	Skilled workers		Helpers		Skilled workers		Helpers	
	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency
Textile industry.....	Marks 0. 639	Cents 15. 2	Marks 0. 534	Cents 12. 7	Marks 0. 502	Cents 11. 9	Marks 0. 398	Cents 9. 5
Worsted-yarn.....	. 701	16. 7	. 547	13. 0	. 452	10. 8	. 394	9. 4
Cloth.....	. 612	14. 6	. 541	12. 9	. 519	12. 4	. 413	9. 8
Cotton.....	. 635	15. 1	. 524	12. 5	. 519	12. 4	. 395	9. 4
Linen.....	. 596	14. 2	. 496	11. 8	. 456	10. 9	. 368	8. 8
Silk.....	. 583	13. 9	. 544	12. 9	. 513	12. 2	. 419	10. 0
Velvet.....	. 719	17. 1	. 616	14. 7	. 537	12. 8	. 409	9. 7
Ribbon.....	. 653	15. 5	. 544	12. 9	. 511	12. 2	. 420	10. 0
Lace and curtain.....	. 754	17. 9	. 559	13. 3	-----	-----	. 393	9. 4
Knit goods.....	. 657	15. 6	. 545	13. 0	. 453	10. 8	. 394	9. 4

Mining Industry

For the various branches of the mining industry the German Statistical Office publishes quarterly statistics of earnings, and the figures in table 13, covering the fourth quarter of 1932, have been taken from Reichsarbeitsblatt, No. 12, 1933.

TABLE 13.—AVERAGE EARNINGS PER SHIFT AND WORKERS' CONTRIBUTIONS FOR SOCIAL INSURANCE IN THE MINING AND QUARRYING INDUSTRIES IN GERMANY
[Conversions into United States currency on basis of mark at par=23.8 cents]

Branch of industry and geographical area	Total earnings per shift		Workers' contributions, per shift, for social insurance	
	German currency	United States currency	German currency	United States currency
<i>Prussia</i>				
Coal mines:	<i>Marks</i>		<i>Marks</i>	
Upper Silesia.....	5. 41	\$1. 29	0. 78	\$0. 186
Lower Silesia.....	5. 36	1. 28	. 69	. 164
Lower Saxony.....	5. 53	1. 32	. 71	. 169
Lower Rhine, Westphalia district.....	7. 05	1. 68	. 89	. 212
Aachen.....	6. 28	1. 49	. 87	. 207
Salt mines:				
Upper district, Halle.....	6. 85	1. 63	1. 01	. 240
Upper district, Clausthal.....	6. 98	1. 66	1. 06	. 252
Ore mines:				
Mansfeld (copper).....	5. 45	1. 30	. 84	. 200
Upper Harz.....	5. 61	1. 34	. 85	. 202
Siegen.....	5. 50	1. 31	. 87	. 207
Nassau and Wetzlar.....	4. 93	1. 17	. 79	. 188
Brown-coal mines:				
Upper district, Halle, eastern part.....	5. 55	1. 32	. 84	. 200
Upper district, Halle, western part.....	5. 60	1. 33	. 83	. 198
Left of the Rhine.....	7. 24	1. 72	1. 07	. 255
<i>Bavaria</i>				
Stone and pitch coal mines.....	5. 42	1. 29	. 69	. 164
Lignite mines.....	5. 90	1. 40	. 88	. 209
Iron-ore mines.....	5. 02	1. 19	. 77	. 183
Clay pits.....	5. 88	1. 40	. 94	. 224
Mines yielding various minerals and stones.....	4. 33	1. 03	. 67	. 159
<i>Saxony</i>				
Coal.....	5. 97	1. 42	. 79	. 188
Brown-coal mines.....	6. 20	1. 48	1. 03	. 245
<i>Hesse</i>				
Brown-coal mines.....	5. 45	1. 30	. 70	. 167
Ore mines.....	4. 40	1. 05	. 70	. 167
Other mines.....	4. 26	1. 01	. 56	. 133
<i>Thuringia</i>				
Altenburg district: Brown-coal mines.....	5. 89	1. 40	. 86	. 205

Agriculture

According to one of the leading German trade unions, the pay of agricultural workers in Germany at the end of 1932 was as follows:

TABLE 14.—HOURLY WAGE RATES OF AGRICULTURAL WORKERS IN SPECIFIED DISTRICTS OF GERMANY AT END OF 1932

[Conversions into United States currency on basis of mark (100 pfennigs) at par=23.8 cents]

Sex and district	Money wage		Payments in kind		Total wage	
	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency
	<i>Pfen- nigs</i>	<i>Cents</i>	<i>Pfen- nigs</i>	<i>Cents</i>	<i>Pfen- nigs</i>	<i>Cents</i>
Males:						
East Prussia.....	4.99	1.2	22.79	5.4	27.78	6.6
Pomerania.....	14.00	3.3	22.23	5.3	36.23	8.6
Mecklenburg-Schwerin.....	8.00	1.9	26.30	6.3	34.30	8.2
Brandenburg.....	14.00	3.3	19.66	4.7	33.66	8.0
Silesia.....	10.50	2.5	21.25	5.1	31.75	7.6
Hanover.....	24.00	5.7	11.72	2.8	35.72	8.5
Schleswig-Holstein.....	14.00	3.3	22.40	5.3	36.40	8.7
Saxony (Province).....	26.50	6.3	11.19	2.7	37.69	9.0
Anhalt (Free State).....	23.50	5.6	12.30	2.9	35.80	8.5
Saxony (Free State).....	25.50	6.1	11.42	2.7	36.92	8.8
Thuringia (Free State).....	19.00	4.5	11.72	2.8	30.72	7.3
Hesse-Nassau.....	25.00	6.0	8.14	1.9	33.14	7.9
Rheinhesen.....	29.00	6.9			29.00	6.9
Bavaria.....	27.75	6.6	7.44	1.8	35.19	8.4
Females:						
East Prussia.....	25.50	6.1	3.80	.9	29.30	7.0
Pomerania.....	22.00	5.2			22.00	5.2
Mecklenburg-Schwerin.....	20.00	4.8	3.72	.9	23.72	5.7
Brandenburg.....	14.00	3.3	3.38	.8	17.38	4.1
Silesia.....	14.50	3.5			14.50	3.5
Hanover.....	18.00	4.3	2.21	.5	20.21	4.8
Schleswig-Holstein.....	22.00	5.2			22.00	5.2
Saxony (Province).....	23.00	5.5			23.00	5.5
Anhalt (Free State).....	14.50	3.5	2.45	.6	16.95	4.0
Saxony (Free State).....	17.00	4.1	5.25	1.3	22.25	5.3
Thuringia (Free State).....	15.50	3.7	2.75	.7	18.25	4.3
Hesse-Nassau.....	19.00	4.5	4.11	1.0	23.11	5.5
Rheinhesen.....	16.00	3.8			16.00	3.8
Bavaria.....	20.87	5.0	6.25	1.5	27.12	6.5

Statistics based on 200 different agricultural wage agreements, compiled by an employers' organization, show the following average hourly rates for male agricultural workers in each quarter of 1932:

TABLE 15.—AVERAGE HOURLY RATES OF MALE AGRICULTURAL WORKERS IN GERMANY IN 1932

[Conversions into United States currency on basis of mark (100 pfennigs)=23.8 cents]

Period	Money wages		Payments in kind		Total wages	
	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency	Ger- man cur- rency	United States cur- rency
	<i>Pfen- nigs</i>	<i>Cents</i>	<i>Pfen- nigs</i>	<i>Cents</i>	<i>Pfen- nigs</i>	<i>Cents</i>
1932:						
First quarter.....	21.73	5.2	15.99	3.8	37.72	9.0
Second quarter.....	21.46	5.1	16.36	3.9	37.82	9.0
Third quarter.....	21.29	5.1	14.92	3.6	36.21	8.6
Fourth quarter.....	20.92	5.0	14.00	3.3	34.92	8.3
Average.....	21.35	5.1	15.32	3.6	36.67	8.7

The working day in agriculture averages 9 hours, but in the 4 summer months the average is nearly 11 hours.

Payments in kind consist largely of living quarters, land for gardens, fish ponds, a cow (or, in lieu thereof, free milk), grain, lard, and potatoes or the free use of potato land.

Wages in the Heavy Iron and Steel Trades of India

THE United States Bureau of Foreign and Domestic Commerce has recently issued, as its Trade Information Bulletin No. 816, a report on the iron and steel industry and trade of India, in which a section is devoted to employment and wages. In general, the industry draws its labor from the agricultural classes, and it has therefore been faced with the problem of creating a steadily available supply of trained labor from inexperienced and wholly agricultural-minded people from practically every part of India. At present the labor available is considered satisfactory under careful supervision, but it is not cheap, for although wage rates and earnings are low, per capita output is much less than in the United States and Europe. Also, conditions are often unfavorable to output. "Highly skilled Indian labor working with automatic or semiautomatic machinery is very efficient, but due to local conditions many operations such as loading are performed manually, and these operations are inefficient and costly."

The Royal Commission on Labor in India concluded that the average working time in the iron and steel industry is a 48-hour week, divided into 8-hour shifts, but that, including overtime, the average hours of labor per week were between 51 and 52, while in some continuous processes they rose as high as 56.

It is difficult to obtain detailed and reliable figures as to wages, and those in the following table are presented as mere approximations. It is believed, however, that they are near enough to actual rates to provide an excellent indication of the present wage levels.

DAILY WAGES IN THE IRON AND STEEL INDUSTRY OF INDIA

[Conversions into United States currency on basis of rupee at par=36.5 cents; anna at par=2.3 cents]

Occupation	Daily wages in—		Occupation	Daily wages in—	
	Indian currency	United States currency		Indian currency	United States currency
Blast furnaces:	<i>Rs. a.</i>		Merchant mills—Continued	<i>Rs. a.</i>	
Stove tenders.....	2 4	\$0.821	Heaters in charge.....	5 10	\$2.053
Assistant stove tenders.....	1 8	.547	Heaters.....	4 9	1.685
Keppers.....	2 8	.912	Pusher operators.....	1 12	.639
Slag firemen.....	1 4	.456	Door operators.....	1 4	.456
Slag dumpers.....	0 12	.274	Chargers.....	1 6	.502
Fitters.....	2 8	.912	Furnace-control drivers.....	1 10	.593
Fitter helpers.....	1 4	.456	Billet recorders.....	2 10	.958
Blacksmiths.....	2 2	.776		12 0	4.380
Riggers.....	1 8	.547	Rollers.....	to	to
Skip operators.....	1 12	.639		21 0	7.665
Truck drivers.....	1 8	.547	Assistant rollers.....	6 0	2.190
Merchant mills:			Roughers.....	4 9	1.665
Billet-yard foremen.....	2 10	.958	Tongsmen.....	2 7	.890
Steam-hammer operators.....	2 2	.776	General utility men.....	4 4	1.551
Straightener laborers.....	0 12	.274	Roll fitters.....	3 2	1.141
			Control drivers.....	1 13	.661

The average rate per day, including those given above and other labor in merchant mills, is around 1.88 rupees (68.6 cents) per day.

Wages and Salaries of Railway Workers in the Soviet Union, August 1933

THE new wage and salary schedule for railway workers in the Soviet Union (U.S.S.R.), worked out by the Commissariat of Transportation and Communication, was approved by the Council of the People's Commissars and the Central Committee of the All-Union Communist Party on July 9, 1933. The new rates of wages and salaries, which came into effect on August 1, 1933, are shown in the following table:¹

BASIC MONTHLY RATES OF WAGES OF RAILWAY WORKERS IN THE SOVIET UNION
IN EFFECT FROM AUG. 1, 1933

[Conversions into United States currency on basis of ruble at par=51.5 cents]

Occupation	Russian currency		United States currency	
	Minimum	Maximum	Minimum	Maximum
<i>Nontechnical workers</i>				
Train oilers:	<i>Rubles</i>			
Class 1.....	170		\$87.55	
Class 2.....	140		72.10	
Conductors: ¹				
Passenger.....	200	250	103.00	\$128.76
Freight.....	160	180	82.40	92.70
Brakemen, yard.....	170	200	87.55	103.00
Brakemen, other.....	125	145	64.38	74.68
Couplers.....	135	155	69.53	79.83
Switchmen, older.....	140	150	72.10	77.25
Switchmen, yard.....	102	115	52.53	59.23
Laborers, experienced, on car-repair work:				
First-class roads.....	87.50		45.06	
Second-class roads.....	74.25		38.24	
Third-class roads.....	69.50		35.79	
<i>Technical workers</i>				
Yard, locomotives:				
Chiefs, main yard:				
Class 1.....	600	700	309.00	360.50
Class 2.....	500	600	257.50	309.00
Class 3.....	425	500	218.88	257.50
Assistant chiefs:				
Class 1.....	550	650	283.25	334.75
Class 2.....	450	550	231.75	283.25
Class 3.....	400	450	206.00	231.75
Foremen:				
Class 1.....	450	550	231.75	283.25
Class 2.....	400	450	206.00	231.75
Class 3.....	350	400	180.25	206.00
Assistant foremen:				
Class 1.....	400	450	206.00	231.75
Class 2.....	350	400	180.25	206.00
Class 3.....	300	350	154.50	180.25
Machinists.....	400	450	206.00	231.75
Yard, cars:				
Chiefs:				
Class 1.....	600	700	309.00	360.50
Class 2.....	500	600	257.50	309.00
Class 3.....	425	500	218.88	257.50
Assistant chiefs:				
Class 1.....	550	650	283.25	334.75
Class 2.....	450	550	231.75	283.25
Class 3.....	400	450	206.00	231.75
Foremen:				
Class 1.....	450	550	231.75	283.25
Class 2.....	400	450	206.00	231.75
Class 3.....	350	400	180.25	206.00
Station:				
Chiefs:				
Not classified.....	600	700	309.00	360.50
Class 1.....	500	600	257.50	309.00
Class 2.....	375	450	193.13	231.75
Assistant chiefs:				
Not classified.....	500	600	257.50	309.00
Class 1.....	400	500	206.00	257.50
Class 2.....	300	350	154.50	180.25
Dispatchers:				
Not classified.....	350	400	180.25	206.00
Class 1.....	325	350	167.38	180.25

¹ Conductors may also receive a bonus for good service, amounting to 1 month's pay, after each 6 months' service.

¹ Soviet Union (U.S.S.R.). Izvestia (official daily), Moscow, June 9, 1933, p. 1.

BASIC MONTHLY RATES OF WAGES OF RAILWAY WORKERS IN THE SOVIET UNION
IN EFFECT FROM AUG. 1, 1933—Continued

Occupation	Russian currency		United States currency*	
	Minimum	Maximum	Minimum	Maximum
<i>Technical workers—Continued</i>				
Station—Continued				
Assistant foremen:				
Not classified.....	<i>Rubles</i> 350	<i>Rubles</i> 375	\$180.25	\$193.13
Class 1.....	275	300	141.63	154.50
Class 2.....	225	250	115.88	128.76
Section chiefs.....	600	700	309.00	360.50
Assistant section chiefs.....	550	650	283.25	334.75
Section dispatchers, older.....	475	550	244.63	283.25
Section dispatchers, other.....	400	450	206.00	231.75
Road division:				
Chiefs:				
Class 1.....	600	700	309.00	360.50
Class 2.....	500	600	257.50	309.00
Class 3.....	425	500	218.88	257.50
Station masters:				
Class 1.....	450	500	231.75	257.50
Class 2.....	375	450	193.13	231.75
Class 3.....	325	375	167.38	193.13
Road foremen:				
Class 1.....	350	400	180.25	206.00
Class 2.....	275	350	141.63	180.25
Class 3.....	250	275	128.76	141.63
Assistant chiefs, construction:				
Class 1.....	450	500	231.75	257.50
Class 2.....	375	450	193.13	231.75
Class 3.....	325	375	167.38	193.13
Chiefs, housing:				
Class 1.....	500	600	257.50	309.00
Class 2.....	450	500	231.75	257.50
Class 3.....	400	450	206.00	231.75
Communications division:				
Chiefs:				
Class 1.....	600	700	309.00	360.50
Class 2.....	475	550	244.63	283.25
Class 3.....	380	450	195.70	231.75
Assistant chiefs:				
Class 1.....	450	500	231.75	257.50
Class 2.....	375	450	193.13	231.75
Class 3.....	325	355	167.38	182.83
Electricians:				
Class 1.....	300	350	154.50	180.25
Class 2.....	275	-----	141.63	-----
Repair shops:				
Managers.....	600	700	309.00	360.50
Chief engineers.....	700	800	360.50	412.00
Chiefs:				
Production section.....	550	650	283.25	334.75
Technical section.....	475	575	244.63	296.13
Installation and boiler shops.....	500	600	257.50	309.00
Other shops.....	425	525	218.88	270.38
Assistant chiefs of shops.....	400	500	206.00	257.50
Head mechanics.....	425	525	218.88	270.38

The rates of wages in the above table are to apply to all shops under the Commissariat of Ways and Communications and to all unclassified yards, road and communications divisions, and stations.

For the leading groups of workers in the switching yards, such as brakemen, couplers, and switchmen, the rate for output over the required amount up to 10 percent is one and one-half times the basic rate and for over 10 percent twice the basic rate. This productivity bonus is calculated on the basis of monthly output, excluding time for leave and sickness.

An engineer working in a station, yard, or road or communications division receives a salary 10 percent higher than that of workers with the same qualifications working in the offices of the section, administration, or Commissariat of Ways and Communications.

Service and administrative chiefs receive from 800 to 900 rubles (\$412 to \$463.50) per month, and their assistants from 500 to 600 rubles (\$257.50 to \$309) per month.

TREND OF EMPLOYMENT

Trend of Employment in July 1933

THE Bureau of Labor Statistics of the United States Department of Labor presents in the following tables, data compiled from payroll reports supplied by cooperating establishments in 17 of the important industrial groups of the country and covering the pay period ending nearest the 15th of the month.

Information for 89 of the principal manufacturing industries of the country is shown, following which are presented tabulations showing the changes in employment and pay rolls in the 16 nonmanufacturing industries included in the Bureau's monthly survey, together with information available concerning employment in the executive civil service and on class I railroads.

Employment in Selected Manufacturing Industries in July 1933

Comparison of Employment and Pay-Roll Totals in July 1933 with June 1933 and July 1932

INCREASES of 7.2 percent in employment and 7.9 percent in pay rolls were shown in manufacturing industries in July 1933 as compared with June 1933. The level of employment in July of the present year is 21.9 percent above the level of July 1932, in which month the lowest point of employment and pay rolls in the year 1932 was recorded. Pay rolls in July 1933 show a gain of 28.5 percent during the year interval.

The index of employment in July 1933 was 67.3 as compared with 62.8 in June 1933, 58.7 in May 1933, and 55.2 in July 1932; the payroll index in July 1933 was 46.5 as compared with 43.1 in June 1933, 38.9 in May 1933, and 36.2 in July 1932. The 12-month average for 1926 equals 100.

These changes in employment and pay rolls in July 1933 are based on reports supplied by 18,090 establishments in 89 of the principal manufacturing industries of the United States. These establishments reported 3,023,831 employees on their pay rolls during the pay period ending nearest July 15 whose combined weekly earnings were \$54,553,744. The employment reports received from these cooperating establishments cover approximately 50 percent of the total number of wage earners in all manufacturing industries of the country.

The recent broad expansion in manufacturing industries which began in April and which was reflected by increases in employment in 72 of the 89 manufacturing industries surveyed in May and 79 industries in June, continued in July, 77 industries reporting increases in number of wage earners over the month interval and 71 industries reporting increases in weekly pay-roll totals.

There are a number of factors which make these impressive gains in factory employment and pay rolls in July of even greater significance than is at first apparent. A marked decline in employment and a more pronounced decrease in pay rolls in July has been invariably reported in previous years, due to the customary closing down for repairs and inventory during the first part of the month, the beginning of vacation periods, and the effect of the July 4 holiday on pay rolls covering more than a 1-week period. These usual conditions were reported to some extent in July 1933, together with a number of strikes and labor disturbances in various localities. These retarding factors, however, failed to halt the general expansion in business activity in July 1933, and instead of the customary decreases in July an increase of 7.2 percent in employment and 7.9 percent in pay rolls is shown.

The increase of 7.2 percent in employment in July indicates a return to employment of approximately 400,000 workers since June 15, and the increase of 7.9 percent in pay rolls between June and July represents an estimated increase of \$7,500,000 paid in weekly wages to factory workers in July over the weekly earnings paid in June.

These continued monthly expansions in employment and pay rolls in manufacturing industries have brought the level of factory employment in July 1933 to the highest point registered since October 1931, and the index of pay rolls has reached the highest point recorded since March 1932.

Thirteen of the fourteen groups of manufacturing industries reported increases in employment and pay rolls between June and July, the tobacco group alone failing to report gains in both items over the monthly interval. The transportation group reported the most pronounced gain in employment (12.6 percent) due largely to continued gains in number of workers in the automobile industry, which reported a further increase of 13.2 percent in July as compared with June. The rubber-products group reported an increase of 11.8 percent in employment between June and July, due to pronounced gains in the rubber footwear, automobile tire, and other rubber-goods industries. The iron and steel group reported a gain of 10.9 percent in employment over the month interval. Each of the 13 industries comprising this group reported increases in employment, the iron and steel industry reporting the most pronounced gain, 13.9 percent, and the stove, tool, wirework, bolt and nut, steam fitting, and structural-ironwork industries also reporting large gains in number of workers from June to July. The lumber products group reported a gain of 10.3 percent in employment between June and July, the sawmill and millwork industries reporting gains of 13 percent and 11.1 percent, respectively, with smaller increases shown in the furniture and turpentine and rosin industries. Increases in employment ranging from 7.1 percent to 7.9 percent were reported in the leather, stone-clay-glass, textile, and machinery groups. The railroad repair shop group reported a gain of 6.7 percent in employment and the nonferrous metals group reported a gain of 6.6 percent. The chemical group reported an increase of 5.5 percent in employment between June and July, and the increases in the remaining two groups, paper and printing, and food, were 2 percent and 1.8 percent, respectively. The decreases in employment and pay rolls in the tobacco manufactures group were 1.3 and 0.2 percent, respectively.

The most pronounced gain in employment in any of the separate manufacturing industries was reported in the electric and steam railroad car-building industry in which a gain of 24.7 percent was shown between June and July. The brick industry reported an increase of 19.1 percent in number of workers in July, as compared with June, and the carpet industry reported a gain of 18.7 percent in employment. The textile machinery industry reported an increase of 16.6 percent in employment over the month interval, rubber footwear 15.8 percent, cash registers 14.4 percent, and silk 14 percent. Other industries reporting increases of more than 10 percent in employment were: Woolen, 13.1 percent; bolts and nuts, 13 percent; stoves, 12.8 percent; tires, 12.5 percent; cottonseed oil, cake, and meal, 12.3 percent, smelting and refining—copper, lead, and zinc, 12.2 percent; brass, bronze, and copper products, 11.8 percent; locomotives, 11.5 percent; cotton small wares, 11.4 percent; tools, 10.8 percent; and cotton goods and explosives, 10.5 percent each.

Other pronounced gains in employment in industries of major importance were as follows: Marble, slate, and granite, 10 percent; chemicals, 9.2 percent; men's clothing 9.1 percent; rayon, 8.2 percent; foundry and machine-shop products and structural metal work, 8.1 percent each; boots and shoes, 7.5 percent; electrical machinery, 7.3 percent; machine tools, 6.7 percent; leather, 6.4 percent; hardware, 6.3 percent; paper and pulp, 5.9 percent; and furniture, 5.1 percent. Among the 12 industries in which decreases in employment were reported between June and July 1933, the silverware industry reported the most pronounced decline, 16.2 percent, due largely to vacations in a number of establishments, while the millinery and women's clothing industries also reported sharp declines in employment, which are seasonal at this period of the year. The jewelry industry reported a decrease of 4.9 percent in employment; chewing tobacco, 3.9 percent; confectionery, 3.8 percent; and corsets, 1.4 percent. The decreases in employment reported in the remaining 5 industries were less than 1 percent.

Comparing the level of employment in July 1933 with the level of employment in July 1932, 71 industries show more employees on the pay rolls in July 1933 than in July 1932. Only 18 industries failed to register increases in employment over the year interval. In a number of instances the increases in employment were spectacular. Employment in the beverage industry, due to the resumption of operations of breweries, stands 109.1 percent above the level of July 1932. The index of employment in the woolen and worsted goods industry in July 1933 is 85.4 percent above the level of the corresponding month of 1932, and the cotton goods index of employment is 82.7 percent above the level of July 1932. Establishments engaged in the manufacture of rayon and allied products reported an increase of 80.4 percent in number of workers over the 12-month interval; silk goods show an increase of 64.5 percent over the same period. Additional industries reporting pronounced gains in employment between July 1932 and July 1933 are: Textile machinery, 75.7 percent; carpets and rugs, 58.1 percent; stoves, 47.9 percent; radios, 50.6 percent; agricultural implements, 46 percent; shirts and collars, 38 percent; and men's clothing, 35.1 percent.

In table 1, which follows, are shown the number of identical establishments reporting in both June and July 1933 in the 89 manufacturing

industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest July 15, the amount of their earnings for 1 week in July, the percents of change over the month and year intervals, and the indexes of employment and pay roll in July 1933.

The monthly percents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the 2 months considered. The percents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The percents of change over the year interval in the separate industries, in the groups and in the totals are computed from the index numbers of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932

Industry	Establishments reporting in both June and July 1933	Employment			Pay-roll totals			Index numbers July 1933 (average 1926=100)	
		Number on pay roll, July 1933	Percent of change		Amount of pay roll (1 week), July 1933	Percent of change			
			June to July 1933	July 1932 to July 1933		June to July 1933	July 1932 to July 1933	Employment	Pay-roll totals
Food and kindred products	3,064	261,881	+1.8	+11.0	\$5,449,488	+3.0	+7.5	88.1	71.8
Baking	965	63,873	+1.4	-1.5	1,393,071	+2.8	-4.8	80.4	65.5
Beverages	359	22,943	+3.8	+109.1	646,820	+2.7	+122.4	166.9	155.7
Butter	311	5,857	+9	-1.7	118,299	+2.0	-11.4	102.9	77.3
Confectionery	423	32,095	-3.8	+20.6	405,513	-2.3	+10.0	70.8	47.5
Flour	420	16,540	+6.2	+5.6	348,181	+12.8	+2.6	87.9	70.6
Ice cream	365	12,711	+2.5	-4.1	318,557	+1.8	-13.3	80.0	59.8
Slaughtering and meat packing	247	94,877	+2.8	+8.9	1,911,542	+2.5	+6.4	92.8	74.4
Sugar, beet	61	4,710	+7.5	+28.7	99,300	+10.9	+21.1	52.5	40.1
Sugar refining, cane	13	8,275	+2.6	+6.1	208,205	+4.0	+3.0	80.4	71.5
Textiles and their products	3,206	764,161	+7.1	+56.2	10,164,781	+9.3	+79.4	86.4	57.6
Fabrics	1,903	628,671	+9.7	+65.8	8,306,084	+11.3	+94.5	93.7	66.9
Carpets and rugs	27	16,133	+18.7	+58.1	287,006	+19.4	+117.2	70.2	50.6
Cotton goods	670	310,445	+10.5	+82.7	3,530,577	+13.2	+124.0	101.4	73.7
Cotton small wares	111	11,122	+11.4	+43.4	173,512	+15.0	+70.5	99.4	75.4
Dyeing and finishing textiles	153	40,683	+9.2	+38.1	749,304	+7.4	+70.9	88.5	64.6
Hats, fur-felt	27	5,275	+3.0	+18.7	104,149	+5.1	+41.4	70.5	46.1
Knit goods	440	114,229	+1.6	+34.2	1,431,897	-8	+46.5	90.6	59.2
Silk and rayon goods	238	53,031	+14.0	+64.5	708,366	+18.5	+80.6	68.1	46.6
Woolen and worsted goods	237	77,753	+13.1	+85.4	1,321,273	+14.0	+114.1	105.5	82.2
Wearing apparel	1,303	135,490	-6	+32.2	1,858,697	+3.4	+42.9	69.0	39.3
Clothing, men's	397	70,285	+9.1	+35.1	1,023,802	+22.9	+74.6	76.2	45.4
Clothing, women's	543	25,802	-13.0	+30.6	382,666	-8.4	+21.1	59.3	31.0
Corsets and allied garments	35	6,060	-1.4	+9.4	83,478	-5.3	+16.1	99.4	73.4
Men's furnishings	73	7,817	+5.9	+43.1	83,248	-2	+31.3	66.7	37.3
Millinery	140	8,195	-14.8	+24.4	115,446	-20.9	+17.9	58.6	33.6
Shirts and collars	115	17,331	+8.7	+38.0	170,057	+3.2	+45.6	70.8	44.4
Iron and steel and their products, not including machinery	1,379	363,539	+10.9	+25.8	6,751,472	+14.2	+77.9	64.9	41.1
Bolts, nuts, washers, and rivets	70	10,920	+13.0	+31.8	197,351	+12.5	+67.8	82.5	53.2
Cast-iron pipe	33	4,368	+9.2	(¹)	60,661	+12.2	+5.3	32.1	18.0
Cutlery (not including silver and plated cutlery) and edge tools	126	8,552	+2.1	-6	165,198	+6.9	+10.4	61.8	44.6
Forgings, iron and steel	66	6,651	+6.3	+22.4	122,004	+6.5	+38.1	67.1	41.7

No change.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932—Continued

Industry	Estab- lish- ments report- ing in both June and July 1933	Employment		Pay-roll totals			Index num- bers July 193 (average 1926=100)		
		Number on pay roll, July 1933	Percent of change		Amount of pay roll (1 week), July 1933	Percent of change		Em- p- loy- ment	Pay- roll totals
			June to July 1933	July 1932 to July 1933		June to July 1933	July 1932 to July 1933		
Iron and steel and their products—Continued.									
Hardware.....	105	22,964	+6.3	+17.4	\$363,284	+12.5	+53.7	55.9	33.2
Iron and steel.....	205	227,159	+13.9	+30.8	4,359,927	+19.2	+117.3	67.6	42.8
Plumbers' supplies.....	68	8,682	+6.0	+33.1	138,945	-6.6	+57.0	81.7	48.5
Steam and hot-water heating apparatus and steam fittings.....	98	16,233	+7.6	+32.3	297,039	+9.2	+48.1	43.0	27.4
Stoves.....	160	19,220	+12.8	+47.9	352,522	+13.6	+75.6	60.2	38.1
Structural and ornamental metalwork.....	194	14,722	+8.1	-5.8	221,567	+5.2	-11.6	42.6	22.1
Tin cans and other tinware.....	61	9,543	+4.8	+10.1	191,062	+5.0	+21.4	82.7	52.8
Tools (not including edge tools, machine tools, files, and saws).....	124	7,677	+10.8	+18.1	142,500	+15.1	+58.1	69.9	46.0
Wirework.....	69	6,848	+8.8	+30.0	139,412	+10.9	+81.8	113.5	97.1
Machinery, not including transportation equipment.	1,785	289,011	+7.9	+9.9	5,564,714	+10.9	+26.6	52.0	34.7
Agricultural imple- ments.....	78	7,192	+4.1	+46.0	116,439	-5	+54.3	28.9	21.6
Cash registers, adding machines, and calculat- ing machines.....	37	14,372	+14.4	+14.8	358,658	+16.2	+32.3	80.8	62.2
Electrical machinery, apparatus and sup- plies.....	282	89,748	+7.3	-3.8	1,819,377	+10.2	+9.2	53.4	40.4
Engines, turbines, tractors, and water wheels.....	88	17,198	+7.2	+8.9	352,063	+5.8	+23.4	45.4	29.5
Foundry and machine- shop products.....	1,048	109,377	+8.1	+11.0	2,023,300	+13.0	+32.2	50.3	30.8
Machine tools.....	146	11,265	+6.7	+8.5	226,207	+8.8	+23.6	33.3	22.0
Radios and phono- graphs.....	42	22,730	+2.1	+50.6	335,461	-14.9	+16.5	94.1	55.7
Textile machinery and parts.....	48	8,832	+16.6	+75.7	198,505	+24.7	+172.7	72.9	58.9
Typewriters and sup- plies.....	16	8,297	+6.8	+9	134,704	+14.8	+26.0	57.7	36.4
Nonferrous metals and their products.	620	87,183	+6.6	+21.7	1,601,803	+6.2	+36.8	59.5	40.9
Aluminum manufac- tures.....	26	5,682	+6.8	+25.5	98,995	+5.5	+70.6	55.7	37.2
Brass, bronze, and cop- per products.....	206	34,474	+11.8	+29.5	678,761	+14.6	+60.8	64.5	46.0
Clocks and watches and time-recording devices.....	24	6,612	+1.6	+32.7	102,485	+17.0	+46.8	40.6	27.9
Jewelry.....	134	6,918	-4.9	+10.3	122,305	-4.2	+12.2	34.2	22.0
Lighting equipment.....	52	2,951	+5.9	+42.0	53,342	+4.1	+45.6	68.6	49.8
Silverware and plated ware.....	51	6,038	-16.2	-5.4	108,501	-15.1	-1.3	50.4	31.4
Smelting and refining copper, lead, and zinc.....	39	10,335	+12.2	+10.0	209,905	+18.2	+24.3	63.8	45.6
Stamped and enameled ware.....	88	14,173	+6.1	+25.6	227,509	+4.4	+34.0	71.2	45.3
Transportation equip- ment.	411	264,365	+12.6	-1.1	5,713,607	+6.9	+7	56.2	41.7
Aircraft.....	29	7,113	+1	+39.3	186,103	-4.2	+23.2	251.4	223.4
Automobiles.....	233	226,145	+13.2	+1.0	4,915,867	+6.3	+5.9	59.8	44.8
Cars, electric and steam railroad.....	42	5,198	+24.7	-3.6	78,902	+25.6	-17.5	19.0	9.4
Locomotives.....	11	1,663	+11.5	-28.3	33,664	+20.0	-32.2	11.9	8.2
Shipbuilding.....	96	24,246	+8.9	-17.7	499,071	+11.3	-30.8	62.7	44.1
Railroad repair shops.	914	92,084	+6.7	+1.9	2,063,872	+4.6	+6.7	45.0	36.5
Electric railroad.....	390	19,437	-5	-8.2	473,733	-2.2	-14.7	62.6	48.7
Steam railroad.....	524	72,647	+7.4	+3.1	1,590,139	+5.6	+9.9	46.9	35.6

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932—Continued

Industry	Estab- lish- ments report- ing in both June and July 1933	Employment			Pay-roll totals			Index num- bers July 1933 (average 1926=100)	
		Number on pay roll, July 1933	Percent of change		Amount of pay roll (1 week), July 1933	Percent of change			
			June to July 1933	July 1932 to July 1933		June to July 1933	July 1932 to July 1933	Em- ploy- ment	Pay- roll totals
Lumber and allied prod- ucts.....	1,533	137,588	+10.3	+20.9	\$1,817,512	+13.0	+27.7	44.0	24.4
Furniture.....	440	46,074	+5.1	+25.3	618,968	+6.0	+42.2	51.0	27.3
Lumber:									
Millwork.....	471	21,129	+11.1	+15.8	308,339	+12.9	+14.4	40.3	23.8
Sawmills.....	599	69,068	+13.0	+20.2	873,197	+18.2	+27.5	41.7	22.7
Turpentine and rosin.....	23	1,317	+3.0	+16.1	17,008	+3.0	+8	51.9	39.4
Stone, clay, and glass products.....	1,293	101,064	+7.2	+17.9	1,639,482	+5.0	+17.7	49.3	29.2
Brick, tile, and terra cotta.....	652	21,842	+19.1	+11.9	271,990	+23.5	+16.0	32.9	15.2
Cement.....	122	16,072	+7.9	+13.5	274,777	+9.8	+6.6	46.1	25.7
Glass.....	186	41,694	+1.3	+31.2	747,666	-4.3	+34.6	71.5	50.6
Marble, granite, slate, and other products...	217	5,369	+10.0	-10.9	105,680	+13.5	-20.4	42.3	25.7
Pottery.....	116	16,087	+3.5	+32.3	239,369	+2.1	+46.5	63.9	35.6
Leather and its manu- factures.....	492	151,348	+7.1	+19.4	2,609,726	+11.9	+38.9	84.5	62.1
Boots and shoes.....	339	121,735	+7.5	+16.0	2,015,523	+13.2	+34.8	84.3	59.7
Leather.....	153	29,613	+6.4	+35.5	594,203	+7.5	+53.2	85.5	70.3
Paper and printing.....	1,949	216,312	+2.0	+2.7	5,125,377	+1.8	-1.9	80.5	63.0
Boxes, paper.....	318	22,606	+5.8	+17.1	401,469	+7.0	+24.4	77.9	65.7
Paper and pulp.....	400	84,026	+5.9	+13.4	1,591,297	+8.0	+27.2	81.9	58.4
Printing and publish- ing:									
Book and job.....	766	41,296	-7	-9.5	1,041,159	+4	-12.5	66.9	52.4
Newspapers and periodicals.....	465	68,384	-4	-2	2,091,452	-1.5	-10.3	95.8	76.3
Chemicals and allied products.....	1,055	153,255	+5.5	+22.2	3,378,894	+4.3	+18.9	83.1	67.2
Chemicals.....	109	23,483	+9.2	+25.5	567,275	+9.2	+28.8	103.0	75.5
Cottonseed, oil, cake, and meal.....	107	3,485	+12.3	+11.7	37,881	+11.2	+9.2	31.4	30.9
Druggists' preparations.....	45	7,604	+4.3	+5.7	147,494	+7	+3.7	69.9	66.6
Explosives.....	30	3,645	+10.5	+25.1	76,498	+14.3	+36.7	83.3	58.5
Fertilizers.....	173	5,690	+5.0	+53.0	70,767	+6.6	+24.2	46.5	29.8
Paints and varnishes.....	348	16,751	+3.0	+14.2	362,537	-1.4	+16.0	78.7	61.5
Petroleum refining.....	126	49,487	-(?)	+9	1,329,500	-2	-4.0	64.7	54.5
Rayon and allied prod- ucts.....	22	28,006	+8.2	+80.4	462,302	+7.7	+96.8	167.6	140.1
Soap.....	95	15,104	+2.0	+9.0	324,640	+2.1	+2.8	101.5	84.9
Rubber products.....	148	88,907	+11.8	+20.2	1,992,274	+13.2	+40.6	78.7	61.6
Rubber boots and shoes.....	9	10,385	+15.8	-3.6	193,741	+23.3	+53.8	48.8	44.3
Rubber goods, other than boots, shoes, tires, and inner tubes.....	98	21,025	+8.9	+23.9	396,276	+11.9	+36.7	96.0	68.5
Rubber tires and inner tubes.....	41	57,497	+12.5	+24.0	1,402,257	+12.5	+40.1	80.6	63.2
Tobacco manufactures.....	241	53,133	-1.3	-4.0	680,742	-2	-7.9	67.5	50.3
Chewing and smoking tobacco and snuff.....	33	9,674	-3.9	-4.2	131,463	-3.8	-2.6	84.0	68.1
Cigars and cigarettes.....	208	43,459	-9	-4.0	549,279	+4	-8.9	65.4	48.1
Total, 89 industries.....	18,090	3,023,831	+7.2	+21.9	54,553,744	+7.9	+28.5	67.3	46.5

² Less than one tenth of 1 percent.

Per Capita Earnings in Manufacturing Industries

PER capita weekly earnings in July 1933 for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics and for all industries combined, together with the percents of change in July 1933 as compared with June 1933 and July 1932, are shown in table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN JULY 1933 AND COMPARISON WITH JUNE 1933 AND JULY 1932

Industry	Per capita weekly earnings in July 1933	Percent of change compared with—	
		June 1933	July 1932
Food and kindred products:			
Baking.....	\$21.81	+1.4	-3.6
Beverages.....	28.19	-1.1	+6.5
Butter.....	20.20	+1.1	-10.0
Confectionery.....	12.63	+1.5	-9.0
Flour.....	21.05	+6.2	-2.8
Ice cream.....	25.06	-	-9.2
Slaughtering and meat packing.....	20.15	-3	-2.4
Sugar, beet.....	21.08	+3.1	-5.9
Sugar refining, cane.....	25.16	+1.4	-2.3
Textiles and their products:			
Fabrics:			
Carpets and rugs.....	17.79	+6	+36.7
Cotton goods.....	11.37	+2.3	+22.7
Cotton small wares.....	15.60	+3.2	+18.9
Dyeing and finishing textiles.....	18.42	-1.6	+24.1
Hats, fur-felt.....	19.74	+2.1	+19.3
Knit goods.....	12.54	-2.3	+9.4
Silk and rayon goods.....	13.36	+4.0	+10.3
Woolen and worsted goods.....	16.99	+7	+15.2
Wearing apparel:			
Clothing, men's.....	14.57	+12.7	+28.8
Clothing, women's.....	14.83	+5.4	-7.1
Corsets and allied garments.....	13.78	-3.9	+6.2
Men's furnishings.....	10.65	-5.8	-8.2
Millinery.....	14.09	-7.2	-5.2
Shirts and collars.....	9.81	-5.0	+5.5
Iron and steel and their products, not including machinery:			
Bolts, nuts, washers, and rivets.....	18.07	-	+27.5
Cast-iron pipe.....	13.89	+2.7	+5.5
Cutlery (not including silver and plated cutlery) and edge tools.....	19.32	+4.7	+10.7
Forgings, iron and steel.....	18.34	+2	+13.1
Hardware.....	15.82	+5.9	+30.9
Iron and steel.....	19.19	+4.7	+66.2
Plumbers' supplies.....	16.00	-11.8	+17.8
Steam and hot-water heating apparatus and steam fittings.....	18.30	+1.5	+11.8
Stoves.....	18.34	+7	+18.9
Structural and ornamental metal work.....	15.05	-2.7	-6.3
Tin cans and other tinware.....	20.02	+2	+10.3
Tools (not including edge tools, machine tools, files, and saws).....	18.56	+3.8	+34.0
Wirework.....	20.36	+2.0	+39.8
Machinery, not including transportation equipment:			
Agricultural implements.....	16.19	-4.4	+5.3
Cash registers, adding machines, and calculating machines.....	24.96	+1.6	+15.3
Electrical machinery, apparatus, and supplies.....	20.27	+2.7	+13.5
Engines, turbines, tractors, and water wheels.....	20.47	-1.3	+13.0
Foundry and machine-shop products.....	18.50	+4.6	+19.2
Machine tools.....	20.08	+2.0	+13.5
Radios and phonographs.....	14.76	-16.7	-22.4
Textile machinery and parts.....	22.48	+7.0	+55.0
Typewriters and supplies.....	16.24	+7.5	+25.0
Nonferrous metals and their products:			
Aluminum manufactures.....	17.42	-1.2	+36.5
Brass, bronze, and copper products.....	19.69	+2.5	+23.9
Clocks and watches and time-recording devices.....	15.50	+15.2	+10.7
Jewelry.....	17.68	+7	+1.8
Lighting equipment.....	18.08	-1.7	+2.3
Silverware and plated ware.....	17.97	+1.4	+4.2
Smelting and refining—copper, lead, and zinc.....	20.31	+5.3	+13.1
Stamped and enameled ware.....	16.05	-1.7	+6.5
Transportation equipment:			
Aircraft.....	26.16	-4.3	-11.6
Automobiles.....	21.74	-6.1	+4.7
Cars, electric and steam railroad.....	15.18	+8	-14.2
Locomotives.....	20.24	+7.5	-5.4
Shipbuilding.....	20.58	+2.2	-15.8

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN JULY 1933 AND COMPARISON WITH JUNE 1933 AND JULY 1932—Continued

Industry	Per capita weekly earnings in July 1933	Percent of change compared with—	
		June 1933	July 1932
Railroad repair shops:			
Electric railroad.....	\$24.37	-1.7	-7.2
Steam railroad.....	21.89	-1.8	+6.3
Lumber and allied products:			
Furniture.....	13.43	+8	+13.5
Lumber:			
Millwork.....	14.59	+1.7	-.8
Sawmills.....	12.64	+4.5	+5.8
Turpentine and rosin.....	12.91	(¹)	-13.2
Stone, clay, and glass products:			
Brick, tile, and terra cotta.....	12.45	+3.7	+3.2
Cement.....	17.10	+1.8	-6.3
Glass.....	17.93	-5.5	+2.4
Marble, granite, slate, and other products.....	19.68	+3.1	-10.6
Pottery.....	14.88	-1.4	+10.7
Leather and its manufactures:			
Boots and shoes.....	16.56	+5.3	+16.2
Leather.....	20.07	+1.1	+13.2
Paper and printing:			
Boxes, paper.....	17.76	+1.1	+6.2
Paper and pulp.....	18.94	+2.0	+11.8
Printing and publishing:			
Book and job.....	25.21	+1.2	-3.1
Newspapers and periodicals.....	30.58	-1.1	-10.4
Chemicals and allied products:			
Chemicals.....	24.16	+1	+2.6
Cottonseed, oil, cake, and meal.....	10.87	-1.0	-2.1
Druggists' preparations.....	19.40	-3.4	-1.8
Explosives.....	20.99	+3.4	+9.2
Fertilizers.....	12.44	+1.6	-18.2
Paints and varnishes.....	21.64	-4.3	+1.6
Petroleum refining.....	26.87	-1	-4.9
Rayon and allied products.....	16.51	-5	+8.5
Soap.....	21.49	(¹)	-6.1
Rubber products:			
Rubber boots and shoes.....	18.66	+6.5	+59.1
Rubber goods, other than boots, shoes, tires, and inner tubes.....	18.85	+2.8	+10.4
Rubber tires and inner tubes.....	24.39	+(²)	+13.1
Tobacco manufactures:			
Chewing and smoking tobacco and snuff.....	13.59	+1	+1.7
Cigars and cigarettes.....	12.64	+1.4	-5.1
Total, 89 industries.....	18.04	³ +7	³ +5.3

¹ No change.² Less than one tenth of 1 percent.³ Weighted.

General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

GENERAL index numbers of employment and pay-roll totals in manufacturing industries by months, from January 1926 to July 1933, together with average indexes for each of the years from 1926 to 1932, and for the 7-month period, January to July 1933, inclusive, are shown in the following table. In computing these general indexes the index numbers of each of the separate industries are weighted according to their relative importance in the total. Following this table are two charts prepared from these general indexes showing the course of employment and pay rolls from January 1926 to July 1933, inclusive.

TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING INDUSTRIES, JANUARY 1926 TO JULY 1933

[12-month average, 1926=100]

Month	Employment								Pay rolls							
	1926	1927	1928	1929	1930	1931	1932	1933	1926	1927	1928	1929	1930	1931	1932	1933
January.....	100.4	97.3	91.6	95.2	90.7	74.6	64.8	56.6	98.0	94.9	89.6	94.5	88.1	63.7	48.6	35.8
February.....	101.5	99.0	93.0	97.4	90.9	75.3	65.6	57.5	102.2	100.6	93.9	101.8	91.3	68.1	49.6	36.4
March.....	102.0	99.5	93.7	98.6	90.5	75.9	64.5	55.1	103.4	102.0	95.2	103.9	91.6	69.6	48.2	33.4
April.....	101.0	98.6	93.3	99.1	89.9	75.7	62.2	56.0	101.5	100.8	93.8	104.6	90.7	68.5	44.7	34.9
May.....	99.8	97.6	93.0	99.2	88.6	75.2	59.7	58.7	99.8	99.8	94.1	104.8	88.6	67.7	42.5	38.9
June.....	99.3	97.0	93.1	98.8	86.5	73.4	57.5	62.8	99.7	97.4	94.2	102.8	85.2	63.8	39.3	43.1
July.....	97.7	95.0	92.2	98.2	82.7	71.7	55.2	67.3	95.2	93.0	91.2	98.2	77.0	60.3	36.2	46.5
August.....	98.7	95.1	93.6	98.6	81.0	71.2	56.0	-----	98.7	95.0	94.2	102.1	75.0	59.7	36.3	-----
September.....	100.3	95.8	95.0	99.3	80.9	70.9	58.5	-----	99.3	94.1	95.4	102.6	75.4	56.7	38.1	-----
October.....	100.7	95.3	95.9	98.4	79.9	68.9	59.9	-----	102.9	95.2	99.0	102.4	74.0	55.3	39.9	-----
November.....	99.5	93.5	95.4	95.0	77.9	67.1	59.4	-----	99.6	91.6	96.1	95.4	69.6	52.5	38.6	-----
December.....	98.9	92.6	95.5	92.3	76.6	66.7	58.3	-----	99.8	93.2	97.7	92.4	68.8	52.2	37.7	-----
Average...	100.0	96.4	93.8	97.5	84.7	72.2	60.1	59.1	100.0	96.5	94.5	100.5	81.3	61.5	41.6	38.4

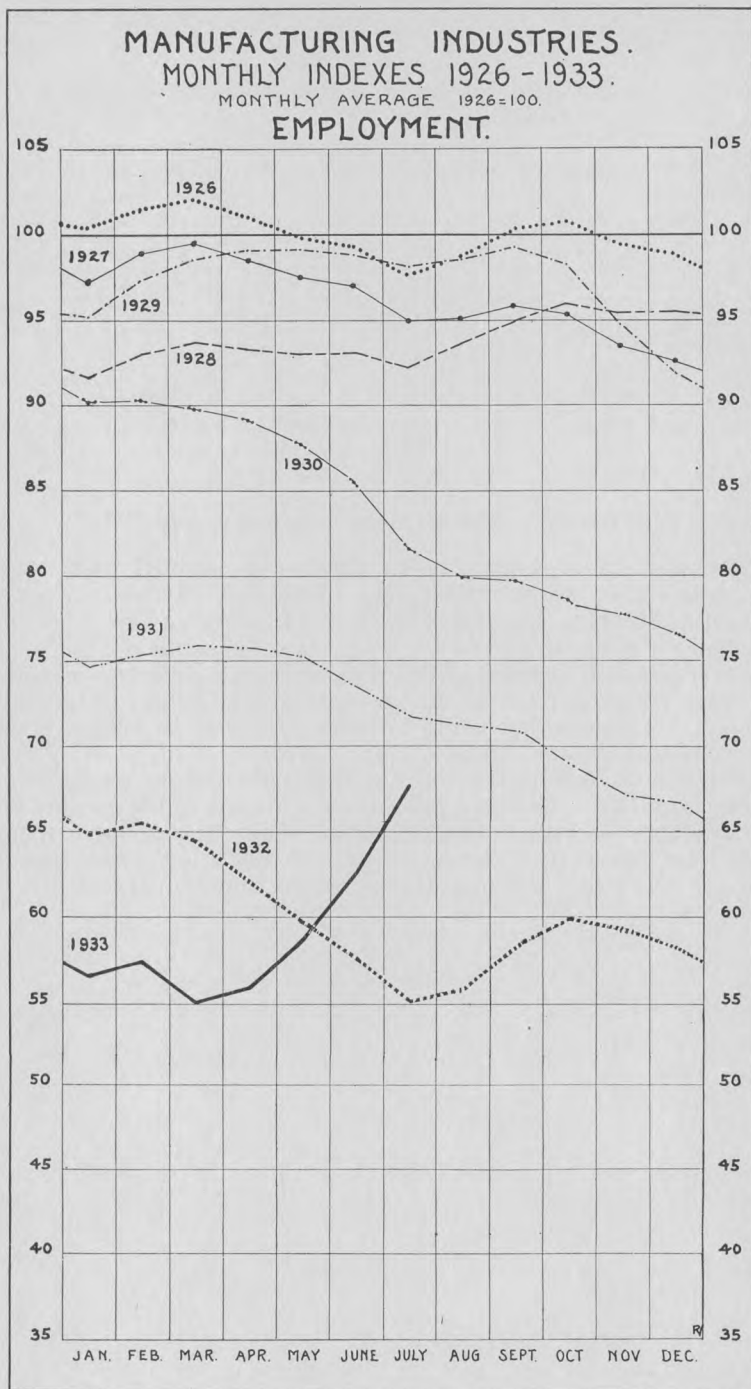
¹ Average for 7 months.

Time Worked in Manufacturing Industries in July 1933

REPORTS as to working time in July were received from 13,856 establishments in 89 manufacturing industries. Three percent of these establishments were idle, 57 percent operated on a full-time basis, and 40 percent worked on a part-time schedule.

An average of 91 percent of full-time operation in July was shown by reports received from all the operating establishments included in table 4. The establishments working part time in July averaged 78 percent of full-time operation.

A number of establishments supplying data concerning plant-operating time have reported full-time operations but have qualified the hours reported with a statement that, while the plant was operating full time, the work in the establishment was being shared and the employees were not working the full-time hours operated by the plant.



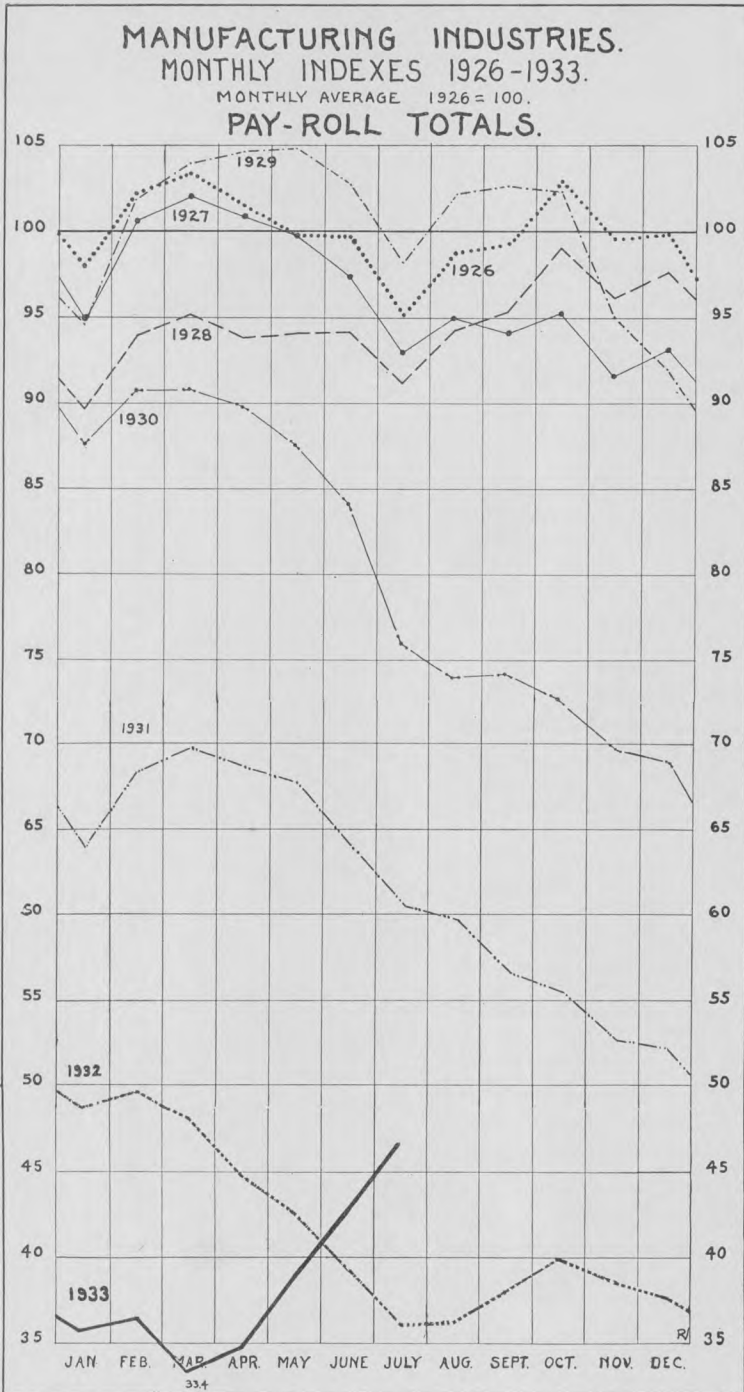


TABLE 4.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY 1933

Industry	Establishments reporting—		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	2,486	1	74	25	95	80
Baking.....	769	(¹)	82	18	97	83
Beverages.....	279		86	14	98	81
Butter.....	250	1	80	20	97	84
Confectionery.....	265	3	36	61	83	73
Flour.....	382	(¹)	70	30	93	76
Ice cream.....	275	1	70	29	96	85
Slaughtering and meat packing.....	203	(¹)	74	26	97	88
Sugar, beet.....	53		98	2	100	80
Sugar refining, cane.....	10		100		100	
Textiles and their products	2,535	5	75	21	96	81
Fabrics:						
Carpets and rugs.....	15	13	53	33	93	82
Cotton goods.....	617	(¹)	89	10	99	86
Cotton small wares.....	100	1	60	39	93	81
Dyeing and finishing textiles.....	138	1	73	26	97	87
Hats, fur-felt.....	20		70	30	92	96
Knit goods.....	377	2	79	20	96	82
Silk and rayon goods.....	215	2	75	23	96	82
Woolen and worsted goods.....	221	1	83	16	98	86
Wearing apparel:						
Clothing, men's.....	282	7	67	26	95	82
Clothing, women's.....	316	24	58	19	93	70
Corsets and allied garments.....	29	3	66	31	94	80
Men's furnishings.....	49	2	61	37	94	85
Millinery.....	75	8	45	47	89	78
Shirts and collars.....	81	2	73	25	96	85
Iron and steel and their products, not including machinery	1,058	3	38	59	85	75
Bolts, nuts, washers, and rivets.....	60		33	67	87	80
Cast-iron pipe.....	29	21	17	62	71	63
Cutlery (not including silver and plated cutlery), and edge tools.....	103		43	57	87	77
Forgings, iron and steel.....	41		34	66	85	77
Hardware.....	63	2	37	62	85	76
Iron and steel.....	138	7	40	53	83	71
Plumbers' supplies.....	53		55	45	90	77
Steam and hot-water heating apparatus and steam fittings.....	82	2	27	71	75	66
Stoves.....	136	5	42	53	87	77
Structural and ornamental metalwork.....	144	2	31	67	86	80
Tin cans and other tinware.....	55	4	62	35	94	82
Tools (not including edge tools, machine tools, files, and saws).....	104	1	27	72	82	75
Wirework.....	50		52	48	89	77
Machinery, not including transportation equipment	1,359	1	32	67	82	74
Agricultural implements.....	52		27	73	80	72
Cash registers, adding machines, and calculating machines.....	31		55	45	88	74
Electrical machinery, apparatus, and supplies.....	204	(¹)	29	70	84	77
Engines, turbines, tractors, and water wheels.....	69	1	26	72	82	75
Foundry and machine-shop products.....	807	1	34	66	81	72
Machine tools.....	123	5	25	70	81	75
Radios and phonographs.....	30		23	77	83	78
Textile machinery and parts.....	33		45	55	94	88
Typewriters and supplies.....	10		40	60	87	76
Nonferrous metals and their products	482	3	37	60	86	78
Aluminum manufactures.....	21		48	52	93	85
Brass, bronze, and copper products.....	155		32	68	86	80
Clocks and watches and time-recording devices.....	18		33	67	75	62
Jewelry.....	107	7	33	60	85	76
Lighting equipment.....	42	5	26	69	86	80
Silverware and plated ware.....	37	8	43	49	84	68
Smelting and refining—copper, lead, and zinc.....	30		73	27	94	79
Stamped and enameled ware.....	72		43	57	89	80

¹Less than one half of 1 percent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN JULY 1933—Continued

Industry	Establishments reporting—		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Transportation equipment	292	5	50	45	90	79
Aircraft.....	26	4	58	38	93	83
Automobiles.....	134	6	46	48	90	80
Cars, electric and steam railroad.....	35	11	20	69	80	73
Locomotives.....	7	-----	57	43	84	63
Shipbuilding.....	90	1	64	34	94	81
Railroad repair shops	676	1	38	61	88	81
Electric railroad.....	281	-----	62	38	94	85
Steam railroad.....	395	1	21	78	84	79
Lumber and allied products	1,145	2	50	48	89	77
Furniture.....	342	1	49	50	89	78
Lumber:						
Millwork.....	326	1	47	52	87	76
Sawmills.....	456	2	53	45	90	77
Turpentine and rosin.....	21	5	48	48	94	86
Stone, clay, and glass products	690	13	49	38	89	74
Brick, tile, and terra cotta.....	196	26	29	46	84	75
Cement.....	78	8	82	10	97	71
Glass.....	143	11	74	15	96	78
Marble, granite, slate, and other products.....	181	9	42	49	86	74
Pottery.....	92	4	38	58	84	73
Leather and its manufactures	375	3	63	34	94	83
Boots and shoes.....	251	4	61	35	94	83
Leather.....	124	-----	68	32	94	81
Paper and printing	1,616	1	57	42	92	81
Boxes, paper.....	259	(¹)	49	51	90	80
Paper and pulp.....	313	3	58	39	91	78
Printing and publishing:						
Book and job.....	644	-----	49	51	90	80
Newspapers and periodicals.....	400	(¹)	77	23	97	87
Chemicals and allied products	817	2	66	32	95	84
Chemicals.....	78	3	73	24	97	87
Cottonseed, oil, cake, and meal.....	55	9	53	38	91	80
Druggists' preparations.....	29	-----	52	48	92	84
Explosives.....	12	-----	17	83	84	81
Fertilizers.....	150	1	71	28	95	82
Paints and varnishes.....	302	1	67	33	95	84
Petroleum refining.....	95	3	74	23	97	88
Rayon and allied products.....	11	-----	73	27	95	80
Soap.....	85	-----	64	36	94	84
Rubber products	117	1	54	45	92	81
Rubber boots and shoes.....	7	-----	43	57	93	88
Rubber goods, other than boots, shoes, tires, and inner tubes.....	81	1	54	44	91	80
Rubber tires and inner tubes.....	29	-----	55	45	93	82
Tobacco manufactures	208	4	32	64	85	77
Chewing and smoking tobacco and snuff.....	32	6	47	47	85	70
Cigars and cigarettes.....	176	3	29	68	85	77
Total, 89 industries	13,856	3	57	40	91	78

¹ Less than one half of 1 percent.

Employment in Nonmanufacturing Industries in July 1933

INCREASED employment in July 1933, as compared with June, was reported in 12 of the 15 nonmanufacturing industries appearing in the following table. Data for the building-construction industry are not presented here but are shown in more detail under the section "Building construction." The canning and preserving industry reported the most pronounced gains in both employment and pay roll over the month interval, the increase of 37.8 percent in employment

and 25.8 percent in pay rolls indicating the usual seasonal expansion in this industry. An increased demand is indicated in the rising employment in the anthracite and bituminous coal-mining industries, the anthracite-mining industry reporting an increase of 11 percent in employment coupled with an increase of 11.5 percent in pay rolls. The bituminous coal-mining industry reported a gain of 3.1 percent in employment coupled with an increase of 15.1 percent in earnings. The quarrying and nonmetallic mining industry reported a gain of 4.8 percent in number of workers in July 1933, compared with June, and the metalliferous-mining industry reported an increase of 4.7 percent in employment. The crude-petroleum-producing industry reported a gain of 2.7 percent in number of employees from June to July; hotels, due largely to the opening of seasonal resort hotels, reported an increase of 2.6 percent; and the wholesale-trade industry reported an increase of 1.6 percent in number of employees over the month interval. The gains in the remaining 4 industries reporting increased employment were less than 1 percent and were as follows: Laundries and banks, brokerage, real estate, and insurance, 0.4 percent each; power and light, 0.3 percent; and electric-railroad and motor-bus operation, 0.1 percent. In the four industries in which decreases in employment were reported the retail-trade group showed a falling off in employment, which is customary at this time of year. This decline of 4.7 percent appeared largely in the department, variety, and limited-price group of establishments. The dyeing and cleaning industry reported a seasonal loss of 3.2 percent, and the telephone and telegraph industry reported a drop of 1 percent in number of employees.

In the following table are presented employment and pay-roll data for the nonmanufacturing industries surveyed, exclusive of building construction:

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **NONMANUFACTURING** ESTABLISHMENTS IN JULY 1933 WITH JUNE 1933 AND JULY 1932

Industrial groups	Establishments reporting in both June and July 1933	Employment			Pay-roll totals				Index numbers, July 1933 (average 1929=100)	
		Number on pay roll, July 1933	Percent of change		Amount of pay roll (1 week), July 1933	Percent of change		Employment			Pay-roll totals
			June to July 1933	July 1932 to July 1933		June to July 1933	July 1932 to July 1933			
Coal mining:										
Anthracite.....	160	59,940	+11.0	-1.6	\$1,518,796	+11.5	+10.7	43.8	38.2	
Bituminous.....	1,471	191,024	+3.1	+7.8	2,644,739	+15.1	+37.7	63.2	33.6	
Metalliferous mining.....	278	22,365	+4.7	+11.9	420,408	+3.7	+12.4	33.0	19.0	
Quarrying and nonmetallic mining.....	1,134	33,044	+4.8	(¹)	498,991	+3.6	-2.4	49.5	28.4	
Crude-petroleum producing.....	239	24,189	+2.7	+7.4	673,689	+4.0	-5.4	59.5	42.2	
Public utilities:										
Telephone and telegraph.....	8,316	247,238	-1.0	-13.4	6,507,178	+1.1	-16.2	68.5	66.7	
Power and light.....	3,204	195,565	+3	-5.8	5,551,531	+2	-11.1	77.5	70.0	
Electric-railroad and motor-bus operation and maintenance.....	560	130,995	+1	-8.2	3,431,484	-1.1	-13.6	69.4	57.4	
Trade:										
Wholesale.....	2,924	75,870	+1.6	+4	1,982,011	+3.3	-8.7	76.9	59.1	
Retail.....	17,560	334,147	-4.7	(¹)	6,329,075	-4.0	-8.2	74.6	58.1	
Hotels (cash payments only) ²	2,702	136,190	+2.6	-3.6	1,678,710	+1.8	-13.8	75.6	53.3	
Canning and preserving.....	874	65,865	+37.8	+4.9	666,704	+25.8	-2.7	76.6	46.2	
Laundries.....	909	54,715	+4	-5.0	797,683	-1.2	-15.4	76.3	56.1	
Dyeing and cleaning.....	311	10,427	-3.2	+6.0	172,823	-6.9	-12.0	82.9	52.8	
Banks, brokerage, insurance, and real estate.....	4,475	168,656	³ +4	³ -7	5,551,826	³ +6	³ -5.4	³ 97.8	³ 85.2	

¹ No change. ² The additional value of board, room, and tips cannot be computed. ³ Weighted.

Per capita weekly earnings in July 1933 for 15 nonmanufacturing industries included in the Bureau's monthly trend-of-employment survey, together with the percents of change in July 1933 as compared with June 1933 and July 1932, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN 15 NONMANUFACTURING INDUSTRIES IN JULY 1933 AND COMPARISON WITH JUNE 1933 AND JULY 1932

Industrial group	Per capita weekly earnings in July 1933	Percent of change July 1933 compared with—	
		June 1933	July 1932
Coal mining:			
Anthracite.....	\$25.34	+0.4	+12.5
Bituminous.....	13.85	+11.7	+27.9
Metalliferous mining.....	18.80	-.9	+5
Quarrying and nonmetallic mining.....	15.10	-1.2	-2.4
Crude-petroleum producing.....	27.85	+1.2	-11.9
Public utilities:			
Telephone and telegraph.....	26.32	+1.0	-3.2
Power and light.....	28.39	-.1	-5.5
Electric-railroad and motor-bus operation and maintenance.....	26.20	-1.1	-5.8
Trade:			
Wholesale.....	26.12	+1.6	-9.0
Retail.....	18.94	+7	-8.2
Hotels (cash payments only) ¹	12.33	-.8	-10.5
Canning and preserving.....	10.12	-8.7	-7.4
Laundries.....	14.58	-1.6	-11.0
Dyeing and cleaning.....	16.57	-3.8	-12.5
Banks, brokerage, insurance, and real estate.....	32.92	² +1	² -4.8

¹ The additional value of board, room, and tips cannot be computed.

² Weighted.

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

INDEX numbers of employment and pay-roll totals for 15 nonmanufacturing industries are presented in the following table. These index numbers show the variation in employment and pay rolls by months, from January 1930 to July 1933, in all nonmanufacturing industries with the exception of the laundry, dyeing and cleaning, and the banks, brokerage, insurance, and real-estate industries for which information over the entire period is not available. The Bureau has secured data concerning employment and pay rolls for the index base year 1929 from establishments in these industries and has computed index numbers for those months for which data are available from the Bureau's files. These indexes are shown in this tabulation.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO JULY 1933

[12-month average, 1929=100]

Month	Anthracite mining								Bituminous-coal mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	102.1	90.6	76.2	52.5	105.8	89.3	61.5	43.2	102.5	93.9	80.8	69.8	101.4	73.3	47.0	36.1
February	106.9	89.5	71.2	58.7	121.5	101.9	57.3	56.8	102.4	91.5	77.4	69.3	102.1	68.3	47.0	37.2
March	82.6	82.0	73.7	54.6	78.5	71.3	61.2	48.8	98.6	88.8	75.2	67.6	86.4	65.2	46.8	30.7
April	84.1	85.2	70.1	51.6	75.0	75.2	72.0	37.4	94.4	85.9	65.5	63.7	81.7	58.6	33.9	26.9
May	93.8	80.3	66.9	43.2	98.8	76.1	58.0	30.0	90.4	82.4	62.6	61.2	77.5	54.4	30.7	26.6
June	90.8	76.1	53.0	39.5	94.3	66.7	37.4	34.3	88.4	78.4	60.5	61.3	75.6	52.4	27.3	29.2
July	91.6	65.1	44.5	43.8	84.0	53.7	34.5	38.2	88.0	76.4	58.6	63.2	68.9	50.4	24.4	33.6
August	80.2	67.3	49.2	-----	78.8	56.4	41.4	-----	89.2	77.0	59.4	-----	71.1	50.6	26.4	-----
September	93.8	80.0	55.8	-----	91.6	64.9	47.0	-----	90.5	80.4	62.4	-----	79.9	53.6	30.2	-----
October	99.0	86.8	63.9	-----	117.2	91.1	66.7	-----	91.8	81.3	67.0	-----	79.4	56.2	37.8	-----
November	97.2	83.5	62.7	-----	98.0	79.5	51.0	-----	92.5	81.1	69.4	-----	79.1	54.6	38.0	-----
December	99.1	79.8	62.3	-----	100.0	78.4	56.2	-----	92.5	81.2	70.0	-----	77.7	52.3	37.7	-----
Average	93.4	80.5	62.5	49.1	95.3	75.4	53.7	41.2	93.4	83.2	67.4	65.2	81.3	57.5	35.6	31.5
Month	Metalliferous mining								Quarrying and nonmetallic mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	95.7	68.3	49.3	32.4	92.7	55.0	29.7	18.1	79.6	64.4	48.9	35.1	71.9	50.4	30.2	18.1
February	92.3	65.3	46.9	31.5	92.5	54.6	27.8	17.8	79.8	66.6	47.4	34.8	73.5	54.4	29.6	17.4
March	90.9	63.5	45.0	30.0	90.8	52.8	26.5	17.4	83.0	70.0	46.0	35.1	80.0	68.2	30.0	17.8
April	89.3	63.9	43.3	29.4	88.3	51.4	25.0	16.4	87.4	76.1	48.6	39.3	85.4	62.6	30.0	20.2
May	87.5	62.4	38.3	30.0	85.6	49.3	23.8	17.0	90.8	75.0	50.6	43.4	90.2	62.3	32.3	23.8
June	84.6	60.0	32.2	31.5	81.6	46.1	20.1	18.3	90.3	72.3	49.5	47.3	90.9	60.1	30.0	27.5
July	80.5	56.2	29.5	33.0	71.9	41.3	16.9	19.0	89.9	71.0	49.5	49.5	85.5	57.3	29.1	28.4
August	79.0	55.8	28.6	-----	71.0	40.2	16.5	-----	89.3	68.9	51.1	-----	85.8	55.1	29.7	-----
September	78.1	55.5	29.3	-----	69.9	40.0	17.0	-----	87.7	66.6	52.4	-----	82.5	51.2	30.5	-----
October	77.2	53.8	30.5	-----	68.6	37.4	18.0	-----	84.7	64.5	52.4	-----	79.3	48.7	30.1	-----
November	72.8	52.8	31.9	-----	63.4	35.1	18.7	-----	78.3	59.3	49.4	-----	66.8	43.3	27.1	-----
December	70.1	51.2	33.3	-----	59.9	34.3	18.7	-----	70.2	53.9	42.3	-----	59.9	36.9	22.1	-----
Average	83.2	59.1	36.5	31.1	78.0	44.8	21.6	17.7	84.3	67.4	49.0	40.6	79.3	53.4	29.1	21.9
Month	Crude-petroleum producing								Telephone and telegraph							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	92.7	74.8	54.9	57.2	94.0	71.5	46.5	39.9	101.6	90.5	83.0	74.6	105.1	96.3	89.1	71.7
February	90.8	73.2	54.4	57.0	88.6	70.0	46.9	41.7	100.2	89.2	82.0	73.9	101.9	94.8	89.6	71.9
March	89.3	72.2	51.4	56.5	91.3	73.2	43.2	42.5	99.4	88.6	81.7	73.2	105.8	97.9	88.2	71.6
April	86.8	69.8	54.9	56.8	86.6	66.3	44.5	40.1	98.9	88.1	81.2	72.3	103.4	95.0	83.4	67.8
May	89.8	67.8	54.5	56.9	85.4	64.7	47.1	41.6	99.7	87.4	80.6	70.1	103.2	94.1	82.8	68.5
June	90.2	65.0	54.2	58.0	87.1	62.7	44.8	40.6	99.8	86.9	79.9	69.2	103.4	95.0	82.1	66.6
July	89.9	65.3	55.4	59.5	88.5	59.2	44.6	42.2	100.0	86.6	79.1	68.5	106.6	93.3	79.6	66.7
August	87.7	62.4	57.4	-----	86.0	56.3	42.9	-----	98.8	85.9	78.1	-----	102.5	92.3	79.1	-----
September	85.0	61.2	56.2	-----	84.0	55.2	41.9	-----	96.8	85.0	77.4	-----	102.2	92.1	75.9	-----
October	85.2	60.4	56.8	-----	82.6	54.4	42.5	-----	94.5	84.1	76.2	-----	100.9	91.6	75.7	-----
November	83.6	57.6	56.5	-----	80.0	52.0	42.4	-----	93.0	83.5	75.5	-----	97.9	89.7	74.3	-----
December	77.4	58.2	57.2	-----	77.2	54.9	41.7	-----	91.6	83.1	74.8	-----	101.3	92.7	73.5	-----
Average	87.4	65.7	55.3	57.4	85.9	61.7	44.1	41.2	97.9	86.6	79.1	71.7	102.9	93.7	81.1	69.3
Month	Power and light								Electric-railroad and motor-bus operation and maintenance ²							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	99.6	99.2	89.3	77.7	99.7	98.6	88.4	73.0	97.1	83.9	79.5	70.6	97.8	85.6	75.4	60.9
February	98.8	97.8	87.2	77.4	100.4	99.7	86.0	71.6	95.1	86.6	78.9	70.4	95.7	87.1	74.8	60.6
March	99.7	96.7	85.5	76.9	102.1	102.4	85.4	71.9	94.4	86.4	77.6	69.8	95.4	88.1	73.6	59.4
April	100.7	97.1	84.8	76.9	102.6	97.6	82.4	69.4	95.2	86.8	78.0	69.5	97.1	86.6	71.8	55.1
May	103.4	97.6	84.0	76.9	104.5	98.7	84.2	69.9	95.2	85.9	76.9	69.1	96.0	85.1	72.2	58.2
June	104.6	97.2	83.2	77.3	107.8	98.3	80.5	69.9	94.8	85.3	76.5	69.3	97.0	84.8	70.2	58.0
July	105.9	96.7	82.3	77.5	106.7	97.4	78.7	70.0	95.3	85.6	75.6	69.4	95.6	83.3	66.4	57.4
August	106.4	95.9	81.5	-----	106.6	96.2	76.6	-----	92.9	84.8	74.1	-----	92.1	81.9	63.8	-----
September	105.2	94.7	81.0	-----	106.1	94.3	74.7	-----	91.8	84.0	73.5	-----	90.5	81.2	62.5	-----
October	104.8	92.7	79.9	-----	105.6	93.2	74.4	-----	91.0	82.7	72.3	-----	88.9	79.0	61.5	-----
November	103.4	91.3	79.1	-----	103.7	93.3	73.2	-----	89.3	81.5	71.8	-----	87.7	79.7	61.7	-----
December	103.2	90.3	78.4	-----	106.3	91.2	73.2	-----	88.8	79.9	71.4	-----	88.6	77.8	61.9	-----
Average	103.0	95.6	83.0	77.2	104.3	96.7	79.8	70.8	93.4	84.7	75.5	169.7	93.5	83.4	68.0	158.9

¹ Average for 7 months.² Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1

TREND OF EMPLOYMENT

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TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTURING INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO JULY 1933—Continued

[12-month average, 1929=100]

Month	Wholesale trade								Retail trade							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	100.0	89.5	81.8	75.3	100.0	87.5	74.1	61.7	98.9	90.0	84.3	76.9	99.7	89.4	78.0	62.7
February	98.5	88.2	80.9	74.1	98.3	88.4	72.5	58.6	84.4	87.1	80.5	73.4	96.0	86.7	73.7	58.4
March	97.7	87.4	79.8	73.1	99.7	89.1	71.3	57.1	93.9	87.8	81.4	71.4	95.5	87.5	73.4	55.1
April	97.3	87.4	78.9	73.3	97.9	85.2	68.9	56.0	87.3	90.1	81.6	78.6	97.3	88.3	72.7	60.4
May	96.8	87.1	77.9	74.0	97.4	84.7	69.7	57.4	96.7	89.9	80.9	77.0	97.0	88.0	71.1	59.5
June	96.5	87.1	77.0	75.7	98.6	84.1	66.2	57.3	93.9	89.1	79.4	78.3	96.8	87.6	68.2	60.5
July	96.0	86.8	76.6	76.9	96.0	83.3	64.7	59.1	89.0	83.9	74.6	74.6	91.7	83.3	63.3	58.1
August	95.0	86.5	76.4	---	93.6	82.1	63.2	---	85.6	81.8	72.6	---	87.6	80.3	60.7	---
September	94.8	86.1	77.1	---	93.6	81.4	63.1	---	92.0	86.6	77.8	---	92.4	83.5	64.6	---
October	94.2	85.2	77.8	---	92.9	79.9	63.9	---	95.0	89.8	81.3	---	95.1	84.6	67.1	---
November	92.6	84.1	77.6	---	91.0	79.7	63.3	---	98.4	90.9	81.7	---	96.8	85.4	66.9	---
December	92.0	83.7	77.0	---	91.3	77.8	62.6	---	115.1	106.2	95.2	---	107.7	94.1	73.6	---
Average	96.0	86.6	78.2	174.6	95.9	83.6	67.0	158.2	95.9	89.4	80.9	175.7	96.2	86.6	69.4	159.2
	Hotels								Canning and preserving							
January	100.4	95.0	83.2	73.8	100.3	91.0	73.9	55.7	46.1	48.9	35.0	34.1	50.3	46.1	31.8	24.8
February	102.4	96.8	84.3	73.8	103.8	93.7	73.9	55.9	45.7	48.3	37.1	35.1	51.5	48.6	32.7	25.9
March	102.4	96.8	84.0	72.4	104.4	93.4	72.4	53.5	49.7	53.0	36.3	33.2	50.8	50.3	31.9	24.2
April	100.1	95.9	82.7	71.9	100.3	89.9	69.6	51.7	74.8	59.6	47.0	49.2	72.6	57.1	37.9	33.5
May	98.0	92.5	80.1	71.9	98.4	87.7	67.0	51.8	65.7	56.0	40.5	45.5	66.9	56.0	36.0	31.8
June	98.0	91.6	78.0	73.6	98.1	85.4	63.8	52.3	83.0	70.6	55.5	55.6	81.5	58.6	40.5	36.7
July	101.3	93.3	78.4	75.6	99.8	85.2	61.8	53.3	126.3	102.2	73.0	76.6	112.7	74.2	47.5	46.2
August	101.5	92.8	77.6	---	98.6	83.8	59.6	---	185.7	142.9	99.0	---	172.0	104.7	65.6	---
September	100.1	90.8	77.0	---	97.1	81.9	59.1	---	246.6	180.1	128.3	---	214.8	129.4	75.1	---
October	97.5	87.4	75.4	---	95.5	79.7	58.6	---	164.7	108.1	81.1	---	140.0	77.6	61.8	---
November	95.2	84.9	74.3	---	93.6	77.1	57.5	---	96.7	60.8	50.5	---	82.9	48.1	34.4	---
December	93.5	83.1	73.2	---	91.5	75.4	56.6	---	*61.6	40.7	33.7	---	57.4	36.9	25.6	---
Average	99.2	91.7	79.0	173.3	98.5	85.4	64.5	153.5	103.9	80.9	59.5	147.0	96.1	65.6	42.6	131.9
	Laundries ³				Dyeing and cleaning ³				Banks, brokerage, insurance, and real estate ³							
	Employment			Pay rolls	Employment			Pay rolls	Employment		Pay rolls					
	1931	1932	1933	1931	1932	1933	1931	1932	1933	1932	1933	1932	1933			
January	90.5	84.7	75.4	86.6	76.4	57.9	88.9	82.1	73.0	77.7	65.8	46.6	98.6	97.6	94.0	85.5
February	90.0	82.9	74.4	85.6	73.3	55.5	87.4	80.5	70.9	75.1	62.2	42.4	98.6	97.0	93.5	84.7
March	89.5	82.0	73.0	85.6	71.6	52.9	88.0	80.6	71.2	75.6	61.7	41.0	99.1	96.8	93.3	84.1
April	90.5	82.0	73.4	86.8	71.4	54.0	95.7	83.3	81.1	86.3	65.9	54.6	98.8	96.3	92.4	83.3
May	90.3	81.4	73.5	86.5	70.6	54.5	96.7	84.5	82.0	86.6	67.3	53.9	98.2	96.4	93.2	83.6
June	91.0	81.0	76.0	87.1	68.6	56.7	99.0	85.1	85.6	89.1	65.8	56.6	98.1	97.4	90.4	84.7
July	91.8	80.3	76.3	87.4	66.3	56.1	98.6	82.4	82.9	86.2	60.0	52.8	98.5	97.8	90.1	85.2
August	90.2	78.9	---	84.6	63.9	---	93.5	79.5	---	80.0	56.3	---	98.7	---	88.5	---
September	89.3	78.5	---	84.1	62.9	---	95.3	83.3	---	82.6	61.0	---	98.6	---	87.3	---
October	88.1	77.5	---	81.8	61.2	---	94.2	82.3	---	81.4	58.8	---	98.7	---	86.5	---
November	86.2	76.2	---	78.9	59.1	---	90.1	78.0	---	74.7	52.3	---	98.2	---	86.0	---
December	85.3	75.9	---	77.4	58.7	---	84.9	75.2	---	67.9	48.4	---	98.0	---	85.7	---
Average	89.4	80.1	174.6	84.4	67.0	155.4	92.7	81.4	178.1	80.3	60.5	149.7	98.5	197.0	90.1	184.4

³ Monthly data for previous years not available.

Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the Bureau presents a tabulation of man-hours worked per week and average hourly earnings, based on reports supplied by identical establishments in June and July 1933 in 15 industrial groups and 74 separate manufacturing industries. Man-hour data for the building-construction group and for the insurance, real estate, banking, and brokerage group are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.

The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 percent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by multiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups.

In presenting information for the separate manufacturing industries shown in table 2, data are published for only those industries in which the available man-hour information covers 20 percent or more of the total number of employees in the industry at the present time. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, table 1.

TABLE 1.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, JUNE AND JULY 1933.

Industrial group	Average hours per week		Average hourly earnings	
	June 1933	July 1933	June 1933	July 1933
			Cents	Cents
Manufacturing.....	42.6	42.5	41.8	42.1
Coal mining:				
Anthracite.....	30.7	31.3	81.6	81.8
Bituminous.....	28.5	32.0	45.3	45.0
Metalliferous mining.....	39.9	39.5	47.2	47.4
Quarrying and nonmetallic mining.....	41.2	41.5	37.6	37.5
Crude-petroleum producing.....	50.4	50.0	48.8	48.8
Public utilities:				
Telephone and telegraph.....	37.5	38.0	71.1	70.8
Power and light.....	46.0	44.7	61.9	63.4
Electric-railroad and motor-bus operation and maintenance.....	46.5	46.1	56.5	56.4
Trade:				
Wholesale.....	47.2	46.6	53.3	54.8
Retail.....	44.8	44.2	40.5	40.9
Hotels.....	50.5	50.9	23.1	22.8
Canning and preserving.....	43.1	39.0	31.0	31.3
Laundries.....	42.8	42.4	33.2	33.1
Dyeing and cleaning.....	47.0	45.7	37.6	36.8
Total.....	43.3	43.1	43.5	43.8

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical with the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation, which are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments. As already noted, the basic information upon which the average weekly man-hours and average hourly earnings are computed covers approximately 50 percent of the establishments reporting monthly employment data.

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED MANUFACTURING INDUSTRIES, JUNE AND JULY 1933

Industry	Average hours per week		Average hourly earnings	
	June 1933	July 1933	June 1933	July 1933
Food and kindred products:			<i>Cents</i>	<i>Cents</i>
Baking.....	47.0	47.2	42.7	42.9
Beverages.....	47.7	44.8	60.0	61.6
Confectionery.....	37.8	37.0	34.6	35.1
Flour.....	47.6	47.7	41.3	42.0
Ice cream.....	52.9	51.1	47.0	48.4
Slaughtering and meat packing.....	48.2	49.3	41.9	40.9
Sugar, beet.....	47.3	43.6	47.9	52.3
Sugar refining, cane.....	54.1	54.5	44.0	43.8
Textiles and their products:				
Fabrics:				
Carpets and rugs.....	44.3	44.8	38.7	37.7
Cotton goods.....	49.2	48.9	22.7	23.1
Cotton small wares.....	46.2	46.3	33.6	34.4
Dyeing and finishing textiles.....	50.4	49.6	37.0	36.6
Knit goods.....	46.7	45.9	29.5	29.2
Silk and rayon goods.....	42.2	41.8	30.4	31.1
Woolen and worsted goods.....	48.3	49.0	34.8	35.2
Iron and steel and their products, not including machinery:				
Bolts, nuts, washers, and rivets.....	40.7	41.2	42.6	42.4
Cast-iron pipe.....	29.0	35.8	45.1	40.0
Cutlery (not including silver and plated cutlery) and edge tools.....	39.8	42.2	48.4	47.9
Forgings, iron and steel.....	41.9	42.9	43.5	43.7
Hardware.....	38.0	40.2	41.1	40.5
Iron and steel.....	37.8	40.0	48.2	48.3
Plumbers' supplies.....	43.2	38.1	43.0	42.3
Steam and hot-water heating apparatus and steam fittings.....	38.1	38.8	47.0	47.1
Stoves.....	40.0	41.3	42.7	42.9
Structural and ornamental metalwork.....	35.2	33.6	41.7	42.4
Tools (not including edge tools, machine tools, files, and saws).....	38.5	40.9	45.4	44.6
Machinery, not including transportation equipment:				
Agricultural implements.....	36.4	34.5	45.6	45.8
Cash registers, adding machines, and calculating machines.....	40.6	39.8	62.0	63.7
Electrical machinery, apparatus, and supplies.....	37.9	38.1	53.1	53.7
Engines, turbines, tractors, and water wheels.....	37.3	37.5	54.2	54.7
Foundry and machine-shop products.....	35.7	37.8	49.3	49.0
Machine tools.....	36.3	36.8	53.6	54.0
Radios and phonographs.....	40.9	35.3	38.2	38.1
Textile machinery and parts.....	42.6	44.7	52.8	52.3
Typewriters and supplies.....	35.2	39.4	44.0	42.9
Nonferrous metals and their products:				
Aluminum manufactures.....	43.1	42.5	40.1	40.2
Brass, bronze, and copper products.....	41.5	42.9	46.1	45.6
Clocks and watches and time-recording devices.....	41.5	43.7	35.4	35.5
Jewelry.....	36.6	38.0	43.8	43.7
Silverware and plated ware.....	38.0	40.3	44.6	44.4
Smelting and refining—copper, lead, and zinc.....	40.4	42.0	48.0	47.4
Stamped and enameled ware.....	41.0	41.6	38.5	37.4
Transportation equipment:				
Aircraft.....	43.4	44.3	65.4	65.4
Automobiles.....	40.7	38.1	56.6	57.0
Locomotives.....	39.9	42.3	49.6	49.9
Shipbuilding.....	31.2	33.0	55.5	55.7
Railroad repair shops:				
Electric railroad.....	44.1	43.4	55.7	56.1
Steam railroad.....	36.6	34.4	62.9	63.6

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED MANUFACTURING INDUSTRIES, JUNE AND JULY 1933—Continued

Industry	Average hours per week		Average hourly earnings	
	June 1933	July 1933	June 1933	July 1933
			Cents	Cents
Lumber and allied products:				
Furniture.....	39.7	41.9	32.2	31.0
Lumber:				
Millwork.....	43.1	44.7	33.0	32.7
Sawmills.....	43.5	44.1	27.1	27.9
Stone, clay, and glass products:				
Brick, tile, and terra cotta.....	36.7	37.2	32.0	32.4
Cement.....	38.7	38.1	40.5	41.9
Glass.....	40.9	39.5	44.7	44.9
Marble, granite, slate, and other products.....	35.7	36.4	51.8	52.5
Pottery.....	35.8	35.9	39.8	38.9
Leather and its manufactures: Leather.....	47.1	46.3	40.9	41.7
Paper and printing:				
Boxes, paper.....	44.6	45.8	39.9	39.4
Paper and pulp.....	45.6	46.1	40.8	41.1
Printing and publishing:				
Book and job.....	37.1	37.7	66.1	66.0
Newspapers and periodicals.....	40.9	40.8	73.6	73.2
Chemicals and allied products:				
Chemicals.....	44.5	44.3	54.2	54.3
Cottonseed, oil, cake, and meal.....	59.5	60.4	20.0	19.3
Druggists' preparations.....	40.3	40.2	46.5	46.5
Explosives.....	36.5	38.3	54.3	54.5
Fertilizers.....	43.7	43.0	27.6	28.6
Paints and varnishes.....	47.6	44.6	46.9	47.8
Petroleum refining.....	39.7	40.0	63.4	62.3
Rayon and allied products.....	44.9	44.1	37.3	37.5
Soap.....	43.8	43.9	45.2	45.6
Rubber products:				
Rubber goods, other than boots, shoes, tires, and inner tubes.....	44.1	43.5	42.4	43.5
Rubber tires and inner tubes.....	42.1	38.4	57.8	62.0
Tobacco manufactures:				
Chewing and smoking tobacco and snuff.....	41.4	39.6	32.2	33.6
Cigars and cigarettes.....	42.3	42.6	29.5	29.5

Employment in Building Construction in July 1933

EMPLOYMENT in the building-construction industry decreased 0.4 percent in July as compared with June, and pay rolls decreased 0.8 percent over the month interval.

The percents of change of employment and pay-roll totals in July as compared with June are based on returns made by 10,657 firms employing in July 79,127 workers in the various trades in the building-construction industry and whose combined weekly earnings during the pay period ending nearest July 15 were \$1,679,130. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE BUILDING-CONSTRUCTION INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		June 15	July 15		June 15	July 15	
		Alabama: Birmingham.....	76		339	351		+3.5	$4,564	$4,660	+2.1
California:							
Los Angeles ¹	24	711	861	+21.1	15,024	18,791	+25.1
San Francisco-Oakland ¹	29	737	818	+11.0	13,618	17,408	+27.8
Other reporting localities ¹	23	705	599	-15.0	15,576	12,986	-16.6

¹ Data supplied by cooperating State bureaus.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING-CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933—Con.

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		June 15	July 15		June 15	July 15	
Colorado: Denver.....	195	616	600	-2.6	\$12,067	\$12,001	-0.5
Connecticut:							
Bridgeport.....	128	530	531	+2	10,965	10,779	-1.7
Hartford.....	205	989	994	+5	22,142	22,406	+1.2
New Haven.....	179	1,054	959	-9.0	25,541	22,997	-10.0
Delaware: Wilmington.....	120	1,025	955	-6.8	19,886	17,517	-11.9
District of Columbia.....	519	8,475	8,593	+1.4	241,468	241,059	-.2
Florida:							
Jacksonville.....	53	375	448	+19.5	5,833	7,278	+24.8
Miami.....	75	639	778	+21.8	9,861	11,567	+17.3
Georgia: Atlanta.....	142	1,250	1,173	-6.2	17,682	16,309	-7.8
Illinois:							
Chicago ¹	124	1,930	1,190	-38.3	35,997	29,629	-17.7
Other reporting localities ¹	70	643	585	-9.0	13,209	13,448	+1.8
Indiana:							
Evansville.....	52	308	323	+4.9	4,806	4,766	-.8
Fort Wayne.....	88	262	275	+5.0	3,639	3,812	+4.8
Indianapolis.....	164	1,087	1,020	-6.2	21,323	19,344	-9.3
South Bend.....	37	117	131	+12.0	1,914	2,166	+13.2
Iowa: Des Moines.....	105	584	483	-17.3	10,852	8,315	-23.4
Kansas: Wichita.....	63	307	267	-13.0	5,056	4,480	-11.4
Kentucky: Louisville.....	118	885	1,044	+18.0	16,104	16,301	+1.2
Louisiana: New Orleans.....	123	1,159	1,019	-12.1	18,684	16,303	-12.7
Maine: Portland.....	106	387	372	-3.9	7,952	6,671	-16.1
Maryland: Baltimore ¹	105	755	735	-2.6	12,210	12,798	+4.8
Massachusetts: All reporting localities ¹	717	4,395	4,384	-.3	105,854	106,647	+7
Michigan:							
Detroit.....	466	3,220	3,721	+15.6	63,121	70,845	+12.2
Flint.....	55	225	188	-16.4	3,213	3,183	-.9
Grand Rapids.....	98	360	373	+3.6	5,585	5,068	-9.3
Minnesota:							
Duluth.....	51	291	324	+11.3	4,091	4,292	+4.9
Minneapolis.....	204	1,251	1,362	+8.9	26,717	25,109	-6.0
St. Paul.....	162	837	847	+1.2	15,261	17,750	+16.3
Missouri:							
Kansas City ²	265	1,382	1,495	+8.2	28,729	31,000	+7.9
St. Louis.....	513	2,480	2,560	+3.2	64,390	66,711	+3.6
Nebraska: Omaha.....	147	1,187	942	-20.6	21,400	18,503	-13.5
New York:							
New York City ¹	294	4,905	4,387	-10.6	161,817	143,387	-11.4
Other reporting localities ¹	206	4,898	5,217	+6.5	119,248	127,514	+6.9
North Carolina: Charlotte.....	39	230	235	+2.2	2,782	2,311	-16.9
Ohio:							
Akron.....	81	310	304	-1.9	4,480	4,410	-1.6
Cincinnati ³	439	2,149	2,222	+3.4	47,779	47,018	-1.6
Cleveland.....	566	2,656	2,362	-11.1	63,884	57,774	-9.6
Dayton.....	119	526	551	+4.8	9,165	10,533	+14.9
Youngstown.....	73	269	228	-15.2	4,991	3,511	-29.7
Oklahoma:							
Oklahoma City.....	82	413	482	+16.7	6,465	7,023	+8.6
Tulsa.....	58	235	241	+2.6	3,466	3,865	+11.5
Oregon: Portland.....	172	727	734	+1.0	13,533	13,923	+2.9
Pennsylvania: ⁴							
Erie area ¹	30	191	211	+10.5	2,499	2,396	-4.1
Philadelphia area ¹	525	4,876	4,901	+5	88,468	88,926	+5
Pittsburgh area ¹	272	1,684	1,813	+7.7	34,519	36,319	+5.2
Reading-Lebanon area ¹	52	277	299	+7.9	4,525	4,933	+9.0
Scranton area ¹	38	229	225	-1.7	5,103	5,071	-.6
Other reporting areas ¹	339	2,371	2,460	+3.8	40,869	40,632	-.6
Rhode Island: Providence.....	240	1,355	1,471	+8.6	28,401	31,408	+10.6
Tennessee:							
Chattanooga.....	42	283	305	+7.8	5,085	4,120	-19.0
Knoxville.....	48	425	432	+1.6	5,037	5,502	+9.2
Memphis.....	84	460	468	+1.7	6,418	6,236	-2.8
Nashville.....	74	1,060	891	-15.9	13,108	10,715	-18.3
Texas:							
Dallas.....	176	1,362	1,153	-15.3	20,213	17,050	-15.6
El Paso.....	27	161	164	+1.9	1,813	1,531	-15.6
Houston.....	152	854	1,020	+19.4	12,813	15,152	+23.1
San Antonio.....	120	842	824	-2.1	11,161	10,881	-2.5
Utah: Salt Lake City.....	82	364	299	-17.9	5,780	4,622	-20.0

¹ Data supplied by cooperating State bureaus.² Includes both Kansas City, Mo., and Kansas City, Kans.³ Includes Covington and Newport, Ky.⁴ Each separate area includes from 2 to 8 counties.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING-CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, JUNE AND JULY 15, 1933—Con.

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		June 15	July 15		June 15	July 15	
Virginia:							
Norfolk-Portsmouth.....	87	969	910	-6.1	\$15,645	\$14,316	-8.5
Richmond.....	146	863	899	+4.2	16,266	16,236	-.2
Washington:							
Seattle.....	156	585	699	+19.5	10,167	13,334	+31.1
Spokane.....	51	180	250	+38.9	2,868	4,908	+71.1
Tacoma.....	82	121	164	+35.5	1,831	2,307	+26.0
West Virginia: Wheeling.....	45	189	175	-7.4	3,497	2,990	-14.5
Wisconsin: All reporting localities.....	59	902	831	-7.9	14,321	15,377	+7.4
Total, all localities.....	10,657	79,418	79,127	- .4	1,691,851	1,679,130	- .8

¹ Data supplied by cooperating State bureaus.

Trend of Employment in July 1933, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in July 1933 as compared with June 1933, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundry, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group—public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in June and July 1933 as reported by identical establishments in this industry are included, however, in the combined total of "All groups."

The percents of change shown in the accompanying table, unless otherwise noted, are unweighted percents of change; that is, the industries included in the groups, and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

As the anthracite-mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in table 1, nonmanufacturing industries, are the fluctuations in this industry by State totals.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "All groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.

TREND OF EMPLOYMENT

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COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Total, all groups					Manufacturing				
	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change
Alabama.....	495	60,550	+4.8	\$717,200	+11.9	203	43,656	+6.9	\$499,774	+10.8
Arizona.....	397	7,600	-2.3	145,549	-8.1	57	1,966	+6.4	35,690	-3.8
Arkansas.....	<i>1,420</i>	<i>15,467</i>	+1.1	<i>215,335</i>	+3.1	<i>173</i>	<i>10,588</i>	+1.5	<i>129,225</i>	+4.0
California.....	<i>2,1,950</i>	<i>237,717</i>	+3.1	<i>5,535,929</i>	+1.9	<i>1,097</i>	<i>129,167</i>	+7.4	<i>2,748,395</i>	+2.9
Colorado.....	807	28,287	+5	572,863	+1.3	120	10,483	+1.1	209,346	+5.4
Connecticut.....	1,099	148,391	+5.8	2,905,865	+8.9	642	127,978	+6.8	2,376,222	+10.9
Delaware.....	131	11,054	+12.5	228,976	+10.0	48	7,493	+10.8	160,392	+12.6
Dist. of Columbia.....	622	29,235	-2.5	669,210	-3.7	53	2,933	-9	87,883	-3.0
Florida.....	551	22,200	-2.5	358,965	+2.0	125	13,026	+1.4	177,202	+5.6
Georgia.....	650	92,604	+8.0	1,102,915	+7.8	306	80,090	+9.8	840,088	+10.6
Idaho.....	204	7,356	+9.4	133,649	+14.6	39	3,588	+12.7	66,498	+23.2
Illinois.....	<i>3,1,672</i>	<i>304,734</i>	+4.7	<i>6,326,338</i>	+5.2	<i>1,073</i>	<i>193,445</i>	+6.5	<i>3,683,216</i>	+7.2
Indiana.....	1,214	123,669	+6.6	2,298,589	+4.8	544	94,135	+10.5	1,769,551	+7.8
Iowa.....	1,187	44,101	+3.2	837,902	+3.8	435	25,159	+6.4	470,185	+6.1
Kansas.....	<i>4,1,221</i>	<i>69,792</i>	+6.6	<i>1,320,541</i>	+1.1	<i>437</i>	<i>23,722</i>	+3.8	<i>470,630</i>	+3.4
Kentucky.....	811	64,244	+6.0	992,288	+7.8	197	26,215	+9.9	431,824	+7.6
Louisiana.....	469	30,754	+5.1	455,812	+6.2	208	20,145	+10.0	271,996	+10.92
Maine.....	548	46,639	+8.5	800,256	+11.4	179	39,056	+7.9	662,927	+13.7
Maryland.....	<i>3,826</i>	<i>32,034</i>	+6.6	<i>1,569,267</i>	+7.1	<i>456</i>	<i>68,012</i>	+11.1	<i>1,071,595</i>	+13.9
Massachusetts.....	<i>6,8,083</i>	<i>390,058</i>	+4.2	<i>7,430,874</i>	+5.7	<i>1,143</i>	<i>187,057</i>	+9.7	<i>3,445,136</i>	+12.7
Michigan.....	1,597	279,603	+9.8	5,987,376	+4.9	<i>432</i>	<i>223,539</i>	+11.2	<i>5,040,785</i>	+2.3
Minnesota.....	1,027	62,670	+4.6	1,271,605	+3.4	267	29,851	+6.8	583,887	+5.0
Mississippi.....	364	8,968	+6.1	110,768	+3.9	70	5,680	+9.4	60,113	+3.9
Missouri.....	1,195	113,664	+2.9	2,256,099	+2.0	522	65,728	+6.0	1,242,227	+5.8
Montana.....	345	8,927	+7.0	212,503	+7.9	46	2,523	+7.2	50,881	+3.0
Nebraska.....	720	21,630	-5	453,095	+1.3	123	10,699	+2.4	222,297	+4.2
Nevada.....	136	1,469	+9.1	35,264	+6.7	22	286	+9.6	7,267	+14.0
New Hampshire.....	503	39,192	+7.2	639,211	+10.2	185	34,673	+7.3	538,193	+10.6
New Jersey.....	1,539	195,062	+4.2	4,239,153	+2.7	<i>7,678</i>	<i>170,435</i>	+4.5	<i>3,596,433</i>	+4.5
New Mexico.....	194	4,916	+4.4	78,946	+6.0	26	790	+25.4	13,228	+44.4
New York.....	7,991	526,007	+2.1	12,545,813	+2.7	<i>8,1,710</i>	<i>326,780</i>	+4.5	<i>7,309,466</i>	+6.5
North Carolina.....	888	133,905	+9.9	1,573,352	+10.9	529	128,906	+10.3	1,489,484	+11.4
North Dakota.....	354	3,969	+2.9	80,053	+1.5	60	1,095	+6.8	23,988	+4.9
Ohio.....	4,911	409,606	+6.5	8,148,813	+7.1	1,900	306,216	+8.6	6,111,667	+9.8
Oklahoma.....	698	26,997	+2.2	529,751	+2.0	134	10,565	+5.6	191,783	+5.2
Oregon.....	653	30,848	+15.9	551,585	+12.0	145	16,357	+7.7	274,708	+9.2
Pennsylvania.....	5,134	602,948	+4.2	11,272,925	+6.5	<i>1,731</i>	<i>346,577</i>	+4.8	<i>5,789,137</i>	+7.5
Rhode Island.....	903	63,812	+5.6	1,199,959	+7.1	259	51,940	+6.9	918,893	+9.4
South Carolina.....	318	60,967	+6.8	628,132	+10.1	179	57,826	+7.3	580,444	+11.6
South Dakota.....	257	5,698	+3.2	135,367	+4.7	47	2,009	+1.8	38,772	+7.5
Tennessee.....	742	68,774	+6.2	949,081	+5.9	264	52,154	+8.3	679,320	+7.6
Texas.....	<i>821</i>	<i>64,489</i>	+2.5	<i>1,405,724</i>	+1.3	<i>397</i>	<i>37,573</i>	+4.1	<i>757,418</i>	+2.4
Utah.....	281	13,892	+16.4	239,265	+7.1	83	4,161	+9	81,336	+5.9
Vermont.....	377	10,542	+6.5	201,879	+7.2	116	5,933	+9.3	113,490	+12.8
Virginia.....	1,278	85,887	+4.5	1,314,039	+4.6	419	60,753	+5.8	878,472	+5.4
Washington.....	1,140	51,119	+6.3	1,009,390	+5.2	239	25,351	+9.5	471,072	+8.5
West Virginia.....	853	97,556	+5.0	1,627,034	+8.6	173	37,783	+8.5	685,729	+1.7
Wisconsin.....	<i>9,1,098</i>	<i>142,977</i>	+7.1	<i>2,469,493</i>	+5.1	<i>777</i>	<i>115,134</i>	+7.3	<i>1,908,893</i>	+5.9
Wyoming.....	196	5,426	-1.5	122,204	+5	26	1,275	+2.7	34,413	+3.3

¹ Includes automobile dealers and garages, and sand, gravel, and building construction.² Includes banks, insurance, and office employment.³ Includes building and contracting.⁴ Includes transportation, financial institutions, restaurants, theaters, and building construction.⁵ Weighted percent of change.⁶ Includes construction, municipal, agricultural, and office employment, amusement, and recreation, professional and transportation services.⁷ Includes laundries.⁸ Includes laundering and cleaning.⁹ Includes construction, but does not include hotels and restaurants.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Wholesale trade					Retail trade				
	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change
Alabama.....	15	559	-0.4	\$14,778	+17.1	60	1,827	-3.3	\$27,063	-3.0
Arizona.....	20	170	+6	4,383	+8	173	1,347	-8.2	22,509	-7.6
Arkansas.....	16	410	+2	9,189	-1.4	130	1,368	-6	21,709	-1.3
California.....	105	5,046	+3	139,318	+2.4	131	21,512	-2.6	439,020	-1.9
Colorado.....	27	910	+7	25,307	+3.2	274	3,835	-4.3	74,594	-2.8
Connecticut.....	59	1,286	+1.8	34,798	+5	117	4,909	-7	93,558	+ ⁽¹⁰⁾
Delaware.....	7	108	+1.9	2,294	+8.6	9	197	+52.7	2,438	+15.6
Dist. of Columbia.....	31	405	-1.7	11,887	-1.5	404	10,394	-4.2	204,667	-6.3
Florida.....	49	750	+1.1	17,340	+1.1	73	1,120	+7.7	19,721	+3.9
Georgia.....	32	440	+1.4	12,740	+6.5	28	1,866	-5.9	28,613	-4.3
Idaho.....	8	112	+9	3,080	+3.7	50	353	+4.1	6,439	+2.5
Illinois.....	34	1,950	+9	45,240	+1.0	134	20,117	-6	421,134	+8
Indiana.....	54	1,074	+2.8	26,055	+8.3	174	5,684	-6.1	89,711	-6.7
Iowa.....	32	1,032	+7	25,459	+4.8	126	2,945	-4.7	46,780	-8.4
Kansas.....	75	1,775	-5	43,188	+1.1	416	5,265	-2.5	98,482	+1.6
Kentucky.....	22	348	⁽¹¹⁾	7,369	-1	27	1,609	-5.5	24,163	-6.2
Louisiana.....	30	679	+1.5	14,316	+1.7	21	2,562	-1.2	35,072	-3.2
Maine.....	17	441	+7.0	10,307	+5.9	71	895	-7	16,307	+3.1
Maryland.....	33	727	-1.2	15,880	+4.9	38	5,332	-9.9	84,161	-8.4
Massachusetts.....	711	14,208	+1.2	574,883	+2.2	4,206	68,720	-3.1	1,153,493	-8
Michigan.....	59	1,481	+1.3	37,296	+2.4	161	9,477	-6.4	170,759	-2
Minnesota.....	59	3,979	+6.2	105,010	+5.6	248	6,594	-16.8	110,074	-10.7
Mississippi.....	4	109	+1.9	2,103	+6.2	47	344	-6	3,416	+2.1
Missouri.....	52	4,270	+1.4	104,373	+2.4	129	8,212	-7.5	148,346	-5.6
Montana.....	15	239	+3.5	6,628	+2.9	81	749	+2.0	15,969	+2.4
Nebraska.....	36	917	+1	24,085	+2.0	186	1,565	-4.0	28,259	-3.6
Nevada.....	6	85	+1.2	2,636	+7.2	39	240	+2.6	5,658	+3.9
New Hampshire.....	18	207	+10.1	5,109	+5.1	71	741	-8.7	12,184	+3.0
New Jersey.....	24	571	+5	16,350	-1.9	408	6,683	-6.5	142,273	-7.7
New Mexico.....	8	86	-3.4	3,122	-2	53	259	+2.0	5,555	+1.3
New York.....	399	10,705	+1.4	325,405	+1.8	3,900	58,815	-9.3	1,196,394	-8.7
North Carolina.....	16	225	-3.8	5,302	+3	159	529	-2.0	10,457	-1.5
North Dakota.....	14	199	+8.2	5,610	+10.5	34	394	-7.1	6,184	-3.9
Ohio.....	227	4,739	+1.0	118,173	+4.9	1,555	31,712	+9	541,494	-3.2
Oklahoma.....	59	886	+1.1	21,026	+1.4	65	1,396	-6.7	21,420	-4.5
Oregon.....	46	1,005	+6.1	26,307	+3.5	168	2,034	-1.0	39,392	+5
Pennsylvania.....	127	3,520	+5	92,601	+1.8	326	24,689	-4.5	455,584	-4.8
Rhode Island.....	42	964	-3	22,665	+1.6	487	4,574	-1.4	92,959	+8
South Carolina.....	13	168	-6	4,087	-2.0	14	387	-2.5	3,580	-1.5
South Dakota.....	9	120	+4.3	3,067	+5.2	7	40	-11.1	572	-9.5
Tennessee.....	33	691	+5.2	14,829	+9.4	51	3,035	-6.3	44,747	+5.6
Texas.....	143	2,893	+7	70,358	+1.4	71	5,856	-4.8	93,897	-6.8
Utah.....	14	469	+3.8	11,855	+14.1	17	427	-2.1	5,777	+5.1
Vermont.....	5	114	-4.2	2,654	-4.8	34	408	+2.3	5,625	+1.4
Virginia.....	43	955	+7	23,265	+2.7	473	4,417	+1.4	81,041	+3.9
Washington.....	21	2,025	-1.1	51,234	+7	412	5,691	-2.9	105,454	-2.2
West Virginia.....	89	607	+4.1	15,411	+3.9	48	830	-2.5	13,470	-1.1
Wisconsin.....	46	1,780	+1.6	39,493	+3.7	51	8,725	- ⁽¹⁰⁾	121,941	-5
Wyoming.....	9	58	⁽¹¹⁾	1,708	+5.6	41	209	+3.0	4,827	+3.8

¹⁰ Less than one tenth of 1 per cent.¹¹ No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change
Alabama	18	735	-9.4	\$7,369	-15.3	7	862	+11.8	\$11,853	+59.3
Arizona	3	58	+18.4	703	+9.5	21	1,888	-8.9	36,524	-20.6
Arkansas	9	357	-13.8	3,635	-5.6					
California	38	980	-1.5	17,101	-13.4	34	2,470	-1.9	54,484	-11.6
Colorado	5	37	+85.0	596	+137.5	14	851	-6.6	21,132	-1.1
Connecticut	25	245	-6.5	3,860	-23.1					
Delaware										
Dist. of Columbia										
Florida	15	635	-11.4	7,245	-7.3					
Georgia	23	1,090	-8.4	9,305	-17.5					
Idaho						9	2,005	+2.7	33,331	+8.9
Illinois	25	726	+26.0	12,322	+16.3					
Indiana	58	1,418	+9.5	21,579	-1.1					
Iowa	30	438	+14.4	6,224	+12.8					
Kansas	18	810	-9.9	19,131	-1.7	10	639	+48.5	9,848	+46.1
Kentucky	37	1,035	+11.8	8,682	-2.5					
Louisiana	7	665	+8.5	8,124	+18.6					
Maine	9	305	+9.7	5,916	-9.9					
Maryland	14	305	+32.0	3,813	+2.6					
Massachusetts	23	439	-3.1	9,897	-4.6					
Michigan	48	1,462	+7.2	22,668	+15.8	39	3,108	+11.9	34,904	+1.4
Minnesota	23	325	+6.6	4,558	-1.1	31	801	-25.4	12,858	+48.8
Mississippi	8	158	+22.5	1,715	+19.6					
Missouri	43	1,127	+11.6	15,490	+26.9	13	1,592	-1.1	17,671	+6.6
Montana	8	151	+64.1	2,141	+106.3	17	2,102	+14.4	58,279	+19.5
Nebraska	8	166	-36.6	1,583	-55.8					
Nevada						12	187	+15.4	4,261	+3.3
New Hampshire	12	88	+3.5	1,774	+14.2					
New Jersey	40	633	+1.4	11,467	-5.7	3	11	+83.3	198	+35.6
New Mexico						5	929	-3.3	15,461	-1.0
New York	79	2,152	+3.4	43,913	+4.9					
North Carolina	13	115	-8.0	1,295	-9.0					
North Dakota										
Ohio	134	3,585	+7.0	48,523	+2.0					
Oklahoma	12	101	+9.8	960	+6.7	32	1,170	-2.8	20,021	+6.9
Oregon	5	67	-5.6	1,086	+4.6	4	48	(11)	908	+6.4
Pennsylvania	151	5,500	+16.3	86,044	+24.1					
Rhode Island										
South Carolina	4	90	+38.5	912	+19.8					
South Dakota	6	45	+12.5	840	+4.5					
Tennessee	28	1,499	+8.9	17,751	+4.1	4	209	-9.9	3,218	+8.1
Texas	20	871	+7.3	14,017	-3.2					
Utah	5	75	+1.4	1,517	+36.5	12	1,964	-7.7	31,648	-8.6
Vermont	38	2,081	-2.2	41,473	+5.5					
Virginia	23	1,312	+5.9	12,298	-10.9					
Washington	16	204	-1.4	3,406	+17.4					
West Virginia	18	580	-4.0	8,555	-2.7					
Wisconsin	14	165	-8.8	2,669	+8.4					
Wyoming										

(11) No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN JUNE AND JULY 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Bituminous-coal mining					Crude-petroleum producing				
	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change	Number of establishments	Number on pay roll, July 1933	Per cent of change	Amount of pay roll (1 week), July 1933	Per cent of change
Alabama.....	54	9,076	+0.5	\$98,959	+31.1					
Arizona.....										
Arkansas.....	3	205	+12.6	3,668	+44.0	9	372	-2.4	\$8,300	+2.1
California.....						40	6,909	+1.6	201,928	+1.6
Colorado.....	46	2,695	-15.9	34,735	-23.9					
Connecticut.....										
Delaware.....										
Dist. of Columbia.....										
Florida.....										
Georgia.....										
Idaho.....										
Illinois.....	31	5,536	+11.8	95,298	+6.2	6	102	+4.1	1,785	+1.4
Indiana.....	46	5,244	-1.0	80,906	-5.3	4	25	(11)	426	+6.2
Iowa.....	23	1,057	-2.2	18,285	+6.0					
Kansas.....	15	1,013	-24.6	13,734	+39.0	29	1,094	-3.2	23,654	-1.5
Kentucky.....	151	24,997	+5.2	317,768	+16.7	4	206	+8.4	2,735	+1.9
Louisiana.....						8	128	+12.3	2,929	+7.4
Maine.....										
Maryland.....	15	1,246	+2.7	10,511	+30.9					
Massachusetts.....										
Michigan.....	3	23	+21.1	503	(11)					
Minnesota.....										
Mississippi.....										
Missouri.....	21	1,416	-2.2	14,868	-1.7					
Montana.....	9	375	+5.6	8,648	+8.9	3	16	+6.7	491	+1.7
Nebraska.....										
Nevada.....										
New Hampshire.....										
New Jersey.....										
New Mexico.....	14	1,687	+8	21,508	+8	4	42	-6.7	1,305	-2.6
New York.....						4	132	+15.8	2,598	-1.0
North Carolina.....										
North Dakota.....	5	251	(11)	3,016	-24.9					
Ohio.....	79	10,998	+11.3	147,264	+20.0	5	42	-2.3	500	+10.1
Oklahoma.....	20	435	+38.5	5,641	+13.6	51	4,281	+2.3	106,187	+3.3
Oregon.....										
Pennsylvania.....	454	58,923	+5.3	805,129	+20.8	18	306	+4.1	7,281	+2.3
Rhode Island.....										
South Carolina.....										
South Dakota.....										
Tennessee.....	22	2,627	+4.6	31,105	+24.5					
Texas.....	5	337	+7.3	6,363	-1.7	3	7,889	+3.3	265,074	+1.6
Utah.....	17	1,264	-5.7	22,891	-7.7					
Vermont.....										
Virginia.....	38	8,394	+1.5	111,825	+7.7					
Washington.....	10	432	-66.2	7,953	-60.0					
West Virginia.....	347	49,420	+3.6	716,557	+19.1	8	300	-1.6	7,131	+1.8
Wisconsin.....										
Wyoming.....	33	2,912	-4.2	59,820	-1.9	7	152	-4.4	3,816	+1.8

(11) No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES—Continued[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued
by cooperating State organizations]

State	Public utilities					Hotels				
	Number of establishments	Number on pay roll, July 1933	Percent of change	Amount of pay roll (1 week), July 1933	Percent of change	Number of establishments	Number on pay roll, July 1933	Percent of change	Amount of pay roll (1 week), July 1933	Percent of change
Alabama.....	89	1,702	-1.0	\$34,124	+0.9	24	1,107	-1.9	\$8,805	-5.5
Arizona.....	67	1,215	+2.8	29,895	+1.3	17	364	-6.2	5,480	+1.6
Arkansas.....	<i>52</i>	<i>1,678</i>	-1.1	<i>39,957</i>	+2.3	<i>12</i>	<i>503</i>	-5.1	<i>4,001</i>	-5.2
California.....	47	<i>43,266</i>	-1.1	<i>1,159,730</i>	+2.2	<i>203</i>	<i>8,966</i>	-2.2	<i>153,480</i>	-1.7
Colorado.....	196	5,184	-2.2	130,237	+1.5	65	1,520	+4.4	20,000	+7.4
Connecticut.....	135	9,312	-3	286,015	+2.3	30	1,163	+3.7	14,559	+1.7
Delaware.....	28	1,056	-3	30,052	+4.4	6	256	+1.6	3,243	+8.8
Dist. of Columbia.....	22	8,090	+8	228,057	-9	49	3,543	-6.3	48,685	-8.9
Florida.....	184	3,834	-1.1	100,880	+3.4	59	984	-6.9	8,640	-13.3
Georgia.....	186	6,289	-1.8	173,643	+1.0	28	1,373	+2.7	10,239	-2.6
Idaho.....	55	653	+2.8	12,873	+4.8	23	324	-6	3,697	+8
Illinois.....	77	<i>66,562</i>	+7	<i>1,803,649</i>	+1.8	<i>14 46</i>	<i>10,863</i>	+8.4	<i>160,408</i>	+11.1
Indiana.....	133	8,706	+1	201,514	-1.4	79	2,896	-1.2	28,512	-1.5
Iowa.....	423	9,375	+2.0	204,427	+3.0	74	2,236	-3.7	20,332	-4.8
Kansas.....	87	<i>4,601</i>	-2.7	<i>109,591</i>	+1.2	<i>34</i>	<i>660</i>	-1.2	<i>6,374</i>	-5.5
Kentucky.....	293	6,153	-3	138,786	-8	35	1,601	+1.5	15,055	-6.0
Louisiana.....	150	4,107	-7	90,271	+1.7	23	1,764	-3.9	17,701	-4.2
Maine.....	166	2,419	-9.4	66,950	-8.3	33	1,491	+61.7	15,958	+60.8
Maryland.....	<i>94</i>	<i>12,287</i>	-2	<i>324,516</i>	-1.8	<i>22</i>	<i>1,063</i>	-8.8	<i>12,810</i>	-3.4
Massachusetts.....	<i>13 134</i>	<i>44,567</i>	+7	<i>1,239,892</i>	+1.4	<i>84</i>	<i>3,261</i>	-1.6	<i>45,480</i>	-9.0
Michigan.....	413	20,083	-1.3	556,341	-3.2	107	4,693	-2.1	48,591	+2.4
Minnesota.....	225	11,734	+1.1	300,359	-7	76	3,099	+6.0	34,557	+6.7
Mississippi.....	190	1,626	+9	32,485	+3.8	19	537	+1.9	3,773	+2.3
Missouri.....	187	18,937	-10	475,507	-4.2	95	4,607	-1.0	53,448	+4
Montana.....	100	1,764	+1	50,698	+3.4	28	413	+2.2	5,711	+4.4
Nebraska.....	299	5,521	+7	135,443	+1.8	43	1,456	-4.5	13,742	-4.8
Nevada.....	37	377	+3	10,170	-2.8	14	213	+40.1	3,460	+38.5
New Hampshire.....	140	2,075	-2.6	59,295	+4.9	22	623	+118.6	6,328	+124.2
New Jersey.....	265	21,120	+5	595,278	+6	85	5,816	+37.5	64,601	+31.4
New Mexico.....	49	519	+8.1	10,226	+3.3	16	334	-3	3,400	-2
New York.....	881	96,408	-2	2,998,990	-6	278	29,675	+2.6	436,826	+6
North Carolina.....	96	1,683	-9	36,148	+8.7	33	1,113	+3	9,632	+6
North Dakota.....	171	1,177	+3.1	27,973	+1.5	24	402	+3.6	3,932	+2.8
Ohio.....	489	31,011	-1.2	789,824	-7	153	8,695	+3	101,464	-1.6
Oklahoma.....	245	5,763	-3	125,000	-2.4	49	1,027	-8.1	10,086	-6.9
Oregon.....	183	5,472	-4	130,486	+6	58	1,102	+2.4	13,338	+3
Pennsylvania.....	<i>815</i>	<i>52,475</i>	-7	<i>1,362,066</i>	-2	<i>183</i>	<i>9,357</i>	-1.9	<i>108,992</i>	-4.3
Rhode Island.....	42	3,316	-1.8	93,733	-2.4	19	562	+44.8	6,853	+34.1
South Carolina.....	70	1,606	-4.5	30,369	-9.1	13	387	-1.8	2,651	-5.5
South Dakota.....	129	929	+1.2	23,367	+2.3	20	317	-2.5	3,537	-2.7
Tennessee.....	244	4,176	+2	91,716	+1.5	40	2,195	+7	18,447	+1
Texas.....	<i>139</i>	<i>6,536</i>	+2.4	<i>171,503</i>	+1.0	<i>43</i>	<i>2,836</i>	-3.4	<i>33,467</i>	+3
Utah.....	68	1,766	+8.1	36,122	+4.4	12	442	-9	5,454	-5
Vermont.....	122	1,013	+3.3	24,252	-4.4	27	696	+24.5	6,986	+24.3
Virginia.....	179	5,557	-2	132,446	+2.5	34	1,842	-1.2	19,021	-1.8
Washington.....	200	9,495	+4	247,766	+2.8	88	2,413	-1.4	26,322	+5
West Virginia.....	120	5,521	+1.2	139,792	+1.3	39	1,054	-1.3	11,066	-1.1
Wisconsin.....	<i>14 42</i>	<i>10,291</i>	+2.7	<i>279,113</i>	+8.9	<i>12 45</i>	<i>1,369</i>	-7	<i>(1)</i>	-----
Wyoming.....	48	418	+1.5	10,037	+1.3	14	167	-6	2,242	+9

¹⁰ Less than one tenth of 1 percent.¹² Includes restaurants.¹³ Includes steam railroads.¹⁴ Includes railways and express.¹⁵ Data not supplied.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and cleaning				
	Number of establishments	Number on pay roll, July 1933	Percent of change	Amount of pay roll (1 week), July 1933	Percent of change	Number of establishments	Number on pay roll, July 1933	Percent of change	Amount of pay roll (1 week), July 1933	Percent of change
Alabama.....	5	487	+1.2	\$3,582	+1.0					
Arizona.....	9	367	-1.3	4,833	-3.2					
Arkansas.....	19	374	+1.5	3,474	+2.3					
California.....	16 89	4,686	+1.1	83,396	+2.1					
Colorado.....	9	596	+1.0	7,692	+1.8	8	134	+4.7	\$2,140	-3.9
Connecticut.....	25	1,265	+1.5	20,222	-1.7	7	182	-2.7	3,854	-5.0
Delaware.....	4	298	-2.0	4,508	-3.4					
Dist. of Columbia.....	16	2,245	-4.1	32,770	-6.9	5	134	-6.9	2,258	-7.0
Florida.....	9	398	(11)	3,808	-1.4					
Georgia.....	11	622	+1.3	5,384	-2.2	4	85	+5.1	883	+3.2
Idaho.....										
Illinois.....	16 29	1,884	+2.3	26,287	+7.0					
Indiana.....	17	1,339	-2.1	16,967	-3.1	10	169	-12.0	2,519	-16.6
Iowa.....	3	206	-1.5	2,851	-1.6					
Kansas.....	16 43	1,086	+1.9	12,996	-6.0					
Kentucky.....	15	736	-1.4	9,192	-1.1	4	152	-2.6	2,228	-11.8
Louisiana.....										
Maine.....	16	408	+19.6	5,741	+26.3					
Maryland.....	25	1,861	-1.3	26,614	-5.2	10	454	-3.2	5,790	-5.4
Massachusetts.....	114	2,702	-1.3	58,429	-2.0	77	1,942	-3.2	31,721	-6.4
Michigan.....	17	1,061	+1.5	12,053	-1.2	14	546	-7.3	9,187	-12.2
Minnesota.....	13	674	-1.6	10,467	-3.2	10	372	-5.6	5,963	-7.9
Mississippi.....	5	210	(11)	1,720	+3.7					
Missouri.....	30	2,308	+2.3	29,730	-2.0	11	394	-6.2	6,233	-9.2
Montana.....	13	299	+2.7	5,004	+1.8	3	21	(11)	417	-3.0
Nebraska.....	7	532	-5.0	7,068	-6.6					
Nevada.....	3	47	+9.3	911	+14.7					
New Hampshire.....	14	288	+11.6	4,296	+13.0					
New Jersey.....	26	2,894	-1.9	55,340	-4.2	8	241	-6.9	5,990	-7.4
New Mexico.....	4	192	(11)	2,940	+3.1					
New York.....	70	6,929	-1.1	113,424	-2.9	13	446	-2.0	8,472	-9.5
North Carolina.....	11	747	+1.8	7,262	-2.6					
North Dakota.....	9	190	+1.1	2,819	+2.1					
Ohio.....	73	3,974	+1.8	55,656	-2.2	40	1,575	-5.2	24,468	-12.2
Oklahoma.....	8	683	+5.4	8,053	+5.2					
Oregon.....	3	229	+1.9	3,442	+6.0	3	43	+4.9	913	+10.5
Pennsylvania.....	41	3,089	-1.6	42,622	-3.6	18	976	-3.3	15,508	-12.8
Rhode Island.....	18	1,097	+1.4	18,263	-1.8	5	308	-9.9	5,236	-11.5
South Carolina.....	7	285	+2.5	2,491	-2.2					
South Dakota.....	6	123	-1.8	1,570	-1.6					
Tennessee.....	13	919	+1.5	7,474	+1.8	4	47	+4.4	537	-6.6
Texas.....	18	993	+1.5	10,089	+2.6	11	362	+1.4	5,667	+2.8
Utah.....	7	503	(11)	6,826	-1.5	5	60	-1.6	896	-12.5
Vermont.....	3	49	+40.0	567	+20.9					
Virginia.....	12	814	+3.0	8,819	-1.4	19	315	+1.3	4,305	+1.4
Washington.....	9	428	(11)	7,862	-1.1	11	158	+1.6	2,698	-6.5
West Virginia.....	18	620	+2.5	7,461	+1.3	8	187	-2.1	2,388	-1.8
Wisconsin.....	16 28	930	+1.3	12,416	-1.6					
Wyoming.....	5	94	+4.4	1,490	-4.7					

¹¹ No change.¹⁶ Includes dyeing and cleaning.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS
IN JUNE AND JULY 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Banks, brokerage, insurance, and real estate				
	Number of establishments	Number on pay roll, July 1933	Percent of change	Amount of pay roll (1 week), July 1933	Percent of change
Alabama.....	16	341	+0.3	\$9,122	-1.9
Arizona.....	27	183	-3.7	4,827	-9.5
Arkansas.....	17	224	-3.4	5,403	-4.0
California.....	1,113	23,005	+6	757,041	+8
Colorado.....	26	1,046	+5	35,803	+2.6
Connecticut.....	58	2,036	+5	72,517	-7
Delaware.....	15	568	+7	19,073	+1
District of Columbia.....	40	1,318	+1.2	48,641	+8
Florida.....	17	515	+2	17,577	-1.4
Georgia.....	24	647	-9	21,276	+1
Idaho.....	16	138	+3.0	3,462	+1.7
Illinois.....	95	10,259	-2.5	358,485	-2.4
Indiana.....	39	1,194	+1.0	39,785	-7
Iowa.....	19	1,151	+1.3	37,466	+6
Kansas.....	28	767	-1.5	22,639	-2.2
Kentucky.....	19	843	-4	29,601	+1
Louisiana.....	9	375	-3	13,597	-3.1
Maine.....	13	182	+1.1	4,453	-1.7
Maryland.....	24	864	+1.6	31,846	-2.1
Massachusetts.....	210	6,078	+8	188,859	+7
Michigan.....	137	4,129	-4.8	132,560	-4.5
Minnesota.....	52	2,858	+4.6	80,425	+5.7
Mississippi.....	16	170	-4.0	3,946	+1.3
Missouri.....	82	4,717	+1	141,889	-3
Montana.....	20	229	+2.2	7,034	+3.0
Nebraska.....	13	488	+2	17,410	-1.3
Nevada.....					
New Hampshire.....	39	471	+4	11,678	+6
New Jersey.....	104	12,190	+2	348,593	-1.6
New Mexico.....	13	71	(11)	2,053	-3.5
New York.....	720	49,699	+1.8	1,753,523	+2.8
North Carolina.....	29	523	+1.0	13,200	+8
North Dakota.....	35	243	+3.8	6,202	+4.0
Ohio.....	200	5,635	-2.4	191,402	-1.2
Oklahoma.....	20	609	-1.1	18,808	-1.2
Oregon.....	13	715	+9.3	24,872	+32.6
Pennsylvania.....	803	23,764	+4	715,300	+7.8
Rhode Island.....	29	1,006	+6	40,643	+3.2
South Carolina.....	9	89	(11)	2,510	+1.7
South Dakota.....	31	240	-4	5,742	-2.2
Tennessee.....	31	1,088	-9.0	37,794	-5.2
Texas.....	22	1,274	+1	33,896	-4
Utah.....	14	449	+1.1	15,772	+6
Vermont.....	29	220	+1.9	6,349	+4.0
Virginia.....	32	1,314	+1.9	41,444	-1
Washington.....	30	1,306	(11)	42,340	-2
West Virginia.....	44	654	-2.7	19,474	-7
Wisconsin.....	17	915	-3	30,920	+5
Wyoming.....	10	90	+4.7	2,721	+6.3

(11) No change.

Employment and Pay Roll in July 1933 in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in July 1933 as compared with June 1933 in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the Bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLL IN JULY 1933 AS COMPARED WITH JUNE 1933

Cities	Number of establishments reporting in both months	Number on pay roll		Percent of change	Amount of pay roll (1 week)		Percent of change
		June 1933	July 1933		June 1933	July 1933	
New York City.....	5,190	309,716	303,188	-2.1	\$8,121,275	\$8,065,567	-0.7
Chicago, Ill.....	1,800	194,134	201,176	+3.6	4,557,441	4,766,927	+4.6
Philadelphia, Pa.....	862	129,893	134,746	+3.7	2,780,926	2,865,928	+3.1
Detroit, Mich.....	553	165,117	180,946	+9.6	3,840,981	4,062,632	+5.8
Los Angeles, Calif.....	857	62,543	63,924	+2.2	1,470,505	1,508,698	+2.6
Cleveland, Ohio.....	1,051	86,147	88,714	+3.0	1,755,511	1,801,879	+2.6
St. Louis, Mo.....	502	66,330	68,762	+3.7	1,402,578	1,449,337	+3.3
Baltimore, Md.....	569	47,019	47,557	+1.1	904,247	927,223	+2.5
Boston, Mass.....	3,063	89,264	89,101	-.2	2,081,488	2,115,412	+1.6
Pittsburgh, Pa.....	434	52,440	51,752	-1.3	1,065,038	1,073,886	+ .8
San Francisco, Calif.....	1,157	47,240	48,867	+3.4	1,130,272	1,144,349	+1.2
Buffalo, N. Y.....	420	37,068	39,430	+6.4	903,681	861,555	-7.2
Milwaukee, Wis.....	455	40,835	42,849	+4.9	806,032	825,963	+2.5

Employment in the Executive Civil Service of the United States July 1933

THERE were 18,006 fewer employees on the pay roll of the United States Government in July 1933 than in July 1932, and 10,380 fewer employees in July 1933 than in June 1933.

These figures do not include the legislative, judicial, or Army and Navy services. The information as shown in table 1 was compiled by the various departments and offices of the United States Government and sent to the United States Civil Service Commission where it was assembled. The data were tabulated by the Bureau of Labor Statistics and published here by courtesy of the Civil Service Commission and in compliance with the direction of Congress. Information is not yet available as to amount of pay roll. The table shows the number of Federal employees inside the District of Columbia, the number of such employees outside the District of Columbia, and the total for the entire service. Approximately 12 percent of the total number of Federal workers are employed in the District of Columbia.

TABLE 1.—EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, JULY 1932, JUNE AND JULY 1933

Item	District of Columbia			Outside District of Columbia			Entire service		
	Perma- nent	Tempo- rary ¹	Total	Perma- nent	Tempo- rary ¹	Total	Perma- nent	Tempo- rary ¹	Total
Number of employees:									
July 1932.....	65,098	2,454	67,552	472,900	32,606	505,506	537,998	35,060	573,058
June 1933.....	63,067	2,370	65,437	466,443	33,552	499,995	529,510	35,922	565,432
July 1933.....	62,309	3,753	66,062	460,160	28,830	488,990	522,469	32,583	555,052
Gain or loss:									
July 1932-July 1933.....	-2,789	+1,299	-1,490	-12,740	-3,776	-16,516	-15,529	-2,477	-18,006
June 1933-July 1933.....	-758	+1,383	+625	-6,283	-4,722	-11,005	-7,041	-3,339	-10,380
Percent of change:									
July 1932-July 1933.....	-4.3	+52.9	-2.2	-2.7	-11.6	-3.3	-2.9	-7.1	-3.1
June 1933-July 1933.....	-1.2	+58.4	+1.0	-1.3	-14.1	-2.2	-1.3	-9.3	-1.8
Labor turnover, July 1933:									
Additions.....	698	2,024	2,722	4,896	9,635	14,531	5,594	11,659	17,253
Separations.....	1,456	641	2,097	11,179	14,357	25,536	12,635	14,998	27,633
Turnover rate per 100.....	1.11	20.93	3.19	1.06	30.89	2.94	1.06	34.04	3.08

¹ Not including field service Post Office Department.

There was a decrease of 4.3 percent in the number of permanent employees in the District of Columbia comparing July 1933 with July 1932. Comparing July 1933 with June 1933, the decrease in permanent employees was 1.2 percent. While there was a substantial increase in the number of temporary employees, the total Federal employment in the District of Columbia decreased 2.2 percent, comparing July 1933 with the same month of the previous year, but increased 1 percent, comparing July 1933 with June 1933.

Employees for four new Federal agencies are included in the above figures. The Federal Emergency Relief Administration, the Federal Coordinator of Transportation, the Tennessee Valley Authority, and the Public Works Administration added to the Federal pay roll in July, 310 permanent and 72 temporary employees. The Department of Agriculture, due to agriculture aid administration work, had a net increase of 1,435 temporary employees. This explains the big increase in temporary employees as compared with July 1932 and June 1933.

Outside of the District of Columbia the number of permanent employees decreased 2.7 percent and the number of temporary employees decreased 11.6 percent, comparing July 1933 with July 1932. Total Federal employment throughout the United States decreased 3.1 percent during the same period.

Table 2 shows employment and pay roll in the Emergency Conservation Corps, sometimes known as the Forest Service.

TABLE 2.—EMPLOYMENT AND PAY ROLL IN THE EMERGENCY CONSERVATION CORPS, JUNE AND JULY

	Number		Pay roll	
	June	July	June	July
Enrolled personnel.....	272,219	293,525	\$8,501,403	\$9,166,782
Reserve officers, line.....	1,132	1,293	(1)	(1)
Reserve officers, medical.....	867	842	(1)	(1)
Supervisory and technical.....	7,236	11,103	\$873,593	\$1,314,528
Total.....	281,454	306,763	² 9,374,996	² 10,481,310

¹ Data not available.² Not including pay rolls of Reserve officers, line or medical,

The data in the above table were collected by the Bureau of Labor Statistics from the War Department and the Forest Service of the Department of Agriculture.

On the last day of July there were 293,525 enrolled men in the Forest Service. This is an increase of over 21,000 as compared with June. There were on the pay roll in the Forest Service 11,103 supervisory and technical civilians on July 31, an increase of nearly 4,000. The Forest Service as a whole increased over 25,000, comparing July with June.

The pay of the enrolled personnel is \$30 per month, except that 5 percent of the members are being paid \$45 per month, and an additional 8 percent are paid \$36 per month. The pay roll as shown for the enrolled personnel were figured on this basis. During the month of July nearly \$10,500,000 was paid to enrolled personnel and civilian supervisors in the Emergency Conservation Corps. Pay-roll data for Reserve officers, line and medical, are not available.

Employment on Class I Steam Railroads in the United States

REPORTS of the Interstate Commerce Commission for class I railroads show that the number of employees (exclusive of executives and officials) increased from 945,382 on June 15, 1933, to 976,998 on July 15, 1933, or 3.3 per cent. Data are not yet available concerning total compensation of employees for July 1933. The latest pay-roll information available shows an increase from \$108,411,242 in May to \$110,360,300 in June, or 1.8 percent.

The monthly trend of employment from January 1923 to July 1933 on class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEXES OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY 1923 TO JULY 1933

12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
January.....	98.3	96.6	95.6	95.8	95.5	89.3	88.2	86.3	73.3	61.2	53.0
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3	52.7
March.....	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5	51.5
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0	51.8
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7	52.5
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8	53.6
July.....	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	56.4	55.4
August.....	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	55.0	-----
September.....	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	55.8	-----
October.....	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	57.0	-----
November.....	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	55.9	-----
December.....	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	54.8	-----
Average.....	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	57.9	152.9

¹ Average for 7 months.

Table 2 shows the total number of employees by occupations on the 15th day each of May and June 1933 and by group totals on the 15th of July 1933; also, pay-roll totals for the entire months of May and June. Total compensation for the month of July is not yet available. Beginning in January 1933, the Interstate Commerce Commission excluded reports of switching and terminal companies from their monthly tabulations. The actual figures for the months shown in the following table therefore are not comparable with the totals published for the months prior to January 1933. The index numbers of employment for class I railroads shown in table 1 have been adjusted to allow for this revision and furnish a monthly indicator of the trend of employment over the period from January 1923 to the latest month available. In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT ON CLASS I STEAM RAILROADS IN MAY, JUNE, AND JULY 1933, AND TOTAL PAY ROLL MAY AND JUNE 1933

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups. Employment figures for July 1933 are as yet available for group totals only]

Occupations	Number of employees at middle of month			Total earnings	
	May 1933	June 1933	July 1933	May 1933	June 1933
Professional, clerical and general.....	160,811	160,771	162,183	\$21,045,531	\$21,000,433
Clerks.....	83,730	83,765	-----	10,390,674	10,363,380
Stenographers and typists.....	15,294	15,257	-----	1,780,211	1,777,936
Maintenance of way and structures.....	197,171	204,663	211,702	14,666,251	15,285,283
Laborers, extra gang and work train.....	15,986	19,452	-----	797,805	989,805
Laborers, track and roadway section.....	110,109	112,174	-----	5,803,483	6,031,733
Maintenance of equipment and stores.....	246,896	251,151	263,026	25,728,203	26,125,840
Carmen.....	49,427	50,528	-----	5,872,011	5,986,456
Electrical workers.....	7,746	7,778	-----	1,000,574	1,001,419
Machinists.....	35,096	35,771	-----	4,202,412	4,292,251
Skilled trades helpers.....	53,485	54,171	-----	4,555,985	4,646,576
Laborers (shops, engine houses, power plants, and stores).....	19,880	20,070	-----	1,517,152	1,481,391
Common laborers (shops, engine houses, power plants, and stores).....	16,386	17,177	-----	929,227	967,281
Transportation, other than train, engine, and yard.....	121,411	122,533	124,966	13,529,097	13,503,248
Station agents.....	24,380	24,358	-----	3,401,321	3,346,068
Telegraphers, telephoners, and towermen.....	15,005	14,943	-----	2,086,309	2,029,522
Truckers (stations, warehouses, and platforms).....	17,330	17,604	-----	1,282,524	1,321,096
Crossing and bridge flagmen and gatemen.....	16,817	16,911	-----	1,140,900	1,136,582
Transportation (yardmasters, switch tenders, and hostlers).....	11,776	11,760	11,967	1,942,122	1,932,288
Transportation, train and engine.....	188,157	194,504	203,154	31,500,038	32,513,208
Road conductors.....	21,172	21,733	-----	4,552,851	4,668,267
Road brakemen and flagmen.....	43,128	45,042	-----	6,041,530	6,245,427
Yard brakemen and yard helpers.....	32,263	32,806	-----	4,106,643	4,284,974
Road engineers and motormen.....	25,242	26,102	-----	6,029,887	6,215,972
Road firemen and helpers.....	27,844	28,677	-----	4,332,500	4,479,498
All employees.....	926,222	945,382	976,998	108,411,242	110,360,300

Unemployment in Foreign Countries

THE table following gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports from July 1931 to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment-insurance societies			
	Number	Percent		Wholly unemployed		Partially unemployed	
				Number	Percent	Number	Percent
1931							
July	(1)		194,364	64,644	9.1	116,747	16.3
August	(1)		196,321	70,893	9.9	120,669	16.8
September	120,694	28.3	202,130	74,175	10.3	119,433	16.6
October	(1)		228,101	82,811	11.3	122,733	16.8
November	(1)		273,658	93,487	13.3	134,799	19.2
December	118,732	28.0	329,627	128,884	17.0	159,941	21.1
1932							
January	(1)		358,114	153,920	20.0	179,560	23.2
February	(1)		361,948	168,204	21.3	180,079	22.8
March	120,366	28.3	352,444	155,653	19.4	185,267	23.0
April	(1)		303,888	152,530	18.8	183,668	22.6
May	(1)		271,481	160,700	18.9	191,084	22.5
June	124,068	30.0	265,040	153,659	18.7	173,819	21.2
July	(1)		266,365	169,411	19.6	174,646	20.3
August	(1)		269,188	167,212	19.5	170,081	19.9
September	122,340	29.6	275,840	163,048	18.3	166,160	18.9
October	(1)		297,791	157,023	17.7	148,812	16.8
November	(1)		329,707	154,657	17.7	144,583	16.3
December	115,042	28.1	367,829	171,028	18.6	155,669	16.9
1933							
January			397,920	207,136	22.1	196,237	20.9
February			401,321	201,305	21.0	185,052	19.3
March	109,182	26.5	379,693	195,715	20.1	186,942	19.2
April			350,552	180,143	18.2	187,222	18.8
May			320,955	162,781	16.4	176,174	17.7
June	106,652	25.7	307,873				
July			300,762				
Date (end of month)	Canada	Czechoslovakia		Danzig (Free City of)	Denmark		
	Percent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Percent		Number	Percent
1931							
July	16.2	209,233	82,759	6.6	20,420	36,369	11.8
August	15.8	214,520	86,261	6.9	21,509	35,060	11.8
September	18.1	228,383	84,660	6.7	22,922	35,871	12.1
October	18.3	253,518	88,600	6.9	24,932	47,196	16.0
November	18.6	336,874	106,015	8.2	28,966	66,526	22.3
December	21.1	480,775	146,325	11.3	32,956	91,216	30.4
1932							
January	22.0	583,138	186,308	14.0	34,912	105,600	35.1
February	20.6	631,736	197,621	14.8	36,258	112,346	37.3
March	20.4	633,907	195,076	14.6	36,481	113,378	37.5
April	23.0	555,832	180,456	13.3	33,418	90,704	29.9
May	22.1	487,228	171,389	12.6	31,847	79,931	26.1
June	21.9	466,948	168,452	12.3	31,004	80,044	25.6
July	21.8	453,294	167,529	12.2	29,195	92,732	29.5
August	21.4	460,952	172,118	12.5	28,989	95,770	30.5
September	20.4	486,935	170,772	12.3	30,469	96,076	30.4
October	22.0	533,616	173,706	12.4	31,806	101,518	31.8
November	22.8	608,809	190,779	13.5	35,507	113,273	35.6
December	25.5	746,311	239,959	16.9	39,042	138,335	42.8
1933							
January	25.5	872,775	300,210	20.5	40,726	141,354	43.5
February	24.3	920,182	305,036	20.7	39,843	139,831	42.8
March	25.1	877,955	295,297	20.2	38,313	116,762	35.4
April	24.5	797,516	264,530	17.9	36,205	95,619	28.9
May	23.8	726,629			33,372	84,201	25.4
June	21.8	675,933			29,622	73,565	21.9
July		² 636,005					

¹ Not reported.² Provisional figure.

TREND OF EMPLOYMENT

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STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Estonia	Finland	France	Germany				
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Trade-unionists			
					Percent wholly unemployed	Percent partially unemployed	Number unemployed in receipt of benefit	
1931								
July	634	6,790	35,916	3,976,000	31.0	19.1	2,231,513	
August	933	9,160	37,673	4,215,000	33.6	21.4	2,376,589	
September	2,096	12,176	38,524	4,355,000	35.0	22.2	2,483,364	
October	5,425	14,824	51,654	4,623,480	36.6	22.0	2,534,952	
November	7,554	18,095	92,157	5,059,773	38.9	21.8	2,771,985	
December	9,055	17,223	147,009	5,668,187	42.2	22.3	3,147,867	
1932								
January	9,318	20,944	241,487	6,041,910	43.6	22.6	3,481,418	
February	9,096	18,856	293,198	6,128,429	44.1	22.6	3,525,486	
March	8,395	17,699	303,218	6,084,100	44.6	22.6	3,323,109	
April	6,029	16,885	282,013	5,934,202	43.9	21.1	2,906,890	
May	4,896	13,189	262,184	5,582,620	43.3	20.4	2,484,944	
June	3,137	12,709	232,371	5,475,778	43.1	20.4	2,111,342	
July	2,022	13,278	262,642	5,392,248	43.9	23.0	1,991,985	
August	3,256	16,966	264,253	5,225,810	44.0	23.2	1,849,768	
September	5,957	18,563	259,237	5,109,173	42.9	22.6	1,720,577	
October	8,901	19,908	247,090	5,109,173	43.2	22.1	1,768,602	
November	10,715	21,690	255,411	5,355,428	45.1	22.7	2,073,101	
December	13,727	20,289	277,109	5,772,852				
1933								
January	16,511	23,178	315,364	6,013,612	46.2	23.7	2,372,066	
February	15,437	20,731	330,874	6,000,958	47.4	24.1	2,455,428	
March	14,512	19,083	313,518	5,598,855	52.7	22.2	2,165,891	
April	11,680	17,732	309,101	5,331,252	46.3	22.6	1,938,910	
May	4,857	13,082	282,545	5,038,640	44.7	21.6	1,801,930	
June			256,197	4,856,942			1,726,676	
July			239,449	4,463,841				
Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		Irish Free State
	Compulsory insurance				Number of persons registered with employment exchanges	Trade-unionists unemployed		Compulsory insurance—number unemployed
	Wholly unemployed		Temporary stoppages			Christian (Buda-pest)	Social Democratic	
	Number	Percent	Number	Percent				
1931								
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329	21,647
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471	21,897
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716	23,427
October	2,305,388	18.1	487,591	3.8	2,755,559	1,020	28,998	26,353
November	2,294,902	18.0	439,952	3.4	2,656,088	1,169	29,907	30,865
December	2,262,700	17.7	408,117	3.2	2,569,949	1,240	31,906	30,918
1932								
January	2,354,044	18.4	500,746	4.0	2,728,411	1,182	32,711	31,958
February	2,317,784	18.2	491,319	3.8	2,701,173	1,083	32,645	31,162
March	2,233,425	17.5	426,989	3.3	2,567,332	1,024	31,340	30,866
April	2,204,740	17.3	521,705	4.1	2,652,181	961	30,057	32,252
May	2,183,683	17.1	638,157	5.0	2,741,306	922	28,835	35,874
June	2,145,157	16.8	697,639	5.5	2,747,343	960	28,372	36,912
July	2,185,015	17.1	735,929	5.8	2,811,782	940	28,297	37,648
August	2,215,704	17.4	731,104	5.7	2,859,828	947	28,186	37,081
September	2,279,779	17.9	645,286	5.0	2,858,011	1,022	27,860	30,923
October	2,295,500	17.9	515,405	4.0	2,747,006	1,091	28,654	37,067
November	2,328,920	18.2	520,105	4.0	2,799,806	1,072	29,336	37,102
December	2,314,628	18.1	461,274	3.6	2,723,287	1,106	30,967	37,102
1933								
January	2,422,808	18.9	532,640	4.2	2,903,065	1,178	31,431	39,577
February	2,394,106	18.7	520,808	4.1	2,856,638	1,210	30,955	38,747
March	2,310,062	18.0	511,309	4.0	2,776,184	1,131	29,771	38,253
April	2,200,397	17.2	536,882	4.2	2,697,634	1,080	28,521	37,039
May	2,128,614	16.6	497,705	3.9	2,682,879	1,104	26,778	36,296
June	2,029,185	15.8	468,868	3.7	2,438,108			36,578
July	2,000,923	15.6	506,850	4.0	2,442,175			

³ Registration area extended.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Italy		Japan		Latvia	Netherlands	
	Number of unem- ployed registered		Official estimates, unemployed		Number un- employed remain- ing on live register	Unemployment in- surance societies— unemployed	
	Wholly un- employed	Partially un- employed	Number	Percent		Number	Percent
1931							
July	637, 531	25, 821	406, 923	5. 8	2, 169	69, 026	13. 3
August	693, 273	30, 656	418, 596	6. 0	4, 827	70, 479	15. 3
September	747, 764	29, 822	425, 526	6. 0	7, 470	72, 738	15. 7
October	799, 744	32, 828	439, 014	6. 0	13, 605	84, 548	18. 0
November	878, 267	30, 967	454, 675	6. 5	18, 377	107, 372	18. 5
December	982, 321	32, 949	470, 736	6. 7	21, 935	147, 107	27. 8
1932							
January	1, 051, 321	33, 277	485, 885	6. 9	26, 335	145, 124	27. 0
February	1, 147, 945	26, 321	485, 290	6. 9	22, 222	139, 956	25. 4
March	1, 053, 016	31, 636	473, 757	6. 8	22, 912	119, 423	21. 6
April	1, 000, 025	32, 720	482, 366	6. 9	14, 607	121, 378	21. 7
May	968, 456	35, 528	483, 109	6. 9	7, 599	112, 325	22. 5
June	905, 097	31, 710	481, 589	6. 8	7, 056	113, 978	22. 8
July	931, 291	33, 218	510, 901	7. 2	7, 181	123, 947	24. 6
August	945, 972	33, 666	509, 580	7. 1	9, 650	116, 524	22. 9
September	949, 408	37, 043	505, 969	7. 0	8, 762	126, 510	24. 9
October	956, 357	32, 556	503, 958	7. 0	13, 806	128, 961	25. 2
November	1, 038, 757	36, 349	424, 213	6. 7	17, 621	142, 554	27. 6
December	1, 129, 654	37, 644	463, 403	6. 4	17, 247	188, 252	31. 5
1933							
January	1, 225, 470	33, 003	444, 032	6. 1	14, 777	226, 709	37. 6
February	1, 229, 387	34, 506	438, 250	6. 1	13, 886	187, 652	31. 1
March	1, 081, 586	29, 129	424, 287	5. 8	13, 087	163, 367	27. 3
April	1, 025, 754	51, 871	-----	-----	10, 377	147, 531	24. 3
May	1, 000, 128	45, 183	-----	-----	5, 931	123, 447	25. 3
June	883, 621	38, 815	-----	-----	-----	117, 805	22. 5
July	824, 195	-----	-----	-----	-----	118, 346	22. 6

Date (end of month)	New Zea- land	Norway		Poland	Rumania	
	Number un- employed registered by em- ployment exchanges ⁴	Trade-unionists (10 unions) unem- ployed		Number un- employed remaining on live register	Number un- employed registered with em- ployment offices	Number unem- ployed remaining on live register
		Number	Percent			
1931						
July	47, 772	-----	-----	20, 869	255, 179	29, 250
August	50, 033	-----	-----	22, 431	246, 380	22, 708
September	51, 375	-----	-----	27, 012	246, 426	22, 909
October	50, 266	⁵ 9, 048	⁵ 19. 6	29, 340	255, 622	28, 800
November	47, 535	10, 577	22. 8	32, 078	266, 027	43, 917
December	45, 140	12, 633	27. 2	34, 789	312, 487	49, 393
1932						
January	45, 677	14, 160	30. 4	35, 034	338, 434	51, 612
February	44, 107	14, 354	30. 6	38, 135	350, 145	57, 606
March	45, 383	15, 342	32. 5	38, 952	360, 031	55, 306
April	48, 601	14, 629	30. 8	37, 703	339, 773	47, 206
May	53, 543	13, 465	28. 3	32, 127	306, 801	39, 654
June	54, 342	12, 603	26. 2	28, 429	264, 147	33, 679
July	55, 203	12, 563	25. 9	26, 390	218, 059	32, 809
August	56, 332	13, 084	26. 9	27, 543	187, 537	29, 654
September	55, 855	14, 358	29. 3	31, 431	147, 166	21, 862
October	54, 549	15, 512	31. 6	35, 082	146, 982	28, 172
November	52, 477	16, 717	32. 2	38, 807	177, 459	30, 651
December	52, 533	20, 735	42. 4	41, 571	220, 245	38, 471
1933						
January	51, 698	19, 249	39. 3	40, 642	264, 258	44, 797
February	49, 971	19, 673	40. 0	42, 460	287, 219	45, 371
March	51, 035	18, 932	38. 5	42, 437	279, 779	44, 294
April	53, 171	17, 678	35. 7	39, 846	258, 954	37, 532
May	55, 477	15, 335	30. 9	35, 803	235, 356	30, 336
June	-----	-----	-----	30, 394	224, 566	-----
July	-----	-----	-----	-----	213, 806	-----

⁴ Includes not only workers wholly unemployed but also those intermittently employed.⁵ Strike ended.

TREND OF EMPLOYMENT

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STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugo- slavia
	Number of unem- ployed registered	Trade-unionists unemployed		Unemployment funds				Number of unem- ployed registered
				Wholly unem- ployed		Partially unem- ployed		
		Number	Per- cent	Number	Per- cent	Number	Per- cent	
1931								
July.....	17,685	46,180	12.4	12,200	3.3	39,000	11.3	6,672
August.....	20,205	48,590	12.7	9,754	3.6	33,346	12.4	7,466
September.....	21,741	54,405	13.7	15,188	4.0	42,998	11.2	7,753
October.....	24,685	65,469	16.4	18,000	4.8	47,200	13.2	10,070
November.....	28,659	79,484	19.9	25,200	6.6	51,900	14.4	10,349
December.....	35,045	110,149	27.2	41,611	10.1	61,256	14.9	14,502
1932								
January.....	38,790	93,272	24.5	44,600	10.6	67,600	14.8	19,665
February.....	42,394	93,900	23.0	48,600	11.3	70,100	15.0	21,435
March.....	44,883	98,772	24.4	40,423	9.0	62,659	14.0	23,251
April.....	42,993	82,500	21.0	35,400	7.7	58,900	12.6	18,532
May.....	42,881	75,650	18.9	35,200	7.6	54,500	11.5	13,568
June.....	40,188	79,338	19.5	39,742	7.1	53,420	13.3	11,418
July.....	39,063	77,468	19.4	35,700	7.5	54,000	11.4	9,940
August.....	38,858	80,975	20.0	36,600	7.6	53,400	11.1	11,940
September.....	40,320	86,709	20.7	38,070	7.8	52,967	10.8	10,985
October.....	40,728	92,868	22.2	42,300	8.7	52,100	10.6	10,474
November.....	41,962	97,666	23.8	50,500	10.3	55,700	11.3	11,670
December.....	44,311	129,002	31.4	66,053	13.3	59,089	11.9	14,248
1933								
January.....	45,700	120,156	28.8	83,400	17.0	56,000	11.4	23,574
February.....	45,101	118,251	27.4	81,800	16.5	57,400	11.6	25,346
March.....	42,258	121,456	28.4	60,698	12.0	52,575	10.4	22,609
April.....	40,082	110,055	26.1	49,100	9.8	47,400	9.6	19,671
May.....	37,341	93,360	22.2	43,600	8.7	44,100	8.9	15,115
June.....	36,492	89,485	21.1	40,958	8.0			

RETAIL PRICES

Retail Prices of Food on July 15, 1933

THE following tables are compiled from simple averages of the actual selling prices of the 15th of each month as reported to the Bureau of Labor Statistics of the United States Department of Labor by retail dealers in 51 cities. Comparable information by months and years, 1913 to 1928, inclusive, are shown in Bulletins 396 and 495, and by months and years, 1929 to 1932, in the January, February, and April 1933 issues of this publication.

Indexes of all articles, combined, or groups of articles combined, both for cities and for the United States, are weighted according to the average family consumption. Consumption figures used since January 1921 are given in Bulletin 495 (p. 13). Those used for prior dates are given in Bulletin 300 (p. 61). The list of articles included in the groups, cereals, meats, and dairy products, will be found in the May 1932 issue of this publication.

Table 1 shows index numbers of the total weighted retail cost of important food articles and of three groups of these articles; viz, cereals, meats, and dairy products, in the United States, 51 cities combined, by years, 1913 to 1932, inclusive, and by months of 1932 and 1933. These index numbers are based on the year 1913 as 100.

TABLE 1.—INDEX NUMBERS OF THE TOTAL RETAIL COST OF FOOD AND OF CEREALS, MEATS, AND DAIRY PRODUCTS IN THE UNITED STATES BY YEARS, 1913 TO 1932, INCLUSIVE, AND BY MONTHS, JANUARY 1932 TO JULY 1933, INCLUSIVE

[1913=100]

Year	All food	Cereals	Meats	Dairy products	Month	All food	Cereals	Meats	Dairy products
1913-----	100.0	100.0	100.0	100.0	1932				
1914-----	102.4	106.7	103.4	97.1	January-----	109.3	126.4	123.4	106.5
1915-----	101.3	121.6	99.6	96.1	February-----	105.3	125.0	117.3	102.9
1916-----	113.7	126.8	108.2	103.2	March-----	105.0	124.3	118.9	101.9
1917-----	146.4	186.5	137.0	127.6	April-----	103.7	122.9	118.6	97.4
1918-----	168.3	194.3	172.8	153.4	May-----	101.3	122.6	115.3	94.3
1919-----	185.9	198.0	184.2	176.6	June-----	100.1	122.5	113.4	92.6
1920-----	203.4	232.1	185.7	185.1	July-----	101.0	121.2	122.6	91.4
1921-----	153.3	179.8	158.1	149.5	August-----	100.8	120.4	120.1	93.1
1922-----	141.6	159.3	150.3	135.9	September-----	100.3	118.2	119.2	93.5
1923-----	146.2	156.9	149.0	147.6	October-----	100.4	119.0	114.6	93.8
1924-----	145.9	160.4	150.2	142.8	November-----	99.4	118.0	109.1	93.9
1925-----	157.4	176.2	163.0	147.1	December-----	98.7	114.8	103.2	95.9
1926-----	160.6	175.5	171.3	145.5	1933				
1927-----	155.4	170.7	169.9	148.7	January-----	94.8	112.3	99.9	93.3
1928-----	154.3	167.2	179.2	150.0	February-----	90.9	112.0	99.0	90.3
1929-----	156.7	164.1	188.4	148.6	March-----	90.5	112.3	100.1	88.3
1930-----	147.1	158.0	175.8	136.5	April-----	90.4	112.8	98.8	88.7
1931-----	121.3	135.9	147.0	114.6	May-----	93.7	115.8	100.1	92.2
1932-----	102.1	121.1	116.0	96.6	June-----	96.7	117.2	103.7	93.5
					July-----	104.8	128.0	103.5	97.6

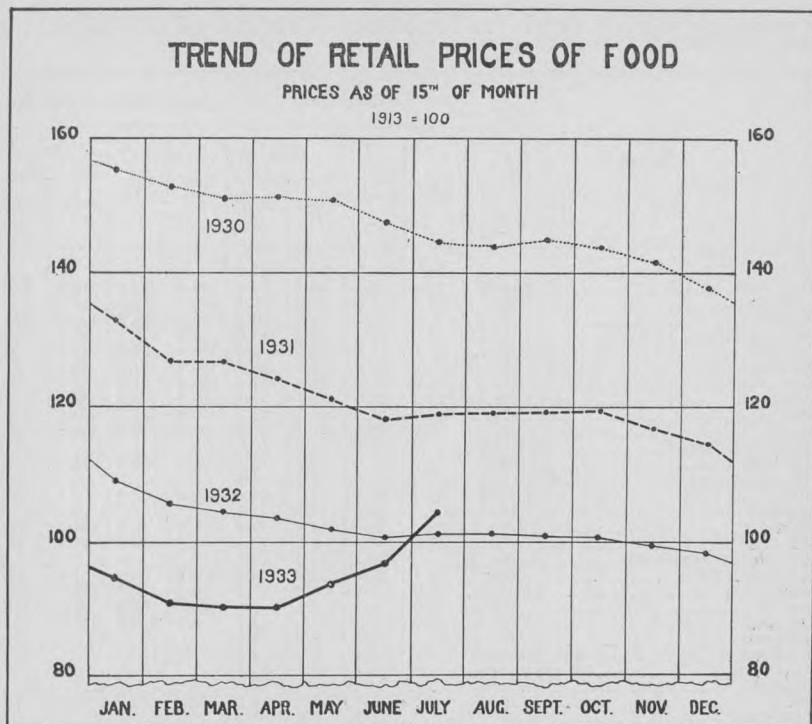


Table 2 shows index numbers of the total weighted retail costs of important food articles and of cereals, meats, and dairy products in the United States based on the year 1913 as 100 and changes in July 1933 compared with July 1932 and June 1933.

TABLE 2.—INDEX NUMBERS OF THE TOTAL WEIGHTED RETAIL COST OF FOOD AND OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, AND PERCENT OF CHANGE JULY 15, 1933, COMPARED WITH JULY 15, 1932, AND JUNE 15, 1933

Article	Index (1913=100)			Percent of change July 15, 1933, compared with—	
	July 15, 1932	June 15, 1933	July 15, 1933	July 15, 1932	June 15, 1933
All food.....	101.0	96.7	104.8	+3.8	+8.3
Cereals.....	121.2	117.2	128.0	+5.6	+9.2
Meats.....	122.6	103.7	103.5	-15.6	-.3
Dairy products.....	91.4	93.5	97.6	+6.8	+4.4

Table 3 shows the average retail prices of 42 principal food articles for the United States, 51 cities combined, and index numbers for 23 food articles based on the year 1913, for July 15, 1932, and June 15 and July 15, 1933.

TABLE 3.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES FOR THE YEAR 1913 AND BY MONTHS JULY 15, 1932, AND JUNE 15 AND JULY 15, 1933

Article	Average price				Index number (1913=100)			
	Year 1913	July 15, 1932	1933		Year 1913	July 15, 1932	1933	
			June 15	July 15			June 15	July 15
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>				
Sirloin steak.....pound.....	25.4	35.3	29.7	29.8	100.0	139.0	116.9	117.3
Round steak.....do.....	22.3	31.0	25.8	26.1	100.0	139.0	115.7	117.0
Rib roast.....do.....	19.8	24.9	21.3	20.9	100.0	125.8	107.6	105.6
Chuck roast.....do.....	16.0	18.1	15.4	15.2	100.0	113.1	96.3	95.0
Plate beef.....do.....	12.1	11.2	10.0	9.6	100.0	92.6	82.6	79.3
Pork chops.....do.....	21.0	25.5	18.5	18.2	100.0	121.4	88.1	86.7
Bacon, sliced.....do.....	27.0	23.7	22.5	23.2	100.0	87.8	83.3	85.9
Ham, sliced.....do.....	26.9	36.0	31.5	32.1	100.0	133.8	117.1	119.3
Lamb, leg of.....do.....	18.9	24.9	22.7	22.3	100.0	131.7	120.1	118.0
Hens.....do.....	21.3	23.6	21.4	21.0	100.0	110.8	100.5	98.6
Salmon, red, canned.....16-oz. can.....		24.6	19.0	19.4				
Milk, fresh.....quart.....	8.9	10.7	10.2	10.4	100.0	120.2	114.6	116.9
Milk, evaporated.....14½-oz. can.....		6.5	6.7	6.8				
Butter.....pound.....	38.3	23.9	28.1	30.9	100.0	62.4	73.4	80.7
Margarine.....do.....		14.5	13.0	13.3				
Cheese.....do.....	22.1	22.0	23.1	23.6	100.0	99.5	104.5	106.8
Lard.....do.....	15.8	8.5	9.7	10.1	100.0	53.8	61.4	63.9
Vegetable lard substitute.....do.....		19.3	18.5	18.7				
Eggs, strictly fresh.....dozen.....	34.5	22.8	20.0	24.3	100.0	66.1	58.0	70.4
Bread.....pound.....	5.6	6.8	6.6	7.2	100.0	121.4	117.9	128.6
Flour.....do.....	3.3	3.2	3.4	4.0	100.0	97.0	103.0	121.2
Corn meal.....do.....	3.0	3.8	3.6	3.7	100.0	126.7	120.0	123.3
Rolled oats.....do.....		7.6	5.6	5.9				
Corn flakes.....8-oz. package.....		8.5	8.2	8.3				
Wheat cereal.....28-oz. package.....		22.5	22.4	22.8				
Macaroni.....pound.....		15.2	14.4	14.9				
Rice.....do.....	8.7	6.6	6.0	6.2	100.0	75.9	69.0	71.3
Beans, navy.....do.....		5.0	5.3	5.5				
Potatoes.....do.....	1.7	1.9	2.3	3.6	100.0	111.8	135.3	211.8
Onions.....do.....		4.2	4.6	4.8				
Cabbage.....do.....		3.3	4.6	4.8				
Pork and beans.....16-oz. can.....		7.0	6.5	6.6				
Corn, canned.....no. 2 can.....		10.5	9.8	9.9				
Peas, canned.....do.....		12.7	12.8	12.8				
Tomatoes, canned.....do.....		9.5	9.0	9.1				
Sugar.....pound.....	5.5	5.0	5.4	5.5	100.0	90.9	98.2	100.0
Tea.....do.....	54.4	70.3	63.5	64.0	100.0	129.2	116.7	117.6
Coffee.....do.....	29.8	29.7	27.0	27.0	100.0	99.7	90.6	90.6
Prunes.....do.....		9.4	9.2	9.4				
Raisins.....do.....		11.5	9.2	9.2				
Bananas.....dozen.....		23.0	23.6	24.8				
Oranges.....do.....		32.8	28.0	28.5				

Table 4 shows index numbers of the weighted retail cost of food for the United States and 39 cities, based on the year 1913 as 100. The percent of change in July 1933 compared with July 1932 and June 1933 is also given for these cities and the United States, and for 12 additional cities from which prices were not secured in 1913.

TABLE 4.—INDEX NUMBERS OF THE TOTAL WEIGHTED COST OF FOOD AND PERCENT OF CHANGE JULY 15, 1933, COMPARED WITH JULY 15, 1932, AND JUNE 15, 1933, BY CITIES AND FOR THE UNITED STATES

City	Index (1913=100)			Percent of change July 15, 1933, compared with—		City	Index (1913=100)			Percent of change July 15, 1933, compared with—	
	July 1932	June 1933	July 1933	July 1932	June 1933		July 1932	June 1933	July 1933	July 1932	June 1933
United States.....	101.0	96.7	104.8	+3.8	+8.3	Mobile.....				+3.3	+6.5
Atlanta.....	99.6	95.8	100.9	+1.3	+5.3	Newark.....	106.5	96.5	103.3	-3.1	+7.0
Baltimore.....	106.4	99.6	106.8	+0.4	+7.2	New Haven.....	107.7	100.1	109.2	+1.4	+9.1
Birmingham.....	99.1	97.6	100.9	+1.8	+3.3	New Orleans.....	97.1	93.9	102.6	+5.6	+9.2
Boston.....	103.5	98.1	107.4	+3.7	+9.5	New York.....	109.3	103.4	110.0	+0.7	+6.4
Bridgeport.....				+0.9	+7.8	Norfolk.....				-4.4	+7.8
Buffalo.....	106.6	100.4	109.8	+3.0	+9.4	Omaha.....	92.5	92.2	100.8	+8.9	+9.3
Butte.....				+3.1	+8.2	Peoria.....				+6.8	+11.0
Charleston, S. C.....	104.6	94.5	101.2	-3.3	+7.1	Philadelphia.....	105.0	99.0	106.0	+0.9	+7.0
Chicago.....	111.2	102.4	112.2	+0.9	+9.6	Pittsburgh.....	97.7	94.0	102.5	+4.9	+9.0
Cincinnati.....	101.2	96.7	105.5	+4.3	+9.1	Portland, Maine.....				+2.5	+10.2
Cleveland.....	98.9	92.1	103.5	+4.7	+12.4	Portland, Oreg.....	94.4	90.2	95.7	+1.4	+6.2
Columbus.....				+5.8	+12.9	Providence.....	104.1	99.3	108.5	+4.3	+9.3
Dallas.....	93.1	94.0	99.5	+6.9	+5.9	Richmond.....	103.0	97.8	104.1	+1.1	+6.5
Denver.....	94.9	93.1	101.8	+7.3	+9.3	Rochester.....				+3.4	+11.9
Detroit.....	100.6	94.0	105.4	+4.8	+12.1	St. Louis.....	101.1	99.9	108.7	+7.6	+8.8
Fall River.....	100.0	93.6	105.0	+5.0	+12.2	St. Paul.....				+5.8	+13.5
Houston.....				+8.0	+8.7	Salt Lake City.....	87.2	87.7	92.4	+6.0	+5.5
Indianapolis.....	100.4	92.8	103.8	+3.3	+11.8	San Francisco.....	103.2	103.4	106.7	+3.4	+3.2
Jacksonville.....	90.8	87.6	95.2	+4.7	+8.7	Savannah.....				+6.2	+11.3
Kansas City.....	96.1	98.2	103.6	+7.8	+5.6	Scranton.....	106.6	102.2	112.0	+5.1	+9.6
Little Rock.....	89.7	83.3	88.9	-0.9	+6.8	Seattle.....	101.1	100.3	103.5	+2.4	+3.2
Los Angeles.....	89.7	88.4	92.8	+3.5	+5.0	Springfield, Ill.....				+8.7	+10.7
Louisville.....	93.0	94.0	102.3	+10.0	+8.8	Washington.....	108.1	102.7	108.5	+0.4	+5.7
Manchester.....	102.1	97.0	109.6	+7.3	+13.0	Hawaii:					
Memphis.....	92.3	89.3	95.8	+3.9	+7.3	Honolulu.....				-4.2	+1.3
Milwaukee.....	105.0	100.0	111.3	+6.0	+11.4	Other localities.....				-6.2	+1.0
Minneapolis.....	99.8	93.9	107.0	+7.2	+14.0						

Retail Prices of Coal on July 15, 1933

RETAIL prices of coal as of the 15th of each month are secured from each of the 51 cities from which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use. The prices shown for bituminous coal are averages of prices of the several kinds. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

Table 1 shows for the United States both average prices and index numbers of Pennsylvania white-ash anthracite, stove and chestnut sizes, and of bituminous coal in January and July, 1913 to 1931, and for each month from January 1932 to July 1933. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the index number.

Table 2 shows average retail prices per ton of 2,000 pounds and index numbers (1913=100) for the United States on July 15, 1932,

and June 15 and July 15, 1933, and percentage change in the year and in the month.

Table 3 shows average retail prices of coal for household use by cities on July 15, 1932, and June 15 and July 15, 1933, as reported by local dealers in each city.

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF COAL FOR THE UNITED STATES BASED ON THE YEAR 1913 AS 100, ON SPECIFIED DATES FROM JANUARY 1913 TO JULY 1933

Year and month	Pennsylvania anthracite, white ash—				Bituminous		Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut		Average price	Index (1913 = 100)		Stove		Chestnut		Average price	Index (1913 = 100)
	Average price	Index 1913 = 100	Average price	Index 1913 = 100				Average price	Index 1913 = 100	Average price	Index 1913 = 100		
	<i>Dols.</i>		<i>Dols.</i>		<i>Dols.</i>		<i>Dols.</i>		<i>Dols.</i>		<i>Dols.</i>		<i>Dols.</i>
1913: Av. for yr.....	7.73	100.0	7.91	100.0	5.43	100.0	1927: January.....	15.66	202.7	15.42	194.8	9.96	183.3
January.....	7.99	103.4	8.15	103.0	5.48	109.8	July.....	15.15	196.1	14.81	187.1	8.91	163.9
July.....	7.46	96.6	7.68	97.0	5.39	99.2	1928: January.....	15.44	199.8	15.08	190.6	9.30	171.1
1914: January.....	7.80	100.9	8.00	101.0	5.97	109.9	July.....	14.91	192.9	14.63	184.9	8.69	159.9
July.....	7.60	98.3	7.78	98.3	5.46	100.6	1929: January.....	15.38	99.1	15.06	190.3	9.09	167.2
1915: January.....	7.83	101.3	7.99	101.0	5.71	105.2	July.....	14.94	193.4	14.63	184.8	8.62	158.6
July.....	7.54	97.6	7.73	97.7	5.44	100.1	1930: January.....	15.33	198.4	15.00	189.5	9.11	167.6
1916: January.....	7.93	102.7	8.13	102.7	5.69	104.8	July.....	14.84	192.1	14.53	183.6	8.65	159.1
July.....	8.12	105.2	8.28	104.6	5.52	101.6	1931: January.....	15.12	195.8	14.88	188.1	8.87	163.2
1917: January.....	9.29	120.2	9.40	118.8	6.96	128.1	July.....	14.61	189.1	14.59	184.3	8.09	148.9
July.....	9.08	117.5	9.16	115.7	7.21	132.7	1932: January.....	15.00	194.2	14.97	189.1	8.17	150.3
1918: January.....	9.88	127.9	10.03	126.7	7.68	141.3	February.....	14.98	193.9	14.95	188.9	8.14	149.7
July.....	9.96	128.9	10.07	127.3	7.92	145.8	March.....	14.54	188.2	14.45	182.6	8.01	147.4
1919: January.....	11.51	149.0	11.61	146.7	7.90	145.3	April.....	13.62	176.3	13.46	170.0	7.85	144.5
July.....	12.14	157.2	12.12	153.8	8.10	149.1	May.....	13.30	172.2	13.11	165.6	7.60	139.9
1920: January.....	12.59	162.9	12.77	161.3	8.81	162.1	June.....	13.36	173.0	13.16	166.3	7.53	138.6
July.....	14.28	184.9	14.33	181.1	10.55	194.1	July.....	13.37	173.0	13.16	166.2	7.50	138.0
1921: January.....	15.99	207.0	16.13	203.8	11.82	217.6	August.....	13.50	174.8	13.28	167.9	7.64	139.9
July.....	14.90	192.8	14.95	188.9	10.47	192.7	September.....	13.74	177.9	13.52	170.8	7.64	138.7
1922: January.....	14.98	193.9	15.02	189.8	9.89	182.0	October.....	13.79	178.5	13.58	171.5	7.50	139.9
July.....	14.87	192.4	14.92	188.5	9.49	174.7	November.....	13.83	178.9	13.60	171.9	7.59	139.7
1923: January.....	15.43	199.7	15.46	195.3	11.18	205.7	December.....	13.87	179.5	13.65	172.5	7.51	138.3
July.....	15.10	195.5	15.05	190.1	10.04	184.7	1933: January.....	13.82	178.9	13.61	171.9	7.46	137.3
1924: January.....	15.77	204.1	15.76	199.1	9.75	179.5	February.....	13.75	178.0	13.53	171.0	7.45	137.0
July.....	15.24	197.2	15.10	190.7	8.94	164.5	March.....	13.70	177.3	13.48	170.4	7.43	136.7
1925: January.....	15.45	200.0	15.37	194.2	9.24	170.0	April.....	13.22	171.1	13.00	164.3	7.37	135.6
July.....	15.14	196.0	14.93	188.6	8.61	158.5	May.....	12.44	161.0	12.25	154.8	7.17	132.0
1926: January.....	(1)	(1)	(1)	(1)	9.74	179.3	June.....	12.18	157.6	12.00	151.6	7.18	132.1
July.....	15.43	199.7	15.19	191.9	8.70	160.1	July.....	12.47	161.3	12.26	155.0	7.64	140.7

¹ Insufficient data.

TABLE 2.—AVERAGE RETAIL PRICES AND PERCENT OF CHANGE ON JULY 15, 1933, COMPARED WITH JULY 15, 1932, AND JUNE 15, 1933

Article	Average retail price on —			Per cent of increase (+) or decrease (—) July 15, 1933, compared with—	
	July 15, 1932	June 15, 1933	July 15, 1933	July 15, 1932	June 15, 1933
Pennsylvania anthracite:					
Stove:					
Average price per 2,000 pounds.....	\$13.37	\$12.18	\$12.47	-6.7	+2.4
Index (1913=100).....	173.0	157.6	161.3		
Chestnut:					
Average price per 2,000 pounds.....	\$13.16	\$12.00	\$12.26	-6.8	+2.2
Index (1913=100).....	166.2	151.6	155.0		
Bituminous:					
Average price per 2,000 pounds.....	\$7.50	\$7.18	\$7.64	+1.9	+6.4
Index (1913=100).....	138.0	132.1	140.7		

RETAIL PRICES

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TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, JULY 15, 1932, AND JUNE 15 AND JULY 15, 1933, BY CITIES

City, and kind of coal	1932			1933			
	July 15	June 15	July 15	City, and kind of coal	1932	1933	
					July 15	June 15	July 15
Atlanta, Ga.:				Houston, Tex.:			
Bituminous, prepared sizes.	\$5.64	\$5.55	\$5.55	Bituminous, prepared sizes.	\$9.20	\$9.70	\$9.60
Baltimore, Md.:				Indianapolis, Ind.:			
Pennsylvania anthracite:				Bituminous:			
Stove	12.25	11.50	11.92	Prepared sizes:			
Chestnut	11.75	11.25	11.67	High volatile	4.79	5.06	5.26
Bituminous:				Low volatile	6.71	6.70	7.05
Prepared sizes:				Run of mine:			
Low volatile	8.56	8.44	8.44	Low volatile	5.55	5.94	6.38
Run of mine:				Jacksonville, Fla.:			
High volatile	6.86	6.79	6.79	Bituminous, prepared sizes.	9.00	8.75	9.00
Birmingham, Ala.:				Kansas City, Mo.:			
Bituminous, prepared sizes.	4.96	4.46	4.68	Arkansas anthracite:			
Boston, Mass.:				Furnace	10.63	10.33	10.33
Pennsylvania anthracite:				Stove no. 4	12.17	12.25	12.00
Stove	13.25	12.75	13.20	Bituminous, prepared sizes.	5.75	5.59	5.61
Chestnut	13.00	12.50	12.95	Little Rock, Ark.:			
Bridgeport, Conn.:				Arkansas anthracite, egg	11.75	10.25	10.25
Pennsylvania anthracite:				Bituminous, prepared sizes.	8.17	7.50	7.50
Stove	13.00	13.00	13.25	Los Angeles, Calif.:			
Chestnut	13.00	13.00	13.25	Bituminous, prepared sizes.	15.13	15.13	15.25
Buffalo, N. Y.:				Louisville, Ky.:			
Pennsylvania anthracite:				Bituminous:			
Stove	11.88	11.65	11.90	Prepared sizes:			
Chestnut	11.63	11.40	11.65	High volatile	4.68	4.42	4.62
Butte, Mont.:				Low volatile	6.75	6.75	6.88
Bituminous, prepared sizes.	9.89	9.71	9.71	Manchester, N. H.:			
Charleston, S. C.:				Pennsylvania anthracite:			
Bituminous, prepared sizes.	9.50	8.67	8.62	Stove	14.50	14.00	14.00
Chicago, Ill.:				Chestnut	14.50	14.00	14.00
Pennsylvania anthracite:				Memphis, Tenn.:			
Stove	15.30	12.16	13.04	Bituminous, prepared sizes.	6.94	5.68	5.57
Chestnut	15.05	11.95	12.83	Milwaukee, Wis.:			
Bituminous:				Pennsylvania anthracite:			
Prepared sizes:				Stove	14.45	12.36	12.54
High volatile	7.53	7.02	7.50	Chestnut	14.20	12.11	12.29
Low volatile	9.22	8.63	9.39	Bituminous:			
Run of mine:				Prepared sizes:			
Low volatile	6.95	6.52	6.99	High volatile	6.97	6.94	7.01
Cincinnati, Ohio:				Low volatile	8.75	8.90	9.09
Bituminous:				Minneapolis, Minn.:			
Prepared sizes:				Pennsylvania anthracite:			
High volatile	5.00	4.75	5.13	Stove	16.75	13.75	14.04
Low volatile	6.75	6.25	6.60	Chestnut	16.50	13.50	13.79
Cleveland, Ohio:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Stove	13.63	12.06	11.50	High volatile	9.62	9.05	9.11
Chestnut	13.38	11.81	11.25	Low volatile	11.87	11.50	11.52
Bituminous:				Mobile, Ala.:			
Prepared sizes:				Bituminous, prepared sizes.	7.31	6.50	6.65
High volatile	6.19	5.26	5.32	Newark, N. J.:			
Low volatile	8.00	7.46	7.82	Pennsylvania anthracite:			
Columbus, Ohio:				Stove	11.75	11.38	11.69
Bituminous:				Chestnut	11.50	11.13	11.44
Prepared sizes:				New Haven, Conn.:			
High volatile	5.15	4.61	5.03	Pennsylvania anthracite:			
Low volatile	6.25	5.54	6.17	Stove	13.65	12.90	12.90
Dallas, Tex.:				Chestnut	13.65	12.90	12.90
Arkansas anthracite, egg	14.00	13.00	13.50	New Orleans, La.:			
Bituminous, prepared sizes.	10.00	10.00	10.00	Bituminous, prepared sizes.	8.07	8.07	8.07
Denver, Colo.:				New York, N. Y.:			
Colorado anthracite:				Pennsylvania anthracite:			
Furnace, 1 and 2 mixed	14.75	14.50	14.50	Stove	12.02	11.55	11.82
Stove, 3 and 5 mixed	14.75	14.50	14.50	Chestnut	11.77	11.30	11.57
Bituminous, prepared sizes.	7.95	7.21	7.37	Norfolk, Va.:			
Detroit, Mich.:				Pennsylvania anthracite:			
Pennsylvania anthracite:				Stove	12.50	12.00	12.50
Stove	12.92	11.25	11.46	Chestnut	12.50	12.00	12.50
Chestnut	12.71	11.25	11.46	Bituminous:			
Bituminous:				Prepared sizes:			
Prepared sizes:				High volatile	6.50	6.00	6.50
High volatile	5.91	5.83	6.11	Low volatile	7.50	7.00	7.50
Low volatile	6.95	6.67	6.81	Run of mine:			
Run of mine:				Low volatile	6.50	6.00	6.38
Low volatile	6.31	5.88	5.99	Omaha, Nebr.:			
Fall River, Mass.:				Bituminous, prepared sizes.	8.73	8.37	8.30
Pennsylvania anthracite:				Peoria, Ill.:			
Stove	14.25	13.50	13.50	Bituminous, prepared sizes.	6.10	5.92	5.98
Chestnut	14.00	13.25	13.25				

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, JULY 15, 1932, AND JUNE 15 AND JULY 15, 1933, BY CITIES—Continued

City, and kind of coal	1932			1933			
	July 15	June 15	July 15	City, and kind of coal	1932	1933	
					July 15	June 15	July 15
Philadelphia, Pa.:				St. Paul, Minn.:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove.....	\$11.00	\$10.88	\$11.38	Stove.....	\$16.75	\$13.80	\$14.05
Chestnut.....	10.75	10.63	11.13	Chestnut.....	16.50	13.55	13.80
Pittsburgh, Pa.:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Chestnut.....	12.88	12.25	11.50	High volatile.....	9.55	8.92	8.83
Bituminous, prepared sizes.	4.04	3.47	3.45	Low volatile.....	11.87	11.51	11.62
Portland, Maine:				Salt Lake City, Utah:			
Pennsylvania anthracite:				Bituminous, prepared sizes.	7.39	7.06	7.00
Stove.....	15.36	13.49	13.98	San Francisco, Calif.:			
Chestnut.....	15.12	13.24	13.73	New Mexico anthracite:			
Portland, Oreg.:				Cerrillos egg.....	25.00	25.00	25.00
Bituminous, prepared sizes.	11.96	11.53	11.60	Colorado anthracite:			
Providence, R.I.:				Egg.....	24.50	24.50	24.50
Pennsylvania anthracite:				Bituminous, prepared sizes.	15.00	15.00	15.00
Stove.....	14.00	13.20	13.45	Savannah, Ga.:			
Chestnut.....	13.75	12.95	13.20	Bituminous, prepared sizes.	8.28	8.04	8.44
Richmond, Va.:				Scranton, Pa.:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove.....	12.88	12.25	12.75	Stove.....	8.63	7.88	8.06
Chestnut.....	12.88	12.25	12.75	Chestnut.....	8.35	7.63	7.81
Bituminous:				Seattle, Wash.:			
Prepared sizes:				Bituminous, prepared sizes.	9.01	9.33	9.38
High volatile.....	6.67	6.67	7.17	Springfield, Ill.:			
Low volatile.....	7.43	7.15	7.65	Bituminous, prepared sizes.	4.39	3.68	3.75
Run of mine:				Washington, D.C.:			
Low volatile.....	6.39	6.25	6.50	Pennsylvania anthracite:			
Rochester, N.Y.:				Stove.....	13.56	12.92	13.30
Pennsylvania anthracite:				Chestnut.....	13.26	12.66	13.04
Stove.....	12.38	11.85	12.10	Bituminous:			
Chestnut.....	12.13	11.60	11.85	Prepared sizes:			
St. Louis, Mo.:				High volatile.....	8.29	7.97	8.06
Pennsylvania anthracite:				Low volatile.....	9.86	9.31	9.47
Stove.....	14.72	13.94	13.91	Run of mine:			
Chestnut.....	14.72	13.69	13.66	Mixed.....	7.50	7.40	7.40
Bituminous, prepared sizes.	5.16	4.39	4.67				

¹ The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

² All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

³ Per ton of 2,240 pounds.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, 1913 to July 1933

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1932, inclusive, and by months from January 1932 to date:

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913.....	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914.....	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915.....	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916.....	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917.....	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918.....	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	93.3	134.4	131.3
1919.....	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920.....	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921.....	88.4	90.6	109.2	94.5	96.8	117.5	87.4	115.0	113.0	109.2	97.6
1922.....	93.8	87.6	104.6	100.2	107.3	102.9	87.3	100.3	103.5	92.8	96.7
1923.....	98.6	92.7	104.2	111.3	97.3	109.3	105.7	101.1	108.9	99.7	100.6
1924.....	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925.....	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927.....	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928.....	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930.....	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931.....	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1932:											
January.....	52.8	64.7	79.3	59.6	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February.....	50.6	62.5	78.3	59.5	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March.....	50.2	62.3	77.3	58.0	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April.....	49.2	61.0	75.0	56.1	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May.....	46.6	59.3	72.5	54.3	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June.....	45.7	58.8	70.8	52.7	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July.....	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3	64.5
August.....	49.1	61.8	69.7	52.7	72.1	80.1	69.6	73.3	73.6	64.6	65.2
September.....	49.1	61.8	72.2	55.6	70.8	80.1	70.5	72.9	73.7	64.7	65.3
October.....	46.9	60.5	72.8	55.0	71.1	80.3	70.7	72.7	73.7	64.1	64.4
November.....	46.7	60.6	71.4	53.9	71.4	79.6	70.7	72.4	73.7	63.7	63.9
December.....	44.1	58.3	69.6	53.0	69.3	79.4	70.8	72.3	73.6	63.4	62.6
1933:											
January.....	42.6	55.8	68.9	51.9	66.0	78.2	70.1	71.6	72.9	61.2	61.0
February.....	40.9	53.7	68.0	51.2	63.6	77.4	69.8	71.3	72.3	59.2	59.8
March.....	42.8	54.6	68.1	51.3	62.9	77.2	70.3	71.2	72.2	58.9	60.2
April.....	44.5	56.1	69.4	51.8	61.5	76.9	70.2	71.4	71.5	57.8	60.4
May.....	50.2	59.4	76.9	55.9	60.4	77.7	71.4	73.2	71.7	58.9	62.7
June.....	53.2	61.2	82.4	61.5	61.5	79.3	74.7	73.7	73.4	60.8	65.0
July.....	60.1	65.5	86.3	68.0	65.3	80.6	79.5	73.2	74.8	64.0	68.9

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES

1926=100]

Year	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods	Month	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods
1913	68.8	74.9	69.4	69.0	70.0	1932:					
1914	67.6	70.0	67.8	66.8	66.4	January	58.3	63.1	72.1	70.3	71.7
1915	67.2	81.2	68.9	68.5	68.0	February	56.9	61.9	71.4	69.6	71.3
1916	82.6	118.3	82.3	85.3	88.3	March	56.1	60.8	71.5	69.3	70.9
1917	122.6	150.4	109.2	113.1	114.2	April	55.5	59.6	71.1	68.9	70.9
1918	135.8	153.8	124.7	125.1	124.6	May	53.9	58.1	70.3	68.1	70.4
1919	145.9	157.9	130.6	131.6	128.8	June	53.2	57.6	70.0	67.8	70.1
1920	151.8	198.2	149.8	154.8	161.3	July	54.7	55.5	70.5	68.0	69.7
1921	88.3	96.1	103.3	100.1	104.9	August	55.7	57.9	70.7	68.5	70.1
1922	96.0	98.9	96.5	97.3	102.4	September	56.2	60.7	70.4	68.7	70.4
1923	98.5	118.6	99.2	100.9	104.3	October	54.6	60.7	69.6	68.1	70.2
1924	97.6	108.7	96.3	97.1	99.7	November	54.2	58.9	69.3	67.5	69.8
1925	106.7	105.3	100.6	101.4	102.6	December	52.1	57.7	68.4	66.5	69.0
1926	100.0	100.0	100.0	100.0	100.0	1933:					
1927	96.5	94.3	95.0	94.6	94.0	January	50.2	56.9	66.7	64.9	67.3
1928	99.1	94.5	95.9	94.8	92.9	February	48.4	56.3	65.7	63.7	66.0
1929	97.5	93.9	94.5	93.3	91.6	March	49.4	56.9	65.7	63.8	65.8
1930	84.3	81.8	88.0	85.9	85.2	April	50.0	57.3	65.7	63.7	65.3
1931	65.6	69.0	77.0	74.6	75.0	May	53.7	61.3	67.2	65.4	66.5
1932	55.1	59.3	70.3	68.3	70.2	June	56.2	65.3	69.0	67.4	68.9
						July	61.8	69.1	72.2	70.7	72.2

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of July 1933, will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR WEEKS OF JULY 1, 8, 15, 22, AND 29, 1933

[1926=100]

Group	Week ended—				
	July 1	July 8	July 15	July 22	July 29
All commodities	66.3	67.2	68.9	69.7	69.2
Farm products	56.9	58.5	61.1	62.7	59.6
Foods	62.6	62.9	65.9	66.5	66.1
Hides and leather products	83.3	83.7	85.4	87.8	88.3
Textile products	62.2	64.1	66.5	68.3	68.4
Fuel and lighting	64.3	65.7	66.7	66.8	67.0
Metals and metal products	79.2	79.9	80.6	80.7	80.8
Building materials	75.9	77.0	78.8	79.1	80.1
Chemicals and drugs	73.5	73.0	72.9	73.2	73.4
Housefurnishing goods	73.2	73.6	74.0	74.3	74.6
Miscellaneous	62.1	62.9	63.5	64.6	65.1

Wholesale Price Trends During July 1933

THE index number of wholesale commodity prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows an increase from June to July 1933. This index number which includes 784 commodities or price series weighted according to their importance and based on the average prices for the year 1926 as 100 averaged 68.9 for July as compared with 65 for June, showing an increase of 6 percent between the 2 months. This is the fifth con-

secutive month showing an increase, corresponding indexes for February, March, April, and May 1933 were 59.8, 60.2, 60.4, and 62.7, respectively. As compared with July 1932, with an index number of 64.5, the July 1933 wholesale price level shows an increase of more than 6¼ percent over that of a year ago.

Between June and July increases took place in 466 instances, decreases in 40 instances, while in 278 instances no change in price occurred.

This is the second consecutive month in the past 3 years that prices for the current month have shown an increase over the corresponding month of the year before. The all-commodities index, which indicates the trend in the general level of wholesale prices, shows that prices in July were approximately 27½ percent below the level of June 1929 when the index stood at 95.2.

The largest price advance was shown by the farm-products group which increased by almost 13 percent over the previous month. Increases took place in the average prices of grains, calves, steers, live poultry, cotton, eggs, fresh apples, oranges, hay, fresh milk at New York, peanuts, seeds, tobacco, dried beans, white potatoes, and wool. Decreases were recorded in the average prices of cows, hogs, sheep, hops, lemons, and onions.

The second largest advance occurred in the textile-products group which showed a rise of 10½ percent from June to July. This increase was due largely to the increase in the price of cotton goods which was approximately 12 percent higher in July than in June. When compared with July 1932 an increase of 60 percent has been recorded in the wholesale price of cotton textiles in the 12 months.

Among the food products which showed price advances during the month were butter, cheese; condensed, evaporated, and powdered milk; bread, oatmeal, wheat cereal, crackers, cookies, rye and wheat flour, corn meal, rice, dried fruits, canned fruits and vegetables, lamb, ham, veal, cocoa beans, lard, raw and granulated sugar, and vegetable oils. On the other hand, cured and fresh beef, mutton, mess pork, fresh pork, and dressed poultry averaged lower than in the month before. The group as a whole increased 7 percent in July when compared with June.

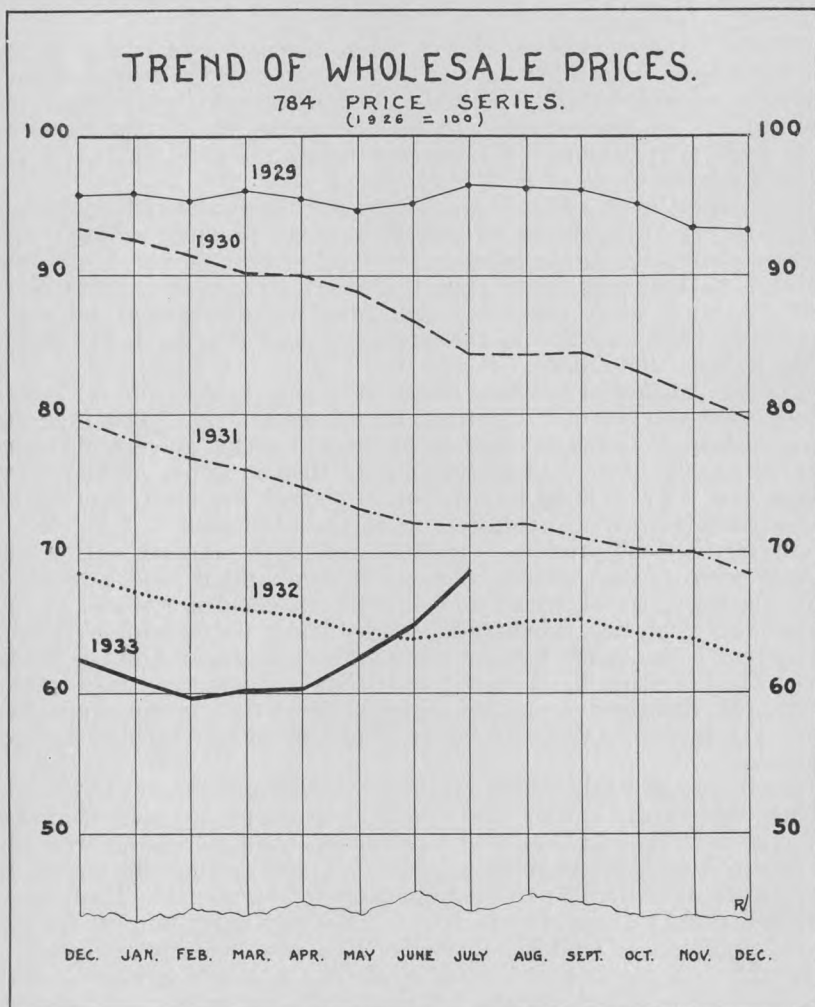
The hides and leather products group showed an increase of approximately 4¼ percent during the month. All subgroups shared in the advance. Coal, coke, gas, and most petroleum products showed advances in average prices causing the group of fuel and lighting materials to increase more than 6 percent from the previous month. Electricity declined slightly from May to June. The May index number for gas has been revised to read 99.5 instead of 103.3 as previously published.

Metals and metal products as a whole continued upward during July due to advancing prices for iron and steel, nonferrous metals, and plumbing and heating fixtures. Agricultural implements and motor vehicles showed little or no change between June and July. The index for the group was over 1½ percent higher than for the month before. In the group of building materials the average prices of brick and tile, cement, lumber, paint and paint materials, and other building materials moved upward during the month, while structural steel showed no change between the 2 months. The group as a whole recorded an increase of more than 6.4 percent.

The group of chemicals and drugs registered a decrease of approximately three fourths of 1 percent during July due to declining prices

for chemicals. Drugs and pharmaceuticals, fertilizer materials, and mixed fertilizers increased slightly. The housefurnishing-goods group as a whole increased nearly 2 percent from the previous month. Both furniture and furnishings shared in the advance.

Miscellaneous commodities rose $5\frac{1}{4}$ percent between June and July due to advances in all subgroups.



The July averages for all the special groups of commodities were above those for June, ranging from less than 5 percent in the case of finished products to 10 percent in the case of raw materials.

Purchasing Power of the Dollar

THE purchasing power of the 1926 dollar, expressed in terms of wholesale prices, computed from the index numbers of the various groups and subgroups of commodities is shown in the subjoined table.

WHOLESALE PRICES

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INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	July 1932	June 1933	July 1933	Purchasing power of the dollar, July 1933
All commodities.....	64.5	65.0	68.9	\$1.451
Farm products.....	47.9	53.2	60.1	1.664
Grains.....	36.7	57.4	73.4	1.362
Livestock and poultry.....	54.1	46.6	47.4	2.110
Other farm products.....	48.4	56.2	63.7	1.570
Foods.....	60.9	61.2	65.5	1.527
Butter, cheese, and milk.....	58.2	63.1	66.1	1.513
Cereal products.....	65.7	70.7	83.3	1.300
Fruits and vegetables.....	59.7	63.9	75.6	1.323
Meats.....	62.0	52.4	50.8	1.969
Other foods.....	58.5	61.1	63.7	1.570
Hides and leather products.....	68.6	82.4	86.3	1.159
Boots and shoes.....	84.4	85.5	88.3	1.133
Hides and skins.....	33.5	81.4	88.7	1.127
Leather.....	60.0	74.3	78.0	1.282
Other leather products.....	83.7	78.5	80.0	1.250
Textile products.....	51.5	61.5	68.0	1.471
Clothing.....	60.9	64.5	70.6	1.416
Cotton goods.....	50.0	67.1	80.2	1.247
Knit goods.....	47.8	50.9	55.2	1.812
Silk and rayon.....	26.2	35.2	37.9	2.639
Woolen and worsted goods.....	53.6	68.8	72.3	1.383
Other textile products.....	66.5	73.6	76.7	1.304
Fuel and lighting materials.....	72.3	61.5	65.3	1.531
Anthracite coal.....	84.5	76.8	77.9	1.284
Bituminous coal.....	81.6	78.3	81.0	1.235
Coke.....	76.3	75.3	76.0	1.316
Electricity.....	105.8	91.4	(1)	-----
Gas.....	108.3	101.7	(1)	-----
Petroleum products.....	49.7	34.4	41.3	2.421
Metals and metal products.....	79.2	79.3	80.6	1.241
Agricultural implements.....	84.9	83.0	83.0	1.205
Iron and steel.....	77.2	76.2	77.7	1.287
Motor vehicles.....	95.3	90.4	90.4	1.106
Nonferrous metals.....	47.0	63.2	67.6	1.479
Plumbing and heating.....	67.1	67.4	69.4	1.441
Building materials.....	69.7	74.7	79.5	1.258
Brick and tile.....	75.9	77.0	78.2	1.279
Cement.....	77.3	81.8	88.2	1.134
Lumber.....	56.9	67.4	75.9	1.318
Paint and paint materials.....	66.8	71.9	77.9	1.284
Plumbing and heating.....	67.1	67.4	69.4	1.441
Structural steel.....	81.7	81.7	81.7	1.224
Other building materials.....	77.9	80.6	83.3	1.200
Chemicals and drugs.....	73.0	73.7	73.2	1.366
Chemicals.....	78.9	81.5	80.3	1.245
Drugs and pharmaceuticals.....	57.6	55.5	56.8	1.761
Fertilizer materials.....	66.8	68.0	68.6	1.458
Mixed fertilizers.....	68.8	63.0	63.3	1.580
House-furnishing goods.....	74.0	73.4	74.8	1.337
Furnishings.....	75.1	73.6	75.1	1.332
Furniture.....	73.0	73.4	74.6	1.340
Miscellaneous.....	64.3	60.8	64.0	1.563
Automobile tires and tubes.....	40.1	40.1	41.4	2.415
Cattle feed.....	42.2	55.8	82.4	1.214
Paper and pulp.....	76.2	73.5	78.1	1.280
Rubber, crude.....	6.1	12.6	16.3	6.135
Other miscellaneous.....	84.5	75.0	76.3	1.311
Raw materials.....	54.7	56.2	61.8	1.618
Semimanufactured articles.....	55.5	65.3	69.1	1.447
Finished products.....	70.5	69.0	72.2	1.385
Nonagricultural commodities.....	68.0	67.4	70.7	1.414
All commodities other than farm products and foods.....	69.7	68.9	72.2	1.385

¹ Data not yet available.

Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn, in certain cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926-32, inclusive, and by months since July 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country.....	United States	Australia	Austria	Belgium	Bulgaria	Canada	Chile	China
Computing agency...	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Industry and Labor	General Statistical Bureau	Dominion Bureau of Statistics	General Statistical Bureau	National Tariff Commission, Shanghai
Base period.....	1926 (100)	1911 (1,000)	January-June 1914 (100)	April 1914 (100)	1926 (100)	1926 (100)	1913 (100)	1926 (100)
Commodities	784	92	(Gold) 47	(Paper) 126	(Gold) 55	502	(Paper)	(Silver) 155 ¹
1926.....	100.0	1,832	123	744	100.0	100.0	-----	100.0
1927.....	95.4	1,817	133	847	102.4	97.7	-----	104.4
1928.....	96.7	1,792	130	843	109.8	96.4	192.5	101.7
1929.....	95.3	1,803	130	851	117.0	95.6	192.4	104.5
1930.....	86.4	1,596	117	744	94.6	86.6	166.9	114.8
1931.....	73.0	1,428	108	626	79.1	72.1	152.2	126.7
1932.....	64.8	1,425	112	532	70.3	66.7	230.4	112.4
1931								
July.....	72.0	1,428	114	635	79.7	71.3	154.0	127.4
August.....	72.1	1,399	110	616	77.4	70.5	149.5	130.3
September.....	71.2	1,391	108	597	77.1	69.7	146.2	129.2
October.....	70.3	1,402	109	591	78.7	69.9	142.3	126.9
November.....	70.2	1,428	112	584	78.9	70.7	148.1	124.8
December.....	68.6	1,425	112	573	77.5	70.4	150.9	121.8
1932								
January.....	67.3	1,414	114	557	75.7	69.4	146.5	119.3
February.....	66.3	1,449	112	554	75.9	69.2	151.9	-----
March.....	66.0	1,438	113	548	75.9	69.1	164.2	-----
April.....	65.5	1,431	112	539	72.4	68.2	189.8	116.7
May.....	64.4	1,408	116	526	71.7	67.4	213.6	115.7
June.....	63.9	1,390	115	514	71.7	66.4	226.6	113.6
July.....	64.5	1,397	112	512	69.2	66.4	230.2	111.3
August.....	65.2	1,415	112	524	67.9	66.7	239.6	111.3
September.....	65.3	1,441	110	533	69.9	65.9	281.6	109.8
October.....	64.4	1,404	111	529	65.4	65.0	293.9	108.7
November.....	63.9	1,382	111	525	63.3	64.7	289.0	106.9
December.....	62.6	1,367	108	522	62.5	64.0	337.8	107.5
1933								
January.....	61.0	1,344	108	521	63.5	63.9	346.0	108.6
February.....	59.8	1,330	106	512	62.4	63.6	344.7	107.6
March.....	60.2	1,333	107	504	61.0	64.4	343.4	106.7
April.....	60.4	1,360	107	501	-----	65.4	351.2	104.5
May.....	62.7	-----	108	502	-----	66.9	357.3	104.2
June.....	65.0	-----	109	507	-----	67.6	-----	104.5

¹ Quotations, 154 since January 1932.

WHOLESALE PRICES

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INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country.....	Czechoslovakia	Denmark	Finland	France	Germany	India	Italy	Japan
Computing agency....	Central Bureau of Statistics	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Department, etc., ³ Calcutta	Riccardo Bachi	Bank of Japan, Tokyo
Base period.....	July 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	July 1914 (100)	1913 (100)	October 1900 (100)
Commodities.....	(Gold) 69	118	120	(Paper) 126	400	(Paper) 72	(Paper) 140	56
1926.....	² 944	163	100	695	134.4	148	602.0	236.7
1927.....	² 968	153	101	642	137.6	148	495.3	224.6
1928.....	² 969	153	102	645	140.0	145	461.6	226.1
1929.....	² 913	150	98	627	137.2	141	445.3	219.8
1930.....	118.6	190	90	554	124.6	116	383.0	181.0
1931.....	107.5	114	84	502	110.9	96	328.4	153.0
1932.....	99.5	117	90	427	96.5	91	303.7	161.1
1931								
July.....	112.1	110	82	500	111.7	93	324.3	152.8
August.....	107.8	109	81	488	110.2	92	321.6	151.8
September.....	105.1	109	79	473	108.6	91	319.1	149.6
October.....	104.6	113	82	457	107.1	96	322.2	146.9
November.....	104.3	117	87	447	106.6	97	320.4	147.0
December.....	103.8	119	92	442	103.7	98	318.9	151.0
1932								
January.....	102.3	118	94	439	100.0	97	316.6	159.5
February.....	101.4	119	93	446	99.8	97	314.4	161.4
March.....	101.4	117	92	444	99.8	94	315.0	158.5
April.....	100.7	115	89	439	98.4	92	311.3	154.1
May.....	99.5	114	88	438	97.2	89	305.1	150.3
June.....	97.3	113	87	425	96.2	86	297.4	146.4
July.....	98.0	115	89	430	95.9	87	295.7	147.7
August.....	97.9	117	89	415	95.4	91	295.9	155.8
September.....	100.1	119	90	413	95.1	91	299.6	167.4
October.....	99.5	118	90	412	94.3	91	298.6	169.1
November.....	99.1	120	91	413	93.9	90	298.2	177.9
December.....	99.0	119	90	413	92.4	88	295.8	184.6
1933								
January.....	96.6	117	90	411	91.0	88	292.0	185.0
February.....	96.3	124	89	404	91.2	86	286.3	179.6
March.....	95.5	123	89	390	91.1	82	281.3	177.4
April.....	94.6	122	88	387	90.7	84	279.1	176.2
May.....	96.3	123	88	383	91.9	88	278.8	176.8
June.....	98.3	123	89	403	92.9	89	-----	179.6

¹ Paper revised.

³ Department of Commercial Intelligence and Statistics.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Jugo- slavia	Nether- lands	New Zealand revised	Nor- way	Poland	South Africa	Spain	Sweden	Swit- zerland	United King- dom
Computing agency ..	National Bank	Central Bureau of Statis- tics	Census and Statis- tics Office	Central Bureau of Statis- tics	Central Office of Statis- tics	Office of Cen- sus and Statis- tics	Bureau of Lab- or Statis- tics	Board of Trade	Federal Labor Depart- ment	Board of Trade
Base period	1926 (100)	1913 (100)	1909-13 (1,000)	1913 (100)	1927 (100)	1910 (1,000)	1913 (100)	1913 (100)	July 1914 (100)	1924 (100)
Commodities	55	48	180	95	73	188	74	160	78	150
1926	100.0	145	1553	-----	88.7	1387	181	149	144.5	89.1
1927	103.4	148	1478	-----	100.0	1395	172	146	142.2	85.2
1928	106.2	149	1492	157	101.0	1354	167	148	144.6	84.4
1929	100.6	142	1488	149	95.7	1305	171	140	141.2	82.1
1930	86.6	117	1449	137	82.3	1155	172	122	126.5	71.9
1931	72.9	97	1346	122	70.5	1119	174	111	109.7	62.6
1932	65.2	79	1297	122	61.7	1031	173	109	96.0	61.1
1931										
July	74.4	97	-----	120	70.3	1104	175	110	109.5	61.5
August	73.6	94	-----	120	69.0	-----	177	109	108.1	59.9
September	71.6	91	-----	117	67.0	-----	178	107	106.3	59.7
October	69.5	89	-----	119	66.3	1109	175	108	106.4	62.8
November	68.6	89	-----	119	68.2	-----	176	110	106.2	64.0
December	67.2	85	-----	122	66.4	-----	177	111	103.1	63.7
1932										
January	67.8	84	1344	123	63.9	1083	176	109	101.4	63.7
February	67.3	83	1330	123	64.6	-----	178	110	99.6	63.4
March	67.8	82	1325	122	63.8	-----	180	109	98.7	63.0
April	66.1	80	1316	120	65.3	1062	181	109	97.7	61.6
May	65.4	79	1313	120	66.1	-----	177	109	95.6	60.6
June	64.9	78	1308	120	61.8	-----	174	108	94.5	59.0
July	65.6	76	1308	122	60.4	1002	172	108	93.6	58.8
August	62.6	75	1308	123	60.2	-----	171	108	95.0	59.9
September	61.8	76	1311	123	60.2	-----	170	110	94.8	61.4
October	63.9	77	1304	123	58.8	978	169	110	94.8	60.8
November	64.7	77	1286	124	58.4	-----	170	109	94.2	60.8
December	64.8	76	1273	123	56.1	-----	169	108	91.8	60.8
1933										
January	67.6	75	1266	122	56.3	982	169	106	91.3	60.3
February	68.4	74	1315	121	57.9	-----	168	106	90.1	59.5
March	67.0	72	1312	121	57.9	-----	-----	105	90.0	58.7
April	66.3	71	1311	121	57.6	1013	-----	105	91.1	58.5
May	64.9	72	1319	121	56.8	-----	-----	106	91.6	59.7
June	66.1	73	-----	121	58.0	-----	-----	106	91.2	61.2

PUBLICATIONS RELATING TO LABOR

Official—United States

KANSAS.—Commission of Labor and Industry. Labor Department. *Annual report, for the year ending December 31, 1932.* Topeka, 1933. 69 pp.

KENTUCKY.—Department of Mines. *Annual report, for the year ended December 31, 1932.* Lexington, 1933. 93 pp., folders.

A summary of the activities of the department, with recommendations for legislative revision of the mining laws to conform with modern operation and safety provisions. Includes a directory of mines and tables giving detailed information on employment, production, and fatal accidents. Attention is called to one explosion in which 23 workers were killed.

MASSACHUSETTS.—Department of Labor and Industries. *Thirty-first annual directory of labor organizations in Massachusetts, 1932.* Boston, [1933]. 74 pp. (*Labor Bulletin No. 165.*)

NEW JERSEY.—Department of Banking and Insurance. Bureau of Banking. *Annual report, for the year ending December 31, 1932.* Trenton, 1933. 127 pp. Contains data for the individual credit unions of New Jersey.

NEW YORK.—Department of Social Welfare. Division of Old Age Security. *Annual report, 1931-32.* Albany, [1932?]. 17 pp. (*Extract from sixty-sixth annual report of the Department of Social Welfare.*)

Shows that from September 1930 to June 30, 1932, a total of 97,053 applications for old-age relief was received, of which about one third were denied. At the end of the fiscal year 1931-32 there were 51,225 persons receiving old-age relief, of whom it is estimated one third were brought to destitution by the depression.

WISCONSIN.—Board of Vocational Education. *Bulletin No. 17: Industrial rehabilitation. Sixth biennial report, industrial rehabilitation division [1930-32].* Madison, 1932. 55 pp., maps, charts, illus.

In his letter submitting the above report, the director of the State board of vocational education states that although the placement of rehabilitated physically handicapped persons is more difficult in this period of unemployment, practically all those who have been retrained have been placed in earning positions.

UNITED STATES.—Congress. House of Representatives. Committee on Banking and Currency. *Unemployment relief. Hearings (73d Cong., 1st sess.) on H.R. 4606, a bill to provide for cooperation by the Federal Government with the several States and Territories and the District of Columbia in relieving the hardship and suffering caused by unemployment, and for other purposes, April 11-18, 1933.* Washington, 1933. 116 pp.

— Senate. Committee on Banking and Currency. *Further unemployment relief through the Reconstruction Finance Corporation. Hearings (72d Cong., 2d sess.) on S. 5336, a bill to amend the emergency relief and construction act of 1932, February 2 and 3, 1933.* Washington, 1933. 162 pp.

— Department of Commerce. Bureau of Foreign and Domestic Commerce. *Trade Information Bulletin No. 816: Iron and Steel industry and trade of India.* Washington, 1933. 23 pp.

Data on wages in the iron and steel industry of India, taken from this report, are given in this issue.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Information Circular 6724: Protective clothing in the mining industry*, by R. D. Currie and W. J. Fene. Washington, 1933. 15 pp. (Mimeographed.)

Explains the benefits to the miner, the company, and the public from the prevention of injuries through the use of protective clothing.

— — — — *Information Circular 6725: Explosives accidents in California metal mines*, by S. H. Ash. Washington, 1933. 18 pp. (Mimeographed.)

Analyzes the cause and cost of explosives accidents and advocates the use of electric blasting.

— — — — *Information Circular 6726: Safety practices in tunneling operations at the Hetch Hetchy water-supply project, city and county of San Francisco, Calif.*, by S. H. Ash and C. R. Rankin. Washington, 1933. 15 pp., diagrams.

A report on the methods followed to reduce accident costs during 11 years' work on this project.

— — — — *Information Circular 6731: Accident prevention at the New Black Diamond coal mine*, Washington, by S. H. Ash and R. W. Smith. Washington, 1933. 20 pp. (Mimeographed.)

Results of decision by the management that avoidable accidents must stop and that essentially all accidents are avoidable.

— — — — *Information Circular 6733: Evolution of methane detecting devices for coal mines*, by L. C. Ilsley and A. B. Hooker. Washington, 1933. 12 pp. (Mimeographed.)

Discusses in detail the various old and modern devices for detecting methane (firedamp) in coal-mine atmospheres.

— — — — *Information Circular 6734: Metal-mine ventilation*, by D. Harrington. Washington, 1933. 11 pp. (Mimeographed.)

Explains the necessity of adequate ventilation and requirements to obtain it.

— — — — *Report of Investigations 3213: Investigations during 1932 of combustibles in manholes in Boston, Mass.*, by G. W. Jones and others. Washington, 1933. 17 pp., chart.

Result of the third year's survey for the purpose of eliminating explosion hazards in manholes.

— — — — *Report of Investigations 3216: Limits of inflammability of natural gases containing high percentages of carbon dioxide and nitrogen*, by G. W. Jones and R. E. Kennedy. Washington, 1933. 23 pp., charts. (Mimeographed.)

Contains tables showing the limits of inflammability of mixed gases.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 581: Laws relating to employment agencies in the United States as of January 1, 1933*. Washington, 1933. 164 pp.

— — — — *Bulletin No. 588: Wages and hours of labor in the dyeing and finishing of textiles, 1932*. Washington, 1933. 72 pp.

— — — — *Bulletin No. 595: Prison labor in the United States, 1932*. Washington, 1933. 216 pp.

— Women's Bureau. *Bulletin No. 104: The occupational progress of women, 1910 to 1930*. Washington, 1933. 87 pp., diagrams.

A study of the changes in the occupational distribution of women during the last two census periods. In 1930 not far from 11,000,000 were reported as being gainfully employed as compared with something over 8,000,000 in 1910. The greatest changes in distribution were a marked falling off in the number engaged in agriculture, forestry, and fishing, and large increases among those engaged in public service, professional service, and clerical occupations. The number in personal and domestic service had increased by over 600,000, but in spite of this the group showed a relative decrease, forming 29.6 percent of all women gainfully employed in 1930 against 31.3 percent in 1910.

Official—Foreign Countries

AUSTRALIA.—Bureau of Census and Statistics. *Official year book of the Commonwealth of Australia, 1932*. Canberra, 1933. xxxii, 893 pp., charts, maps.

Contains the usual comprehensive summary of Australian data, the topics covered including old-age and invalidity pensions, cooperative societies, immigration, child labor, salaries and wages paid in manufacturing industries, wholesale and retail prices, rents, industrial arbitration cases, labor organizations, etc.

BELGIUM.—Caisse Générale d'Épargne et de Retraite. *Compte rendu des opérations et de la situations, année 1932*. [Brussels, 1933?]. 88 pp.

A report on the operations of the General Savings and Retirement Fund during 1932, including information on compensation for industrial accidents.

DENMARK.—Arbejderforsikrings-Raadet. *Beretning for aaret 1931*. Copenhagen, 1933. 128 pp.

Report on social insurance in Denmark for the year 1931. Includes legislation, financial statements, etc.

— Invalidedeforsikringsraadet. *Beretning for aaret 1932*. Copenhagen, 1933. 164 pp., charts.

Report of the Invalidity Insurance Council of Denmark for the year 1932, with comparative data for earlier years. The report is in Danish with English translations of the table heads, and there is a short summary in English of the administration of the Invalidity Insurance Act.

— Statistiske Departement. *Byggevirksohmheden, 1916-31*. Copenhagen, 1933. 62 pp.

Report on housing construction in Denmark during the period 1916 to 1931. Includes information on legislation pertaining to housing and on cost of construction. The table of contents, chapter heads, and table heads are in both Danish and French.

GERMANY.—Reichskohlenrat. *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1932*. Berlin [1933]. 129 pp., charts.

Contains statistics of the coal-mining industry, including figures on wages and production, in Germany, with considerable data for other countries.

GREAT BRITAIN.—[Exchequer and Audit Department?] Committee appointed to enquire into the present position of cooperative societies in relation to income tax. *Evidence*. London, 1933. 119 pp.

The report of this committee (Cmd. 4260) was noted in the June 1933 issue of the Monthly Labor Review.

— Home Office. Factory Department. *Annual report, for the year 1932 (including a review of the years 1833 to 1932)*. London, 1933. 134 pp., map. (Cmd. 4377.)

The present year is the hundredth anniversary of the passing of the factory act of 1833 in England, and of the appointment of the first Government inspectors of factories for its enforcement. In honor of this anniversary, the report is devoted mainly to historical reviews, prepared by members of the staff, of the development of functions and responsibilities imposed by progressive legislation, while the usual discussions of the work of the past year have been reduced to brief summaries.

— Industrial Health Research Board. *Thirteenth annual report, to June 30, 1933*. London, 1933. 36 pp.

The report contains brief summaries of the studies carried out during the year covering environmental conditions such as light, heat, and noise; physiology and psychology of work; sickness and absenteeism; and vocational suitability.

— Mines Department. *Coal Mines Act, 1911: Regulations and orders relating to safety and health*. Revised to December 31, 1932. London, 1933. 172 pp.

GREAT BRITAIN.—Ministry of Labor. National Advisory Council for Juvenile Employment. *Fourth report: Hours of employment of boys and girls in "unregulated occupations."* London, 1932. 21 pp.

Reviewed in this issue.

— Unemployments Grants Committee. *Final report, December 20, 1920, to August 31, 1932.* London, 1933. 35 pp. (Cmd. 4354.)

Reviewed in this issue.

HUNGARY.—Office Central Royal Hongrois de Statistique. *Annuaire statistique Hongrois, 1931.* Budapest, 1933. 389 pp. (In French.)

The yearbook contains statistical information for Hungary for 1931 and earlier years, the subjects covered including social insurance, unemployment, industrial accidents, industrial disputes, housing, etc.

INTERNATIONAL LABOR OFFICE.—*Hours of work and unemployment. Supplement to the report to the [Tripartite] Preparatory Conference, January 1933.* Geneva, 1933. 47 pp.

— *Invalidity, old-age and widows' and orphans' insurance.* (Second item on agenda of International Labor Conference, seventeenth session, Geneva, 1933; second discussion, report II (supplement).) Geneva, 1933. 40 pp.

— *Permanent Court of International Justice: Interpretation of the convention of 1919 concerning employment of women during the night.* Geneva, 1933. 108 pp. (Official Bulletin, Vol. XVIII, No. 2, June 15, 1933.)

— *Studies and Reports, Series M, No. 10: Compulsory pension insurance—comparative analysis of national laws, and statistics.* Geneva, 1933. 782 pp.

This volume covers the scope, risks covered and cash benefits, benefits in kind, financial resources, and administrative organization of compulsory pension systems in 24 countries.

— *Unemployment insurance and various forms of relief for the unemployed.* (Third item on agenda of International Labor Conference, seventeenth session, Geneva, 1933; first discussion, supplementary report.) Geneva, 1933. 15 pp.

NOVA SCOTIA (CANADA).—Department of Public Works and Mines. *Annual report on mines, 1932.* Halifax, 1933. 285 pp., illus.

Contains reports of the deputy inspectors of mines and quarries for the fiscal year ended September 30, 1932, and includes data on fatal accidents in coal mines and a directory of coal companies and mines.

SWEDEN.—[Socialdepartementet.] Socialstyrelsen. *Kooperativ verksamhet i Sverige, år 1931.* Stockholm, 1933. 57 pp.

Data on the Swedish cooperative movement (mainly the central union, Kooperativa Förbundet, and the societies affiliated to it) for the year 1931. The report is in Swedish with table of contents and résumé in French.

Unofficial

AMERICAN ASSOCIATION FOR LABOR LEGISLATION. *An American plan for unemployment reserve funds, with revised draft of an act.* New York, 131 East 23d Street, 1933. 19 pp.

AMERICAN ASSOCIATION FOR SOCIAL SECURITY, INC. *Social security in the United States, 1933: A record of the sixth national conference on old age and social security, New York City, May 18 and 19, 1933, together with a census of old-age security in the United States.* New York, 22 East 17th Street, 1933. 123 pp.

AMERICAN MEDICAL ASSOCIATION. Bureau of Medical Economics. *Medical relations under workmen's compensation.* Chicago, 535 North Dearborn Street, 1933. 157 pp., charts.

The report covers the whole field of medical relations under workmen's compensation, and deals especially with many of the evils which have grown up under it resulting in high costs to employers and unsatisfactory care of the injured.

AMERICAN PETROLEUM INSTITUTE. Department of Accident Prevention. *Annual summary of injuries in the petroleum industry for 1932*. Dallas, Tex., 1933. 14 pp., charts.

Data from this summary are published in this issue.

AMERICAN PRISON ASSOCIATION, and OSBORNE ASSOCIATION, INC. *Fundamental questions concerning prison labor*. New York, 1933. 22 pp.

BAKER, ELIZABETH FAULKNER. *Displacement of men by machines: Effects of technological change in commercial printing*. New York, Columbia University Press, 1933. 284 pp., charts, illus.

Some of the results of this study, taken from the American Economic Review for September 1930, were given in the Monthly Labor Review for February 1931 (pp. 78, 79).

BOOTHE, VIVA. *Salaries and the cost of living in twenty-seven State universities and colleges, 1913-1932*. Columbus, Ohio State University Press, 1932. 158 pp., charts.

BRECKINRIDGE, SOPHONISBA P. *Women in the twentieth century: A study of their political, social, and economic activities*. New York, McGraw-Hill Book Co., Inc., 1933. 364 pp.

One of a series of monographs published under the direction of the President's Research Committee on Social Trends. The discussion is confined to the activities of women outside their homes, and deals with these under the three heads of their organizations, their search for gainful employment, and their relationship to government.

CLARK, EVANS. *How to budget health: Guilds for doctors and patients*. New York, Harper & Bros., 1933. 328 pp., charts.

This volume by the director of the Twentieth Century Fund embodies the results of studies made by this organization on the problem of medical costs. The solution proposed is a plan for a medical guild modeled somewhat on the guilds of the middle ages.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE ET CHAMBRE SYNDICAL FRANÇAISE DES MINES MÉTALLIQUES. *Annuaire: Houillères—mines de fer—mines métalliques*. Paris, 35 Rue Saint-Dominique, 1933. [Various paging.]

The annual report of the central committee of coal operators contains statistics of wages in coal and lignite mines in France in 1930 and of production in 1931 and 1932 and the mineral production in France and its colonies from 1928 to 1932.

DOUGLAS, PAUL H. *Standards of unemployment insurance*. Chicago, University of Chicago Press, 1933. 251 pp. (Social Service Monographs, No. 19.)

This study of the problem of insurance against unemployment covers all phases of the subject. The author favors joint contributions by both employers and workers rather than by the employers alone as is provided in the Wisconsin act, and also prefers a centralized non-profitmaking State fund jointly administered by representatives of the workers and employers rather than the Wisconsin plan providing for separate plant reserves. The appendixes contain reports of the Interstate Commission on Unemployment Insurance and of the American Federation of Labor, as well as the text of the Wisconsin act and of the bill proposed in Ohio.

EESTI AADRESS-RAAMAT 1932. Tallinn [1932?]. 522 pp.

Directory of State and private institutions, establishments and organizations, industrial firms, etc., in Estonia, including consumers' cooperative associations and producers' and cooperative banks and insurance associations.

ENGINEERING NEWS-RECORD. *Construction costs, 1910-1932*. New York, 330 West 42d Street, 1933. 84 pp., maps, diagrams.

EWING, JOHN BERTIVELL. *Job insurance*. Norman, Okla., University of Oklahoma Press, 1933. 263 pp.

The two types of unemployment insurance bills introduced in various States, namely, those in which the emphasis is on prevention of unemployment and those in which the stress is on relief, are discussed and compared by the author. The appendixes contain a discussion of the report of the Ohio Commission on Unemployment Insurance and a summary of the bill drafted by the commission, an account of a standard plan developed in Wisconsin, standards for job insurance developed by the American Federation of Labor, and a discussion of the constitutionality of unemployment insurance or reserves.

HEINZ, FRIEDRICH WILHELM. *Kameraden der Arbeit*. Berlin, Frundsberg-Verlag, 1933. 155 pp., illus.

Deals with the voluntary labor service and compulsory labor service in Germany. Compulsory labor service, similar to that in Bulgaria, will begin in Germany on January 1, 1934, under the slogan, "Labor service, not unemployment!"

INSTYTUT GOSPODARSTWA SPOŁECZNEGO. *Pamiętniki bezrobotnych*, Nr. 1-57. Warsaw, Poland, 1933. 604 pp., map

The volume contains 57 stories (memoirs) of unemployed workers of various occupations, out of 774 stories collected in 1932 by the Institute of the Polish Republic. Each story contains personal characteristics of the unemployed worker interviewed, his trade, family status, etc., followed by a description of his experiences as a worker, employed and unemployed, his experiences in searching for work and relief, and his opinions of and attitudes toward society, State, industries, employers, and fellow workers, etc. Printed in Polish with French résumé.

JEANES, W. W. *Housing of families of the American Federation of Full-Fashioned Hosiery Workers, Local Nos. 1 and 39, Philadelphia, June-July 1932*. Philadelphia, Kastner & Stonorov, Architects, 1933. 69 pp., maps, charts. (*Studies in Social Economy, Carola Woerishoffer Graduate Department of Social Economy and Social Research, Bryn Mawr College.*)

Reviewed in this issue.

KIRSH, BENJAMIN S., and SHAPIRO, HAROLD ROLAND. *The National Industrial Recovery Act—an analysis*. New York, Central Book Co., 1933. 156 pp.

This volume, dealing with the industrial control provisions under the National Industrial Recovery Act, takes up in turn the need for the legislation, an explanation of it, and the rights of different groups under the machinery set up. The authors regard the act as the embodiment of the most progressive social legislation ever enacted in the United States.

KUCZYNSKI, JÜRGEN. *Löhne und Konjunktur in Deutschland, 1887-1932*. Berlin-Schlachtensee, Terrassenstrasse 17, 1933. 40 pp.

Discusses wages and general economic conditions in Germany during the period 1887-1932.

MINNESOTA, UNIVERSITY OF. Employment Stabilization Research Institute. *Bulletins Vol. II, No. 2: A personnel study of Duluth policemen, by Harold S. Diehl and others*. Minneapolis, 1933. 24 pp.

A report of a study of 124 policemen, including their case histories, an analysis of their educational and occupational aptitude, personality and interest test scores, and the results of their medical examinations.

——— *Scientific management an aid to industrial control, by George Filipetti*. Minneapolis, 1933. 58 pp.

MOULTON, HAROLD G., and others. *The American transportation problem. Prepared for the National Transportation Committee*. Washington, Brookings Institution, 1933. lxxix, 915 pp., charts, illus.

NATIONAL INDUSTRIAL CONFERENCE BOARD, INC. *Collective bargaining through employee representation. New York, 247 Park Avenue, 1933. 81 pp., diagrams.*

This report, which gives a historical outline of employee representation plans in this country and a summary of the structure and operation of such plans, is predicated on the idea that the National Industrial Recovery Act leaves to the administrative authority the power to determine what constitutes collective bargaining and whether or not existing employee representation plans comply with the requirement of the law.

NUSSBAUM, FREDERICK L. *A history of the economic institutions of modern Europe. New York, F. S. Crofts & Co., 1933. 448 pp., maps, illus.*

PHILADELPHIA HOUSING ASSOCIATION. *Rent changes in industrial housing, Philadelphia, 1932. Philadelphia, 1600 Walnut Street, 1933. 10 pages, chart. (Mimeographed.)*

Reviewed in this issue.

PIGOU, A. C. *The theory of unemployment. London, Macmillan & Co., Ltd., 1933. 319 pp.*

PRINCETON UNIVERSITY. Industrial Relations Section. *Employee representation: Selected references. Princeton, N.J., 1933. 6 pp. (Mimeographed.)*

— — — *Minimum wage legislation in the United States—summary of fact and opinion. Princeton, N.J., 1933. 29 pp. (Mimeographed.)*

ROSS, CHARLES FREDERICK, EDITOR. *Stabilization of employment. Bloomington, Ind., Principia Press, Inc., 1933. 300 pp., charts.*

A collection of papers dealing with the problem of stabilizing employment, presented at the annual meeting of the American Association for the Advancement of Science. All phases of the subject were dealt with including the questions of technological unemployment, the social effects of mass production, unemployment insurance, the use of public works as a stabilizer of employment, and prices and monetary problems.

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 119: Social aspects of the depression—a selected bibliography. New York, 130 East 22d Street, June 1933. 4 pp.*

TEAD, ORDWAY, AND METCALF, HENRY C. *Labor relations under the Recovery Act. New York, McGraw Hill Book Co., Inc., 1933. 259 pp.*

The authors deal with the practical considerations to be met by trade associations and employers in the conduct of their relations with their employees, especially as these relations are affected by the National Industrial Recovery Act.

TOKYO CHAMBER OF COMMERCE AND INDUSTRY. *Annual statistical report, 1932-Tokyo, 1933. 274 pp. (In Japanese and English.)*

Includes data on wages and prices in Tokyo from 1921 to the close of 1932, and on number of employees in factories in Tokyo from 1912 to 1931 and in the country as a whole from 1914 to 1931.

WILLEFORD, MARY B. *Income and health in remote rural areas. New York, Frontier Nursing Service, Inc., 1932. 91 pp., maps, diagrams.*

This study deals with the relation of the incomes of 400 families in a remote section of Kentucky to the kind and amount of medical service secured by them. The study gives the cost of medical care and of medicines purchased by this group and shows the extent to which people living under such economic and geographic conditions can obtain medical care out of their own resources.

YODER, DALE. *Labor economics and labor problems. New York, McGraw-Hill Book Co., Inc., 1933. 630 pp., charts.*



