UNITED STATES DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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MONTHLY LABOR REVIEW

VOLUME 34 NUMBER 6

JUNE, 1932

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1932

For sale by the Superintendent of Documents, Washington, D. C.
Subscription price per year: United States, Canada, Mexico, $1.50; Other Countries, $2.25

CERTIFICATE

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats. 1430) approved March 4, 1921.

Contents

This Issue in Brief

More than 76,000 needy old people were being cared for by public pensions at the end of 1931. This was disclosed by a survey just made by the Bureau of Labor Statistics. While 17 States had pension laws on their statute books at the end of 1931, the law had not been put into actual operation in two of these. About two-fifths of the counties in the other 15 States had adopted the system, and these spent more than $16,000,000 for the support of their needy aged in 1931.

In 4 of the States the system is practically state-wide, while in the remaining 11 States the protection afforded by the law ranges from less than 1 per cent of the State population (in Kentucky) to 80 per cent (in Montana). As would be expected, the spread of the system has been much greater in the States with "mandatory" than in those with "voluntary" systems. Page 1259.

Technological changes in ticker systems for handling market quotations have had an important effect on the employment of telegraphers. There has been a greater indirect displacement of Morse operators than a direct displacement of ticker operators. This is shown in a study made by the Bureau of Labor Statistics. Because of automatic reception by tickers, the number of ticker operators has never been large. But the country-wide extension of ticker service has eliminated large numbers of telegraphers (mainly Morse operators) formerly employed and has made unnecessary the employment of even larger numbers which would have been required to meet the growing demand for market news. Page 1269.

Large numbers of children in the United States are still engaged in taxing, disagreeable, and even dangerous occupations. This is made evident in a report of the subcommittee on child labor of the White House Conference on Child Health and Protection recently issued, which brings together all the available data on child labor in this country. Employment in agricultural and nonagricultural work, hazardous occupations, industrial accidents to minors, and administration of laws affecting the employment of minors are all covered in the report, which is reviewed on page 1278.

The question of unemployment relief received special attention by the State legislatures in session during 1931. Many States had special sessions to cope with this problem. The form of relief has varied in the several States. Some States have provided direct relief, while others have provided for a public construction program and a few have delegated to local governments or political subdivisions the power to provide relief. Page 1287.

The mortality experience of the International Typographical Union for 1931 showed a slight increase over the previous year in the number of deaths from pulmonary tuberculosis and cancer and a marked increase in mortality from diabetes. The number of deaths from nephritis, which is often held to mask deaths from lead poisoning, has decreased during recent years, and during the past three years

no deaths have occurred from lead poisoning. This notable improvement in a former serious hazard of the printing industry is the result of better sanitation and ventilation of printing plants throughout the country. Page 1310.

Liability for "second injuries" has become a live question in workmen's compensation administration. The question involved is whether the employer shall be held liable for the total disability of the combined injuries or only for the injury suffered while in his employment. Some States have provided "second-injury funds" to pay the compensation for the disability due to the prior accident. The provisions for second injuries under the workmen's compensation laws are discussed and the text of the legislation quoted, beginning on page 1329.

Earnings of employees of gasoline filling stations averaged 39.3 cents per hour in 1931, according to a study by the Bureau of Labor Statistics, the first made by the bureau for these workers. The range in hourly earnings in the different occupations was from 19.3 cents for porters to 63.1 cents for managers. Full-time weekly earnings averaged $23.58, the range being from $12.56 for porters to $36.16 for managers. Average full-time working hours per week ranged from 48.3 for relief men to 67.9 for tire men, while the hours actually worked ranged from 46.6 for relief men to 67.8 for tire men. Page 1388.

Hourly earnings in metalliferous mining in 1931 averaged the same as in 1924—55.9 cents—although full-time earnings per week showed a reduction from $29.63 in 1924 to $28.84 in 1931. Nominal full-time hours per week averaged 51.6 in 1931 as compared with 53 in 1924. These and other data from the 1924 and 1931 surveys by the Bureau of Labor Statistics of wages and hours of labor in this industry are given on page 1394.

Average hourly earnings in the slaughtering and meat-packing industry in 1931 were 47 cents for males and 32.1 cents for females, as compared with 52.5 cents for males and 36.9 cents for females in 1929, the date of the last previous study of wages and hours of labor in this industry by the Bureau of Labor Statistics. Full-time weekly earnings of males in 1931 averaged $23.12 and of females $15.70, as compared with $25.88 and $18.04, respectively, in 1929. Average full-time hours per week of males in 1931 were 49.2 as compared with 49.3 in 1929; for females they averaged the same in 1929 and 1931—48.9. Page 1401.

MONTHLY
LABOR REVIEW
U. S. BUREAU OF LABOR STATISTICS

VOL. 34, NO. 6 WASHINGTON JUNE, 1932

Operation of Public Old-Age Pension Systems in the United States in 1931

AT THE end of 1931 old-age pension legislation had been enacted in 17 States.[1] The year 1931 marked the greatest progress in pension legislation thus far, five States (Delaware, Idaho, New Hampshire, New Jersey, and West Virginia) having legislated on the subject during the year. However, although 17 States had old-age pension laws, in not all of them had the system actually been put into effect. Pensions were being paid in some or all of the counties of 15 States. In New Jersey the law did not become operative until January 1, 1932, and pensions will not be paid until July 1, 1932. The West Virginia act went into effect June 11, 1931; but as it provides that the matter of adoption by the individual counties must be voted upon at an election, no action toward acceptance of the system will be taken in that State until November, 1932.

In the States of California, Delaware, Massachusetts, and New York, the operation of the old-age pension system is practically state-wide.

The Colorado law became mandatory January 1, 1932; but while one or two counties anticipated this and put the system into effect in the latter part of 1931, reports from many counties in the State indicate that no action will be taken to provide funds until the fall of 1932. Both the adoption of the plan and payment of pensions under it in this State have also been delayed pending the outcome of a suit in the Denver district court attacking the constitutionality of the act. The court upheld the act, but reports indicate that the case will be carried to the Colorado Supreme Court.

In Idaho and New Hampshire, two States in which the act was passed in 1931, the old-age pension plan has gotten off to a very good start, although the reports indicate that actual payment of pensions in most of the counties of Idaho did not begin until January, 1932. Payments began in New Hampshire about October 1, 1931.

Montana and Wisconsin each show a gain of one county since 1930.

The Kentucky act remains, as before, practically inoperative, due in large part, it would seem, to the poverty of the counties. Baltimore city was the only part of Maryland in which the pension plan was effective in 1931; in the remainder of the State the counties continue to care for needy aged under the poor-relief system.

[1] California, Colorado, Delaware, Idaho, Kentucky, Maryland, Massachusetts, Minnesota, Montana, Nevada, New Hampshire, New Jersey, New York, Utah, West Virginia, Wisconsin, and Wyoming.

Minnesota is like West Virginia in that its law provides that before the adoption of the plan the matter must be placed before the voters at a general election. In 1930 the old-age pension measure passed by a majority vote in four counties, and in three of these pensions are being paid. As no general election took place in the State in 1931, no further progress was made and none can be made until November, 1932, when the matter may be voted upon and possibly adopted by other counties.

In Nevada in 1931, as in 1930, only two counties were paying pensions.

Wyoming, whose legislature in 1931 amended its act so as to permit a special tax levy for the raising of funds for pensions, shows a gain of 8 counties in 1931 over 1930.

The above data and those shown in the following pages were obtained by the Bureau of Labor Statistics in its third survey, just completed, of the operations under the State old-age pension laws. This survey covered the year 1931, the other two having covered 1930 and 1928, respectively. Where possible the data were obtained from State officials, covering the whole State; this was done in the case of California, Delaware, Kentucky, Maryland, Massachusetts, Montana, New York, and Wisconsin. In the other States the information was obtained directly from the counties.

In all but two States (Delaware and Massachusetts) the primary pension agency is the county. In Massachusetts the primary agency is the town or city, and in Delaware the whole system is conducted by a State commission; for statistical purposes, however, the data for all States are shown on a county basis.

Of 681 counties in the 15 States in which the pension system was in operation in some measure at the end of 1931, reports were received for 645, or 95 per cent. The data given can therefore be accepted as representative of the pension situation as of the end of 1931. Of these 645 counties, 268, or about 42 per cent, had adopted the system. At the end of 1931 they were caring for 76,349 needy old people and had spent during the 12 months preceding $16,173,207.

Of the 15 States represented, 75 per cent of the total number of pensioners and almost 90 per cent of the total expenditure were accounted for in the two States of California and New York.

From 1930 to 1931 the number of aged receiving assistance under the old-age security laws increased from 10,307 to 76,349, while the annual amount spent for their support increased from $1,714,388 to $16,173,207. How much of this was a normal increase and how much due to unusual circumstances created by the depression, it is difficult to say. The administrative authorities in New York and Massachusetts estimate, however, that the number of pensioners has been increased by 30 and 35 per cent, respectively, by this cause alone. It is pointed out that a new type of dependent has been created, a "class of people who have never asked us for any kind of assistance before." [2] Many old people formerly able to earn their livelihood are now unemployed. A certain proportion of these, however, are merely temporary pensioners; when better times come they will be returned to the care of relatives who at present, because of

[2] American Association for Old Age Security. Old-age security in the United States, 1932: A record of the fifth national conference on old-age security, New York City, Mar. 30, 1932, pp. 39. 56.

loss of employment or greatly decreased earnings, are not able to support them.

Summary data as to the 1931 operations in the various States are given in Table 1.

TABLE 1.—SUMMARY OF OPERATIONS UNDER STATE OLD-AGE PENSION LAWS, 1931

State	Year of passage of law	Counties in State		Counties having pension system		
		Total	Number reported for	Number	Number of pensioners	Amount paid in pensions, 1931
California	1929	58	58	57	[1] 9,887	[2] $2,460,000
Colorado	1927	63	54	7	50	2,190
Delaware	1931	3	3	3	1,497	[3] 66,568
Idaho	1931	44	38	[4] 31	[4] 698	4,224
Kentucky	1926	120	120	1	10	1,000
Maryland	1927	24	24	1	150	50,000
Massachusetts	1930	[5] 14	[5] 14	[5] 14	11,076	[3] 904,939
Minnesota	1929	87	87	4	[6] 1,227	[6] 94,068
Montana	1923	56	56	45	1,130	178,934
Nevada	1925	17	13	2	34	7,360
New Hampshire	1931	10	6	5	246	[7] 3,614
New York	1930	62	62	62	47,585	12,007,352
Utah	1929	29	22	12	873	92,305
Wisconsin	1925	71	71	9	1,597	283,848
Wyoming	1929	23	17	15	289	16,805
Total	-------	681	645	268	76,349	16,173,207

[1] As of Jan. 31, 1932.
[2] Estimate, based on reports for June, 1931, and January, 1932.
[3] 6 months.
[4] But only 2 of these counties, with 143 pensioners, actually paid any pensions during 1931.
[5] System is not, however, a county system, but a city-and-town system; of 355 cities and towns in the State all were reported for, but 22 (of which only 1 was large enough to have its population figures shown separately in the population census) had not put the pension system into effect.
[6] 3 counties.
[7] 3 months.

Development of Pension System Under "Voluntary" and "Mandatory" Laws

IN TABLE 2 the States are classified according to the type of law in effect. For States in which the law was not clearly mandatory or clearly voluntary the classification was made by the bureau on the authority of the officials of the State concerned.

The early old-age pension laws in the United States were nearly all of the type which left the adoption of the system to the option of the counties. A definite trend toward the mandatory form is discernible of late years, however. Of the 12 laws on the books at the end of 1930, 5 were mandatory. Of the five laws passed in 1931, four were mandatory, while the 1931 legislatures of Colorado and Wisconsin changed their laws from the optional to the mandatory form.

Another definite trend is toward State aid in increasing proportions. At the end of 1928, of the six States with pension legislation, only Wisconsin provided for State aid (to the extent of one-third of the cost). At the end of 1930, of the 12 States with such laws, 4 provided for State aid; one-half of the total cost was at that time the maximum proportion met from State funds. In 1931, of the 5 States passing new pension laws, 2 provided for State participation in cost, 1 to the extent of three-fourths and the other the entire cost. Of the 17 States now having such laws, 6 have the State-aid plan, 2 bearing one-third, 2 one-half, 1 three-fourths, and 1 all of the cost.

Among the "voluntary" or "optional" States it is seen that the greatest proportion of adopting counties occurs in Montana and Wisconsin, in the order named. That the larger and more populous counties are the ones which have seen the value of the pension system is also shown. Thus, although in Minnesota only 4 of the 87 counties have adopted the system, these contain over two-fifths of the entire population of the State. Baltimore, the only part of Maryland which is paying old-age pensions, contains nearly half of the State population. In Wisconsin, the nine counties (one-eighth of the whole number) which have accepted the pension system contain some three-eighths of the State population. Four-fifths of Montana's population have the protection of the old-age pension law.

At the other end of the scale is Kentucky, where the law is practically a dead letter, only 1 of the 120 counties (with 0.3 per cent of the State population) having paid pensions in 1931. The report for that State, by the State bureau of agriculture, labor and statistics (which made a survey of the pension system there, on behalf of the United States Bureau of Labor Statistics), indicates that many counties favor the system and even in those counties in which opinion is unfavorable the opposition rests mainly on the poverty of the county and the resultant lack of funds; there is also some dissatisfaction with certain features of the law as now written. In lieu of the pensions, a certain amount of poor relief is being carried on in the State.

As would be expected, a much wider use of the pension system is shown in the "mandatory" States, particularly those in which the State bears some part of the cost. In California, Delaware, Massachusetts, and New York the system is practically state-wide. California had only one county (whose population was 241) in which no pensions were being paid at the end of 1931. In Massachusetts, where the system is a town-and-city, not county, plan, in only 22 out of 355 cities and towns in the State were no pensions being paid; that these form a very small part of the State is shown by the fact that only one of the nonpaying communities was large enough to warrant separate presentation in the census statistics of population. It is significant that in California and New York the State pays half of the cost of the pensions, and in Delaware the whole cost. In Massachusetts the law provides in general for State aid to the extent of one-third of the cost, but under a ruling of the State attorney general on a 1931 amendment to the act the State must bear the whole cost during the years 1931 and 1932. In the other five mandatory States the entire cost must be met by the counties. It is seen that the coverage (i. e., the proportion of the population in the adopting counties) in these States ranges from 10 per cent in Colorado to nearly 80 per cent in Wyoming. The mandatory feature of the Colorado law became operative only on January 1, 1932, and is now being questioned in the courts, this tending to delay the adoption of the system. In New Hampshire the law became effective only on September 1, 1931, but already the accepting counties afford protection to two-thirds of the State population. Idaho, another new pension State, has also shown a remarkable degree of favor toward the system.

TABLE 2.—EXTENT AND COVERAGE OF PENSION SYSTEM IN SPECIFIED STATES, BY TYPE OF LAW[1]

State, and type of law	Population of State, 1930	Number of counties in State	Counties having pension system[2]		
			Number	Population	Per cent of State population
Voluntary					
Kentucky	2,614,589	120	1	8,584	0.3
Maryland	1,631,526	24	1	804,874	49.3
Minnesota	2,563,953	87	4	1,033,855	40.3
Montana	537,606	56	45	431,342	80.2
Nevada	91,058	17	2	9,199	10.1
Wisconsin	2,939,006	71	9	1,097,277	37.3
Mandatory					
California	5,677,251	58	57	5,677,010	[3] 100.0
Colorado	1,035,791	63	7	104,374	10.1
Delaware	238,380	3	3	238,380	100.0
Idaho	445,032	44	31	278,421	62.6
Massachusetts	4,249,614	14	14	4,234,530	99.6
New Hampshire	465,293	10	5	311,398	66.9
New York	12,588,066	62	62	12,588,066	100.0
Utah	507,847	29	12	315,365	62.1
Wyoming	225,565	23	15	176,019	78.0

[1] New Jersey and West Virginia are not shown in this table because in neither are pensions being paid; the New Jersey law is mandatory and that of West Virginia voluntary.
[2] Includes also those which, although they have adopted the system, have not yet put it into effect.
[3] Actual percentage is 99.99+.

Cost of Pensions

TABLE 3 shows the proportion of pensioners in the population and the cost of pensions in those counties which were paying pensions in 1931.

It is seen that the highest percentage of pensioners is in Delaware, surpassing in this respect even such industrial States as Massachusetts and New York.

The average annual amount disbursed per pensioner is, of course, affected by a number of factors, such as the limitations set by the various State laws, the pensioners' circumstances, the number of deaths during the year, the funds available, etc. The largest average amounts spent were those of California, Maryland, and New York. In Maryland, however, the figure shown in the table is based upon the sum of $50,000 reported as having been appropriated and spent; the validity of the average in this case is open to question.

The average annual cost of the pensions per inhabitant, in the counties having the pension plan, ranged from 7 cents in New Hampshire to 95 cents in New York.

TABLE 3.—COST OF OLD-AGE PENSIONS IN SPECIFIED STATES IN 1931

State	Per cent pensioners form of total population in counties with system [1]	Annual amount disbursed per pensioner [2]	Average annual cost per capita of population, in counties with system
California	0.17	$248.81	$0.43
Colorado	.05		
Delaware	.63	88.94	.56
Idaho	.25		
Kentucky	.12	96.00	.12
Maryland	.02	333.33	.06
Massachusetts	.26	163.41	.43
Minnesota	.12	76.67	.09
Montana	.26	158.35	.41
Nevada	.37	216.47	.80
New Hampshire	.08	110.35	.07
New York	.38	255.33	.95
Utah	.28	109.76	.30
Wisconsin	.15	177.74	.26
Wyoming	.19	69.16	.16
Total	.28	227.42	.64

[1] Based on counties reporting number of pensioners.
[2] In counties reporting both number of pensioners and amount disbursed.

In general it may be said that most of the objections to the pension system are based either on the cost to the taxpayer or on the charge that the pension discourages thrift and decreases the sense of family responsibility.

Some of the county reports call attention to the fact that the county has a large sum of money invested in the almshouse and does not feel it can incur additional expense, since as long as there are any inmates at all at the poor farm the plant there must be maintained. Many of the reports from counties in States having purely county systems indicate that lack of resources is the chief factor in keeping the county from adopting the plan. Many favor a State system which would distribute the cost of plan over the whole State, pointing out that those counties which have the greatest proportion of aged poor and which therefore need the pension system most are precisely the counties whose resources are least. Thus of 120 counties in the State of Kentucky, only 1 county is paying pensions; 66 have almshouses, while others are supporting certain needy cases in private homes. Others apparently have no form of relief. One of these reports that it is "miserably in debt" and has "no poor farm or institution of any sort and can not support one."

Average Pensions Paid

TABLE 4 shows, where available, the lowest, highest, and average monthly pensions in the various pension States in 1928 (the year of the bureau's first study), in 1930, and in 1931. The "average pension" here shown is the average of amounts paid in individual cases, as distinguished from the average amount disbursed (obtained by dividing the amount spent in pensions by the number of pensioners). The difference may be illustrated by the following case: In California in 1930 the amount of monthly pension reported in individual counties was as low as $10 in some cases and as high as $27.76 in others; by weighting the amount of individual pensions by the number receiving them an average pension for all was obtained of $22.69. This takes no consideration of the period during the year for which the pension may

have been paid, a pension of $25 paid for one month having as much weight as one of the same amount paid for 12 months. On the other hand, on the basis of the total number of pensioners and the total amount paid out in pensions, the average amount disbursed per pensioner in this State for 1930 was $15.63. In the latter case the amount is affected, of course, by the period for which the pension was paid in each case.

It is seen that in most of the States there is a considerable margin between the average pension actually granted and the maximum possible under the law.

TABLE 4.—LOWEST, HIGHEST, AND AVERAGE MONTHLY PENSIONS PAID IN SPECIFIED STATES, 1928, 1930, AND 1931

State	1928			1930			1931			Maximum payable under State law
	Lowest	Highest	Average	Lowest	Highest	Average	Lowest	Highest	Average	
California				$10.00	$27.76	$22.69	(1)	(1)	[2] $23.16	$30.00
Colorado	$10.00	$10.00	$10.00				$15.00	$26.00	19.35	30.00
Idaho							10.53	15.00	10.62	25.00
Kentucky	20.00	20.00	20.00	5.00	12.00	5.39	8.00	8.00	8.00	20.83
Maryland				12.00	12.00	12.00	(1)	(1)	30.00	30.00
Minnesota							16.75	17.00	16.89	30.00
Montana	9.00	25.00	16.46	7.00	25.00	15.46	(1)	(1)	(1)	25.00
Nevada	15.00	15.00	15.00	25.00	25.00	25.00	16.65	25.00	17.63	30.00
New Hampshire							19.63	22.50	20.83	32.50
New York							(1)	(1)	26.80	[3]
Utah				4.00	15.00	9.68	3.00	11.35	8.62	25.00
Wisconsin	17.40	21.81	18.25	5.00	30.00	19.71			19.67	30.00
Wyoming				13.50	15.50	14.31	10.00	18.00	12.80	30.00
Total	9.00	25.00	17.10	4.00	30.00	20.04	3.00	26.00	25.45	

[1] No data. [2] Estimated. [3] No limit.

As the table shows, the smallest average monthly pensions in 1931 were those of Kentucky and Utah. Several reports from Utah express the opinion that the amounts awarded in pensions are too small, but state that they are all that the county, by itself, can afford; one of these takes the position that the State should pay a like amount.

Delaware, which is not shown in the table because no pensions were paid in 1930, was, at the end of 1931, paying an average pension of $9.54 per month. As regards this point, it is pointed out that the amounts are limited by the appropriations available; also, that many of the pensioners live on farms in the southern part of the State, where living costs are very low.

Progress of Old-Age Pension Movement

TABLE 5 shows in summary form the spread of the pension system since 1928. In that time the number of States with old-age pension laws has tripled.

Whereas in 1928 financial assistance in old age was secured to only about one-twelfth of the population in those States having pension laws, by the end of 1930 over half, and in 1931 more than three-fourths, were so protected.

TABLE 5.—PROGRESS IN OLD-AGE PENSION MOVEMENT, 1928 TO 1931

Item	1928	1930	1931
Number of States having law at end of year	6	12	17
Number in which benefits were being paid	5	9	15
Counties in States with pension law:			
Total	327	461	681
Number paying benefits	52	137	267
Population of States with law in operation:			
Whole State	7,218,050	15,260,239	35,810,577
Counties with system—			
Number of inhabitants	629,986	8,482,092	27,308,694
Per cent of State population	8.7	55.6	76.3
Number of pensioners	1,003	10,307	76,349
Amount paid in pensions	$208,624	$1,714,388	$16,173,207

Table 6 shows the situation in those States in which the pension system was in operation in both 1930 and 1931. Some gains and some losses are shown, the greatest gains in number of adopting counties being in Colorado and Wyoming. The number of pensioners rose from 10,000 to 14,000, but the outlay for the purpose nearly doubled.

TABLE 6.—NUMBER OF ADOPTING COUNTIES, NUMBER OF PENSIONERS, AND AMOUNT SPENT IN PENSIONS IN IDENTICAL STATES, 1930 AND 1931

State	Number of counties with system		Number of pensioners		Amount spent in pensions		Average pension	
	1930	1931	1930	1931	1930	1931	1930	1931
California	57	57	7,205	9,887	$1,296,455	[1] $2,460,000	$22.69	[1] $23.16
Colorado	1	7	------	50	----------	2,190	--------	19.35
Kentucky	2	1	18	10	1,164	1,000	5.39	8.00
Maryland	2	1	12	150	1,800	50,000	12.00	30.00
Montana	44	45	889	1,130	149,100	178,934	15.46	[2]
Nevada	2	2	5	34	900	7,360	25.00	17.63
Utah	13	12	1,107	873	95,780	92,305	9.68	8.62
Wisconsin	8	9	989	1,597	156,510	283,848	19.71	19.67
Wyoming	7	15	82	289	12,679	16,805	14.31	12.80
Total	136	149	10,307	14,020	1,714,388	3,092,442	20.00	20.99

[1] Estimated. [2] No data.

The development of the pension system in the various States since the passage of the laws is shown in Table 7.

The results of the 1931 amendment to the Colorado law, making the adoption of the system mandatory upon the counties, is shown by the figures for that State, although, as already indicated, the progress was not so great as had been expected, due to the feeling of uncertainty as to the constitutionality of the law.

TABLE 7.—DEVELOPMENT OF PENSION SYSTEM IN SPECIFIED STATES SINCE PASSAGE OF LAW

State and year of act	Year	Number of counties		Number of pensioners	Amount spent	Average annual amount spent per pensioner	Coverage of system [1]
		Total	Adopting				
California (1929)	1930	58	57	7,205	$1,296,455	$187.56	100.0
	1931	58	57	9,887	[2] 2,460,000	[2] 248.81	100.0
Colorado (1927)	1928	63	1	1	120	120.00	.9
	1930	63	1				3.5
	1931	63	7	50	2,190		10.1
Delaware (1931)	1931	3	3	1,497	66,568	88.94	100.0
Idaho (1931)	1931	44	31	698	4,224		62.6
Kentucky (1926)	1928	120	3	30	8,064	240.00	1.9
	1930	120	2	18	1,164	64.68	1.0
	1931	120	1	10	1,000	96.00	.3
Maryland (1927)	1928	24					
	1930	24	2	12	1,800	144.00	50.5
	1931	24	1	150	50,000	333.33	49.3
Massachusetts (1930)	1931	14	14	11,076	[3] 904,939	163.41	99.6
Minnesota (1929)	1931	87	4	1,227	94,068	76.67	40.3
Montana (1923)	1923	56	29	349	22,870	65.53	54.9
	1924	56	37	521	78,158	150.02	63.5
	1925	56	39	583	100,369	172.14	62.7
	1926	56	39	584	104,863	179.56	64.8
	1927	56	42	693	115,400	166.52	78.1
	1928	56	42	884	146,510	165.73	78.4
	1929	56	44	875	146,746	167.71	79.7
	1930	56	44	889	149,100	169.08	76.6
	1931	56	45	1,130	178,934	158.35	80.2
Nevada (1925)	1928	17	2	11	1,680	180.00	17.3
	1930	17	2	5	900	300.00	5.1
	1931	17	2	34	7,360	216.47	10.1
New Hampshire (1931)	1931	10	5	246	[4] 3,614	110.35	66.9
New York (1930)	1931	62	62	47,585	12,007,352	255.33	100.0
Utah (1929)	1930	29	13	1,107	95,780	84.44	73.6
	1931	29	12	873	92,305	109.76	62.1
Wisconsin (1925)	1925	71	1	8	180	22.50	1.3
	1926	71	5	352	67,926	192.97	8.0
	1927	71	4	295	49,638	168.26	5.6
	1928	71	4	295	66,185	230.40	5.6
	1930	71	8	989	156,510	158.28	35.7
	1931	71	9	1,597	283,848	177.74	37.3
Wyoming (1929)	1930	23	7	82	12,679	158.52	35.0
	1931	23	15	289	16,805	69.16	78.0

[1] I. e., proportion of State population living in counties which have adopted system.
[2] Estimated.
[3] 6 months.
[4] 3 months.

Table 8 shows in summary form the provisions of the old-age pension laws of the 17 States which have legislated in this field.

TABLE 8.—PROVISIONS OF OLD-AGE PENSION LAWS

State	Old-age pension act (original act)		Type of law	Maximum pension	Eligibility requirements					Funds furnished by—
	Year of passage	Date effective			Age	Required period of—			Maximum property limit	
						Citizenship	Residence			
							State	County		
						Years	*Years*	*Years*		
California	1929	Jan. 1, 1930	Mandatory	$1 a day	70	15	15	1	Assets, $3,000	County or city, half; State, half.
Colorado	1927	Mar. 19, 1927	do.[1]	do	65	15	15	15	do	County.
Delaware	1931	July 1, 1931	do	$25 a month	65	[2] 15	5			State.
Idaho	1931	Feb. 12, 1931	do	do	65	15	10	3	Income, $300 a year	County.
Kentucky	1926	Mar. 25, 1926	Voluntary	$250 a year	70	15	10	10	Income, $400 a year; assets, $2,500.	Do.
Maryland	1927	Apr. 26, 1927	do	$1 a day	65	15	10	10		County (or city of Baltimore).
Massachusetts	1930	July 1, 1931	Mandatory	No limit	70	([3])	20			City or county, two-thirds; State, one-third.[4]
Minnesota	1929	Mar. 1, 1929	Voluntary	$1 a day	70	[2] 15	15	15	Assets, $3,000	Payments by county; reimbursed by cities, towns, etc.
Montana	1923	Mar. 5, 1923	do	$25 a month	70	15	15		Income, $300 a year	County.
Nevada	1925	Mar. 18, 1925	do	$1 a day	65	15	10		Assets, $3,000	Do.
New Hampshire	1931	Sept. 1, 1931	Mandatory	$7.50 a week	70	15	15	15	Assets, $2,000	Payments by county; reimbursed by cities and towns.
New Jersey	1931	Jan. 2, 1932	do	$1 a day	70	([3])	15	1	Assets, $3,000	County, one-fourth; State, three-fourths.
New York	1930	Apr. 10, 1930	do	No limit	70	([3])	10	1	Unable to support self	City or county, half; State, half.
Utah	1929	May 14, 1929	do	$25 a month	65	15	15	5	Income during past year, $300.	County.
West Virginia	1931	June 11, 1931	Voluntary	$1 a day	65	15	10	10	Any property or income	Do.
Wisconsin	1925	May 12, 1925	do.[5]	do	70	15	15	15	Assets, $3,000	County, two-thirds (reimbursed by cities, towns, etc.); State, one-third.
Wyoming	1929	June 1, 1930	Mandatory	$30 a month	65	15	15	5	Income, $360	County.

[1] Became mandatory Jan. 1, 1932.
[2] Required period of residence in United States.
[3] Citizenship required but no period specified.
[4] Provision of original law, but State bears whole cost during 1931 and 1932, by ruling of State attorney general on 1931 amendment.
[5] Becomes mandatory July 1, 1933.

Productivity and Displacement of Labor in Ticker Telegraph Work

THE new high-speed ticker for handling stock-market quotations is a most remarkable labor-saving mechanism. On September 2, 1930, for example, it automatically printed the New York Stock Exchange quotations on 8,623 stock tickers in 43 States and Territories and in Canada, with circuits in 377 cities. The 17 operators in charge also handled the transmission of bond quotations, which were automatically received on 928 bond tickers. The average number of market quotation tickers in use increased from 3,706 in 1921, to 13,736 in 1929 (falling to 11,178 in 1931). The number of exchanges equipped with ticker service in 1931 was more than 30. A single company engaged in handling business news maintains news tickers in more than 100 cities.

Increasing efficiency of ticker transmission has resulted in a direct loss of employment opportunities for operators of ticker systems. But the principal effect on employment is in the encroachment of automatic ticker systems in fields of telegraphic communication formerly affording numerous opportunities to Morse telegraphers. The ticker services are thus contributing to the decline and near extinction of the Morse telegrapher except in a few relatively insignificant fields where either the inertia of tradition or the value of extreme specialization affords protection.

Evolution of High-Speed Ticker

THE forerunner of the stock ticker was a gold indicator devised by S. S. Laws, president of the Gold Exchange. The fluctuations in the value of money during the period of the Civil War led to the establishment of the Gold Exchange and to the use of a disk indicator on display in the window of the exchange. Hundreds of members of the exchange, merchants, and others sent their messengers to the exchange to note the readings on the indicator. This prompted the idea of installing electrically controlled indicators in the offices of members. The idea of printing the characters on a ribbon of paper was contributed by Edward A. Callahan in 1866. By Black Friday, September 24, 1869, when the attempted corner of the gold market by Fisk and Gould collapsed and price fluctuations became less violent, indicators had been installed in 300 offices.

During and following the Civil War there was a vast increase in the quantity of securities, due in part to bonded operations in public finance and in part to the financing of railroads and other enterprises on an unprecedented scale by the sale of stocks and bonds. In consequence, the gold indicator was soon improved by E. W. Andrews, Thomas A. Edison, and others and adapted to the recording of market quotations. The Gold & Stock Telegraph Co. was organized in 1867, and a rival company, using Charles T. Chester's Manhattan ticker, was founded in 1871. The ticker services originated by these two companies were the beginnings of the later country-wide networks of market quotation circuits.

The vast expansion of stock-exchange operations, previous to 1929, led to demand for a ticker service capable of handling the enlarged

volume of quotations with a minimum of delay and error. The result was the high-speed stock ticker introduced in 1929 and installed in 1930 throughout the country.

The ticker is a form of the printer telegraph which commonly uses the type wheel instead of the type bar. The type are placed, that is to say, not at the ends of bars, as on a typewriter, but at the circumference of a wheel. The type wheel and a gear wheel are attached to the same shaft. Corresponding to the type of the type wheel are the teeth or notches of the gear wheel. The gear wheel is operated by an electromagnet, and the movement of the armature steps up the gear wheel and with it, the type wheel. Another magnet controls the movement of the tape across the printing position or point of contact between tape and type wheel.

The wheel revolves once for the printing of each character, and since it is geared at a speed of 500 characters per minute, there are 500 revolutions per minute. As no one person could possibly prepare quotations and feed them into the transmitter at so high a rate of speed, one of the principal changes in the new system is an arrangement for the alternate feeding of the transmitter by several operators. Reporters on the floor of the exchange note changes in quotations as sales are made. These changes are written out carefully and checked, and put in pneumatic tubes which converge at an operating platform. Here the quotations are typed on teletypes, or ordinary printer telegraphs, which put the quotations into code on perforated tapes. There are as many of these teletype operators as are necessary for taking care at once of all quotations reported from the floor of the exchange. As the perforated tapes emerge from the teletypes, "comparers" check them to see that they conform to the reports as received from the floor, and errors are eliminated. The several tapes are perforated at a speed very much below 500 characters per minute. On the platform there is an automatic reperforating device operating so rapidly that the perforated tapes emerging from the teletypes are fed into it alternately.

The quotations are thus reduced to code and consolidated in the form of a single perforated tape. On the platform near the reperforator is a tape transmitter. The tape transmitter is connected by circuit with the sending apparatus, or master transmitter, which is located in another room. This master transmitter has already been described as having a speed of 500 characters per minute. For sending each character over the wire, eight so-called impulses are necessary:

(1) The start impulse, for initiating the revolution of the type wheel.

(2)–(6) The selection of the character to be printed, that is, the position on the type wheel where the character selected is located. (A 5-unit code is used, the characters being represented on the perforated tape by perforations running in number from 1 to 5, which in turn set up combinations or permutations of 5 positive-negative impulses.)

(7) An impulse for selecting between letters and figures (corresponding to the operation of the shift key on a typewriter, except that in this case the operation is from neutral to letter or figure as the case may be).

(8) Stop impulse.

Although the type wheel revolves 500 times per minute, there is a stop after each revolution. This is for the purpose of synchronizing

the action of the master transmitter with that of each of the several thousand receiving tickers throughout the country. The network of circuits connecting the master transmitter and the receiving tickers is handled by an elaborate system of relay switches and by repeaters on the longer circuits. Relays are also used for locating trouble.

Market quotations are expressed by characters or symbols, mainly letters and figures. Each ticker receives the same characters, just as each subscriber to a periodical receives the same periodical. The total output of the operators of the ticker system may be expressed in the form of the number of characters printed by each ticker multiplied by the average number of tickers. In Morse operation, reception of standardized data such as market quotations requires more operators than transmission requires, for one transmitting operator can send over several circuits but every circuit must be manned by a receiving operator. Reception by ticker is entirely automatic over all circuits connected with the transmitting mechanism, and only one transmission is now necessary, no matter how numerous the circuits may be.

Productivity of Labor in Ticker Service

INFORMATION regarding the exchange ticker service as operated locally in the central financial district of New York City is available as far back as 1890. Changes in the productivity of labor in handling the ticker service in this limited area are shown in Table 1.

TABLE 1.—CHANGES IN THE PRODUCTIVITY OF LABOR, NEW YORK STOCK EXCHANGE TICKER SERVICE [1]

Year	Daily average of tickers in use [2]	Estimated total number of characters printed on all tickers [2]	Operators of ticker service							All employees, ticker service						
			Average number	Index of changes in average output per operator		Number necessary on basis of output per operator in—		Additional number necessary on basis of output per operator in—		Average number	Index of changes in average output per employee		Number necessary on basis of output per employee in—		Additional number necessary on basis of output per employee in—	
				1890=100	1920=100	1890	1920	1890	1920		1890=100	1920=100	1890	1920	1890	1920
1890	395	2,686,000,000	8	100	18	8	2	----	----	20	100	32	20	6	----	----
1895	611	4,163,354,000	6	207	38	12	2	6	----	26	119	38	31	10	5	----
1900	837	8,551,629,000	9	283	52	25	5	16	----	33	193	61	64	20	31	----
1905	1,176	12,254,390,400	10	365	67	37	7	27	----	43	212	67	91	29	48	----
1910	1,355	11,192,435,500	10	333	61	33	6	23	----	42	198	63	83	26	41	----
1915	1,120	12,589,248,000	11	341	63	38	7	27	----	40	234	74	94	30	54	----
1916	1,349	17,283,118,200	11	468	86	51	9	40	----	49	263	83	129	41	80	----
1917	1,434	16,237,325,400	11	440	81	48	8	37	----	57	212	67	121	38	64	----
1918	1,337	14,625,977,800	11	396	73	44	8	33	----	57	191	60	109	34	52	----
1919	1,441	20,470,413,700	13	469	86	61	11	48	----	60	254	80	152	48	92	----
1920	2,068	23,783,654,400	13	545	100	71	13	58	----	56	316	100	177	56	121	----
1921	1,993	20,162,583,100	13	462	85	60	11	47	[3] 2	50	300	95	150	48	100	[3] 2
1922	2,030	26,991,286,000	13	618	113	80	15	67	2	54	372	118	201	64	147	10
1923	2,112	26,081,299,200	12	648	119	78	14	66	2	59	329	104	194	61	135	2
1924	2,045	30,948,621,000	20	461	85	92	17	72	[3] 3	67	344	109	230	73	163	6
1925	2,249	41,290,965,300	18	683	125	123	23	105	5	68	452	143	307	97	239	29
1926	2,424	46,488,684,000	18	769	141	138	25	120	7	75	462	146	347	110	272	35
1927	2,643	58,448,887,800	18	967	177	174	32	156	14	87	500	158	435	137	348	50
1928	2,957	73,987,688,400	17	1296	238	220	40	203	23	100	551	174	551	174	451	74
1929	3,572	93,587,114,400	18	1549	284	279	51	261	33	128	544	172	696	220	568	92
1930	3,812	96,733,693,200	17	1695	311	288	53	271	36	157	459	145	721	228	564	71

[1] Figures apply only to central financial district of New York. The same service is now transmitted to several thousand additional tickers without additional operators except a few for emergency use.
[2] Figures derived from tables in New York Stock Exchange Yearbook.
[3] Fewer than in 1920.

On the basis of the daily average, there were 395 tickers in use in 1890 and 3,812 in 1930. The average number of characters printed per ticker was 6,800,000 in 1890 and 25,376,100 in 1930. The total number of characters received by all subscribers on their tickers increased from 2,686,000,000 in 1890 to 96,733,693,200 in 1930.

These vast numbers, of course, mean little except as a basis for indicating relative productivity. The number of operators increased from 8 in 1890 to 17 in 1930, while the total number of employees rose from 20 to 157. Taking 1890 as the base or 100, the index of changes in output per operator runs from 100 to 1695, practically a 1,600 per cent increase, while the productivity of all employees combined runs from 100 in 1890 to 459 in 1930, more than a 350 per cent increase. Taking 1920 as the base or 100, the index of productivity of operators more than tripled, running from 100 in 1920 to 311 in 1930; while the index for all employees runs from 100 in 1920 to 145 in 1930.

Table 1 also gives estimates of the number of workers that would be necessary in successive years on the basis of the productivity of workers in 1890 and in 1930. On the basis of the productivity of operators in 1890, 288 operators instead of 17 would be required for the output of 1930; and on the basis of the productivity of 1920, 53 operators instead of 17 would be required for the output of 1930.

If we should base the estimates on the productivity of the Morse telegrapher, and assume the sending of exchange quotations over Morse circuits, several thousand Morse operators would be required. At least three Morse operators with separate circuits, each taking a portion of the quotations, would be required for one transmission; and since the number of drop circuits on a Morse circuit is limited, a considerable number of transmissions would be necessary. In place of every receiving ticker position there would be required at least three Morse telegraphers to receive and write out the quotations. In place of the tickers given in Table 1 alone, considerably more than 10,000 Morse receiving operators would be necessary.

Such estimates are too hypothetical, however, to have great practical significance. The telegraphic handling of market quotations was never done exclusively by Morse, and would never have reached its present extent by means of Morse circuits.

But the extension of the ticker system beyond the local limits of the New York financial district has been accompanied not by a mere hypothetical loss of opportunities for employment but rather by the actual displacement of large numbers of Morse operators. This will be apparent to anyone who is acquainted with the methods used before the introduction of ticker service for handling market quotations. Before recalling these methods and explaining their effects in displacing telegraph operators, it is desirable to describe the process by which the various ticker services have been extended and made available in virtually all sections of the country.

It was not till March 15, 1926, that stock-exchange ticker service was inaugurated west of Kansas City. It was not till 1927 that service was extended to such important cities as Atlanta, Birmingham, Denver, Salt Lake City, Portland, Seattle, Tacoma, and Los Angeles. Four years later, by 1931, the high-speed ticker circuits extended to all but three of the States of the Union, and tickers in Canada and Cuba as well as 45 States and the District of Columbia received

quotations from one master transmitter. The number of cities in the United States with ticker circuits direct from the New York Stock Exchange was only 121 in 1926 as compared with 369 in 1930 (including Canada and Cuba, 377). The rapid extension of the service since 1926 is shown in Table 2.

TABLE 2.—EXTENSION OF TICKER SERVICE FOR STOCK-EXCHANGE QUOTATIONS, 1926 TO 1931 [1]

Year	Number of States receiving service	Number of cities receiving service	Number of tickers in service			Average number of characters printed per ticker
			Stock	Bond	Total	
1926	24	121	4,368	899	5,267	19,178,500
1927	26	157	5,408	889	6,297	22,114,600
1928	36	230	6,963	953	7,916	25,021,200
1929	41	336	9,437	1,068	10,505	26,200,200
1930	43	369	8,372	928	9,300	25,376,100
1931	46	318	5,824	628	6,452	[2] 18,277,100

[1] Basic data from New York Stock Exchange Yearbooks; figures for Canada and Cuba excluded.
[2] First 9 months only.

There are two main exchanges in New York City for handling securities, and their quotations are now sent out by direct ticker service to virtually all parts of the country. In each case bond quotations are handled by a separate ticker system. In addition, there are many local or sectional exchanges for handling securities, and many commodity exchanges, equipped with ticker services. In 1930 there were more than 30 exchange ticker systems. The quotations of about 20 additional exchanges were handled by ordinary telegraphic methods.

For most of the exchanges there is no available record of output in terms of characters printed, such as was used in Table 1, but a less adequate indication of increased productivity is afforded by changes in the number of tickers without taking into account the increasing average capacity of the tickers. On this basis, Table 3 affords an estimate of the changes in productivity of operators of the principal market-quotation ticker services from 1921 to 1931.

TABLE 3.—CHANGES IN PRODUCTIVITY OF OPERATORS OF PRINCIPAL MARKET-QUOTATION SERVICES AS INDICATED BY CHANGES IN NUMBER OF TICKERS PER OPERATOR, 1921 TO 1931

Year	Average number of tickers in use	Average number of operators	Tickers per operator		Number of operators necessary on basis of productivity per operator in 1921	Additional number of operators necessary on basis of productivity per operator in 1921
			Actual number	Index numbers (1921=100)		
1915		140				
1921	3,706	68	54.5	100.0	68	
1925	6,705	84	79.8	146.4	123	39
1929	13,736	[1] 153	89.8	164.8	252	99
1931	11,178	117	95.5	175.2	205	88

[1] Number abnormally large during transition to new high-speed ticker.

The average number of tickers in daily use for the direct handling of the quotations of exchanges increased from 3,706 in 1921 to 13,736 in 1929, and then declined by 1931 to 11,178. During the transition to the new high-speed ticker, the number of operators increased to 153, and the number in 1931 (117) is also probably abnormal due to the desire to test the new system throughly and guard against breakdowns. But in spite of the transition, and in the face of a large decline in the total number of tickers, the average number of tickers per operator continued to increase consistently from 54.5 in 1921 to 95.5 in 1931. Table 3 also gives estimates of the number of operators necessary if their average productivity had remained the same as in 1921—estimates having little significance aside from a theoretical interest. The number of operators actually employed was never large. In 1915, when ticker services were limited to a few large cities, the number of operators was 140, as compared with 117 in 1931, when there were many new services, many thousands of additional tickers, and circuits extending not only to virtually all parts of the United States but to Canada and Cuba as well.

Closely related to the market-quotation ticker services are the ticker systems operated by various companies for furnishing standardized business news. But it is not practicable to send out business news in a form as highly standardized as are exchange quotations, for the varying ideas and needs of different groups and sections make necessary a process of selecting and editing the news to fit the different conditions.

In keeping with this idea of adaptation of service to needs of clients, one of the principal companies engaged in providing a financial-news ticker service has several circuits. On the New York metropolitan circuit, the tickers furnish news adapted to the conditions prevailing there. Circuits running to adjacent cities, to New England, to the South, and to the West have separate transmissions with similar adaptations of the news. A single company maintains business-news tickers in more than 100 cities.

Effects of Ticker on Employment of Telegraph Operators

In considering the effects of the extension of ticker systems on the numbers and status of telegraph operators, there are three principal modes of approach.

(1) We may inquire, in the first place, merely as to the number of ticker operators at different periods and compute the decline, if any, in the number of operators actually engaged in handling the tickers. But the system is, and always has been, so largely mechanical, due to the perfecting of drop circuits and the automatic operation of receiving tickers, that the number of operators directly engaged in the handling of tickers has never been large enough to justify any considerable attention. The numbers given in Table 3, although not complete, include most of the ticker systems, and reveal the slight importance, from the point of view of number directly affected, of this mode of approach. In 1915 the number was 140; in 1931 it was 117. As compared with 1925, there was an increase in number of ticker operators from 84 to 117. Obviously, from the point of view of direct displacement of ticker operators, the improvement and extension of ticker systems are without significance.

(2) A second mode of approach is to compute the changes in number of employment opportunities on the basis of the changing productivity of employees. This method is used in Tables 1 and 3, which are accompanied by comments relating to the results attained. There are various bases for computing changes in productivity, as the dates 1890 and 1920, for example, in Table 1. In Table 3, because of lack of basic data as to output, it was necessary to limit the computation to the changes in the average number of tickers handled per operator. The validity of the assumption that the increasing productivity per employee means loss of employment opportunities depends on the further assumption that demand for the increased output was not dependent on the higher rate of productivity per employee. In the case of the ticker systems, there is no way of testing adequately the validity of the second assumption, though undoubtedly the general expansion of business in recent years would have been accompanied by a considerable increase in demand for ticker service without any material improvement in the rate of productivity. But in any event, this mode of approach, in connection with ticker systems, has a hypothetical quality which gives to the results a degree of unreality.

(3) The third method of getting at the effects of the improvement and extension of ticker service on telegraph operators takes into account the earlier and alternative systems of transmitting information now handled by ticker.

Outside of a few great centers, particularly the financial district of New York, market quotations were formerly handled by Morse operators. The principal users of information concerning market changes were brokers' offices and newspapers. The newspapers received their market news as well as general news largely over Morse circuits. The larger brokers employed skilled Morse operators to quote the market changes to their branch offices and correspondents. In these offices, Morse operators received the quotations by ear from the sounder and as they translated the quotations, frequently marked them on the boards for the information of customers. Orders and reports were also handled by Morse operators.

Newspapers now almost without exception depend either on quotation service sent out by the ordinary printer telegraph (teletype) or on intermittent ticker service, or on both. Brokers, except in remoter places, now depend on tickers, and the printed ticker tape is copied by assistants who are merely board markers. In many offices, even the board markers are now being displaced by teleregisters for automatically displaying market changes in customers' rooms, and by a magnified and illuminated projection of the moving ticker tape on a screen. By August, 1931, teleregisters had been installed in more than 200 brokers' offices, as far west as Chicago, with remoter installations planned, all handled by a single operating center in New York. The extent of displacement as a result of these various innovations can not be measured statistically, but in the aggregate it is very large. Nor are the problems of displacement of a highly skilled and specialized group such as Morse telegraphers materially lessened by the fact that the innovations, in spite of their exceptionally automatic nature, have themselves afforded some additional jobs for mechanics.

TABLE 4.—EVOLUTION OF TICKER SYSTEM OF ONE OF THE EXCHANGES FROM SEMIAUTOMATIC TO AUTOMATIC OPERATION

Year	Average number of tickers in use in—			Average number of operators		
	Metropolitan circuits	Other circuits	Total	Morse	Ticker	Total
1921	399	----------	399	----------	3	3
1922	369	----------	369	----------	3	3
1923	394	55	449	5	5	10
1924	361	63	424	6	6	12
1925	525	123	648	7	7	14
1926	700	217	917	8	8	16
1927	734	252	986	10	10	20
1928	1,150	398	1,548	12	12	24
1929	1,585	755	2,340	13	14	27
1930	1,568	900	2,468	----------	4	4
1931	1,191	699	1,890	----------	4	4

An illustration of one phase of the displacement of operators is given in Table 4. Before 1921, information concerning the activities of the exchange represented in Table 4 was sent to brokers and others in different parts of the country by ordinary telegraphic means, usually on Morse circuits. It was not till 1921 that members and others in the immediate vicinity were served by tickers. Between 1923 and 1929 the ticker service was extended to several important cities, but not by direct ticker circuits. Quotations were sent by Morse operators to each city, and there put on local ticker circuits by ticker operators. In 1929 the intermediate Morse circuits were eliminated, as were also the transmitting tickers in the several cities, and all tickers received quotations from one station over direct circuits. The table shows the displacement of the intermediate Morse operators, and also the displacement of the local ticker operators; but the number of telegraphers who had been employed by news bureaus, brokers, or others to transmit the quotations, and who were actually displaced by the tickers, can not be shown, even approximately. Nor is it possible to estimate satisfactorily the number of telegraphers who would be employed to-day to handle the quotations if the ticker system had never been introduced. If only a small fraction of the 2,468 subscribers to this one ticker service in 1930 were now depending on Morse telegraphers for market quotations, the added employment opportunities would be considerable.

Another illustration of the effects of the ticker system is to be found in one of the commodity exchanges which still combines, in its quotation service, the use of Morse operators and automatic tickers. In this case, quotations originate in two cities. On the floor of the exchange in each city there are two Morse operators, one to send and one to receive quotations. Ticker service is provided in six cities. In each of these there are two Morse operators to receive quotations from the two originating offices, and one ticker operator to put the quotations on the local ticker circuits. Thus there are 4 operators connected immediately with the exchange, and 18 connected with the 6 ticker offices in the 6 cities in which there is enough demand to justify the maintenance of the service. Direct ticker circuits are expected to eliminate all of the 16 Morse operators and most of the

8 ticker operators, just as in similar cases eliminations have already been made.

In the case of financial news, a somewhat similar intermediate stage of joint Morse and ticker operation is observable. A single company which now has tickers in more than a hundred cities formerly transmitted the news over Morse circuits to the principal cities which it served, and in each city it maintained a separate transmitting office for putting the news on local ticker circuits. There is now direct transmission by ticker on all except one Morse circuit. Again, in the case of this company's news ticker system, as well as in the case of other ticker systems, there has been a large but incalculable displacement by virtue of the fact that many of those who subscribe to ticker services formerly gave employment to telegraph operators. In this case, also, as well as in the others, it is apparent that the extension of ticker service has not only eliminated many telegraphers but has forestalled a rapid increase in the number of operators which would have been required to meet the growing demand for immediate information in an age of ever-quickening tempo.

Review of the White House Conference Report on Child Labor

By Ella Arvilla Merritt, United States Children's Bureau

THE White House Conference on Child Health and Protection, organized in 1930 under the auspices of President Hoover, divided its work among various committees. The report of the subcommittee on child labor has just been published.[1]

The concept of child labor upon which this report is based includes any work of those not physically mature which deprives the individual of the opportunity to achieve "normal development" in the highest and most comprehensive sense of that term. The children's charter adopted by the conference sets up as a standard that for every child there must be "protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of play, and of joy." The Subcommittee on Child Labor has given in this report a comprehensive and well-rounded picture of child labor in this country, its extent and distribution, its causes and effects, its conditions and hazards, and its problems in special fields, as well as of the legal regulation of all phases of child labor and its administration. On the basis of these findings and of the accumulated experience of the specialists in the different fields of child labor who made up the subcommittee, a series of recommendations is presented which should serve as a guide to legislators and child welfare workers everywhere in surveying the needs of the individual situations with which they must deal and in meeting them adequately.

It was found that the subcommittee's field had such varying technical aspects that an adequate survey required the services of specialists in dealing with the different phases of the problems involved. Four groups were therefore organized, as follows: (1) Employment of children in nonagricultural occupations, with Julia C. Lathrop as chairman; (2) employment of children in agriculture, with Dr. Samuel McCune Lindsay, chairman of the National Child Labor Committee, at its head; (3) hazardous occupations, industrial accidents, and workmen's compensation for injured minors, under the leadership of Fred M. Wilcox, chairman of the Industrial Commission of Wisconsin; and (4) administrative problems with reference to laws affecting the employment of minors, with Frances Perkins, industrial commissioner, New York State Department of Labor, as chairman. Ellen Nathalie Matthews, then director of the industrial division of the Children's Bureau of the United States Department of Labor, was chairman of the subcommittee.

In preparing the report, all available material on child labor was searched, and information from widely scattered sources, both published and unpublished, has been collected for the first time. It was assembled primarily from published articles, reports of child labor studies and surveys, reports of State labor, education, and other public agencies, as well as from surveys made by the numerous private agencies in this field. Important sources of information were the

[1] White House Conference on Child Health and Protection. Committee on Vocational Guidance and Child Labor. Child Labor. Report of the subcommittee on child labor. New York, The Century Co., 1932.

publications of the Children's Bureau of the United States Department of Labor and the unpublished material in its files which was placed at the disposal of the conference. The committee was also greatly indebted for material to the National Child Labor Committee. A canvass of all interested organizations was made as to pending research and unpublished material, and such of this as could be obtained and was of value to this study was analyzed and included in the report. In addition, the committee had the assistance of several special inquiries pertaining to the employment of children in non-agricultural occupations, made by outside agencies. Certain information on wages and hours of work was furnished through the cooperation of continuation schools in a number of communities in several States. An inquiry also into the administration of State laws relating to the employment of children on the stage and in theatrical exhibitions was conducted by the United States Children's Bureau through correspondence, and was supplemented by a more detailed field inquiry into the administration of the law regulating such employment in New York State, made by the New York Child Labor Committee. In the field of administration, the report makes use of a study of the physical examinations of children entering industry, conducted by the National Tuberculosis Association, and a study of the issuance of employment certificates, made for the subcommittee on health and education of the Illinois Commission on Child Welfare Legislation which was surveying the Illinois needs at that time.[2]

It is recognized, both in the factual sections of the report and in its recommendations, that any rightly conceived program of protection of the young worker has two aspects—one, legal, concerning itself largely with prohibitions, restrictions, and administrative methods; the other, more general in scope, having to do with education, guidance, recreation, and hygiene, and with all those social and economic forces and institutions that affect not only the working child but all children. These various problems affecting the health and welfare of children were made the subject of special study by other sections and subcommittees of the conference. The Subcommittee on Child Labor therefore confined its study largely to the legal and factual aspects of child labor, with only brief reference to the more fundamental problems and the more constructive programs. The report, however, points out the paramount importance of these problems and programs in any consideration of child labor and employed youth.

A study of this report brings home to the reader a realization that child labor means different things at different times in different places and that, although the United States has no child-labor problems of the kind that are common in China and India to-day, or that characterized the early stages of development of the textile industry in New England, nevertheless large numbers of children are still engaged in taxing, disagreeable and even dangerous occupations, or while still immature are assuming burdens of industrial life which exclude them from the activities of play and education essential if they are to reach maturity with physical vigor unimpaired and with the mental training and social equipment necessary for good citizenship.

The latest statistics available for the use of the committee as to the total number of children employed in the United States, their ages,

[2] The reports made by the New York Child Labor Committee and the National Tuberculosis Association are published in full as Part V of the volume.

geographical distribution, and the industries and occupations in which they work, were those of the 1920 census, since the figures for the 1930 census were not yet compiled. So far as possible, evaluations of the trend between 1920 and 1930 were made on the basis of available material. The lack of these statistics for the last decennial census, however, does not in fact detract from the usefulness of the report, as it appears from the 1930 census data so far published that both the number and distribution of children employed were so affected by the unemployment situation at the census date that they would not accurately reflect conditions in a normal period.

Special attention has been paid to the presentation of the laws regulating child labor in the different fields covered by the report. Though analysis of these laws is difficult because of the fact that they differ widely from State to State in their application, their exceptions, and their administrative measures, summaries are presented which give a general picture of their standards, supplemented by surveys of the more important details necessary for the understanding of the problems to be met by regulatory and administrative methods.

A survey of the information made available by this report falls naturally into a discussion of its four main sections: Nonagricultural occupations; Employment in agriculture; Hazardous occupations, industrial accidents, and workmen's compensation; and Administration of laws affecting the employment of minors.

Employment of Children in Nonagricultural Occupations

A GENERAL summary of the field of child employment in nonagricultural occupations gives the available information as to the trend from 1920 to 1930 and the increase in school attendance during the decade, and presents information as to kinds and conditions of work in which children engage, their hours of labor, their wages, and the type and extent of legal regulation. The usually recognized causes which influence children to go to work—poverty and dissatisfaction with school—are evaluated as far as possible. As to the demand for child labor, it is stated that the proportion which children form of the total number of workers in any industry is so small as to appear negligible from the point of view of the industry, and that the testimony of persons in direct contact with child workers bears out this conclusion. Evidence is presented as to the undesirable effects of employment at an early age, due to the child's physical and mental immaturity, to the fact that it cuts short the child's education and leaves scant time for needed play during daylight hours.

Though proportionately the number of children in industry is small, the fact is brought out that children are employed by hundreds and thousands in a great variety of nonagricultural occupations. Various as the jobs are, almost all of them have this in common, that they are unskilled, mechanical, and monotonous, offering the child little opportunity to acquire either experience or skill likely to be of value to the adult worker, and most of the children go from their children's jobs into work that requires only greater physical strength or maturity and can be learned at the most in a few weeks' time.

Many children, it is shown, work in badly ventilated, poorly lighted, insanitary places. Many work long hours; many are employed in connection with machinery that offers a high degree of

hazard for the immature; and many are in occupations in which dusty or lint-laden air, fumes, and poisonous substances create conditions favorable to tuberculosis and to industrial poisoning, to both of which children and young persons are especially susceptible; others do taxing and exhausting work. Although the majority of regularly employed children under 16 at the present time are 14 and 15 years old, certain kinds of work, such as work in canneries, industrial home work, and newspaper selling, employ large numbers of very young children. Perhaps one of the most demoralizing conditions of the work of children is the fact they are frequently unemployed and subject during their most plastic years to the deteriorating effects of idleness.

Weekly wages for children under 16 in any kind of work almost invariably average under $15 and generally under $10.

This brief survey of the field is followed by an analysis giving the factual basis for these general conclusions and for the committee's recommendations. Here is collated and summarized material from literally hundreds of reports and surveys, each covering perhaps only a small phase of the subject or dealing with a special group of child workers. Special attention is given to types of work offering special problems, including the canning industry, industrial home work, street trades, work outside school hours, and appearance of children in theatrical exhibitions and motion pictures. The conditions and surroundings which make these kinds of child employment require a different form of regulation and different machinery for enforcement from that practicable in regulation of work in factories and stores, as well as the community and social problems involved in such regulation, are set forth in detail.

In the recommendations of the committee it is recognized that certain economic, social, and educational measures are needed in addition to adequate legislative restrictions and safeguards in order to protect young workers from the dangers of employment at too early an age or under adverse conditions. It is therefore urged that special attention be given to the solution of the problems of adult unemployment, farm economics, and a living wage, "since an income earned by the chief wage earner of the family sufficient to maintain a decent standard of living is basic to a normal solution of the problem of child labor as it is to other problems of child welfare." It is also pointed out that numerous studies of working children have shown that for large proportions of young workers causes connected with school have furnished the chief motive for leaving school to go to work, especially for pupils of somewhat limited mental ability, and it is urged that as a child-labor measure some content of education be found and provided for these children which will mean real development for them, since the early years of adolescence when they are likely to leave school for employment are the very years when they are most in need of guidance. In the field of legal regulation it is recommended that standards be set up for all kinds of gainful employment of children, but that special consideration be given to proper types of control in certain employments, such as industrial home work and street trades, now largely unregulated. Specifically it is proposed that no child under 16 should be permitted to leave school for work; that school attendance be required for children up to 16 years of age; that higher age minima should be set for occu-

pations physically or morally hazardous; that no minor under 18 should work more than 8 hours a day or 44 hours a week, or at night; and that all children under 18 should be required to obtain employment certificates before going to work and be required to have a certificate of physical fitness from a public physician. Special regulation of street work, with the consideration of a minimum age of 16 for newspaper selling, the prohibition of industrial home work, and the consistent application of provisions of the general child-labor law to canneries, work outside school hours, and work in theatrical exhibitions and moving pictures are recommended. It is also pointed out that among the child-labor problems are those involving interstate relations, as for example, the problem of the migrant worker, and that the general progress toward the goal of establishing adequate standards for the health and protection of all working children would be enormously facilitated by a national minimum standard.

Employment of Children in Agriculture

THIS section of the report, prepared by the National Child Labor Committee, was based primarily upon a study of all the investigations of the employment of children in agriculture which have been made by public and private agencies since 1920, including rural educational surveys. In view of the extensive research already existing on this subject and of the vast territory to be covered if a further check-up were attempted, no new field studies were conducted. It is pointed out that in several respects agriculture presents the most serious child-labor problem in the United States at the present time. It involves more child workers than all other occupations together, 61 per cent of the total number of working children 10 to 16 years old; it includes a large number of younger children, 87 per cent of all working children 10 to 14 years old; it employs thousands of children as migratory workers; it presents difficult problems of control and, even more than industrial work, it interferes seriously with school attendance. The development of agriculture into a large-scale industry has led to the employment of thousands of children, sometimes on their parents' farms but often among strangers or in migratory camps, under conditions almost as undesirable as any found in unregulated industrial employment. Much of this employment is characterized by long hours, repetitive processes, unsuitable and sometimes hazardous conditions, interference with school attendance, and absence of supervision. Special attention in the report is given to the nature and conditions of the work performed by children, including detailed descriptions of the kinds of work children do in the most important farming operations—general farming, beet culture, tobacco and onion raising, the cultivation of small fruits, berries, and orchard fruits, truck farming, and grain farms. Information is given as to hours of work, the duration of the season, wages, housing of migratory workers, and health and accident hazards. The difficulties which confront attempts to curb child labor in agriculture are the public view of farm work for children as being healthful work; the economic status of the general farming population; the sentiment against interfering with the parent's control over the child; the seasonal nature of the work; the administrative difficulties involved in enforcing legislation for children working in scattered rural dis-

tricts, and to a considerable extent outside school hours; the limitations of State jurisdiction; and the local prejudice against furnishing school facilities for migratory children.

For all these reasons, the approach to the regulation of employment is made by the committee through recommendations looking to the extension of more adequate school-attendance requirements and facilities to rural children and their efficient enforcement. The changes in rural educational organization and administration recommended by the subcommittee on rural schools of the committee on the school child of the White House Conference are indorsed.

It is insisted that rural children should be afforded educational opportunities equivalent to those afforded city children, that the age and attendance standards for schooling should be the same for both groups, and that districts should be responsible for the schooling of migratory children. For children hired out or working under some form of family wage or contract system other safeguards are recommended, including a minimum age of 16 for agricultural work during school hours and of 14 outside school hours, except that children 12 to 14 years may be employed outside of school hours in light agricultural tasks a few hours a day during a short season. Recommendation is made that permits be required for agricultural work of children under 16 not working on the home farm, that special attention be given to employment of children about dangerous agricultural machinery, and that the daily hours of work or of work and school be limited to eight. It is also recommended that the regulation of sanitary conditions of labor camps for migratory workers should be placed under a State department, such as that of labor or health.

Hazardous Occupations, Industrial Accidents, and Workmen's Compensation

THE material for this section was prepared by the Children's Bureau of the United States Department of Labor and is based to a large extent upon information obtained in connection with an inquiry into the operation of workmen's compensation laws as they affect minor workers, at that time under way in the bureau. The provisions of these laws and the court decisions relating to the extent to which illegally employed minors are entitled to compensation, and those relating to the basis on which compensation to injured minors is computed, are summarized, and information is given as to the administration of these provisions, particularly those awarding additional compensation in the case of injuries to minors illegally employed. The legal regulations affecting the employment of minors in hazardous occupations are also analyzed. In addition, a review, supplemented by a tabular summary, is given of available statistics of accidents to minor workers.

The fact is emphasized that some risk of accident and injury must be assumed by the adult worker even though technical improvements in industry continue, but that this is a risk which the child or young person can not afford to assume, nor can society afford to permit him to do so. All investigators have emphasized the extreme liability of young workers to accident, partly the result of the natural curiosity, irresponsibility, and carelessness of youth, and of their peculiar susceptibility to injury from poisons, vitiated air, and other unfavorable conditions in industry.

The scarcity of information on industrial accidents to minors is pointed out and it is urged that the States develop a program for continuous study of all industrial injuries to minors under 18. In this connection the recommendation is made that the States compile their statistics of accidents on a comparable basis and that the Federal Government, through the Children's Bureau, cooperate with them by compiling and publishing annual statistics of industrial accidents to minors. The present legislation on employment in hazardous occupations is reviewed and it is pointed out that although existing legislation, taking the States as a whole, shows that attention has been directed toward many of the known dangerous occupations, the laws of the States show great inequality and in many respects inadequately protect minor workers, particularly those 16 and 17 years of age. It is recommended, both because the present body of knowledge of industrial hazards is incomplete and because State legislation is inadequate, that such legislation be revised on the basis of a careful and comprehensive study of the hazards of occupations in which minors are engaged, as well as of possible safeguards in such occupations and any special susceptibility of immature workers to industrial poisons and other harmful substances. Since the problem affects working minors throughout the entire country, it is recommended that a permanent committee be appointed to work in cooperation with the Children's Bureau in studying all phases of the problem.

In the light, however, even of present knowledge it is recommended that the employment of such children under 16 as may be permitted to work in a restricted list of occupations should be prohibited on or in connection with machinery of any kind, and that minors of 16 and 17 should be prohibited from employment on dangerous machinery not guarded at the point of operation, or in the operation of elevators, or in other occupations proved by accident records to be hazardous to them. Power should be given to State labor boards to determine what occupations are dangerous and to prohibit employment of minors therein. In regard to provisions relating especially to minors in workmen's compensation laws, it is urged that in all States not yet having such laws legislation be passed providing (1) that the employee's future earning capacity be considered as the basis for computing compensation to minors for permanent disability, and (2) that minors injured while illegally employed should be brought under the workmen's compensation law, and that, in addition, provision should be made for the payment of extra compensation in such cases.

Administration of Laws Affecting the Employment of Minors

ALTHOUGH one or another of the aspects of administration of child-labor laws has been treated in various studies and surveys, this report for the first time brings together in brief compass and in one place the accumulated experience, under different laws and in different places, in dealing with all the different phases of administration and enforcement. The necessary correlation between the issuance of employment certificates, the proper enforcement of school-attendance laws, and the inspection of establishments and imposition of penalties for violation, is clearly indicated. The report consists in great part of a discussion and criticism of administrative procedure and methods

possible under different types of law, illustrated by such examples of actual practice as could be found. The extent of the problem is shown by the unevenness of enforcement, so great that in many places one or another provision of the law is probably being violated for a majority of the children at work. The discovery, adoption, and improvement of the methods of putting into effect administrative standards for enforcement has at all times followed long after the establishment of the standards themselves by legislative fiat, and examples of inadequate enforcement, often extreme, have been found wherever investigations have been made and have extended to all phases of child-labor legislation.

The section of the report dealing with employment-certificate systems not only gives a summary of methods of administration and information in regard to the machinery of issuing certificates but also points out the standards as to evidence of age, physical examinations, educational requirements, and supervision of certificate issuance which have been found effective. The careful enforcement of school attendance of minors of school-attendance age up to the age when they may legally go to work, and after that time if they are not actually and legally employed, is shown to be basic to child-labor law enforcement, since it automatically prevents employment during school hours of underage children and of children of certificate age who have failed to obtain legal authorization to work, and insures the educational training which the law contemplates as a prerequisite for employment. It is also shown that in so far as the enforcement of school attendance of minors and effective employment certificate systems do not automatically prevent the illegal employment of minors, inspection of places of employment must be relied upon to accomplish that end and that, moreover, such inspection is practically the only method of enforcing regulations applying to children at work. Inspection has an important function also in educating employers both to understand and to obey the law, and in obtaining evidence to be used in the prosecution of employers in cases where such prosecution is deemed necessary.

Administrative recommendations include: Adequate legal provisions as to employment-certificate issuance, including standards for evidence of age and proof of physical fitness; the enforcement of school attendance, with special attention to the problems of school attendance of children in rural districts and of the education of the so-called migratory child workers; methods of inspection adapted to good enforcement; provision of official personnel qualified by education, experience, and training, adequately compensated and appointed under the merit system; such personnel to be sufficient in number for effective certificate issuance, school-attendance enforcement, and inspection; and supervision by State agencies in the development of effective administration of each of these activities.

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EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Family Unemployment in Syracuse, N. Y., November, 1931

By JOHN NYE WEBB and FREDERICK E. CROXTON, COLUMBIA UNIVERSITY

IN THE Labor Review for April, data were presented from an unemployment study made in Syracuse, N. Y., in November, 1931.[1] From the schedules used in that study additional facts have been tabulated in order to analyze employment and unemployment in respect to family groups. The results of this study are strictly comparable with those for Buffalo, N. Y., shown in the May issue of the Labor Review. As in the case of the Buffalo data, the Syracuse figures include all males 18 years of age or over (except students) and all females 18 years of age or over who were usually employed. Thus the following groups were not included: (1) Males and females under 18 years of age, some of whom were undoubtedly employed full or part time, (2) males 18 years of age or over who were students, some of whom were certainly employed part time and a very few full time, and (3) females 18 years of age or over who were working part time by choice. In making this analysis of family groups, roomers have not been included as part of the family.

The first section of the accompanying table shows data concerning 4,637 family groups of which 634, or 13.7 per cent, reported no one employed. Of these 634 families, however, there were 55 which, while reporting no one employed, also reported that those persons unemployed were voluntarily so. These 55 family groups have been eliminated from the data shown in the second part of the table.

Of the 4,582 family groups with one or more members desiring work, 579, or 12.6 per cent, were families in which no one was employed, and 766, or 16.7 per cent, were families with but one member working and that person working only part time. Just under 30 per cent of the 4,582 families had either no member employed or but one member working part time. In 833, or 18.1 per cent, of the family groups, either no one was employed or only one member was employed and that one was working less than half of usual full time.

Data were collected on the schedules of the employment status of roomers, but not of persons furnished meals only. Of the families which reported no member employed, approximately 1 in 13 had one or more roomers, and of the families reporting only one member working part time almost exactly 1 in 20 had one or more roomers.

Included in the present analysis are 55 family groups of related persons sharing living arrangements but not having a definite head. Because of the small number of such groups they were not segregated for separate study.

[1] See also special Bulletin 173 of the Division of Statistics and Information of the New York State Department of Labor.

Among the 579 family groups reporting no one employed there were 11 which had no head. There were also four families which reported involuntary unemployment of one or more members, but in which the head of the family was unemployed of his own volition. Deducting these 15 family groups leaves 564 families in which the head of the family was involuntarily unemployed and in which no one else was working.

The family groups having one person employed part time numbered 766. Of these there were two families which had no head. Of the remaining 764 family groups the head was employed part time and was the only person employed in 649 families, while in 115 families the head was unemployed and some other member of the family was employed part time.

Combining two classifications reveals 1,213 family groups in which the head was either, (*a*) involuntarily unemployed (and no one else was working) or (*b*) the sole worker and employed only part time. These 1,213 families amounted to a little over one-fourth of the families having a head and having one or more members desiring work.

Following is the table showing family employment status for the families enumerated in the seven selected areas in Syracuse:

FAMILY EMPLOYMENT STATUS IN SYRACUSE, NOVEMBER, 1931

Family groups having—	All family groups		Family groups with 1 or more members desiring work	
	Number	Per cent	Number	Per cent
No one employed	634	13.7	579	12.6
1 person working part time	766	16.5	766	16.7
Less than one-half time	254	5.5	254	5.5
One-half time or more	493	10.6	493	10.8
Fraction not reported	19	.4	19	.4
2 or more persons working part time	95	2.0	95	2.1
1 person working full time	2,318	50.0	2,318	50.6
2 or more persons working full time	512	11.0	512	11.2
2 or more persons working full and part time	312	6.7	312	6.8
Total	4,637	100.0	4,582	100.0

State Legislation for the Relief of Unemployment

DURING the legislative year of 1931, 44 States met in regular session, and of these, 16 States [1] also met in extra or special session. The legislatures of Louisiana and Mississippi had no regular session but were called into special sessions by their governors. While some of the State legislatures, especially those in the South and Southwest, were called to relieve the situation in the cotton and oil industries, most of them were called to provide some measure of relief due to the widespread unemployment conditions. Some of the State legislatures called in 1931 did not meet until late in the year and hence did not adjourn until early in 1932.

Due to the increased need for relief, and the fact that many localities were unable to provide any further help to their citizenry, the de-

[1] Arizona, Arkansas, Florida, Georgia, Idaho, Illinois, Massachusetts, Nebraska, New Jersey, New York, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, and Wisconsin.

mand for the State to aid the local governments has increased during the past year.

The form of relief has varied in the several States. Some have provided relief directly to the people while others have appropriated large sums in building-construction projects in order to alleviate the unemployment emergency. Some of the States have met the problem by extending to the local governments or political subdivisions powers permitting them to raise additional revenue for aiding families in need.

Provision for Direct Aid

Illinois.—Many emergency bills for the relief of unemployment were passed in Illinois. Among the measures was one appropriating $20,000,000 for the relief of the needy residents of the State; the Illinois Emergency Commission was formed to handle the fund. The money is to be raised by a tax assessment on property, unless the voters decide at the next State election in November to approve a bond issue for $20,000,000.

New Jersey.—The special session of 1931 created (ch. 394) an emergency relief administration and appropriated approximately $10,000,000. The State director of this administration (appointed by the governor) is authorized to appoint a county director of relief in each county. Funds for poor relief are to be granted on a population basis, and local political subdivisions are to be reimbursed for 40 per cent of the cost of dependency relief.

Other acts passed authorize local authorities to issue bonds, and provide for the institution of public works to relieve the emergency.

New York.—In its special session of 1931 the Legislature of New York created (ch. 798)[2] a temporary emergency relief administration and appropriated $20,000,000. Home relief (defined as food, fuel, shelter, clothing, light, medicine, and medical attendance at home) and work relief are provided.

Ohio.—House bill No. 102 (p. 11), Session Laws of 1931, authorized municipal corporations, township or county, to borrow money and to issue bonds to cover deficiencies in poor relief funds caused by the abnormal unemployment conditions. Proceeds from the sale of the bonds are to be paid into an emergency poor relief fund.

Oklahoma.—The Legislature of Oklahoma (by senate bill No. 23, p. 354) appropriated the sum of $300,000 for the purpose of providing food, clothing, fuel, and shelter for the destitute and suffering citizens of the State. The same act created an emergency relief board.

Pennsylvania.—In the special session of 1931 (act No. 7E, p. 1503) the Pennsylvania Legislature appropriated $10,000,000 to the department of welfare for the various political subdivisions charged with the care of the poor. According to the preamble of the act, "present conditions of unemployment aggravate the normal situation facing public authorities charged with the care of the poor, impose a burden which local government is unable to bear, and demand the exercise of the police power of the Commonwealth for the protection of public health, safety, morals and welfare, and the assumption by the Commonwealth of its governmental duty to care for the poor."

Rhode Island.—An unemployment relief commission was created during the special session of 1931 (by ch. 1855). The law authorized

[2] See Labor Review, November, 1931, pp. 59–61, for analysis of act.

cities and towns to borrow money for unemployment relief and to issue notes, and appropriated $1,500,000 to be used for the purchase of the notes by the State.

Provision for Public Works, Etc.

IN ADDITION to the direct aid afforded by several States, other States have appropriated money to help relieve the unemployment situation by the employment of additional persons and by the construction of public works. In Massachusetts, over $3,000,000 was appropriated for the employment of additional persons as a measure of relief during the emergency. For such purposes the following appropriations were authorized by the legislature in 1931: Chapter 1, $330,700; chapter 14, $106,440; chapter 112, $270,000; chapter 268, $2,759,000; chapter 465 (extra session), $245,000. In addition to these amounts, $8,500,000 was provided for by a bond issue, of which amount the department of public works was authorized to expend $7,000,000 for the acceleration of work on State highways and $1,500,000 for the erection of a State building.

Wisconsin (by ch. 187, Acts of 1931) authorized direct relief to the poor by the towns, villages, and cities. Several other States (Arkansas, Louisiana, Minnesota, Missouri, South Carolina, and West Virginia) made provision for emergency relief caused by disasters and unemployment.

Certain other States provided for the appointment of investigative commissions: California (ch. 61), Maryland (J. Res. No. 19, p. 1428), Minnesota (ch. 5), Tennessee (H. J. Res. No. 14, p. 431), and Wisconsin (ch. 67, sec. 110).

Emergency Labor Camps in Pennsylvania

THE cooperation of the various State departments of Pennsylvania was an outstanding feature in connection with the emergency labor camps organized last winter by the governor. The operation of these camps is described in a report by the director of these camps in the March, 1932, issue of Labor and Industry, the monthly publication of the Pennsylvania Department of Labor and Industry.

As soon as authorization for a camp in a certain county was received by the State highway department, the department of military affairs was notified in order that it might deliver camp equipment and plan the camp layout. The water supply of the prospective site was inspected by the department of health, which in addition supervised the engineering in connection with camp construction, furnished medical supervision for examining the campers, and medical treatment for them during their stay in these emergency quarters.

The department of labor registered the thousands of applicants who were eager to get work on the State highways and live in the camps, and selected those who were to be employed.

Rural road construction was, of course, directly supervised by the State highway department and the camp became a project of the highway department of the particular county in which such camp was set up. The Pymatuning Reservoir clearing work is under the super-

vision of the department of forest and waters. Other departments, however, rendered assistance as in the case of the highway camps.

There were six camps authorized in six different counties for the State highway department. The first two camps were opened on November 16, 1931, at Normalsville, in Fayette County, and Claysville, in Washington County. Normalsville is a typical mountain camp located some 10 miles from Connelsville, on an improved highway but quite a distance from any village or town. The camp at Claysville was just outside the borough limits and was immediately adopted by the people of Claysville as a part of their community life. The men at the Claysville camp spent some of their evenings in the town and in the three months of operation, not a single case of misbehavior has been reported to the camp authorities. The third camp was located at Kittanning Point, in Blair County, just outside the city of Altoona, set in a valley surrounded by mountains. This was the only camp located within a few miles of a large city and while there was some fear expressed that the men of a large community would not want to stay in the camps, this camp operated as smoothly and successfully as any of the others. The fourth camp was opened at Pleasant Unity some 10 miles south of Greensburg in rolling farm country just outside of Mount Pleasant. The fifth and sixth camps were the only camps located in the northern part of the State, the fifth at Curwensville, in Clearfield County, and the sixth at Cramer, in Jefferson County. The men staying in the Curwensville camp had the advantage of being near a town, the camp being located only a mile from Curwensville. The Cramer camp was located on the property of a coal-mine operator at Cramer and only a few miles from Sykesville.

Each camp had regular National Guard equipment and had accommodations for from 70 to 90 men. A captain of the National Guard was assigned to live at each camp and was responsible both for the equipment and the men's welfare. He was aided in each instance by a State police officer, who also resided at the camp. The floors of the tents were boarded and also their side walls, approximately 3 feet in height. In each tent a pyramid stove furnished ample heat even in severe weather. The mess tent also had a wooden floor and wooden tables and benches, and was heated by a large stove. The regular army kitchen of each camp was under the direction of a National Guard cook. Three good substantial meals were served daily and there was no limit on second helpings.

Up to February 18, 1932, the registrars of the department of labor and industry had accepted 14,728 applications. When a camp first opened all that department's bureaus were called on for assistance and department employees stationed within 50 miles of the camp were ordered to report and remain there as long as their services were required. Registration was begun before dawn and frequently was not completed before 9 or 10 o'clock at night. Before daylight hundreds of men would be waiting at the registration tent. Many of the men left home the afternoon before and walked from 10 to 50 miles so that they would be among the first applicants. Others arrived in cars, which were lined up for blocks along the highway. Trucks were hired by certain towns to carry their unemployed to register, and a few applicants from the mountain counties came by horseback. Among the approximately 15,000 registered candidates for highway employment were white and colored, native and foreign born. The majority were laborers, but every profession was represented. The director of camps reports that in the taking of this large number of applications there was not a semblance of disorder among the men.

Each camp had a chief registrar whose duty was to select, from the file of registered men, those who were apparently most in need and to place them in the camp. No political pressure was allowed in the selection of workers and letters of recommendation from

political leaders were absolutely ignored. After consultation with relief groups, men in receipt of relief were given consideration. However, men who had been able to carry on with small savings accumulated while they had jobs were also considered for camp employment, as it was felt that if such men did not secure work they would soon have to seek charity and that they should be encouraged for having been able to maintain themselves.

Registrars needed both tact and diplomacy to select those who could be accommodated at the camps from the large number of applicants, some of whom had to be pacified in their disappointment at not securing work. It was difficult to explain to an unsuccessful candidate why his family was not in as dire need as that of John Jones, who was selected for camp employment. Often men broke down when they tried to tell their troubles. Some of those who came to register brought their children with them to show how sorely they needed clothing and shoes. Many a family has been given a warm meal at the camp when it was not possible to give the father employment.

The physical condition of many applicants constituted a problem for the registrars. Some of the men were so undernourished that it was frequently found necessary for them to remain in the camp three or four days on light employment before they were physically fit to do road-building work. Many of the men did not have shoes of proper weight to work out of doors; others lacked heavy clothing. The governor met this problem by purchasing an immense stock of clothing from the United States Government, which was distributed among the campers who were most in need of it.

The labor turnover of the emergency camps is very interesting, as it shows that very few men complained about living in camps and were in the most part well satisfied with the food that was given to them. Most of the men who did leave found that they were physically unable to work out in the open in the winter weather. Each man was allowed 30 days' employment in camp and the majority wanted to stay an additional period. The labor turnover for the second month of operation shows that the largest turnover was at Kittanning Point, where the wage rate was lowest.

The director of the camps reports that practically every man who remained the full 30-day period weighed 5 to 15 pounds more than when he was admitted to the camp. Pale complexions indicative of undernourishment were replaced by the ruddy wind tan which characterizes out-door workers. The improvement in their physical condition gave the men more energy to go home and make greater efforts to secure other work.

When the emergency camps were first projected it was thought by many people that it would not be possible for men to live in the open during the winter season and that little work would be done. According to the director of these camps, their three months' operation has proved successful in providing employment. Many men through their camp work were able to provide for their own loved ones, and, as noted above, to improve their physical condition. On the other hand, "the State accomplished a great deal in the building of rural roads out in farm communities, which under normal conditions might not have been built, and the various departments that have had a part in this worth-while project have shown what real cooperation means. The camps are a pleasing example of employment versus charity."

Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from April, 1930, to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES [1]

Date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Per cent		Number	Per cent	Number	Per cent
1930							
April	(2)		192,477	13,715	2.2	36,065	5.8
May	(2)		162,678	12,119	1.9	38,761	6.1
June	80,595	18.5	150,075	12,226	1.9	41,336	6.5
July	(2)		153,188	15,302	2.4	48,580	7.7
August	(2)		156,145	17,747	2.8	51,649	8.2
September	90,379	20.5	163,894	23,693	3.8	61,623	9.9
October	(2)		192,778	27,322	4.3	54,804	8.5
November	(2)		237,745	38,973	6.1	76,043	12.0
December	104,951	23.4	294,845	63,585	9.3	117,167	17.0
1931							
January	(2)		331,239	77,181	11.1	112,734	16.2
February	(2)		334,041	81,750	11.7	121,906	19.4
March	113,614	25.8	304,084	81,305	11.3	125,972	17.7
April	(2)		246,845	70,377	10.0	110,139	15.6
May	(2)		208,852	56,250	7.9	97,755	13.8
June	118,424	27.6	191,150	62,642	8.9	101,616	14.4
July	(2)		194,364	64,644	9.1	116,747	16.3
August	(2)		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	(2)		228,101	82,811	11.3	122,733	16.8
November	(2)		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	(2)		358,114	153,920	20.0	179,560	23.2
February	(2)		361,948	168,204	21.3	180,079	22.8
March	120,366	28.3	352,444	155,653	19.4		
April	(2)		303,888	152,530	18.8		

Date (end of month)	Canada	Czechoslovakia			Danzig (Free City of)	Denmark	
	Per cent 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	Per cent		Number	Per cent
1930							
April	9.0	79,721	42,664	3.7	18,371	33,471	11.8
May	10.3	77,069	41,098	3.8	16,232	27,966	9.4
June	10.6	73,464	37,853	3.4	14,975	24,807	8.7
July	9.2	77,309	46,800	4.1	15,330	26,200	9.3
August	9.3	88,005	52,694	4.7	15,687	26,232	9.0
September	9.4	104,534	57,542	5.3	16,073	27,700	9.0
October	10.8	122,379	61,213	5.5	17,307	32,880	11.4
November	13.8	155,203	65,904	5.9	20,272	44,200	15.3
December	17.0	239,564	93,476	8.3	24,429	71,100	24.6
1931							
January	16.0	313,511	104,580	9.5	27,081	70,961	24.2
February	15.6	343,972	117,450	10.0	28,192	73,427	26.0
March	15.5	339,505	119,350	10.0	27,070	67,725	22.1
April	14.9	296,756	107,238	8.9	24,186	45,608	15.3
May	16.2	249,686	93,941	7.6	20,686	37,856	12.3
June	16.3	220,038	82,534	6.6	19,855	34,030	11.3
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	106,464	35.1
February	20.6	631,736	197,612	14.8	36,258	112,346	37.3
March	20.4	633,907			36,481	113,378	37.5
April		[5] 547,507				90,704	29.9

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Estonia	Finland	France	Germany			
					Trade-unionists		
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Per cent wholly unemployed	Per cent partially unemployed	Number unemployed in receipt of benefit
1930							
April	2,227	7,274	1,023	2,786,912	20.3	12.1	2,081,068
May	2,065	4,666	859	2,634,718	19.5	12.0	1,889,240
June	910	3,553	1,019	2,640,681	19.6	12.6	1,834,662
July	762	4,026	856	2,765,258	20.5	13.9	1,900,961
August	1,039	5,288	964	2,883,000	21.7	14.8	1,947,811
September	1,414	7,157	988	3,004,000	22.5	15.1	1,965,348
October	3,282	10,279	1,663	3,252,000	23.6	15.4	2,071,730
November	5,675	10,740	4,893	3,683,000	26.0	16.1	2,353,980
December	6,163	9,336	11,952	4,384,000	31.7	16.9	2,822,598
1931							
January	5,364	11,706	28,536	4,887,000	34.2	19.2	3,364,770
February	4,070	11,557	40,766	4,972,000	34.5	19.5	3,496,979
March	2,765	11,491	50,815	4,756,000	33.6	18.9	3,240,523
April	2,424	12,663	49,958	4,358,000	31.2	18.0	2,789,627
May	1,368	7,342	41,339	4,053,000	29.9	17.4	2,507,732
June	931	6,320	36,237	3,954,000	29.7	17.7	2,353,657
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	9,180	18,856	293,198	6,128,429	44.1	22.7	3,525,486
March	8,397	16,723	303,218	6,034,100	44.6	22.6	3,323,109
April			[3] 290,224	5,934,202			

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		
	Compulsory insurance				Number of persons registered with employment exchanges	Trade-unionists unemployed		
	Wholly unemployed		Temporary stoppages			Christian (Budapest)	Social-Democratic	
	Number	Per cent	Number	Per cent			Number	Per cent
1930								
April	1,309,014	10.8	451,506	3.8	1,698,386	906	20,139	13.7
May	1,339,595	11.1	516,303	4.2	1,770,051	875	19,875	13.6
June	1,341,818	11.1	569,931	4.7	1,890,575	829	18,960	13.0
July	1,405,981	11.6	664,107	5.5	2,011,467	920	19,081	13.2
August	1,500,990	12.4	618,658	5.1	2,039,702	847	21,013	14.5
September	1,579,708	13.1	608,692	5.0	1,114,955	874	22,252	16.0
October	1,725,731	13.9	593,223	4.8	2,200,413	999	22,914	16.7
November	1,836,280	14.8	532,518	4.3	2,274,338	975	23,333	17.0
December	1,853,575	14.9	646,205	5.3	2,392,738	935	24,648	17.9
1931								
January	2,044,209	16.5	618,633	5.0	2,613,749	953	26,191	19.1
February	2,073,578	16.7	623,844	5.0	2,627,559	965	27,089	19.8
March	2,052,826	16.5	612,821	5.0	2,581,030	996	27,092	[2]
April	2,027,896	16.3	564,884	4.6	2,531,674	1,042	27,129	[2]
May	2,019,533	16.3	558,383	4.5	2,596,431	843	26,131	[2]
June	2,037,480	16.4	669,315	5.4	2,629,215	751	23,660	[2]
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329	[2]
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471	[2]
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716	
October	2,305,388	18.1	487,591	3.8	2,755,559	1,020	28,998	
November	2,294,902	18.0	439,952	3.4	2,656,088	1,169	29,907	
December	2,262,700	17.7	408,117	3.2	2,569,949	1,240	31,906	
1932								
January	2,354,044	18.4	500,746	4.0	2,728,411	1,182	32,711	
February	2,317,784	18.2	491,319	3.8	2,701,173	1,083	32,645	
March	2,233,425	17.5	426,989	3.3	2,567,332	1,024	31,340	
April	2,204,740	17.3	521,705	4.1	2,652,181			

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Irish Free State	Italy		Latvia	Netherlands	
	Compulsory insurance—number unemployed	Number of unemployed registered		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
		Wholly unemployed	Partially unemployed		Number	Per cent
1930						
April	(2)	372,236	24,305	3,683	28,421	6.9
May	(2)	367,183	22,825	1,421	26,211	6.3
June	19,146	322,291	21,887	779	23,678	5.5
July	(2)	342,061	24,209	607	29,075	6.7
August	(2)	375,548	24,056	573	32,755	7.6
September	20,775	394,630	22,734	1,470	35,532	8.2
October	22,990	446,496	19,081	6,058	41,088	9.6
November	25,622	534,356	22,125	8,608	46,807	11.8
December	26,167	642,169	21,788	10,022	81,204	18.2
1931						
January	28,681	722,612	27,924	9,207	100,340	23.2
February	26,825	765,325	27,110	8,303	109,235	23.5
March	25,413	707,486	27,545	8,450	102,743	21.8
April	23,970	670,353	28,780	6,390	68,860	14.3
May	23,016	635,183	26,059	1,871	60,189	12.2
June	21,427	573,593	24,206	1,584	59,573	11.7
July	21,647	637,531	25,821	2,169	69,026	13.3
August	21,897	693,273	30,636	4,827	70,479	15.3
September	23,427	747,764	29,822	7,470	72,738	15.7
October	26,353	799,744	32,828	13,605	84,548	18.0
November	30,865	878,267	30,967	18,377	107,372	18.5
December	30,918	982,321	32,949	21,935	[3] 157,933	29.7
1932						
January	31,958	1,051,321	33,277	26,163	145,124	27.0
February	31,162	1,147,945	26,321	21,836	139,956	25.4
March	30,866	1,053,016	31,636	22,912	119,423	21.6
April	----------	1,000,025	----------	----------	121,378	21.7

Date (end of month)	New Zealand	Norway			Poland	Rumania
	Trade-unionists, number unemployed	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Per cent			
1930						
April	(2)	6,701	15.8	19,829	271,225	13,412
May	5,884	5,239	12.2	16,376	224,914	25,096
June	(2)	4,700	10.8	13,939	204,982	22,960
July	(2)	4,723	10.8	11,997	193,687	23,236
August	7,197	5,897	13.4	12,923	173,627	24,209
September	(2)	7,010	15.7	17,053	170,467	39,110
October	(2)	8,031	18.0	20,363	165,154	36,147
November	8,119	9,396	21.4	24,544	209,912	42,689
December	(2)	11,265	25.5	27,157	299,797	36,212
1931						
January	(2)	11,692	26.3	28,596	340,718	38,804
February	(2)	(2)	----------	29,107	358,925	43,270
March	[4] 38,028	11,213	24.9	29,095	372,536	48,226
April	[4] 36,981	(2)	----------	28,477	351,679	41,519
May	[4] 40,507	----------	----------	25,206	313,104	33,484
June	[4] 45,264	----------	----------	22,736	274,942	28,093
July	[4] 47,772	----------	----------	20,869	255,179	29,250
August	[4] 50,033	----------	----------	22,431	246,380	22,708
September	[4] 51,375	----------	----------	27,012	246,426	22,969
October	[4] 50,266	[5] 9,048	[5] 19.6	29,340	255,622	28,800
November	[4] 47,535	10,577	22.8	32,078	266,027	43,917
December	[4] 45,140	12,633	27.2	34,789	312,487	49,393
1932						
January	[4] 45,539	14,160	30.4	34,636	338,434	51,612
February	[4] 45,487	14,354	30.6	37,796	350,145	57,606
March	----------	----------	----------	38,952	352,754	----------
April	----------	----------	----------	36,993	328,700	----------

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
				Unemployment funds				
	Number unemployed registered	Trade-unionists unemployed		Wholly unemployed		Partially unemployed		Number of unemployed registered
		Number	Per cent	Number	Per cent	Number	Per cent	
1930								
April	7,522	38,347	11.1	5,203	2.1	12,755	5.3	12,052
May	7,362	28,112	8.3	5,356	2.2	13,129	5.4	8,704
June	6,330	28,956	8.1	5,368	1.7	17,688	5.7	6,991
July	7,095	27,170	7.8	4,751	1.9	15,112	6.2	7,236
August	7,099	28,539	8.1	5,703	2.3	19,441	7.9	6,111
September	7,527	34,963	9.8	7,792	2.5	26,111	8.3	5,973
October	9,013	43,927	12.2	7,399	3.0	23,309	9.4	6,609
November	12,110	57,070	15.3	11,666	4.7	25,793	10.5	7,219
December	15,245	86,042	22.9	21,400	6.6	33,483	10.4	9,989
1931								
January	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
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	----------	--------	23,251

[1] Sources: League of Nations—Monthly Bulletin of Statistics; International Labor Office—International Labor Review; Canada—Labor Gazette; Great Britain—Ministry of Labor Gazette; Austria—Statistische Nachrichten; Australia—Quarterly Summary of Australian Statistics; Germany—Reichsarbeitsblatt, Reichs Arbeitsmarkt Anzeiger; Switzerland—Wirt. u. Social, Mitteilungen, La Vie Economique; Poland—Wiedemosci Statystyczne; Norway—Statistiske Meddelelser; Netherlands—Maandschrift; Sweden—Sociala Meddelanden; Denmark—Statistiske Efterretninger; Finland—Bank of Finland Monthly Bulletin; France—Bulletin du Marché du Travail; Hungary—Magyar Statisztikai Szemle; Belgium—Revue du Travail; New Zealand—Monthly Abstract of Statistics; U. S. Department of Commerce—Commerce Reports; and U. S. Consular Reports.

[2] Not reported.

[3] Provisional figure.

[4] New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.

[5] Strike ended. Provisional figure.

Unemployment Relief Proposals of International Federation of Trade Unions

AT BERNE, March 16 to 18, 1932, the general council of the International Federation of Trade Unions held a conference which was attended by delegates from central trade-union organizations of 15 countries and from 26 international trade secretariats. At this meeting a resolution was adopted, without opposition, dealing with the general economic situation, of which the concluding sections presented the following proposals regarding unemployment:[1]

In the forefront of immediate measures needed for the mitigation of the crisis is the creation of work for the millions of unemployed. The I. F. T. U. urges

[1] International Labor Office. Industrial and Labor Information, Geneva, Apr. 4, 1932, pp. 26–28.

strongly that credit shall no longer be squandered on armaments and on the bolstering up of bankrupt concerns, which have rationalized on irrational lines, but shall be used for the financing of large-scale schemes for the creation of work.

The natural conclusion must also be drawn from the insufficiency of the work at present available in the world to supply full employment for all workers and salaried employees. Rationalization and crisis make it imperatively necessary that the 40-hour week (five days) shall be established by law as the maximum hours of work in all concerns and all countries.

While these immediate steps are being taken to mitigate the crisis, a beginning must also be made with the transformation of the economic system. The experience of the last few years shows very plainly that the tendency of the world is to form large economic units. It is especially urgent that Europe shall be organized as an economic unit, irrespective of the adoption, now or later, of similar systems in other parts of the world.

These great economic regions must not be converted into new strongholds of monopolistic capitalism. It is the duty of the working class to use their whole influence for the creation of carefully planned spheres of regulated production, of which the ruling purpose shall be the covering of needs. Parallel with the complete transformation of the world economic system, changing the whole face of the world, there must therefore be an extension of public enterprise in all the important spheres of economic life.

The I. F. T. U. reaffirms in the strongest terms the most important international demands of the day: Planned production of raw materials; planned distribution of goods; a planned system of credit, to be secured by uniformity of the central banks; regulation of financial policy by the creation of a uniform international currency; the strictest control of banks and stock exchanges by democratic controlling bodies, and the destruction of capitalist monopolistic power by means of the strictest control of monopolies.

To-day more than ever it is the duty of all labor organizations to stand solidly together for these absolutely necessary demands in the interests of world economic salvation, regardless of the temporarily narrower interests of any individual country.

Public Works for the Unemployed in Germany[1]

IN GERMANY unemployed persons may be utilized for road work as "compulsory workers" (*Pflichtarbeiter*), as "emergency workers" (*Notstandsarbeiter*), or as "voluntary workers" (*Freiwilliger Arbeitsdienst*).

Compulsory Labor

THE arrangement for "compulsory labor" is based on paragraph 91 of the law on employment agencies and unemployment insurance. It stipulates that unemployed persons under 21 years of age receiving the unemployment benefit and all recipients of emergency unemployment relief are to be required to work in return for the allowances paid them. Compulsory labor may be instituted only when the work is such as would not otherwise be performed, is productive in nature, temporary in character, and of public value. In addition to that, the work assigned to an unemployed person must to a certain extent correspond to his former occupation or profession, and he can not be asked to do work which will be of disadvantage to his future well-being.

Under the compulsory labor system an unemployed person works only the number of hours corresponding to the amount of benefit received. He does not work a regular 48-hour week. This means that an unskilled laborer, for instance, would be employed for from 2½ to 3 days a week. The financial supporters of this kind of work

[1] Data are from report of C. W. Gray, American vice consul at Berlin, dated Feb. 29, 1932.

are the communes, districts, or Provinces, which are entitled to make use of these unemployed persons without charge, the Federal Bureau of Employment Exchanges and Unemployment Insurance continuing to pay the unemployment benefits directly to the individual persons.

In practice, very little use is being made of such compulsory labor, for several reasons. One reason is that the public bodies designated to carry out such compulsory-labor projects are not in a position to bear the costs involved, as considerable funds would be required for material, tools, machinery, supervision, and technical planning; also, certain allowances have to be paid to the workers for working clothes and shoes and any other expenses which they may have as a direct consequence of their being compelled to work. Another reason is that practically all work suitable for execution under the system of compulsory labor has already been done during the past few years. A third reason for the impracticability of the plan on a wide scale is the fact that the communes prefer to award contracts to local contractors rather than undertake public works themselves; it may be and usually is stipulated in the contracts that as high as 80 per cent of the workers employed by the contractors are to be taken from the municipal welfare register. Naturally, this means the saving of considerable sums for the communes, owing to the fact that in case these persons subsequently become unemployed they are again entitled to the regular and extended unemployment benefit paid under the Federal insurance system.

Although in former years a considerable part of the work instituted as compulsory labor was road work, it never served to relieve unemployment to any appreciable extent. The unemployed utilized under the system never formed much more than 1 per cent of the total unemployed, and of these not more than 50 per cent were used for road work. The latter usually consisted of the widening, improvement, or extension of already existing roads of little importance, such as park roads and roads leading to sport fields and playgrounds.

Emergency Work

PARAGRAPH 139 of the revised law on employment agencies anp unemployment insurance, dated October 12, 1929, deals with what is known in Germany as "productive unemployment relief" (*wertschaffende Arbeitslosenfürsorge*). This takes the form of "emergency work," which legally is of two distinct kinds, namely, "basic promotion" work (*Grundförderung*) and "additional promotion" work (*verstärkte Förderung*).

To carry out the "basic promotion" work the regional employment bureaus are authorized to promote any measures for reducing unemployment by the provision of work. They have been vested with the right to grant loans or subsidies for this purpose out of the funds of the Federal bureau or the emergency allowance system (financed to the extent of four-fifths by the Federal Government and one-fifth by the communes). These grants are to be made only in the amount expected to be saved, in unemployment benefits, as a result of the ensuing relief of unemployment. The measures subsidized must be of general economic value to the entire population of the respective district and must be carried out by a public body or by a public service organization. In no case may the funds be granted to private companies.

In addition, the Federal Ministry of Labor is authorized by the same law to grant loans or subsidies out of budgetary funds of the Federal Government for the institution of "emergency labor" on public works of special economic value and of special importance as regards the number of workers employed in proportion to the funds involved. This is the so-called "additional promotion" work. In general it is stipulated that the State in whose territory the work is being undertaken must contribute to the financing equally with the Federal Government.

The German Government some time ago intrusted the task of furnishing funds for the "additional promotion" work to the German Company for Public Works, formed on August 1, 1930, with the Federal Government as the sole stockholder. All grants previously made by the Government to subsidize public works were transferred to this company on that date. Due to the unfavorable condition of the Federal finances, no additional loans have been given to the company by the Government, so that at present the company relies for its operating capital entirely on incoming installment payments and interest. During the fiscal year ending March 31, 1932, it will probably have available for "additional promotion" work a sum of approximately 50,000,000 marks ($11,900,000).

The construction of a very simple road costing 80,000 marks ($19,040) would, under the system of emergency work, be financed in the following way: Provided that 125 emergency workers were employed one month, the Federal bureau would pay a subsidy of 10,000 marks ($2,380) to the commune or other body acting as executor of the project, which sum would correspond to the unemployment benefits which would otherwise be due to these persons. If this prjoect were one of especially great public value, an "additional promotion" loan of 20,000 marks ($4,760) would probably be granted by the German Company for Public Works, and a further loan of the same amount would be made by the respective State. The remaining 30,000 marks ($7,140) would have to be furnished by the commune or some other public body.

The calculation for the commune is entirely different if a higher-grade road is to be built, 60 per cent of the cost of which is made of materials, tools, and supervision, leaving only 40 per cent for wages. Of the amount payable for wages, only about 30 per cent can be paid to emergency workers, owing to the necessity of employing a large number of skilled men. Of the wages for the emergency workers, only one-third (10 per cent of the total amount of wages) would be advanced by the Federal bureau as a subsidy and a further 20 per cent might be given as a loan by the respective State, leaving 70 per cent of the wages still to be paid by the commune in addition to the remaining 60 per cent of the total costs. This example illustrates the comparatively small financial advantage of employing "emergency workers" in certain cases.

At the end of September, 1931, there were 39,270 workers employed in emergency work (35 per cent from the regular unemployment benefit list, 55 per cent from the emergency allowance list, and 10 per cent from the welfare relief register). Some 15,000 or 16,000 of these were utilized in road work. The period for which they had already been employed varied from 6 to 13 weeks.

As a rule, the wage rate established by collective agreement in the respective trade is paid, although the regional employment bureaus are entitled to fix the maximum wages. On an average an emergency worker is not employed for more than three months.

In the fiscal year ending March 31, 1931, workers employed under the emergency system performed 2,536,289 days of road work—1,582,192 days under the basic promotion plan and 944,097 days under both basic and additional promotion plans. Almost 50 per cent of all work carried out under the emergency system had to do with roads.

Funds amounting to 9,521,000 marks ($2,265,998) were granted by the Federal Bureau of Unemployment Insurance, under the basic promotion scheme, for road work during the above fiscal year, which represents 37.3 per cent of the total contribution of that organization for public works during that period. Under the additional promotion scheme the Government appropriated 9,236,000 marks ($2,198,-168) for projects having to do with road work, which represents some 32 per cent of total funds set aside for work of all kinds enjoying this status. This gives a total of 18,757,000 marks ($4,464,166), which supplemented by some seven or eight million marks ($1,666,000 to $1,904,000), given by the States, etc., amounts to about $6,250,000 for the fiscal year 1930–31 on road work under the emergency system.

During the first quarter of the fiscal year ending March 31, 1932, 597,621 days of work were provided by road projects enjoying only basic promotion grants and 980,456 by road projects enjoying both forms of grants. The Federal bureau granted loans and subsidies for road work to the extent of 1,237,000 marks ($294,406). The growing importance of road work as a means of productive unemployment relief is illustrated by the fact that 42.3 per cent of the total working-days financed under the basic promotion scheme alone and 47.7 per cent of those financed by both types of promotion were spent on road projects. Since April 1, 1931, only the German Company for Public Works has made the additional promotion grants; this type of grant has been discoutinued by the regional employment bureaus.

Among the more important projects for road work enjoying both forms of grant which were begun during the fiscal year 1930–31 under the emergency work plan may be mentioned: (1) The construction of various Bavarian State roads using the services of 13,000 emergency workers for a total of 160,000 working-days; and (2) the improvement of provincial roads in Rhineland and Westphalia employing 1,211 emergency workers for 406,400 working-days. During the first quarter of the current fiscal year the largest project undertaken was the widening of several provincial roads in East Prussia; this gave employment to 1,500 workers for 210,000 working-days.

Voluntary Labor Service

THE third method of utilizing unemployed persons for road work is known as the "voluntary labor service." This system may be called a modification of the compulsory labor service as advocated by various political parties and other organizations in Germany. The present form of voluntary labor service is based on paragraph 139a of the law on employment agencies and unemployment insurance, which is an amendment to the original text and is contained in the

Government's emergency decree of June 6, 1931. This paragraph authorizes the Federal Bureau for Employment Agencies and Unemployment Insurance to grant funds or subsidies for certain projects, in an amount not to exceed that expected to be saved in unemployment benefits as a result of decreasing the number of beneficiaries. The projects aided under this system must have a public value (as for instance, the upkeep, improvement, and construction of roads, the reclaiming and improvement of land, and the laying out of lots for settlements and vegetable gardens for unemployed) and must be work that would otherwise under no circumstances be carried out, even under the system of emergency labor. Grants may be made for this purpose only to public authorities, such as States, Provinces, districts, and communes, to federations of communes, or to associations founded for the express purpose of instituting work under the voluntary labor service. In no case may funds be granted to private companies.

Voluntary workers receive as a maximum wage only the amount of unemployment relief which would ordinarily be paid. In general, the benefits which are normally paid directly to the unemployed person are transmitted to the body acting as the financial backer of the project. It is left to the latter to make use of these funds in any appropriate way. However, the workers' standard of living must be maintained at a level at least as high as would be possible in case he received his benefit in cash. In most cases only a part of the benefit is paid him directly, the other part being used for his board, lodging, clothing or any other personal needs, the actual procedure varying according to the way the service is organized in each case; that is, whether the workers are lodged and given their meals in camps or barracks (in which case only a small allowance is paid them as pocket money) or whether they continue to provide for their own upkeep. The Federal Minister of Labor can authorize the district employment bureau to credit the worker with the difference between the benefit which is paid the backer of the project and the standard wages paid in the respective trade and section of Germany. After a certain amount has accumulated, this credit is transferred to the Federal Book of Debts (*Reichsschuldbuch*), but can be used only for the building of a dwelling house for the worker's own use, or for buying a home site, i. e., a plot of ground with a small house, the whole costing about 2,500 marks ($595).

In the opinion of the respective authorities, the voluntary labor service is especially suitable for the building of roads which are not absolutely necessary but, nevertheless, of considerable value as a supplement to the existing highway system. Other projects considered suitable for execution under this system have to do with the construction of approaches to newly founded unemployment "settlements." The latter are small colonies for unemployed on the outskirts of the large cities.

Attention must be drawn to the fact that the costs of the service are relatively high in spite of the fact that wages do not have to be paid. It is estimated that each worker costs at least 80 marks ($19) per month, this amount being accounted for by various items, such as tools, supervision, planning, and insurance charges.

The voluntary service was first legally provided for in June, 1931. The first few months were largely taken up in getting the service

started. Up to the end of January, 1932, about 750 projects have been carried out, but only a very small part of them had anything to do with road work. For instance, in the last quarter of 1931 there were 197 projects begun under this system but only 27 were connected with road building. Trade-unions, as a rule, are in principle opposed to the plan, as tending to develop a sort of compulsory labor service.

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INDUSTRIAL AND LABOR CONDITIONS

Smaller Plant Units as a Means of Stimulating Workers' Interest

IN ORDER that the average worker may have some sense of personal responsibility for his department's success, the subdivision of an industrial enterprise into relatively self-contained units is suggested in an article by H. Dubreuil in the April, 1932, issue of The Human Factor, the journal of the National Institute of Industrial Psychology (London). While a modern industrial undertaking is operated on the principle of the subdivision of labor, the outcome of the work—"the real motive force of the whole enterprise—is not subdivided as are the processes of production. For the rank and file the result of their work is represented by a salary, more or less fixed in advance and mostly independent of the profits of the enterprise. Only for a few individuals at the top of the hierarchy is there any exception to this rule; hence the absence among the rank and file of that urge to activity characteristic of those at the head."

Referring to the distribution of profits among employees according to their position in the industrial concern in which they are placed, the writer declares that this apparently obvious remedy for lack of personal interest on the part of the workers has not been successful. In the judgment of this author, the average man is unable to take a long view and consider the success of the enterprise as a whole as necessary to his personal welfare. The same man, however, if he happens to have an opportunity to start some small undertaking of his own, goes into it whole-heartedly without begrudging either labor or time. In the present day the great majority of men can not reasonably hope to establish an individual business. On the other hand, many industrial concerns, even the most up to date, notwithstanding their seeming machinelike set-up and functional interdependence, could readily be divided into more or less self-governing units.

In the same way one could conceive a sort of industrial federation, in which each different "department" might have independent internal activity as long as it harmonized with that of the departments placed in direct relation to it. Even though it is essential that department B should receive its work at a specific time and in a given condition from department A and transfer it in another appointed time and condition to department C, there remains between these two points considerable scope for personal initiative. This is the all-important factor if we wish an industrial concern to be run in the same spirit as an individual enterprise. It is only necessary to budget for each process separately for it to present the essential features of an independent business.

Up to the present time little study has been given to this problem. Such a development, however, seems "to be little more than a logical extension of the processes of subdivision." Industrial employers have for a long time found it necessary to delegate to their subordinates duties which formerly they could have carried on themselves.

It is not unreasonable to visualize that such a process might go on until some functions become comparatively autonomous.

Attention is called in the article to the following question asked by Malcolm C. Rorty, vice president of the International Telephone & Telegraph Corporation, New York, in the April, 1930, number of the Bulletin of the Taylor Society: "To what extent can large groups be organized and managed to realize the abilities, capacities, and energetic efforts of an individual as though he were in a small business of his own?" Although the writer in The Human Factor considers that the propounder of this question does not go far enough, suggesting merely a subdivision in which only the chiefs of the various services would be able to act like independent managers, he nevertheless considers Mr. Rorty's study particularly important.

> It only remains to extend to the workers the arguments which Mr. Rorty applies to the heads of departments. It is not only among the latter that we find men of independent thought and natural abilities. These are human qualities which are also to be found among the workers, in whom there is even greater danger of their remaining unused. I shall probably be asked if I hope to find posts of responsibility for all those who possess a spark of initiative. But I do not suggest this. I have already mentioned the impossibility of making an interest in the general success of the enterprise penetrate through all ranks, and I have stated the regrettable fact that most men are incapable of long views and that it is necessary to take this myopia into account. It is for this reason that I urge the possibility of subdividing the enterprise so as to reduce the scope of endeavor within the comprehension of the average worker. An ordinary man's outlook can not embrace the firm as a whole, but it may well extend to the limited field of a department.

Dubreuil also cites, as valuable evidence in behalf of the scheme he proposes, the practice which existed in certain French firms of having the workers share in the benefits resulting from the economy of raw material. A report on this system is given in the findings of an investigation published by the Union des Industries métallurgiques et minières. Furthermore, the workers in France have long since organized such groups ("commandites") in some of the industries.

Referring to the suggestion made in the above-mentioned bulletin of the Taylor Society that the head of a department should be given a certain financial independence to enable him to feel the business is his own, Dubreuil declares that if such chief retains the profit of the department for himself there will be no change in the condition or spirit of the workers. If, however, the profits of the department are distributed among all the workers in it according to the value of their respective services, the motives actuating the department head will be extended in a measure to all his personnel. The arguments against profit sharing in a large corporation do not apply to such a plan as is here outlined. A worker who is not able to grasp the financial intricacies of a whole business nor see how he can be affected by its profits or losses may readily comprehend the balance sheet of a single small department. Workers once placed in the position in which they are to some extent sharers in the spirit of the undertaking will no longer need elaborate methods of payment to spur them to more vigorous action. Under this new scheme, Dubreuil contends, the same motives that animate the leaders will be found, though less dominant, among the workers, who will show energy, inventiveness, and all the virile characteristics of the man of independent life, but which are quiescent as soon as he is relegated to a state of subjection.

CHILD LABOR

Migratory Child Workers in New Jersey

IN February, 1931, the New Jersey Commission to Investigate the Employment of Migratory Children in that State submitted the results of its detailed study of migrant children in agricultural labor.[1]

At the request of welfare agencies and other bodies interested in improving the conditions of migrant child workers and in supplying educational facilities for them, the commission has prepared a supplement to its report, giving detailed information relative to the loss of schooling.

This supplement, published January, 1932, shows the number of migrant children employed in each county and township, classified as to age, school grade, and the number of actual school days lost during the period of employment. It also shows the number and per cent of boys and girls of all ages who work more than 8 hours per day and 8 or less hours per day, arranged according to occupation.

The commission believes that the State of New Jersey is under obligation to make good the loss in education suffered by migratory children who work in an essential New Jersey industry; that is, agriculture. The heads of migrant families share this view. Pressed by long unemployment and a scarcity of jobs, migrant families are glad to have work on farms during the summer. The work gives them shelter, food, and cash. Cash is used to pay butcher, grocer, coal, clothes, and rent bills accumulated during the winter months of unemployment in Philadelphia and other cities from which the families come. Yet it is remarkable that under such distress the great majority of the heads of families are willing to sacrifice earnings and send their children to school. Our second survey, conducted during the summer of 1931, revealed that out of 146 fathers of families only 22 were not willing to send their children to school while they were on the farms. The reason for this unwillingness was not a lack of understanding of the value of education. Starvation and long suffering was the real cause of their unwillingness. The fathers, happy to have a temporary summer job, try to earn as much as they can, using every available hand of the family in order to have some money to meet the hardships of the coming winter.

As a result of its studies, the commission recommended the enactment of legislation to regulate the employment and to provide schooling of migrant children. It further recommended that the commissioner of labor be given authority to enforce a housing code designed to safeguard the health of the migrant families.

[1] See Labor Review, June, 1931, p. 64.

INSURANCE AND THRIFT PLANS

Investment by Industrial Employees in Building and Loan Associations

A RECENT study by the industrial relations section of Princeton University on the use of building and loan associations in company programs for employee savings and investment discusses these systems from the standpoint of the need for financial security among American workmen. The long-continued period of unemployment through which we are passing has shown the necessity for assisting employees to provide reserves sufficient to meet protracted curtailment or entire loss of earnings. "During the past two decades," the report states, "workmen's compensation and minimum wages have been definitely allocated to the fields of legislation and private initiative, respectively. The next decade will probably see the test whether the financial security of the individual employee can remain outside the field of legislative action. The results of that test, while much influenced by the length of the present depression, are largely in the hands of American employers."

The various company plans for savings and investment, it is stated in the report, have been fairly successful from the employees' standpoint in assisting them to obtain some degree of financial security, while employers have found that such plans have had the tendency to develop individual initiative and responsibility among employees while securing the advantages of cooperative group action.

Company thrift plans are of two general types: (1) Those in which the savings are invested for short terms and are planned, therefore, to provide the means to meet unusual expenses which can not be paid for out of current earnings, and (2) long-term investments, such as are exemplified in building and loan associations, in which the plan provides for systematic saving over a period of years. The possibility of the successful participation by employees in such a plan depends in the main upon a fairly assured income through stable employment. Building and loan associations are well adapted to the needs of employees earning a moderate salary or wage, as payments for association shares may be made in small amounts, which, however, amount to substantial sums when carried out over a long period. Assistance to employees in keeping up their payments is rendered by many companies through pay-roll deductions. The earnings on shares which are automatically credited and compounded on dividend dates in the majority of building and loan associations add materially, over a period of years, to the value of the investment.

A twofold service may be offered to employees by the building and loan association, as it provides opportunity to accumulate a substantial reserve and it makes loans to members for the purchase or construction of homes which may be repaid in small but regular amounts. The association thus assists in the solution of two problems in which the employer has an interest—the promotion of habits of thrift among employees and home ownership.

Even in cases where the company took the initiative in the organization of the building and loan association, membership is ordinarily open to others than the company's employees. This is an advantage, however, since it makes for stability by diversifying the risk and brings increased association business and income. There are several types of building and loan association plans, and those established in connection with individual enterprises follow the same general plans as those of independent associations. All types of associations include, as their basic operation, the sale of shares of the association at a fixed par value, for which the subscribers make regular payments, called "dues." The associations' earnings are derived from membership fees, fines for failure to pay dues on time, and interest on investments, and in some cases from premiums charged on loans.

While the main features of the different plans are similar, the details vary considerably. The plans may be divided into the serial plan, in which stock is issued in series at regular intervals and in which all the dues are pooled and loans made from the common fund; the permanent plan, in which subscriptions to shares may be made at any time and the earnings are credited and accounts kept on an individual basis instead of in series; the Dayton plan, which differs from the permanent plan in the provision for optional payment of dues, no fines or forfeitures, and the introduction of paid-up shares; the permanent capital plan, which provides for issuance of a special type of share, subscribed and paid for by the founders of the association, which guarantees a definite stipulated return upon the regular shares of the association.

The associations, whatever the type of plan, usually sell one or more of the following types of shares: (1) Installment shares, which are paid for in regular installments as in the serial and permanent plans, or varying amounts as in the Dayton plan. (2) Prepaid shares, sometimes called single payment shares, in which the investor pays a lump sum for each share considerably less than its par value and allows the money to remain with the association until the earnings bring it up to its par value. (3) Paid-up or full-paid shares, which were originally shares upon which all payments had been made and which were left with the association; from this developed the sale of shares for a single cash payment, upon which dividends are paid, but commonly at a lower rate than on installment shares. (4) Juvenile shares, which are sold to minors in a large number of States. (5) Guaranty stock or permanent contingent-reserve stock on which no dividends are paid until the stipulated rate is paid on the regular shares.

While the provisions in regard to withdrawal of funds before the end of the investment period vary in the different types of plans, in general there is some limitation on the right of withdrawal either through the practice (authorized by law) of requiring varying periods of notice of the intention to withdraw deposits or through the imposition of a fee or forfeiture of some share of the earnings of the fund. Early withdrawals, therefore, have two principal effects—a loss to the investor and the difficulty which the association may have in paying withdrawal requests during a period of depression. In associations having a large proportion of members exposed to the risks of unemployment, part time, or reduction in wages, the members may need their savings badly, but the associations may be in no

position to meet wholesale withdrawal requests, since their regular income from dues is likely to be greatly reduced.

"Those interested in building and loan associations as a medium for employee savings should recognize the fact," the report states, "that during a time of financial strain dues paid on installment shares may be unavailable for some time. This is not to argue that building and loan associations are not exceedingly safe institutions, but to conclude that they are better suited to the savings needs of those employees who are in a position to make long-term rather than demand deposits."

In conclusion it is stated:

> A fundamental service which companies have in their power to render in some degree and which would remove many of the obstacles to long-term investment on the part of their employees is increased stabilization of employment and therefore of earnings. This would produce results far more important than thrift encouragement, but it would greatly aid that, too. It would allow employees who have the courage and will power to put by definite amounts regularly over a period of years to taste the fruits of their labors instead of having to withdraw deposits at a sacrifice to live through unemployment and begin again with everything gone. It would encourage those just reaching the years of their best earning power to consider planned instead of unregulated and haphazard expenditure, since it would hold out to them an assurance of a degree of independence and security as the reward of their efforts.

Amount of Life Insurance in the United States

A REPORT issued recently by the committee on the costs of medical care [1] gives data on the extent of life insurance protection in the United States. The study was undertaken in order to show the extent to which American families are attempting to protect themselves from uncertain financial burdens through the various forms of life insurance and by means of Christmas savings plans.

At the close of 1929, the latest year for which information is available, the report states the face value of policies in force totaled almost $113,000,000,000, which was approximately three times the total amount carried in all other countries. The premiums collected on these policies by the life insurance companies from their 67,000,000 policyholders amounted to about $3,500,000,000 or 4 per cent of the national income, while more than $2,000,000,000 was paid in that year to policyholders and their beneficiaries. In 1926, payments were made on account of the deaths of about 500,000 policyholders, which was about one-third of the total deaths in the United States.

Life insurance is primarily a measure of family protection by means of which the family hopes to bridge over the period of adjustment following the loss of earnings of the holder of the policy. There are many forms of life-insurance policies which combine this basic principle with various provisions covering other contingencies, but in most cases family protection is the basic motive in the purchase of the insurance. The three main types of life insurance policies—ordinary, group, and industrial—in their different variations account for approximately 90 per cent of the total insurance in force. The major part of this insurance is written by commercial "old-line"

[1] Committee on the costs of medical care. The extent and adequacy of life insurance protection in the United States, by Mary Dublin. Washington, 910 Seventeenth Street NW., Jan. 15, 1932.

companies, less than 9 per cent being carried by fraternal and assessment companies.

Ordinary insurance includes term, endowment, and whole-life policies. This type of insurance forms only about 24 per cent of the total number of policies, but the value of the policies amounts to 67 per cent of the total of all policies. Group insurance which provides for blanket coverage of an industrial group, is in force for approximately 5,500,000 workers, and its value amounts to about 9 per cent of the value of all the insurance in force. Industrial insurance is sold in small amounts and the premiums are paid in small weekly or monthly installments. Such policies form 68 per cent of all the policies issued, but their value is only about 16 per cent of the face value of all insurance. All these types of insurance carried by the commercial companies are organized on a legal reserve basis; that is, in conformity with the State laws, which require such companies to maintain an adequate reserve fund at all times. Much of the fraternal insurance, also, is now reorganized on a legal-reserve basis. This insurance amounts to about 8 per cent of the face value of all policies, while assessment insurance constitutes less than 1 per cent.

There is considerable variation in the cost of selling and administering these three types of insurance. Industrial insurance is the most expensive, on account of the many small sums of money which must be handled individually, ordinary insurance is second in cost, and group insurance is the least expensive because of its blanket coverage. Group insurance can not be regarded, however, as a complete substitute for ordinary or industrial insurance, since if an employee loses or leaves his position he must assume the cost of carrying the insurance on an individual basis if the policy is continued. As individual premiums are computed upon the then attained age of the employee, this is often too great a burden to be assumed, particularly by the older employees and by those whose incomes have stopped through the loss of their usual earnings.

The average face value of all types of policies in 1929 was $1,685, the averages ranging from $200 for industrial policies to $2,431 for ordinary policies. These figures, however, have little meaning, since they make no distinction between the policies held by heads of families and those held by children and other dependents, nor do they show the extent to which they are affected by extremely large individual policies. For example, there were included among the policyholders 16,000 persons with policies of $50,000 and over, of whom 364 were insured for more than $1,000,000 each. It is evident, therefore, that the average figures are too high to apply to policyholders generally, and an idea of the adequacy of the insurance provisions can be obtained only by ascertaining the amount of insurance purchased by individual families of different income classes.

Few such studies have been made, but one made by the Metropolitan Life Insurance Co. in 1924 covered 11,649 families, averaging 4.6 persons, in which industrial insurance was carried by some member of the family. These families were considered fairly representative of the insured working classes of the country. In this group the average coverage on the head of the family, including nearly 1,400 fathers who carried no insurance, was $1,276, and excluding the heads of families not carrying insurance the average was $1,450. Of the total number carrying insurance, 20.9 per cent had less than $500 of insurance; 37.7

per cent, less than $1,000; and 88.6 per cent less than $3,000. Approximately one-third of the insured fathers carried only industrial insurance, amounting to an average coverage of $485. From these figures it is seen that these families had very small amounts of insurance to substitute for the earnings of the father in the event of his death.

In discussing the adequacy of the insurance carried, as disclosed by the average amounts of policies, the writer quotes Dublin and Lotka in The Money Value of a Man, in which they state: "Where the insured is a breadwinner, it is the value of the future income to the family that is lost, and life insurance is intended in a measure to compensate this loss. * * * Under ideal conditions, the amount of the insurance should be equivalent to the value to his family of the man's net future earnings; that is, the sum of money which, invested at current rates of interest, would be sufficient, by the use of part of the principal, as well as the interest each year, to keep his family on the same, or nearly the same, level after his death as it would have been during his normal lifetime. In actual practice it is quite impossible to have such complete coverage." A table computed by the same authors, taking into account the changes in earning power with the passage of time, the relative percentage of persons gainfully occupied, the expectation of life, the cost of the man's own support, and other factors, shows that a normally healthy man of 50 years of age whose annual earnings during his period of greatest earning were $1,000 should be worth $5,700 to his family exclusive of his living expenses for the rest of his life. On the same basis a man whose maximum earning capacity was $1,500 should be worth $9,900 at the age of 50; one whose earning capacity was $2,000 should be worth $13,800, and $2,500, $17,450. These figures show how inadequate the insurance protection is in most cases.

Although Christmas savings plans would not appear to have much relationship to investment in life insurance, as a matter of fact very large sums are accumulated in this way, a large part of which is invested in permanent savings or insurance. In December, 1930, 8,000 banking institutions distributed $632,000,000 to about 11,000,000 members of the Christmas savings clubs, of which it is estimated only 38 per cent was used for Christmas purchases, most of the remainder being used in the payment of debts, taxes, etc., or invested in insurance or savings funds.

In conclusion, the writer compares the amounts invested each year in life insurance or saved through Christmas savings funds, totaling more than $4,000,000,000, with the payment of approximately $3,000,000,000 for medical care. The insurance and savings payments are made voluntarily and at regular intervals and it has been suggested, the writer states, that the present complaints about the excessive cost of medical care might be met in a measure by a similar system of regular and orderly payments designed to prepare for the contingencies of sickness.

HEALTH AND INDUSTRIAL HYGIENE

Mortality Experience of International Typographical Union, 1931

By Frederick L. Hoffman

IN CONTINUATION of the annual reports of the mortality experience of the International Typographical Union, the following statistics for the year 1931 are presented.[1] The average dues-paying membership for 1931 was 77,757, showing a slight increase over the previous year. The total number of deaths during the fiscal year 1931 was 1,193, so that the average official death rate for the year was 1,534.3 per 100,000 against 1,456.6 for the year 1930. The average age at death for the fiscal year 1931 was 59.6 years, which may be compared with 1921, when it was 54.3 years, and 1911, when it was 49.1 years. The range in ages at death during the fiscal year 1931 was from 21 to 92 years.

Table 1, following, gives the membership, the total number of deaths, and the mortality rate per 100,000 members, 1925 to 1931.

Table 1.—GENERAL MORTALITY AMONG MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1925 TO 1931

Year	Membership	Deaths	
		Number	Rate per 100,000 members
1925	71,372	880	1,233.0
1926	72,704	913	1,255.8
1927	74,829	1,002	1,339.1
1928	75,738	913	1,205.5
1929	76,015	1,090	1,433.9
1930	77,507	1,129	1,456.6
1931	77,757	1,193	1,534.3

Table 2 shows the mortality from certain specified causes, for each of the years 1925 to 1931.

[1] Data for previous years were presented in Bulletin No. 427, and in Labor Review, issues of July, 1927, April, 1928, March, 1929, May, 1930, and July, 1931.

TABLE 2.—MORTALITY FROM SPECIFIED CAUSES PER 100,000 MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1925 TO 1931

Year	Pulmonary tuberculosis		Cancer		Diabetes		Nephritis	
	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000
1925	87	121.9	66	92.5	12	16.8	56	78.5
1926	87	119.7	64	88.0	15	20.6	38	52.3
1927	56	74.8	83	110.9	14	18.7	47	62.8
1928	74	97.7	79	104.3	16	21.1	38	50.2
1929	90	118.4	94	123.7	12	15.8	46	60.5
1930	79	101.9	90	116.1	8	10.3	44	56.8
1931	82	105.5	96	123.5	16	20.6	43	55.3
	Pernicious anemia		Lead poisoning		Alcoholism		Cirrhosis of liver	
1926	8	11.0	2	2.8	1	1.4	5	6.9
1927	6	8.0	2	2.7			8	10.7
1928	7	9.2	1	1.3	1	1.3	5	6.6
1929	3	3.9			1	1.3	5	6.6
1930	3	3.9					8	10.3
1931	5	6.4					3	3.9
	Pneumonia		Ulcer of stomach		Appendicitis		Hernia	
1926	83	114.2	5	6.9	15	20.6	4	5.5
1927	85	113.6	4	5.3	9	12.0	3	4.0
1928	67	88.5	4	5.3	12	15.8	4	5.3
1929	105	138.1	15	19.7	14	18.4	8	10.5
1930	72	92.9	8	10.3	11	14.2	1	1.3
1931	108	138.9	5	6.4	10	12.9	5	6.4

As the first section of the table shows, pulmonary tuberculosis increased slightly over the previous year, and the same is true for cancer. There was a marked increase in diabetes, from 8 deaths in 1930 to 16 deaths in 1931. Nephritis cases show almost the same mortality as in 1930; compared with 1925, the mortality from this important cause, often held to mask deaths from lead poisoning, is now markedly lower and has been for a number of years.

The number of deaths from pernicious anemia is small and this insidious affection is shown to have been less frequent during the last three years than during the preceding three years. From lead poisoning there were five deaths during the three years 1926 to 1928, as against none during the three years ending with 1931. This must be looked upon as a notable improvement, due unquestionably to the high regard paid to sanitary conditions and ventilation of printing plants throughout the country. A like decline has been observed in the United Kingdom, where there were four deaths from lead poisoning reported to the factory inspection department during 1919 to 1924, as against only two deaths during the five years ending with 1930. There were only 3 deaths from alcoholism during the 6-year period, 2 during the first three years, and 1 during the last half of the period. From cirrhosis of the liver, there were only three deaths in 1931, the lowest on record since 1926.

Pneumonia shows a considerable increase, from 72 deaths in 1930 to 108 deaths during the current year, while ulcers of the stomach declined from 8 to 5. With the exception of 1927, the mortality from

appendicitis was the lowest on record since 1926. The mortality from hernia increased from 1 death in 1930 to 5 deaths in 1931, there having been 14 deaths during the last three years as against 11 deaths during the first three years.

The details of the mortality from certain nervous diseases and diseases of the cardiovascular system are shown in Table 3.

TABLE 3.—MORTALITY FROM SPECIFIED NERVOUS AND CARDIOVASCULAR DISEASES PER 100,000 MEMBERS OF INTERNATIONAL TYPOGRAPHICAL UNION, 1926 TO 1931

Year	Cerebral hemorrhage		General paralysis		Paralysis of the insane		Angina pectoris		Other heart disease		Embolism and thrombosis	
	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000	Deaths	Rate per 100,000
1926	47	64.6	20	27.5	15	20.6	25	34.4	197	271.0	3	4.1
1927	59	78.6	53	70.8	7	9.4	16	21.4	164	219.2	12	16.0
1928	55	72.6	30	39.6	3	4.0	15	19.8	173	228.4	8	10.6
1929	85	111.8	30	39.5	1	1.3	17	22.4	211	277.6	10	13.2
1930	83	107.1	36	46.4	7	9.0	17	21.9	221	285.1	13	16.8
1931	73	93.9	32	41.2	4	5.1	13	16.7	265	340.8	22	28.0

While there was a decline in the mortality rate from cerebral hemorrhage, or apoplexy, the deaths from this cause during the last three years are markedly in excess of the preceding three years. There were no important changes in the mortality from general paralysis and paralysis of the insane, but the deaths during the last three years from paralysis of the insane numbered only 12 as against 25 during 1926 to 1928. Deaths from angina pectoris declined during 1931 to the lowest figure during the six years under review, but deaths from other affections of the heart continued to increase over the earlier years. Deaths from embolism and thrombosis, other than cerebral, show a decided increase, there having been 45 deaths during the last three years compared with 23 deaths during the first three years.

Among other interesting causes of death, attention may be directed to three suicides in 1931 as against three during the preceding five years combined. This increase is also reflected in the general increase in suicide throughout the country during the years under review. There were no deaths from homicide during 1931, as against three during the preceding five years. Automobile accidents caused nine deaths during 1931 and the same number during 1930. Other details are given in the general mortality table compiled in accordance with the rules of the international classification of causes of death.

It is regrettable that the proportion of ill-defined or unknown causes of death should be as large as it is. The deficiency in this respect is about the same from year to year and can only be improved by an effort on the part of the union to ascertain in each and every case the cause of death and the age at death of deceased members. The value of the tabulation, of course, is proportionate to its completeness, but for the time being the figures have to be accepted as they are.

TABLE 4.—NUMBER OF DEATHS OF MEMBERS OF TYPOGRAPHICAL UNION, BY CAUSE AND AGE GROUP, 1931

International list No.	Cause of death	All ages	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over	Unknown
11, b	Influenza without pulmonary complications specified	5	---	1	---	---	---	---	---	2	---	2	---	---	---	---	---	---
23	Lethargic encephalitis	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---
31	Tuberculosis of the respiratory system	82	1	7	7	12	9	5	10	16	7	8	---	---	---	---	---	---
34	Tuberculosis of the vertebral column	1	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
38	Syphilis	2	---	---	---	---	---	---	---	---	1	1	---	---	---	---	---	---
41	Purulent infection, septicemia	5	---	---	---	---	---	---	1	1	1	---	2	---	---	---	---	---
43	Cancer of the buccal cavity	2	---	---	---	---	---	---	1	1	---	---	---	---	---	---	---	---
44	Cancer of the stomach, liver	12	---	---	---	1	---	2	1	2	1	2	3	---	---	---	---	---
45	Cancer of the peritoneum, intestines, rectum	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---
47	Cancer of the breast	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---
49	Cancer of other or unspecified organs	85	---	---	2	2	4	7	9	13	15	11	12	6	4	---	---	---
50	Benign tumors and tumors not returned as malignant	5	---	---	---	---	---	1	---	1	1	1	1	---	---	---	---	---
51	Acute rheumatic fever	2	---	---	---	---	1	---	---	---	---	---	---	1	---	---	---	---
57	Diabetes mellitis	16	---	---	1	---	1	1	3	2	4	2	2	---	---	---	---	---
58, a	Pernicious anemia	6	---	---	---	---	---	---	---	1	---	3	1	---	---	---	---	1
58, b	Other anemias and chlorosis	3	---	---	---	---	---	---	---	---	2	1	---	---	---	---	---	---
60	Exophthalmic goiter	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---
63	Diseases of the adrenals	1	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---
65, a	Leukemia	2	---	---	---	---	---	1	---	---	---	1	---	---	---	---	---	---
65, b	Hodgkin's disease	1	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
70	Encephalitis	3	---	1	---	---	---	---	1	---	1	---	---	---	---	---	---	---
71	Meningitis	5	---	---	1	1	1	---	1	---	1	---	---	---	---	---	---	---
72	Tabes dorsalis (locomotor-ataxia)	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
73	Other diseases of the spinal cord	4	---	---	---	---	---	---	---	1	---	3	---	---	---	---	---	---
74, a	Cerebral hemorrhage	74	---	---	---	2	1	3	6	11	16	9	17	4	2	2	---	1
74, b	Cerebral embolism and thrombosis	5	---	---	---	---	---	---	---	3	---	---	2	---	---	---	---	---
75, a	Paralysis without specified cause, hemiplegia	34	---	---	1	---	1	---	5	5	8	4	4	3	---	---	1	2
75, b	Others under this title	7	---	---	---	---	---	2	---	1	1	---	3	---	---	---	---	---
76	General paralysis of the insane	4	---	---	---	---	---	---	1	---	1	1	---	1	---	---	---	---
77	Other forms of mental alienation	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
82	Neuralgia and neuritis	3	---	---	---	---	---	---	---	1	---	2	---	---	---	---	---	---
84	Other diseases of the nervous system	4	---	---	---	---	1	---	---	---	1	1	---	---	---	---	---	1
87	Pericarditis	1	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---
89	Angina pectoris	13	---	---	---	---	---	---	---	1	5	3	1	3	---	---	---	---
90	Other diseases of the heart	266	2	---	3	3	8	19	31	40	44	35	45	23	9	2	1	1
91, a	Aneurysm	2	---	---	---	---	---	---	---	---	2	---	---	---	---	---	---	---
91, b	Arteriosclerosis	47	---	---	---	1	1	---	3	4	7	8	6	10	4	2	---	1
91, c	Other diseases of the arteries	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---
92	Embolism and thrombosis	22	---	---	1	---	1	2	3	3	3	2	5	2	---	---	---	---
93	Diseases of the veins	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---
94	Diseases of the lymphatic system	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
95	Hemorrhage without specified cause	6	---	---	1	---	---	---	1	1	2	---	1	---	---	---	---	---
96	Other diseases of the circulatory system	4	---	---	---	1	---	---	1	---	1	1	---	---	---	---	---	---
99	Bronchitis	3	---	---	---	---	---	---	---	---	---	1	---	---	---	2	---	---
100	Bronchopneumonia	6	---	---	---	---	---	---	---	1	2	1	---	---	---	2	---	---
101, a	Pneumonia, lobar	8	---	---	---	2	1	1	2	---	2	---	---	---	---	---	---	---
101, b	Pneumonia, unspecified	101	---	3	4	5	9	6	12	15	10	14	12	6	3	---	1	1
102	Pleurisy	1	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---
103	Congestion and hemorrhagic infarct of the lung	7	---	---	---	1	---	---	1	---	1	---	4	---	---	---	---	---
105	Asthma	3	---	---	---	---	---	1	---	1	---	---	1	---	---	---	---	---
107	Other diseases of the respiratory system	2	---	1	---	---	1	---	---	---	---	---	---	---	---	---	---	---
109	Diseases of the pharynx and tonsils	1	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
111, a	Ulcer of the stomach	5	---	---	---	---	---	---	---	1	2	2	---	---	---	---	---	---
112	Other diseases of the stomach	7	---	---	---	---	---	---	---	1	2	2	1	---	1	---	---	---
117	Appendicitis and typhlitis	10	---	---	---	---	4	1	---	2	1	---	---	2	---	---	---	---
118, a	Hernia	5	---	---	---	---	---	2	---	---	---	1	1	1	---	---	---	---
118, b	Intestinal obstruction	6	---	---	---	---	---	---	2	2	---	2	---	---	---	---	---	---
119	Other diseases of the intestines	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
122, b	Cirrhosis of the liver, not specified as alcoholic	3	---	---	1	---	---	---	1	---	1	---	---	---	---	---	---	---
123	Biliary calculi	2	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1
124	Other diseases of the liver	2	---	---	---	---	---	---	---	---	---	1	1	---	---	---	---	---
126	Peritonitis without specified cause	8	---	1	1	1	1	2	---	1	1	---	---	---	---	---	---	---
128	Acute nephritis	1	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---
129	Chronic nephritis	44	---	---	---	1	1	4	4	4	6	8	7	6	---	1	---	2
131	Other diseases of the kidneys and annexa	7	---	---	---	1	---	1	---	3	---	1	1	---	---	---	---	---
133	Diseases of the bladder	4	---	---	---	---	---	---	---	---	---	---	4	---	---	---	---	---
135	Diseases of the prostate	1	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---
151	Gangrene	3	---	---	---	---	---	---	---	1	---	---	1	1	---	---	---	---
154	Other diseases of the skin and annexa	1	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---

TABLE 4.—NUMBER OF DEATHS OF MEMBERS OF TYPOGRAPHICAL UNION, BY CAUSE AND AGE GROUP, 1931—Continued

International list No.	Cause of death	All ages	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and over	Unknown
155	Diseases of the bones	2								1				1				
164	Senility	14											4	2	5	3		
170	Suicide by firearms	1									1							
174	Other suicides	2					1					1						
179	Accidental burns	2					1			1								
180	Accidental mechanical suffocation	1							1									
181	Accidental absorption of irrespirable, irritating, or poisonous gas	2								1	1							
182	Accidental drowning	3		1	1						1							
183	Accidental traumatism by firearms	3										2		1				
188, c	Automobile accidents	10		1		1	2		2	2		1						1
188, d	Airplane and balloon accidents	1			1													
194	Excessive heat	5			1	1		1		2								
201	Fracture (cause not specified)	6				1			2	2		1						
202	Other external violence	27	1		4	3	4	1	1	4	5	4						
205, a	Cause of death, ill-defined	74	1	1	2	2	1	5	1	9	14	16	12	7	2			1
205, b	Cause of death, not specified or unknown	55			2	5	2	6	4	6	11	8	4	4	2	1		
	Total	1,193	6	17	36	47	58	74	115	174	191	167	160	85	32	15	3	13

Cost of Medical Services

AN ARTICLE by Dr. Michael M. Davis in The New England Journal of Medicine, April 14, 1932, discusses the expenditures on the part of the public for physicians' services and for hospitalization.

It has been estimated on the basis of various studies made by the committee on the costs of medical care, of which Doctor Davis is a member, that the total annual expenditure in the United States for the care and prevention of disease amounts to about $3,250,000,000. But while this figure seems large, it is pointed out by the writer that it amounts to less than 4 per cent of our estimated total annual income.

The complaints from both the public and the medical and allied professions regarding the economic aspects of medical service, Doctor Davis says, are caused not so much by the total amount of all sickness bills as by certain characteristics of these expenditures. The expenditures for sickness, for example, differ in important respects from other items in the family budget, as it is impossible to plan with any degree of certainty for the cost of sickness since no family can tell in advance how much sickness is going to occur and what the requirements are going to be.

An analysis of the expenditure for different types of medical care shows that the amount spent for organized preventive work is less than $100,000,000, or only $1 for prevention to nearly $35 spent for cure. It is considered that a better development of preventive services would materially reduce the total of suffering and of expenditure resulting from disease. Drugs, medicines, and appliances account for from 20 to 25 per cent of the total amount spent, of which approximately $500,000,000 is spent for worthless or harmful materials. The payments for physicians' services amount to less than 30 per cent of the total, while about 10 per cent more is paid for dentists' services. The bills of physicians and dentists together form the largest single item, but constitute less than half the annual outlay for the care of sickness. The cost of maintenance of hospitals amounting to about $730,000,000 is met by taxes, income from endowments and current

charitable gifts, and from the payment by individuals for hospital service rendered, the latter payments amounting to about $350,000,000 annually.

Among the various items of the health bill there is found to be a fairly even distribution of expenditures among families for drugs and medicines but the amounts spent for professional services—doctors, dentists, and nurses—have a very uneven distribution, more than half of such costs being borne by less than 15 per cent of the families. This inequality in expenditure is even greater in respect to the costs of hospitalization. The total charges to paying hospital patients for institutional services, professional fees, and special nursing amount to about $750,000,000 per year, and this amount falls upon only about 4 per cent of the population. "No family of moderate means," Doctor Davis says, "can tell in advance whether or not one of its members will fall next year, within that unlucky 4 per cent. These face a bill which on the average runs about $150 for each hospitalized illness and which may run to several times that figure. If a family could only know in advance that this emergency would befall them, they might be able to budget against the expenditure. But sickness is not predictable."

It is said to be a matter of some dispute whether or not hospital charges are too high in relation to the cost of good service but there can be no question that the cost is too high in relation to the ability to pay of a large proportion of the persons who have to incur such expenses each year.

That the costs of hospital care are a burden has been recognized in all countries having well-developed hospital systems. In most European countries the majority of the hospitals are government institutions and the cost of maintenance is in part paid by the general public through taxation, while much of the remainder of the expense is paid from the insurance funds to which generally both workers and employers contribute. Denmark, which has one of the best hospital systems in the world, supports the hospitals almost entirely out of taxes. The largest part of hospital care in Great Britain is also provided by the government, and the famous "voluntary" hospitals of London and other large cities are maintained for the most part by endowments and gifts. In the United States nearly all of the hospitals for mental disease and for tuberculosis are maintained through taxation, as well as about a third of the general hospital beds. Distribution of the expense of hospital care so that it is borne by the community as a whole and does not fall so heavily on the individual, can be obtained therefore, by means of taxation and insurance, in the latter case the individual retaining more direct responsibility.

The cost of hospital care weighs especially heavily on the so-called middle classes—the persons of moderate means who are not willing to receive charity from either government or individuals and who constitute a large proportion of the patients paying for the services they receive from hospitals, physicians, and surgeons. Although the cost of hospitalization falls heavily on the individual who needs extended medical and hospital care, various studies have shown that the average incomes of physicians are not large. Two measures have been proposed which aim at stabilizing and increasing the physicians' income from his paying hospital patients and at the same time assist-

ing persons of moderate means to budget against the expense of hospitalized illness. The first plan, called the "middle-rate plan," is designed to stabilize professional fees and hospital charges so that the patient and his family can learn approximately the total cost of his hospital illness at the time he is admitted. To do this it is necessary for the medical staff of the hospital to reach an agreement with the hospital administration so that professional fees and hospital charges will be handled by the admitting office in accordance with agreed schedules. The second plan, that of hospital insurance, implies the first but goes beyond it by conserving and increasing the patient's paying power. A group of persons paying regularly into a common fund operated on sound insurance principles will always be assured of the means to meet the expenses incidental to hospitalization and the expenses of medical and surgical care.

The middle-rate plan, the writer says, "may help the patient to plan to meet his bill, and the doctor and the hospital to collect their shares. But it does not place in the patient's hands money wherewith to meet it. The application of the insurance principle to the costs of hospitalized illness would be more deep-reaching in its advantages to the patient's budget, and more wide-reaching in the economic groups which might be benefited. Wage earners as well as persons of moderate means might find it within their incomes to insure against hospitalized illness and thus insure definite payment to the physicians and the hospitals. Such insurance must be developed by organized groups. It can not be successfully sold by hospitals or by commercial companies to individuals, for their selling and maintenance costs will be much higher and what is even more important, there will be adverse selection of risks. The more sickly will tend to insure. These difficulties can be avoided if insurance is developed among such groups as the employees of a business establishment, the teachers of a school system, the faculty of a college, or a group of 'civil servants' in a government department. Experimentation in such hospital insurance is desirable. It will be advantageous alike for doctor, hospital, and public to participate in such experiments."

Report of Three Cases of Acute Silicosis

ALTHOUGH the danger of the development of chronic silicosis after long-continued exposure to silica dust has been known for many years, it is only within a very recent period that the hazard of short exposure to dusts containing silica has been recognized. Cases of acute silicosis after comparatively brief exposure or of delayed silicosis, also after a short exposure, have been reported [1] in the past two years in The Lancet and the British Medical Journal and in the Journal of the American Medical Association.

The most recent report [2] concerns three cases of acute silicosis which developed in a factory manufacturing scouring soaps or powders.

[1] See Labor Review, December, 1930, pp. 93–95; July, 1931, p. 99.
[2] Journal of the American Medical Association, Apr. 23, 1932, pp. 1439, 1441: "Acute Silicosis," by Earle M. Chapman, M. D.

The first case reported is that of a young man who was employed in November, 1928, to mix dry silica and soap in an open machine. No protective measures were taken and he worked, therefore, in a very dusty atmosphere. He continued at this work without protection and in the summer of 1930 an irritative dry cough and difficult, labored breathing developed. These symptoms became rapidly worse, and in January, 1931, 26 months after beginning employment in this plant, he was incapacitated for work. An X ray of the chest at that time showed advanced silicosis. The case was reported to the authorities and in March the machines in the plant were condemned and production stopped. Upon admission of the patient to the hospital in October, 1931, tests for the presence of tubercle bacilli were negative but the Roentgenograms showed that the middle four-fifths of both lung fields were obliterated and that only the apexes of the lungs and the portions just above the diaphragm were receiving air. The patient was placed in an oxygen tent to relieve the labored breathing but lived only 18 days after entering the hospital. At autopsy the lungs were found to be about half the normal size, the middle portions of the lungs being shrunken and fibrotic and of almost the hardness of stone. Upon being cut, these parts of the lung were found to be very firm and gritty.

The second case was that of a middle-aged workman who had been employed for 10 years as a foreman in the same plant prior to being placed in charge, in December, 1926, of two new machines used to mix silica and soap. He assisted in the operation of these machines but spent several hours daily in other parts of the plant. Eight months later difficult breathing and a cough developed, which progressed until he was capable of only a limited amount of work. In June, 1930, he was seriously ill with pneumonia, his case requiring a long period of convalescence, and in December, 1931, after contracting an ordinary cold he was admitted to the hospital. No tubercle bacilli were found in the sputum, but an X ray of the chest showed that the upper two-thirds of the right lung were dense and slightly mottled, and that there were also areas of denseness in the left lung. The findings of the examination indicated advanced silicosis. Death occurred about a week after admission to the hospital but an autopsy was not obtained.

The third case, that of a man aged 27, was first seen in November, 1931. This man had worked at the same mixing machines as the other two for about nine months in 1927, and from March, 1928, until the latter part of 1930. During the last year that he worked in the plant he suffered from dyspnea and a cough with mucopurulent sputum which was profuse in damp weather. The clinical examination indicated that the patient had acute silicosis although the X-ray picture failed to establish a positive diagnosis. Hypertrophy of the heart was revealed, however, by the radiograph and this was considered to be due to the increased resistance and loss of elasticity in the pulmonary vascular bed. This finding was important in arriving at a diagnosis of the disease in this patient.

In commenting upon the three cases, Doctor Chapman says that the appearance of respiratory symptoms after 8, 21, and 29 months' exposure to an alkaline dust of high silica content shows a more rapidly severe silicosis than is usual, although a fully developed case of the

disease after 8 months' exposure has been reported in a lens grinder who was exposed to pure quartz dust for this length of time. The rapidly fatal cases of two young girls who were employed in England in packing a similar cleaning powder are also cited.[3] The severity of the respiratory symptoms is said to be shown by the marked decrease in the vital capacity in the three cases, in the first of which the loss was greater than is usually seen in cases of uncomplicated cardiac failure.

No determination of the silica content of the dust or soap to which these men were exposed was made, but extimates were made of the silica contents of the lungs in the first case. In comparison with the amounts present in cases of chronic silicosis, the data suggest that the reaction in the lungs is not a direct quantitative one but that the rapid development of fibrosis was the result of the reaction arising from the silica in the presence of the alkaline soap dust. In industries in which there is exposure to silica dust but without the presence of alkaline dust, this reaction progresses slowly in the faintly alkaline fluids of the tissues and may be so prolonged that symptoms do not appear until years after a worker has left a hazardous industry.

[3] See Labor Review, December, 1930, pp. 93–95.

INDUSTRIAL ACCIDENTS

Coke-Oven Accidents in the United States, 1930

THE number of workers killed and injured in proportion to the number employed in the coke-oven industry in the United States, was smaller in 1930 than in any other year for which statistics are available, according to a report of the United States Bureau of Mines.[1]

The frequency rate for combined fatal and lost-time nonfatal injuries was reduced from 110 per thousand 300-day workers in 1913 to 46 in 1930, a decrease of 58 per cent. The reduction, however, was principally in the nonfatal injury rate, which dropped from 107.73 in 1913 to 44.56 in 1930, while the fatality rate decreased only from 1.97 in 1913 to 1.22 in 1930, when it was higher than in any of the three preceding years.

The actual amount of time lost on account of accidents is not known, but the Bureau of Mines estimates that the 28 deaths and 1,022 nonfatal injuries reported in 1930 represent a loss of 206,950 days, or an average time loss of 197 days. The estimated time lost in 1929 from 22 deaths and 1,329 nonfatal injuries was 183,638 days, an average of 136 days.

There were 2,604 fewer workers employed in the industry in 1930 than in 1929, and there was a decrease of 836,411 in the number of days of labor performed, attributed to industrial conditions prevailing in 1930. A gradual change in production methods is shown by the report. There has for a number of years been a steady decline in the operation of beehive ovens, and a corresponding increase in by-product ovens. The number of workers employed at beehive ovens decreased from 18,570 in 1916 to 2,176 in 1930, and the number of days of labor performed from 5,577,341 to 439,296, while the number of workers employed at by-product ovens increased from 13,033 in 1916 to 17,679 in 1930, and the number of days of labor performed from 4,658,333 to 6,441,599.

During 1930, 48 per cent of all employees at beehive ovens worked at plants where 8 hours was the established workday, 39 per cent where the workday was 9 hours, and less than 2 per cent were employed at 10-hour plants. At by-product ovens 87 per cent of the employees worked an 8-hour shift, 1 per cent a 10-hour shift, and 2 per cent a 12-hour shift.

The main causes of fatal accidents were railway cars, burns, coke cars and motors, and suffocation from gases. The largest number of nonfatal injuries was caused by falls of persons, with burns, handling of objects, hand tools, and falling objects as other principal causes, in the order named.

[1] U. S. Department of Commerce. Bureau of Mines. Technical Paper 508: Coke-oven accidents in the United States during the calendar year 1930, by W. W. Adams and L. Chenoweth. Washington, 1931.

The following table shows the number of employees, days worked, fatalities, and lost-time nonfatal injuries at all coke ovens in the United States, by years, from 1916 to 1930:

NUMBER OF EMPLOYEES, DAYS OF LABOR PERFORMED, FATALITIES, AND LOST TIME NONFATAL INJURIES AT COKE OVENS IN THE UNITED STATES, 1916 TO 1930

Year	Average days of operation	Men employed		Days of labor performed	Fatalities		Nonfatal injuries	
		Actual number	Equivalent in 300-day workers		Total	Per 1,000 300-day workers	Total	Per 1,000 300-day workers
1916	324	31,603	34,119	10,235,674	45	1.32	5,237	153.49
1917	329	32,417	35,595	10,678,429	76	2.14	6,713	188.59
1918	329	32,389	35,476	10,642,688	73	2.06	7,792	219.64
1919	289	28,741	27,674	8,302,059	53	1.92	4,031	145.66
1920	319	28,139	29,921	8,976,214	49	1.64	3,415	114.13
Average	319	30,658	32,557	9,767,013	59	1.82	5,438	167.02
1921	257	16,204	13,868	4,160,298	17	1.23	1,853	133.62
1922	284	19,278	18,236	5,470,939	29	1.59	1,710	93.77
1923	324	23,729	25,627	7,688,160	45	1.76	2,593	101.18
1924	303	20,451	20,681	6,204,448	24	1.16	1,645	79.54
1925	310	23,254	24,054	7,216,239	28	1.16	1,696	70.51
Average	299	20,583	20,493	6,148,017	29	1.40	1,899	92.68
1926	315	23,115	24,288	7,286,605	51	2.10	1,922	79.13
1927	337	20,667	23,223	6,967,035	25	1.08	1,285	55.33
1928	336	19,390	21,710	6,512,929	17	.78	1,012	46.61
1929	344	22,459	25,724	7,717,306	22	.86	1,329	51.66
1930	347	19,855	22,936	6,880,895	28	1.22	1,022	44.56
Average	335	21,097	23,576	7,072,954	29	1.23	1,314	55.73

Industrial Accidents in New Orleans, 1931

ACCORDING to the report of the Factories Inspection Department of the Parish of Orleans, La., for the calendar year 1931, one out of every 22 workers in the industries of New Orleans was injured during the year. Over 30,000 workers were employed, and 1,351 were injured. The injured consisted of 966 males over 16 years of age, 33 males between the ages of 14 and 16, 346 females over 18 years of age, and 6 females from 16 to 18 years.

The table following shows a summary of the total number of workers employed during the year, the number injured, and the number of days lost as a result of the injuries, in the various industries or businesses.

NUMBER OF WORKERS EMPLOYED IN NEW ORLEANS INDUSTRIES, NUMBER INJURED, AND TIME LOSS FROM INJURIES, 1931

Industry or business	Number of workers—		Number of days lost on account of injuries	Industry or business	Number of workers—		Number of days lost on account of injuries
	Employed	Injured			Employed	Injured	
Awnings and shades	70	0	0	Hotels	1,402	[1] 86	620
Bags	684	200	342	Ice cream	108	0	0
Bakeries and cakes	1,088	44	132	Laundries	1,592	22	20
Bottling	203	4	60	Macaroni	143	1	0
Boxes	414	21	18	Molasses and sirup	274	28	130
Cans	586	25	360	Mops and brooms	104	25	26
Candy	266	23	55	Miscellaneous	45	0	0
Caskets and coffins	114	16	70	Oil refining	408	22	75
Caps and hats	16	0	0	Public service	3,406	200	2,111
Cigars	1,219	24	137	Sugar refinery	973	36	535
Clothing	2,287	32	286	Perfumes	46	0	0
Cotton gins	77	0	0	Printing	576	28	58
Cotton mills	803	57	601	Pecans	383	23	0
Coffee	251	0	0	Publishers	626	0	0
Condiments and food products	526	71	101	Restaurant	643	46	56
Dairies	404	74	459	Telephone	1,377	31	79
Department stores	5,153	115	202	Theater	303	0	0
Drug stores	1,090	25	43	Twine	292	2	46
Electrical supplies	291	17	118	Telegraph	737	29	228
Furniture and mattress	372	10	8	Umbrellas	16	0	0
Furs	59	0	0				
Hosiery	807	14	79	Total	30,234	1,351	7,055

[1] Includes 1 fatality.

Building Construction Accidents in New York City in 1931

ACCIDENT frequency and severity rates in the building construction industry of New York were appreciably reduced during 1931, according to a recent bulletin of the Building Trades Employers' Association of that city.[1]

The records for 1931 cover 300 firms in 27 different trade organizations, with 14,136 employees who worked 28,051,058 man-hours. The combined frequency rate for 1931 is 40.99, while the combined frequency rate for all reporting employers in 1930 was 42.50. The combined severity rate for 1931 is 3.03, as against a combined severity rate for all reporting employers in 1930 of 3.82. The entire year's work was completed without a lost-time accident by 163 firms in 26 different groups with 2,237 employees who worked 4,333,742 man-hours.

Table 1 shows the average number of employees in each trade group in 1931, with accident frequency and severity rates for 1929, 1930, and 1931.

[1] Building Trades Employers' Association of the City of New York. Committee on accident prevention. Bulletin No. 13: Industrial accident facts, 1932 edition. New York, 2 Park Avenue, April, 1932.

TABLE 1.—ACCIDENT FREQUENCY AND SEVERITY RATES IN BUILDING CONSTRUCTION IN NEW YORK CITY, 1929, 1930, AND 1931

Trade group	Average number of employees, 1931	Frequency rates (per 1,000,000 man-hours' exposure)			Severity rates (per 1,000 man-hours' exposure)		
		1929	1930	1931	1929	1930	1931
Allied Building Metal Industries	1,303	35.78	38.56	32.97	0.77	2.00	2.68
Asbestos Contractors' Association	328	64.10	55.99	56.40	.54	1.29	.87
Carpenters' Association, Master	365	38.03	41.69	34.87	7.16	1.28	20.88
Cement Workers, Masters' League of	663	102.79	107.72	71.16	13.24	18.05	13.45
Composition Roofers and Waterproofers	154	37.69	94.03	135.69	.57	1.65	11.75
Cut Stone Contractors' Association	290	30.03	18.58	32.13	1.09	.22	1.22
Elevator Manufacturers' Association	962	55.07	85.93	49.73	7.83	12.00	4.06
General contractors	4,960	59.63	42.53	45.30	5.17	3.62	1.70
Glass Association, The Stained and Leaded	36	.00	.00	.00	.00	.00	.00
Glass Dealers' Association, The Window and Plate	89	32.29	38.60	59.42	.79	.85	1.20
Heating and Piping Contractors	694	22.88	12.92	43.97	.58	.15	5.41
Lighting Fixture Manufacturers' Council	101	9.20	10.73	4.24	.68	.20	.00
Marble Industry Employers' Association	730	20.02	16.64	24.62	.30	5.60	2.12
Metal Door and Window Association	115	35.19	5.93	16.72	.32	.23	.05
Metallic Furring and Lathing Association	191	35.75	32.18	21.70	.18	.51	.11
Mosaic and Terrazzo Employers' Association	184	8.65	.00	2.61	.18	.00	.15
Painters and Decorators, Association of Master	349	21.51	14.33	14.41	1.23	1.26	.66
Parquet Flooring Association of Brooklyn	2	-------	.00	.00	-------	.00	.00
Parquet Flooring Association of New York	127	5.26	5.06	4.60	.14	.01	.01
Plasterers' Association, Contracting	479	35.83	64.48	65.37	5.00	6.35	1.44
Plumbers (Division No. 1), Association of Master	607	24.53	60.70	56.50	.56	1.27	.55
Refrigerator Manufacturers' Association	36	13.17	11.46	.00	.55	.34	.00
Rigging Contractors' Association	50	12.12	27.81	21.30	1.30	4.17	2.54
Roofers and Sheet Metal Workers	703	37.78	40.23	17.16	.90	5.89	4.74
Stone Setters' Association, Contracting	120	31.57	149.89	64.10	.60	17.08	1.07
Tile Contractors' Association	253	34.43	23.70	2.16	.38	.58	.01
Individual members	245	43.48	55.44	29.29	3.68	2.33	.48
All groups	14,136	42.36	42.50	40.99	3.49	3.82	3.03

Another tabulation shown in the report covers data from 162 firms in 22 different trade groups, which reported for all three years. In 1929 they had 12,174 employees who worked 26,668,391 man-hours; in 1930 their 10,802 employees worked 22,702,835 man-hours; and in 1931 their 7,673 employees worked 15,154,339 man-hours. The combined frequency rate for this group for 1931 is 46.65, as against 47.08 for 1930, a decrease of about 1 per cent. The combined severity rate for 1931 is 3.95, as against 4.82 for 1930, a decrease of 18 per cent. Forty-seven of these firms, in 18 different trade groups (with 2,176 employees who worked 4,182,689 man-hours), completed the 3 years without a lost-time injury.

Data relating to the group of identical establishments are given in Table 2, which shows the average number of employees for 1931, by trade groups, with accident frequency and severity rates for 1929, 1930, and 1931.

TABLE 2.—ACCIDENT FREQUENCY AND SEVERITY RATES IN BUILDING CONSTRUCTION IN NEW YORK CITY, FOR FIRMS REPORTING FOR ALL THREE YEARS, 1929, 1930, AND 1931

Trade group	Average number of employees, 1931	Frequency rates (per 1,000,000 man-hours' exposure)			Severity rates (per 1,000 man-hours' exposure)		
		1929	1930	1931	1929	1930	1931
Allied Building Metal Industries	939	38.35	38.86	40.61	0.84	2.29	3.67
Asbestos Contractors' Association	10	64.10	157.34	336.53	.54	3.40	9.27
Carpenters' Association, Master	254	44.31	53.27	40.70	9.09	1.85	30.57
Cement Workers, Masters' League of	410	111.89	114.95	88.47	13.70	14.65	19.90
Composition Roofers and Waterproofers	141	31.08	109.99	139.14	.49	1.74	13.34
Cut Stone Contractors' Association	283	29.20	15.59	32.94	1.09	.17	1.25
Elevator Manufacturers' Association	942	55.05	83.24	50.27	7.99	12.72	4.14
General Contractors	1,969	59.53	40.27	57.26	7.24	4.44	2.41
Glass Association, The Stained and Leaded	24	.00	.00	.00	.00	.00	.00
Heating and Piping Contractors	223	30.93	19.93	31.65	1.15	.21	.49
Lighting Fixture Manufacturers' Council	101	.00	21.69	4.24	.00	.03	.04
Marble Industry Employers' Association	667	15.17	15.41	23.34	.27	6.32	2.15
Metallic Furring and Lathing Association	160	37.72	34.25	18.02	.20	.54	.09
Painters and Decorators, Association of Master	177	20.57	14.36	20.49	.49	2.67	.51
Parquet Flooring Association of New York	9	.00	26.96	.00	.00	.08	.00
Plasterers' Association, Contracting	268	38.84	64.58	68.76	5.84	.91	.95
Plumbers (Division No. 1), Association of Master	408	18.89	45.38	59.93	.31	.38	.60
Refrigerator Manufacturers' Association	18	13.17	28.39	.00	.55	.86	.06
Rigging Contractors' Association	4	.00	.00	.00	.00	.00	.00
Roofers and Sheet Metal Workers	334	29.29	47.33	24.51	.58	.40	.40
Tile Contractors' Association	134	34.43	8.63	4.66	.38	.17	.03
Individual members	198	56.42	47.96	23.93	1.98	2.48	.57
All groups	7,673	[1]44.73	[2]47.08	46.65	4.43	4.82	3.95

[1] Average number of employees in 1929, 12,174.

[2] Average number of employees in 1930, 10,802.

The 1,150 injuries to workers in all reporting establishments during 1931 included 8 deaths, 35 cases resulting in permanent disability, and 1,107 in temporary disability. The frequency of injuries shows that 347 cases were caused through handling objects, 187 through falls of persons, 167 through stepping on or striking against objects, 162 through falling objects, 105 through using hand tools, 64 through machinery, 17 through explosives, and 10 through poisonous substances, while the other 91 were due to miscellaneous causes. The greatest severity rate is for falls of persons, which accounted for 45 per cent of the time loss. Handling objects was responsible for 19 per cent, and falling objects for 15 per cent.

Tables in the bulletin show both group and individual comparisons, with complete data on each trade and on each firm reporting. A comparison is also given of compensation awards in New York State for all industries, all construction industries, and building erection and demolition, by years, for the 6-year period 1926 to 1931.

Annual Ohio Safety Congress, 1932

THE fifth annual all-Ohio safety congress was held on April 19, 20, and 21, 1932, at Columbus, Ohio, under the auspices of the Industrial Commission of Ohio. In spite of the drastic reduction in industrial activities, the general attendance was nearly as large as during the previous session in 1931, proving the interest taken in accident prevention. Twenty-five sectional meetings were held by the various industrial groups, in addition to the daily general sessions.

In opening the congress the chairman, Thomas P. Kearns, superintendent of the division of safety and hygiene, emphasized the need of being constantly alert to detect not only the known hazards but the unseen and unexpected dangers. He pointed to the recent tragedy in the Ohio State office building, where 10 lives were lost in an explosion of undetermined origin, although up to the time of the disaster there had not been a major injury in the erection of the building.

Dr. Stephen K. Mahon, of the Toledo Edison Co., told the congress that progress is continually adding new hazards, so that we are to-day dealing with new speed, new power, new and unfamiliar devices, and with a new kind of fatigue, which affects mental alertness and mental judgment, and therefore affects action. He contended that most hazards are preventable, and that new forces of danger, or accident, must be met by new forces of control.

Cyrus S. Ching, director of industrial relations, United States Rubber Co., who addressed the executives' dinner meeting, declared that industrial accidents are a disgrace, and are due to inefficiency in management. He pointed out that accident prevention is often approached from an evangelistic instead of a business standpoint, but that it is a straight business problem involving dollars and cents.

Responsibility for industrial accidents was likewise placed upon the employers by Frank Morrison, secretary, American Federation of Labor, especially those who refuse to adopt up-to-date prevention devices and methods, but he placed some of the blame on State legislatures that refuse to enact compulsory legislation for safety measures. He emphasized that industrial accidents primarily concern the workers, who suffer to a degree for which the benefits of the workmen's compensation laws do not at all compensate.

While the so-called industrial safety was the main subject, part of the time was devoted to the related topics of fire hazards and highway hazards, which also affect both industry and workers strongly. Many able and interesting addresses on both general and special safety problems were delivered at the sectional meetings.

At the closing session of the congress, an urgent and touching plea for safety precautions was presented by Walter E. Darling, a victim of an industrial accident in Ohio which resulted in the loss of his eyesight. A splendid practical demonstration was given of teaching fundamental factors of safety in operating abrasive wheels.

LABOR LAWS AND COURT DECISIONS

Sufficient Evidence Must be Established to Hold Railroad for Liability

EVIDENCE that a brakeman, while running along the side of a train, fell by stepping into a slight depression was held insufficient to establish the railway's liability under the Federal employers' liability act, according to a recent decision of the United States Supreme Court. (Atchison, Topeka & Santa Fe Railway Co. *v.* Saxon, 52 Sup. Ct. 229.)

J. W. Moore, while employed as head brakeman by the Atchison, Topeka & Santa Fe Railway and engaged in interstate commerce, sustained fatal injuries at a railroad station in New Mexico.

The personal representative of Moore filed suit under the Federal employers' liability act and obtained a judgment for damages. Upon appeal by the railroad the court of civil appeals at El Paso reversed the judgment, holding that the evidence failed to show the accident resulted from negligence of the railroad. The Texas Supreme Court reversed this decision, holding that there was enough evidence to show negligence and a causal connection. The case was thereupon appealed to the United States Supreme Court. In delivering the opinion of the court, Mr. Justice McReynolds stated that the case under consideration was of a class in which the court was frequently obliged "to give special consideration to the facts in order to protect interstate carriers against unwarranted judgments and enforce observance of the liability act as here interpreted."

> Examination of the record convinces us that the court of civil appeals reached the proper conclusion. We can find no evidence from which it may be properly concluded that Moore's tragic death was the result of negligence by the railway company. As often pointed out, one who claims under the Federal act must in some adequate way establish negligence and causal connection between this and the injury.

The court reviewed the language of the State supreme court and also the facts relative to the accident and said that—

> What occasioned this distressing accident can only be surmised. It was necessary to show causal negligence in order to establish the respondent's right to recover. The evidence fails to meet this requirement.

The judgment of the State court was therefore reversed.

Hand-Labor Provision in Public Contract Held Illegal in Utah

RESTRICTIVE provisions as to labor and wages in municipal contracts for the construction of sewers, which increased the cost without enhancing the value, for the purpose of relieving unemployment were held to be void by the Utah Supreme Court as an unlawful diversion of funds and against the public policy of the State. (Bohn *v.* Salt Lake City et al., 8 Pac. (2d) 591.)

Salt Lake City, in an attempt to relieve the unemployment situation, undertook to construct a system of storm sewers. It was estimated that the improvement would cost about $600,000; and at a special bond election held in October, 1931, Salt Lake City was authorized to create a bonded indebtedness of $600,000 for the purpose of making this improvement. In the election this was the sole issue submitted to the voters.

Public bids were received by the city board of commissioners and four separate contracts were awarded for a part of the work. The commissioners inserted in these contracts certain provisions regarding labor and wages and they intended to insert the same provision in the other contracts for the work. Certain citizens and taxpayers began legal action to prevent the insertion of these provisions, which were alleged to be illegal and wasteful. The provisions in question are, in brief, as follows:

> The contractors agree (1) so far as possible, there being no substantial and material difference in price to them, that all materials shall be Salt Lake City products and manufacture, and if not procurable in Salt Lake City, then Utah products and manufacture, and if not procurable in Utah, the contractor shall have the right of selection; (2) that all excavating, loading, and back filling shall be done with hand labor, except that teams and tractors may be used for plowing and loosening the materials to be moved; (3) that contractors shall rotate all common labor, and, so far as practicable, all other labor once each week and shall not employ any workmen more than two weeks in any month, nor shall they employ any workman in any month who has had two weeks' work from any source during any given month if there are other men who are unemployed and available. An agency is set up by the commissioners to register all laborers with reference to such desired information, such agency shall not refuse registration to any able-bodied citizen of the United States who has been a bona-fide resident of Salt Lake City for the past year; (4) preference in employment shall be given to citizens of the United States or those having declared their intention to become such, and particularly residents and heads of families of Salt Lake City; (5) eight hours shall constitute a day's labor; (6) that $3.50 per day shall be paid as a minimum wage.

It was alleged that the cost of the proposed improvement would be increased to the extent of $55,000 by reason of insertion of the provisions calling for hand labor and for rotation of labor, and that labor could be secured for $3 per day, although it was shown that substantially all the contractors were paying $3.50 per day for labor in Salt Lake City.

After reviewing the facts the court considered the object and purpose of the improvement. Mr. Justice Ephraim Hanson, speaking for the court, said: "the direct and primary commitment resting with the city and its commissioners by law is the construction of the storm sewers in order to provide a much-needed public improvement. It should be needless to say that the unemployment situation is something collateral to the object and purpose sought to be accomplished by the construction of the storm sewers." Continuing, he said:

> It is not only obvious, but it is specifically admitted, as well, that the very unusual specifications in respect to the employment and rotation of hand labor were inserted in the proposed contracts on the city's instance for the purpose of creating employment. We then have a situation before us where the city and its commissioners, in discharging the obligation resting on them by law to build and construct the proposed storm sewers, are insisting that the unusual and restrictive specifications be made a condition to the proposed contracts, which they frankly admit will enlarge the cost thereof to the extent of $55,000. It is not urged that this extra expenditure adds anything to the value or to the merit of the work to be accomplished. It is frankly admitted that it does not. The

decision to make this extra expenditure was not the result of any consideration tending to advance or promote the interest of the storm sewers, but was motivated entirely by considerations affecting the unemployment situation.

In considering the city's authority to undertake construction in this manner, the court cited the general law providing for the organization and classification of cities, in which Salt Lake City is given express authority to construct and keep in repair drains and sewers and to regulate their use and construction. These powers, the court agreed, carried with them all implied powers necessary to carry into effect the powers expressly granted. But, the court said, the insertion of these provisions into contracts for public improvement for the sole purpose of alleviating the unemployment situation "carries it far beyond the orbit of the power it is ostensibly asserting," and—

* * * We should be compelled by the admitted facts to say that it was but a thinly veiled effort to do by indirection what can not be done directly. We have no difficulty in coming to the conclusion that there is a plain diversion to the extent of $55,000 from a fund specifically created by the sale of bonds for the purpose of constructing a system of storm sewers for the purpose of affording employment for the unemployed. This can not meet the sanction of the law.

The minimum-wage provision was likewise challenged. The court cited cases holding that "the power to fix a minimum wage and to prescribe the hours that shall constitute a day's labor are quite generally regarded as an exercise of the police power," but "this power is inherent in the State." Continuing along this line, the court said:

It is, however, contended by way of argument that the city might have done the work without letting it out on competitive bids and could then fix a wage of $3.50 a day. Assuming, of course, that $3.50 is a fair wage that might be true, but that is not the case before us. But even so, we do not think it a true analogy to assume that it has the like right to dictate to its contractors the wages they must pay their workmen. In this jurisdiction, inasmuch as municipalities have none of the elements of sovereignty in exerting their given powers, we think the provision in the proposed contracts with respect to the minimum wage must be ruled out.

The provision giving preference in employment to residents and heads of families of Salt Lake City was also declared void as being in conflict with the State statute (Comp. Laws, 1917, sec. 4865) giving preference on public works to United States citizens or those having declared their intention to become citizens. The order preventing the insertion of these provisions into the contracts was therefore allowed.

Justices Straup and Elias Hansen delivered concurring opinions and Mr. Justice Folland delivered a dissenting opinion in which Mr. Chief Justice Cherry concurred. The dissent maintained that, as the State had placed no limitations upon this power of the city, the city could therefore exercise all powers which the State might exercise. He pointed out that—

In its capacity as owner and proprietor the city is not hampered, where there are no statutory or constitutional restrictions, as to the manner or means to be employed in the construction of its public works. The conditions which an employer municipality may impose as to the manner of doing its work involves questions of policy which are within the discretion of the board of commissioners to decide. With respect to questions of policy the courts have nothing to do.

In determining its policy, the dissent contends, the city has the right to consider the welfare of the public even though the conditions imposed do not exclusively promote the efficiency of the work.

After citing cases and arguments in support of this theory, Mr. Justice Folland concludes the dissenting opinion by saying:

I do not pretend to say that the requirement of hand labor instead of machinery in the excavation and back filling for the sewers is ordinarily an economical or sound policy. That is for the board of commissioners to say in the light of the conditions now existing. Society must solve the problems which arise from the use of modern machinery and efficient methods of production, not by discarding such instrumentalities, but by making use of them for the benefit of all. In view of the present emergency, the requirements for rotation of labor and that certain work be done by manual labor were prescribed in the exercise of a sound discretion. In view of this situation, we can not say that the board abused its discretion, or that its action was arbitrary or capricious in any respect whatsoever. * * * The people do not want charity but do desire to support themselves and their families by honest labor. It would be an indictment of our civilization if public officers under such circumstances have no means of meeting the situation and particularly where, as here, the city authorities have proceeded only within the powers granted them by the legislature and are not violating any law enacted to place a limit upon their powers.

WORKMEN'S COMPENSATION

Provisions for "Second Injuries" under Workmen's Compensation Laws

OF THE 44 States which have enacted workmen's compensation laws, all but 5 (Louisiana, New Hampshire, Pennsylvania,[1] Vermont, and West Virginia) have specific provisions regarding the payment of compensation in second-injury cases. The Federal law extending workmen's compensation benefits to longshoremen and harbor workers, and applicable also to private employees in the District of Columbia, provides specially for second injuries. The workmen's compensation laws of the several territories (Alaska, Hawaii, Porto Rico, and the Philippine Islands) do not specifically provide for such cases.

The question of second injuries involves the employment of physically defective workmen. An employee who has lost a member of the body is handicapped, and is usually at a disadvantage in obtaining industrial employment. Among the factors which contribute to this discrimination is the fear among employers that the hiring or the retention of an industrial cripple will increase the cost of accident insurance.

Whenever an employee loses a member of the body, such as an eye, hand, foot, etc., and subsequently loses another member in an industrial accident, he becomes permanently and totally disabled. Employers of labor therefore hesitate to employ an employee previously injured. In order to meet this situation many States have acted to relieve the employer of the extra liability, by the creation, under the compensation law, of a special or "second-injury" fund. Hence, in the case of a second major disability, the employer is liable only for the second injury, yet the employee is compensated for the injury resulting from the combined injuries, the balance of the award being paid from the second-injury fund.

The method of raising revenue to sustain the second-injury fund differs in the several States. One method which appears popular and satisfactory is to place in the fund the amounts awarded in fatal cases in which it has been determined that there is no person under the law entitled to compensation. In Idaho an industrial special indemnity fund is created, supported by an assessment upon both the employer and employee. The Idaho plan was described by Lawrence E. Worstell, chairman of the industrial accident board of that State, as follows:[2]

> The problem of taking care of total-disability cases resulting after a permanent partial disability has been freed from perplexing difficulties in our State, through the enactment of a special statute, by the creation of a special fund known as the industrial special indemnity fund. The State treasurer is the custodian of

[1] The Supreme Court of Pennsylvania, however, in the case of Lente *v.* Lucci (275 Pa. 217, 119 Atl. 132) has held that where a claimant lost one of his eyes before he entered a subsequent employment, was not entitled to compensation for total disability upon the loss of the second eye.

[2] Paper read at sixteenth annual meeting of International Association of Industrial Accident Boards and Commissions, Buffalo, N. Y., October, 1929. (See Bureau of Labor Statistics Bul. No. 511, pp. 226, 227.)

this fund and all disbursements therefrom are made upon orders of the industrial accident board. The fund is created by assessing the employee 1 per cent of the amount of every specific indemnity award and requiring the employer to pay 1 per cent of the total amount of the specific indemnity award. This fund is to be used in cases where an employee has suffered the loss of a leg, an arm, or an eye, in a previous accident and later has become totally disabled through the loss of the other leg, arm, or eye, as the case may be. This statute was enacted to meet a condition which arose in our State as a result of a decision of our supreme court. A 1-eyed man lost the sight of his remaining eye and the supreme court held that the employer was liable and should assume the liability of a total disability case. This seemed to be an unfair discrimination placed upon the employer or insurance company and made it difficult for partially disabled men to obtain employment. The statute was enacted to permit these unfortunate individuals to obtain employment without penalizing the employer who hires them. Thus, if an employee who has lost an eye in a previous accident should lose the remaining eye, the last employer would be liable for only the loss of the one member. The total disability payments would be taken care of out of the special indemnity fund.

The problem of discrimination against physically handicapped employees is met in some States by permitting an employee to enter into an agreement with the employer by which the former waives any right to compensation for injuries due to any physical disability. Under this plan an employee who is physically defective is given employment which he could not obtain were the employer obliged to assume the second-injury liability. In such cases the employee is unprotected by workmen's compensation. The second-injury fund therefore appears to solve the problem, both by relieving the employer of the added risk, and by compensating the injured employee.

Employers who hire a physically disabled employee are in some States protected against the charging by insurance companies of a higher rate of premium. Self-insured employers, however, are not covered by this provision, and it is readily seen that because of the direct relationship between accidents and costs, the self-insured employer might more readily be guilty of discrimination against the injured employee than the insured employer.

In the following pages are given the principal provisions of the workmen's compensation laws relative to the procedure and method of treating cases of second injuries.

Alabama

CODE, 1923

SECTION 7551. * * * (e) 1. If an employee has a permanent disability or has previously sustained another injury than that in which he received a subsequent permanent injury by accident such as is specified in the sections herein defining permanent injury he shall be entitled to compensation only for the degree of injury that would have resulted from the latter accident if the earlier disability or injury had not existed. * * *

(e) 3. If an employee received an injury for which compensation is payable while he is still receiving or entitled to compensation for a previous injury in the same employment, he shall not at the same time be entitled to compensation for both injuries, unless the latter injury be a permanent injury, such as specified in this section; but he shall be entitled to compensation for that injury and from the time of that injury which will cover the longest period and the largest amount payable under articles 1 and 2 of this chapter.

Arizona

REVISED CODE, 1928

CHAPTER 24, ARTICLE 5

SECTION 1438. * * * (C)—(w) * * * In determining the percentage of disability, consideration shall be given, among other things, to any previous

disability, the occupation of the injured employee, the nature of the physical injury, and the age of the employee at the time of the injury. Where there is a previous disability, as the loss of 1 eye, 1 hand, 1 foot, or any other previous disability, the percentage of disability for a subsequent injury shall be determined by computing the percentage of the entire disability and deducting therefrom the percentage of the previous disability as it existed at the time of the subsequent injury.

California

ACTS OF 1917

CHAPTER 586

SECTION 11 (as amended by Acts of 1931, ch. 1121). * * * (f) The fact that an employee has suffered a previous disability, * * * shall not preclude him from compensation for a later injury, * * * but in determining compensation for the later injury, * * * his average annual earnings shall be fixed at such sum as will reasonably represent his annual earning capacity at the time of the later injury.

Colorado

COMPILED LAWS, 1921

CHAPTER 80

SECTION 4422. The fact that an employee has suffered a previous disability * * * shall not preclude compensation for a later injury or for death; but in determining compensation for the later injury or death his average weekly earnings shall be such sum as will reasonably represent his average weekly earning capacity at the time of the later injury, * * * .

Connecticut

REVISED GENERAL STATUTES, 1930

TITLE 56, CHAPTER 280

SECTION 5236. * * * (f) * * * But an employee who shall have suffered the loss or loss of use of one of the members of his body, or of part of one of the members of his body, or the reduction of vision in one eye to one-tenth or less of normal vision with glasses, shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous incapacity.

Delaware

ACTS OF 1917

CHAPTER 233

3193 j. SECTION 103 (as last amended 1927, ch. 192). If an employee, having previously sustained a permanent injury from any cause whether in line of employment or otherwise, shall sustain any other permanent injury, he shall be entitled to compensation for the subsequent injury in the same amount, and only in the same amount, as though the previous injury had not occurred: *Provided*, That if the subsequent injury shall be sustained in the employment of the same employer and in the course of work of the same classification as the previous injury, then the amount of compensation to which the employee shall be entitled shall be the amount which would be payable if both such injuries were the result of one accident, less an amount equal to the compensation fixed in this act for the previous injury.

3193 nn. SEC. 133. * * * If an employee receives an injury for which compensation is payable, after having received an injury in another employment, he shall be entitled to compensation by the subsequent employer, * * * as if the previous injury had not occurred.

District of Columbia

(See provisions under Federal longshoremen's and harbor workers' compensation act, p. 1338.)

Georgia

ACTS OF 1920

(Page 167)

SECTION 34. If an employee who suffers an injury in his employment has a permanent disability * * * suffered elsewhere, he shall be entitled to compensation only for the degree of incapacity which would have resulted from the later accident if the earlier disability or injury had not existed.

Idaho

COMPILED STATUTES, 1919

CHAPTER 236

SECTION 6234 (a) (added by Acts of 1927, ch. 106). [Created a fund known as special indemnity fund for the payment of second injuries.]

SEC. 6234 (b) (added by Acts of 1927, ch. 106). If an employee who has previously incurred a partial permanent disability * * * receives a personal injury by accident * * * the employer shall only be liable for the permanent partial disability caused by the subsequent injury * * *.

Illinois

REVISED STATUTES, 1931 (SMITH-HURD)

CHAPTER 48

SECTION 145. * * * (e) * * * 18 * * * That any employee who has previously suffered the loss * * * of said members and in a subsequent independent accident loses another * * * the employer for whom the injured employee is working at the time of said last independent accident shall be liable to pay compensation only for the loss or permanent and complete loss of the use of the member occasioned by said last independent accident.

Indiana

ACTS OF 1915

CHAPTER 106

SECTION 33. If an employee has sustained a permanent injury in another employment than that in which he received a subsequent permanent injury by accident, * * * he shall be entitled to compensation for the subsequent injury in the same amount as if the previous injury had not occurred.

Iowa

CODE, 1931

CHAPTER 70

SECTION 1397. * * * 8. In computing the compensation to be paid to any employee who, * * * was disabled and drawing compensation under the provisions of this chapter the compensation for each subsequent injury shall be apportioned according to the proportion of disability caused by the respective injuries which he shall have suffered.

Kansas

ACTS OF 1927

CHAPTER 232

SECTION 10 (as amended by Acts of 1931, ch. 217). * * * (24) If a workman has suffered a previous disability and receives a later injury, * * * then * * * the compensation due said workman shall be the difference between the amount provided in the schedule of this section for his prior injury and the total sum which would be due said employee for such total disability, * * * but in no case less than $6 per week nor more than $18 per week.

Kentucky

CARROLL'S STATUTES, 1930

CHAPTER 137

SECTION 4901. If a previously injured employee sustains a subsequent injury which results in a condition to which both injuries or their effects contribute, the employer in whose employment the subsequent injury is sustained shall be liable only for the compensation to which such resulting condition entitled the employee, less all compensation which the provisions of this law would have afforded on account of the prior injury or injuries had they been compensated for thereunder.

Maine

REVISED STATUTES, 1930

CHAPTER 55

SECTION 2. * * * IX. * * * (f) The fact that an employee has suffered a previous injury * * * shall not preclude compensation for a later injury * * * but in determining the compensation for the later injury or death, his "average weekly wages" shall be such sum as will reasonably represent his weekly earning capacity at the time of the later injury * * *.

Maryland

ANNOTATED CODE, 1924

ARTICLE 101

SECTION 43. Should a further accident occur to an employee already receiving payment under this article for a disability * * * his future compensation shall be adjusted according to the other provisions of this article and with regard to the combined effect of his injuries and his past receipt of compensation under this article * * *.

Massachusetts

GENERAL LAWS, 1921

CHAPTER 152

SECTION 37. Whenever an employee who has previously suffered a personal injury * * * incurs further disability * * * by reason of a personal injury for which compensation is required by this chapter, he, or his dependent, if death results from the injury, shall be paid the compensation provided for by sections 31, 32, 34, or 35 in the following manner:

One-half of such compensation shall be paid by the State treasurer, from the fund established by section 65 and the other half by the insurer, but the additional compensation required by section 36 shall be paid by the insurer.

Michigan

COMPILED LAWS, 1929

CHAPTER 150

SECTION 8427. * * * (d) The fact that an employee has suffered a previous disability * * * shall not preclude compensation for the later injury * * * but in determining compensation for the later injury or death his average annual earnings shall be held to be such sum as will reasonably represent his annual earning capacity at the time of the later injury in the employment in which he was working at such time * * *.

Minnesota

GENERAL STATUTES, 1923

CHAPTER 23A

SECTION 4276. If an employee receive an injury, which of itself would only cause permanent partial disability, but which combined with a previous disability does in fact cause permanent total disability the employer shall only be liable for the permanent partial disability caused by the subsequent injury * * *.

Missouri

REVISED STATUTES, 1929

CHAPTER 28

SECTION 3317. (a) All cases of permanent disability where there has been a previous disability shall be compensated on the basis of the average annual earnings at the time of the last injury. * * *

(b) If more than one injury in the same employment causes concurrent temporary disabilities, compensation shall be payable only for the longest and largest paying disability.

(c) If more than one injury in the same employment causes concurrent and consecutive permanent disability, compensation payments for each subsequent disability shall not begin until the end of the compensation period of the prior disability.

Montana

REVISED CODES, POLITICAL CODE, 1921

CHAPTER 213

SECTION 2923. Should a further accident occur to a workman who is already receiving compensation hereunder, * * * his further compensation shall be adjusted according to the other provisions of this act, and with regard to the combined effect of his injuries and his past receipt of compensation.

Nebraska

COMPILED STATUTES, 1929

CHAPTER 48

SECTION 48–128. If an employee receives an injury which of itself would only cause partial disability, but which, combined with a previous disability does in fact cause total disability, the employer shall only be liable as for the partial disability, so far as the subsequent injury is concerned.

Nevada

COMPILED LAWS, 1929

SECTION 2706. * * * 25c * * * (x) Where there is a previous disability * * * the percentage of disability for a subsequent injury shall be determined by computing the percentage of the entire disability and deducting therefrom the percentage of the previous disability as it existed at the time of the subsequent injury.

New Jersey

ACTS OF 1923

CHAPTER 81 (as amended by Acts of 1931, ch. 108)

(Employee in second injury case is paid out of special fund, the difference between compensation paid in total disability cases and that which is paid for the two disabilities separately.)

New Mexico

STATUTES, 1929

CHAPTER 156

SECTION 156–117. * * * 8 * * * (b): * * * *Provided*, That the employer shall not be liable for compensation for total disability if the loss of one arm, foot, leg, or eye occurred prior to such accident, but in that event compensation shall be paid only in accordance with the schedule herein for partial disabilities, * * *.

New York

CAHILL'S CONSOLIDATED LAWS, 1930

CHAPTER 66

SECTION 15. * * * 7. The fact that an employee has suffered previous disability * * * shall not preclude him from compensation for a later injury nor preclude compensation for death resulting therefrom; but in determining compensation for the later injury or death his average weekly wages shall be such sum as will reasonably represent his earning capacity at the time of the later injury: *Provided however*, That an employee who is suffering from a previous disability shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous disability.

North Carolina

PUBLIC LAWS, 1929

CHAPTER 120

SECTION 33. If an employee has a permanent disability or has sustained a permanent injury in service in the Army or Navy of the United States or in another employment other than that in which he received a subsequent permanent injury by accident, * * * he shall be entitled to compensation only for the degree of disability which would have resulted from the later accident if the earlier disability or injury had not existed.

SEC. 34. If an employee receives an injury for which compensation is payable, while he is still receiving or entitled to compensation for a previous injury in the same employment, he shall not at the same time be entitled to compensation for both injuries, unless the later injury be a permanent injury such as specified in section 31; but he shall be entitled to compensation for that injury and from the time of that injury which will cover the longest period and the largest amount payable under this act.

SEC. 35. * * * If an employee has previously incurred permanent partial disability, * * * and by subsequent accident incurs total permanent disability through the loss of another member, the employer's liability is for the subsequent injury only.

North Dakota

COMPILED LAWS, SUPPLEMENT, 1925

CHAPTER 5

SECTION 396a7 (as last amended by Acts of 1931, ch. 312). * * * Whenever a subsequent injury occurs to an employee who has been injured previously in a different employment, the risk of the employer for whom such injured person was working at the time of such subsequent injury shall be charged only with the amount of the awards resulting from such subsequent injury. * * *

Ohio

PAGE'S GENERAL CODE, 1932

TITLE III, CHAPTER 28b

SECTION 1465–69. * * * except when an employee of such employer, who has suffered the loss of a hand * * * prior to the injury for which compensa-

tion is to be paid, and thereafter suffers the loss of any other of said members * * * the compensation to be paid by such employer shall be limited to the disability suffered in the subsequent injury, * * *.

Oklahoma

STATUTES, 1931

CHAPTER 72

SECTION 13356. * * * 6. The fact that an employee has suffered previous disability * * * shall not preclude him from compensation for a later injury; but in determining compensation for the later injury his average weekly wages shall be such sum as will reasonably represent his earning capacity at the time of the later injury.

Oregon

CODE, 1930

CHAPTER 49

SECTION 49–1825. * * * If an employee who has previously incurred permanent partial disability incurs a subsequent permanent partial disability such that the compensation payable for the disability resulting from the combined injuries is greater than the compensation which, except for the preexisting disability would have been payable for the latter injury, the employee shall receive compensation on the basis of the combined injuries, but the charge against the rating of his employer shall be for the latter injury only. * * *

SEC. 49–1827. * * * (h) Should a further accident occur to a workman already receiving a monthly payment under this section for a disability * * * his future compensation shall be adjusted according to the other provisions of this section and with regard to the combined effect of his injuries and his past receipt of money under this act.

Rhode Island

GENERAL LAWS, 1923

CHAPTER 831

(1224) SECTION 13. * * * (d) The fact that an employee has suffered a previous injury * * * shall not preclude compensation for a later injury * * * but in determining the compensation for the later injury * * * his average weekly wages shall be such sum as will reasonably represent his weekly earning capacity at the time of the later injury in the employment in which he was working at such time, * * *.

South Dakota

COMPILED LAWS, 1929

PART 19, CHAPTER 5, ARTICLE 4

SECTION 9461. * * * 8. In computing the compensation to be paid to any employee who before the accident for which he claims compensation was disabled and drawing compensation under the terms of this article, the compensation for each subsequent injury shall be apportioned according to the proportion of incapacity and disability caused by the respective injuries which he may have suffered.

Tennessee

CODE, 1932

TITLE 14, CHAPTER 43

SECTION 6871. If an employee has previously sustained a permanent injury * * * he shall be entitled to compensation only for the disability that would have resulted from the latter accident if the earlier injury had not existed, and such earlier injury shall not be considered in estimating the compensation on the basis of either a total or partial disability to which the employee may be entitled under this chapter.

Texas

REVISED CIVIL STATUTES, 1925

TITLE 130, ARTICLE 8306

SECTION 12c. If an employee who has suffered a previous injury shall suffer a subsequent injury which results in a condition of incapacity to which both injuries or their effects have contributed, the association shall be liable because of such injury only for the compensation to which the subsequent injury would have entitled the injured employee had there been no previous injury.

Utah

COMPILED LAWS, 1917

TITLE 49

SECTION 3140 (as last amended by Acts of 1921, ch. 67). * * * (6) If any employee who has previously incurred permanent partial disability incurs a subsequent permanent partial disability such that the compensation payable for the disability resulting from the combined injuries is greater than the compensation which except for the preexisting disability would have been payable for the latter injury, the employee shall receive compensation on the basis of the combined injuries, but the liability of his employer shall be for the latter injury only and the remainder shall be paid out of the special fund * * *.

Virginia

ACTS OF 1918

CHAPTER 400

SECTION 34. If an employee has a permanent disability or has sustained a permanent injury * * * in another employment other than that in which he received a subsequent permanent injury by accident * * * he shall be entitled to compensation only for the degree of incapacity which would have resulted from the later accident if the earlier disability or injury had not existed.

Washington

REMINGTON'S COMPILED STATUTES, 1910

TITLE 1, CHAPTER 7

SECTION 7679 (as amended by Acts of 1923, ch. 136). * * * (g) Should a further accident occur to a workman who has been previously the recipient of a lump-sum payment under this act, his future compensation shall be adjudged according to the other provisions of this section and with regard to the combined effect of his injuries, and his past receipt of money under this act.

Wisconsin

STATUTES, 1931

CHAPTER 102

SECTION 102.11. * * * (4) The fact that an employee has suffered a previous disability or received compensation therefor shall not preclude compensation for a later injury or for death, but in determining compensation for a later injury or death his average annual earnings shall be such sum as will reasonably represent his average annual earning capacity at the time of the later injury in the employment in which he was working at such time, * * *.

Wyoming

REVISED STATUTES, 1931

CHAPTER 124

SECTION 124–120. * * * (b) * * * Where there has been a previous disability * * * the percentage of disability for a subsequent injury shall be determined by deducting therefrom the percentage of the previous disability, as it existed at the time of the subsequent injury * * *.

United States

SIXTY-NINTH CONGRESS (2d SESS., 1926–27), 44 STAT. 1424

CHAPTER 509 [6]

SECTION 8. * * * (f) (1) If an employee receive an injury which of itself would only cause permanent partial disability but which, combined with a previous disability, does in fact cause permanent total disability, the employer shall provide compensation only for the disability caused by the subsequent injury: * * *

(2) In all other cases in which, following a previous disability, an employee receives an injury which is not covered by (1) of this subdivision the employer shall provide compensation only for the disability caused by the subsequent injury. In determining compensation for the subsequent injury or for death resulting therefrom, the average weekly wages shall be such sum as will reasonably represent the earning capacity of the employee at the time of the subsequent injury.

Recent Workmen's Compensation Reports

Alberta

THE fourteenth annual report of the Workmen's Compensation Board of the Province of Alberta, covering the experience under the act in the calendar year 1931, shows that during the year reports were received of 10,049 industrial injuries, of which 33 were fatal, while 123 resulted in permanent disability and 9,893 in temporary disability.

There were 3,795 employers under the scope of the act at the end of the year, with a total number of employees estimated by the board at 69,863. Payment of compensation or award of pension was made in 4,878 cases, and payment for medical aid only in 3,065 cases. No compensation was applied for in 107 cases, and in 2,090 cases none was due. Further payments were due in 591 cases, and 738 cases were carried over to the following year, as against 1,420 not disposed of during 1930.

Compensation payments amounted to $452,643.01, including reserve for outstanding liability on December 31, 1930, of $163,105; continuing disability benefits (pensions) totaled $430,129.81; and payments for medical service $216,211.91. Administration expense, including accident-prevention and mine rescue work, was $126,360.94.

The report shows rates of assessments for 1932 in the various classifications under the act, pay rolls and estimated number of employees for 1931, and an analysis of injuries reported during 1931. A tabula-

[6] Applies to longshoremen and harbor workers and private employees in the District of Columbia.

tion, showing causes of the injuries, by extent of disability, is presented as Table 1.

TABLE 1.—CAUSES OF INDUSTRIAL INJURIES REPORTED IN ALBERTA, 1931, BY EXTENT OF DISABILITY

Cause	Number of injuries			
	Resulting in—			Total
	Death	Permanent disability	Temporary disability	
Burns and scalds			265	265
Burst bottles and broken glass		2	124	126
Electrical shock and burns	1	1	21	23
Explosions	1	3	21	25
Falling timbers and poles	3	1	342	346
Falling and tripping	5	5	1,355	1,365
Falling rock, coal, and clay	9	11	824	844
Flying and falling objects		18	1,844	1,862
Heavy lifting, loading wagons and trucks			750	750
Infection from handling meat and materials	1	3	337	341
Inhalation of gas fumes	1	1	67	69
Machinery, tools, and equipment	1	43	1,696	1,740
Injured by horse and in runaways		1	156	157
Protruding nails and spikes		1	201	202
Injuries by automobiles and trucks	2		122	124
Industrial disease			5	5
Splashing of mixtures		2	41	43
Run over, struck by, or caught between cars	2	5	149	156
Derailment of mine cars			34	34
Slivers and splinters		1	179	180
Crushed	2	16	447	465
Striking against objects		2	333	335
Frostbites		1	19	20
Drowned	2			2
Miscellaneous	3	6	561	570
Total	33	123	9,893	10,049

Nova Scotia

THE report of the Workmen's Compensation Board of Nova Scotia for 1931 presents briefly the experience under the workmen's compensation act during its 15 years of existence and during 1931 and an analysis of the accidents compensated in 1930.

The total number of accidents reported to the board in 1931 was 6,775, or 2,743 less than reported in 1929. They consisted of 67 compensable and 4 noncompensable fatal accidents, 204 causing permanent partial disability, 4,290 causing temporary disability for seven days or over, 1,635 medical-aid cases, 259 accidents pending adjustment, and 316 nonfatal noncompensable cases.

It is estimated that the total cost of compensation and of the medical aid furnished by the board for the 1931 accidents is nearly $1,160,400. The greater portion of medical aid for two of the industrial groups—mining and iron and steel—is provided under medical-aid schemes and consequently is not furnished by the board. The estimated cost does not include administration expense or the cost of the safety associations, almost another $100,000.

Table 2 shows the number of accidents compensated in 1931, by industry and by extent of disability.

TABLE 2.—NUMBER OF COMPENSATED INDUSTRIAL ACCIDENTS IN NOVA SCOTIA IN 1931, BY INDUSTRY AND EXTENT OF DISABILITY

Industry class	Cases closed					Cases partly closed	Total
	Death	Permanent disability	Temporary disability		Total		
			Involving compensation	Involving medical aid			
Mining	28	113	1,159	174	1,474	262	1,736
Lumbering and woodworking	7	35	626	129	797	160	957
Iron and steel	4	20	176	286	486	37	523
Manufacturing and operating not otherwise specified	2	11	367	223	603	60	663
Building and construction	3	0	150	149	302	45	347
Public utilities	2	3	270	185	460	106	566
Transportation	2	13	436	399	850	148	998
Provincial highways department	5	3	176	23	207	64	271
Dominion government employees	2	6	183	37	228	144	372
Nova Scotia Liquor Commission	0	0	1	3	4	2	6
Total	55	204	3,544	1,608	5,411	[1] 1,028	6,439

[1] Includes 4 fatalities.

COOPERATION

Credit Unions on the Rock Island Lines

AN ARTICLE in the March, 1932, issue of Industrial Relations (Chicago), by the supervisor of personnel of the Rock Island Railroad Co., describes the growth of the credit-union movement among the employees of the company.

The first credit union formed among the Rock Island employees was started in August, 1926. To-day the society has 334 members (out of a total of 450 persons eligible to membership), has made loans aggregating $95,632, and at the beginning of 1932 had assets of $18,836, "after paying dividends of 7 per cent regularly each 12 months since its inception."

The writer states that this first organization was regarded with considerable skepticism by the company officials when it was launched.

> We were skeptical when we were told that we would find many persons among our employees who could and would operate successfully these cooperative banks; attend to the detail; handle the savings of employees, and with them make loans to employees in need of credit; that we would find members of the groups who could and would, as members of the credit committees, use sound judgment in passing on loans; and that it would be possible for whoever might develop the capacity to do these things to accomplish them in the limited amount of time which they could devote to the purpose. However, the extremely diligent watch which we maintained upon the operation of the credit union, during the first year of its existence on the Rock Island lines, rewarded us with the information that not only could people be found who could and would conduct it successfully but also that the credit union as an institution was very necessary and that it produced results of amazing value.
>
> Several very noticeable effects from the operation of this organization became apparent: Employees seemed more contented and confident, and many who had been borne down under great burdens of debt had been given their first real aid in the direction of financial adjustment and seemed to be becoming buoyant. Garnishments and assignments of wages against employees at that point on our lines steadily diminished. And the great value of the credit union, to the employer and to the employee, quickly came to be generally recognized.

As the success of the primary organization became apparent, other associations were organized and the employees of the Rock Island lines now have 28 credit unions scattered through the States of Arkansas, Illinois, Iowa, Kansas, Missouri, Texas, and Tennessee. These organizations are limited in their membership to the Rock Island employees of the particular locality where the credit union operates. Of a total of 10,620 persons eligible to membership in these 28 credit unions, 4,461, or 42 per cent, have joined.

Their assets at the beginning of 1932 aggregated $194,402, an increase of 25.2 per cent over 1930. The writer characterizes this as "highly commendable," considering the depression conditions existing

and the lost time suffered by the members. In this connection the article comments as follows:

> Any financial institution—whether it be a national or a State bank, a recognized lending concern, a bond house, or a credit union—regards as its most valuable asset the confidence of its depositors. Banks that had weathered many a crisis in the past failed in the last two years probably because they no longer enjoyed this confidence. It is interesting to note that not a single credit union has failed during this period and that all, except for a very few cases, have paid substantial dividends regularly and have increased their assets. This confidence in credit unions by their members has not been forced, and it is not unnatural at all for the members to trust and have confidence in those whom they elect to the management of their credit unions. Members know, constantly, the financial condition of the credit union to which they belong; they appreciate that no favoritism is shown in the matter of making loans; and they know that the loans, always made for provident purposes—purposes that promise to be of real benefit to the borrower—are made at the established and very fair rate of interest of 1 per cent per month on the unpaid balance, without any additional costs or charges, such as investigation fees and the like.
>
> As an illustration of the confidence which the members have in credit unions, we have the credit union which operates among the employees at one of our large shops where work has been on greatly diminished hours for the past two years. In spite of this condition, more than 50 per cent of the eligible employees are members of that credit union—it has 773 members at the present time—and in the year 1931 it made 1,015 loans totaling $66,351.41, and had assets of $45,509.70 on December 31. It seems little short of remarkable to us that but $183.07—which was the unpaid balance on nine small loans—was charged off, as uncollectible, to the guaranty fund at the close of the year.

Data given in the article show that the membership in the 28 credit unions ranged from 28 to 733, and that the average loans made in 1931 ranged from $24 in the organization at Muscatine, Iowa, to $107 in Burr Oak, Ill. These societies loaned money to 2,553 members in 1931, in an aggregate amount of $316,963, and nearly a million dollars has been loaned since 1926. Four associations paid no dividends on the 1931 operations, 2 paid a dividend of 5 per cent, 3 of 6 per cent, 8 of 7 per cent, 1 of 7.4 per cent, 1 of 7.8 per cent, 7 of 8 per cent, and 2 of 10 per cent. Only 7 credit unions reported any losses due to bad debts, the amounts involved ranging from 77 cents to $183.

The article concludes with the following opinion as to the future of the credit-union movement:

> I believe that, as time goes on, the credit union will occupy a broadening field as a national institution, enabling working folks to solve credit problems of their own, with their own money and under their own management, and with any profit resulting from the operation returned to the members of the group. If the credit union accomplishes nothing more than the promotion and development of thrift, this, in my estimation will make it very much worth while. Only somewhere between 7 per cent and 15 per cent of the American people, we are told, have established bank credit, and the credit union addresses itself to the problems of the 85 per cent to 93 per cent who do not have such credit, and who frequently need it to tide them over rough spots in the road. Banks make loans on security considerably in excess of the amount loaned, and as a rule are not greatly concerned with the purpose of the loan. The credit union makes loans with character as the real basis of its security, and for provident purposes, that will be of benefit to the borrower. Further, the prospective borrower must become a member before he can obtain a loan, and he is required to save something while his loan is being repaid. The credit union not only "pulls a fellow out of the hole" but it also fills the hole up after he is out of it. That this position is justified seems borne out by the history of credit unions in their entirety—regular dividends to members, few losses and ever-increasing assets, and never a one that went through involuntary liquidation.

Present Condition of German Cooperative Movement

THE general condition of the German cooperative movement as of January 1, 1932, is discussed in an article in Cooperative Information (Geneva), No. 5, 1932.

The article points out that the economic depression which continued through 1931 in Germany, as elsewhere, resulted in "a number of serious crises, particularly in the sphere of banking, and reduced all the previous difficulties experienced by every kind of undertaking to comparative insignificance." The cooperative movement was, naturally, also affected. As to this the article comments:

> If the effects of the general economic depression have extended to the cooperative societies also, this is due to their long association with the economic life and struggles of Germany, an association which is all to the honor of the cooperative movement. The economic life of Germany is no longer conceivable without the activities of cooperative societies of all kinds. Proof of this was given by the rapid recovery made by the cooperative societies after the inflation period, and the powers of resistance springing from a sound financial basis shown by the societies when in the middle of last year, at a blow that fell as suddenly as a thunderbolt though not perhaps from a clear sky, the confidence of the whole German people was shaken and the hoarding of money began. Observations made in authoritative quarters and statistical data both agree that even during these difficult months the sections of the population organized in cooperative institutions retained greater equanimity and good sense. On calm consideration their consciousness of the necessity to preserve the undertaking in which they had a share in most cases forced into the background the fear of personal loss.
>
> The serious blows from which even the cooperative societies were not immune arose nearly always out of some universal human weakness. Ambition, backsliding, incompetent management in difficult circumstances came to light here too, since there is no perfection in human works. The report for this year again reveals the existence of a number of questionable undertakings organized on a cooperative basis. Unscrupulous promoters unfortunately can not be entirely eliminated, but wherever irregularities were discovered in time and could be put right, it became clearly evident, and can be stated as a general conclusion, that the central principle of the cooperative movement and the economic form it has retained throughout eight decades are thoroughly sound. The despondency resulting from the economic situation has, however, also affected cooperative societies, and the general instability of conditions has been responsible for the adoption of a waiting attitude in regard to the launching of new cooperative enterprises, while the progress of rationalization, especially in the sphere of agricultural cooperative societies, has severely affected the number of societies in existence and caused a larger number to be dissolved.

Data collected by the German Cooperative Union show that from 1913 to 1929 there were only two years (1926 and 1927) in which the number of new societies formed did not exceed the number of dissolutions. In 1930, however, the number of societies which went out of business exceeded those newly formed by 56, while the excess in 1931 was 476.

Of the total number of societies dissolved in 1931, bankruptcy was the cause in 187 cases. The writer points out in this connection, however, that—

> Compared with the total number of bankruptcies in the whole of German industry the fraction represented by the cooperative societies is small. Their figures are far below those for the other forms of industrial undertakings, for which the total is about 13,400 bankruptcies. Similarly, the cooperative societies have a very small share in the total number of compositions with creditors for the whole of industry, with a figure of 80 out of 8,500.

It is pointed out that the credit societies have been particularly hard hit, especially the agricultural credit associations. There has been an extremely active movement for the formation of new societies,

but "this has been accompanied by the spread of a definite movement of an extremely undesirable kind."

In the guise of savings societies for particular purposes, about 25 so-called furnishing, savings, and loan societies have recently sprung up, especially in the west and south of Germany, for the purpose of granting loans without interest for the purchase of furniture, motor cars, pianos, etc. This uneconomic form of thrift is quite unworthy of and prejudicial to the work of the cooperative movement. * * * The practice of advancing loans without interest has also played some part in the formation of equalization funds, which have sprung up in Nortorf, Schleswig, Munich, Stuttgart, Nuremburg, Karlsruhe, and Rendsburg for the purpose of issuing emergency money, and whose activity has been to some extent paralyzed by the authorities. These two new movements share the undesirable practice of advancing money without interest with the somewhat older groups of savings funds for the purchase of particular goods and building and thrift societies. Little has been heard of late of the spread of the former, which were once so widely advertised. On the contrary, such savings funds have been dissolved in 16 places.

Except in the credit branch, agricultural cooperation showed a growth in 1931.

The "miscellaneous" group of societies formed in 1931 cover the most varied fields of activity and include the following: Water-supply societies; societies for the breeding of valuable fur-bearing animals; radio societies; societies for the blind, the cultivation of medicinal herbs, house repairs, note reform; an emergency association of Berlin stockbrokers; a light, water and road-making society; a rifle range society; a society for the sale of German books and writings; an apprentice school for the Leipzig metal industry; home schools; sanatoriums, convalescent homes and old people's homes; a series of motor-transport societies, especially for goods, long-distance and overland transport; a few publishing societies; a silk culture society; an emergency association for securing "productive work and a decent livelihood"; a society for hiring out beach chairs; a bulb culture society; mutual society of stage artists (in Hanover); an association of gatemen, cashiers, and superintendents for exhibitions, sporting events, etc. Especially novel is the "Ask me" Society founded in Berlin, an information society and agency for everything connected with transport, amusement, and intellectual life.

The table following shows the development of certain of the more important types of societies during 1931.

DEVELOPMENT OF SPECIFIED TYPES OF COOPERATIVE SOCIETIES IN GERMANY IN 1931

Type of society	Number of societies, Jan. 1, 1931	Movement during 1931			Number of societies, Jan. 1, 1932
		New societies formed	Dissolutions		
			Total	Bankruptcies	
Credit societies	22,160	163	443	58	21,880
Craft societies (raw materials, warehousing, service, delivery)	1,770	48	92	14	1,726
Workers' productive associations	722	14	14	6	722
Dealers' purchasing associations [1]	1,274	57	35	7	1,296
Consumers' societies	1,727	38	70	7	1,695
Housing societies	4,065	43	169	21	3,939
Agricultural associations	18,736	631	567	21	18,800

[1] Associations of private retailers for cooperative purchase of goods sold in their business.

Agreement for Settlement of Disputes in Cooperative Employment in Norway

A GENERAL agreement has recently been entered into between the Norwegian Confederation of Trade-Unions and the Norwegian Cooperative Union, providing, among other things, for the peaceful settlement of any disputes between the consumers' cooperative societies and their employees, according to an account in the March 7, 1932, issue of Industrial and Labor Information, published by the International Labor Office.

The agreement provides that all collective agreements between cooperative societies and their employees are to be based upon the principle that "conditions of employment in cooperative undertakings are to be at least as favorable as in private undertakings of the same kind and in the same locality."

Wages are to remain, as heretofore, "somewhat higher" in cooperative employment than are paid by private employers in the same line of business, "provided that the position of the cooperative undertaking is such as to make this a reasonable demand."

As to the procedure in cases of industrial disputes between the societies and their employees, the agreement provides as follows:

> If agreement is not reached by direct negotiation, there shall be no giving of notice or stoppages of work, but the dispute is to be referred to a committee consisting of two representatives of each party. This committee may put forward proposals for a settlement. If it is unable to do so, or if the parties do not accept the proposal, the matter is to be referred to a board consisting of five members, the parties electing two each, who together choose the fifth. The decision of the board will be binding on the parties.

The Labor "Artel" in Soviet Russia

THE workers' productive societies have attained considerable importance in Russia. Now called "artels" (a term coined from the Tartar words "artak," meaning comradeship, and "artakle," meaning common people), these associations can be traced under different names as far back as the twelfth century. They developed out of the need, in primitive communities, for concerted effort in clearing the land, building shelters, fishing, hunting, cultivating the soil, and even in warfare.

To-day they are found in agriculture, fishery, and in many branches of industry. It may be said, however, that the artels have not been able to undertake, to any marked extent, production on a large scale, i. e., factory production. Their main field is still that of unskilled labor, temporary and seasonal labor, production on a small scale, and handicrafts known in Russian villages as "kustar" industries.

The Russian artel differs fundamentally from the business partnerships which hire outside laborers instead of admitting them to membership or partnership on the basis of equal duties and rights. The artel, as an organization, has no social, political, or revolutionary purposes. It has nothing to do either with politics or with social or economic philosophy. It is a self-employing cooperative organization of wage earners, a collective labor body or force, for the purpose of making collective bargaining directly with employers, or of producing goods, by the labor of the members, directly for the market.

The chief features of the artel, namely, close cooperation, collective bargaining, and reduction of middlemen between the wage earners and their employers result, as a rule, in higher earnings for the members of the artel than for outside individual wage earners of the same grade engaged in the same kind of work either in open or closed shops.

No member is permitted to accept employment outside of the artel unless authorized by the latter. No outside help is hired, except in cases where special skill or technical knowledge, not possessed by the members themselves, is required.

In the Russian artels the general meeting of the members (*sobránie*) elects a board of directors and a manager (*stárosta*). The manager looks for opportunities of work, makes contracts, collects money for finished work, and, in fact, directs all activities of the artel.

The work contracted for by him is done by the members. They receive from the treasury of their artel weekly or monthly allowances for living expenses. A comparatively recent development is the payment of some extra compensation or premium, or bonus, to those members who are especially skillful, or efficient, or who perform hazardous work. But the distribution of net earnings ("dividends," so to speak) is based upon the principle of equality; each member gets an equal share for each equal time or piece unit of labor performed by him in general work for the artel. Under the Soviet system the authorities have introduced an individual productivity or piece-rate plan in order to quicken production and lower the cost.

The artels in their structure and methods vary from each other considerably, but all represent a number of wage earners more or less closely bound together into one collective body, something like a family, whose membership may grow sometimes into the thousands.

Artels in Imperial Russia

THE Czar's Government was long suspicious of the artels, as their close cooperation and equal sharing in labor and profit made them appear to be rather socialistic enterprises. The more developed and prosperous artels not only carried on their business enterprise but also provided for the education of their members by organizing and maintaining schools and courses, especially for training in the trade in which the artel was engaged, and contributed to the general progress of the nation by increasing the efficiency and upbuilding the character of the members. Even though the artels, as such, had nothing to do with the propagation of social philosophies and reforms in a direct way, every member was at liberty to join any philosophical school and any reform movement or political party outside of his artel.

Many attempts—all unsuccessful—were made to do away with the artels. Close observation revealed that their ultimate aim was merely to improve the living conditions of their own members by commonsense business methods, not by any political or revolutionary action. The failure to close them and the acquisition of more accurate information concerning them changed the attitude of the Czar's Government, so that finally they received recognition by the Government and a standard constitution was worked out for them.

Paragraph 2198 of the constitution enacted and promulgated by the Czar's Government in 1902[1] set forth general requirements to which

[1] Collection of the Laws of the Russian Empire, Vol. X, pt. 1, Civil Laws, Petrograd, 1914, pp. 334–338.

all organizations in this class were required to conform, including equality of voting, absentee voting, distribution of earnings on the basis of labor performed, liability of members, etc.

Artels in Soviet Russia

A LARGE number of the artels existing in former Imperial Russia went to pieces during the World War and especially during the revolutionary struggles and civil wars following in the wake of the war.

At the beginning of its authority the Communist Soviet Government, like the Czar's Government, fought the artels, believing them to be "reactionary, bourgeois exploiters, working for profits and individual benefits of their members." But again the struggle ended with victory for the artels, and they were finally recognized, under certain conditions, by the Soviet Government. They were given various special privileges in regard to taxation and credit, and a uniform constitution for them was issued by the Soviet Government on January 1, 1928, for R. S. F. S. R. (Russia proper).[2] The Soviet constitution for the artels varies from that of the Czar's Government mainly in the following particulars:

1. The formation of an artel is open only to voters.
2. Contracts undertaken by the artels are limited to jobs on which the value of the material needed for the work does not exceed 10,000 rubles ($5,150).
3. Contracts are to be carried out by the members only, but the artel may hire outside persons (nonmembers) for tasks which can not be performed by the members, such as office work, bookkeeping, business correspondence, highly technical work, etc.; the number of the hired workers, however, must not exceed 10 per cent of the entire membership of the artel.
4. The management may consist only of persons who have the voting right in R. S. F. S. R. (Russia proper).
5. The artel must meet all labor conditions prescribed by the Soviet labor code. The local labor office supervises the activities of the local artels.
6. Persons desiring to enter an artel are to be selected by a secret vote. They are to serve as candidates no longer than one month. The number of the candidates should not exceed 20 per cent of the number of the members of the artel. The candidates receive the same share of earnings and work under exactly the same conditions as the members themselves.
7. Contributions to social insurance must be made by the artel for its members in the amount of 6 per cent of nine-tenths of the earnings of the artel. However, these contributions may vary to some extent.

Artels in agriculture.—To-day the artels are most numerous in the northern part of European Russia. In that region, owing to the poor fertility of the soil, the peasant has always depended, more or less, upon income from "kustar" or cottage industries. The formation by the Soviet authorities of the so-called "giant" farms out of the peasant communal and individual land holdings has also given a considerable impetus to the development of the artel movement in

[2] Collection of Laws relating to Industrial Cooperation and Cottage Industries in the U. S. S. R. and in the Separate Republics, State Publication (in Russian), Moscow, 1930, pp. 213–218.

Soviet agriculture, especially on the so-called collective farms[3] (*kolkhozy*). The Soviet authorities prefer the artel form of organization of work on the collective farms to that of the partnership or commune; the communist farm is regarded by them as the ideal or final form of production in agriculture, but the artel is considered as a logical preliminary or transitory form of production.

Under the artel form of organization in agriculture, the tools are the property of the artel and do not belong to individual members.

The members of the artel may have their individual dwelling house, possess a little plot of land for a home garden, and small hand tools, and raise small animals, such as goats, chickens, pigs, etc.—in short, they may have their own individual or private household and conduct private housekeeping.

All "kulaks" (rich peasants) and disfranchised persons are excluded from membership in the agricultural artels, as are also those who kill or sell their cattle or dispose of seeds and implements before entering the artel on a collective farm.

The entrance fee of salaried members is set at not to exceed 10 per cent of their yearly salary, and that of farm hands without property at not to exceed 5 rubles ($2.50). Members who work outside of the artel pay a yearly fee amounting to 3 per cent of their yearly earnings.

The management gives out work to the members, and no one has the right to refuse to accept the work so assigned. The management keeps account of the amount and quality of the work done by each individual member, for the purpose of fixing his wages. Piece work and rates are used to the fullest possible extent.

During the fiscal year allowances in kind and money are made to each member up to 50 per cent of his actual earnings for board and other living expenses. At the end of the year the final settlement of accounts is made.

Fishery artels.—The normal constitution of fishing artels is quite similar to that of agricultural artels in Soviet Russia.

The members of a fishing artel work in groups. When a group delivers the fish to the artel office the latter pays to the group 75 per cent of the actual value of the fish delivered in case of sea fishing and 65 per cent in case of river fishing. Each group divides its proceeds among its members on the basis of a mutual agreement.

Growth of the artel movement.—As the following table shows, both the number and membership of the artels have been growing at a much faster rate than credit, industrial, and agricultural partnerships since 1927.

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[3] As distinct from the soviet or communist farms, or communes (*sovkhozy*).

GROWTH OF COOPERATIVE PARTNERSHIPS (ARTELS) IN RUSSIA SINCE 1927 AS COMPARED WITH OTHER TYPES OF PARTNERSHIPS [1]

Type of organization	Number of organizations				
	1927	1928	1929	1930 [2]	1933 [2]
Partnerships of producers	7,290	12,053	15,124	17,336	26,107
Artels	233	707	810	1,688	3,231
Industrial credit partnerships	447	664	750	924	1,162
Mixed industrial and agricultural partnerships	103	75	43		
Total	8,073	13,499	16,727	19,948	30,500
	Membership				
Partnerships of producers	427,560	705,659	1,069,447	1,678,089	2,573,000
Artels	10,367	54,883	113,532	176,355	807,800
Industrial credit partnerships	144,669	226,032	269,817	353,040	418,400
Mixed industrial and agricultural partnerships	21,927	12,445	7,890		
Total	604,523	999,019	1,460,686	2,207,484	3,799,200

[1] Data are from Soviet Russia, Kooperativnaia Shizn', Vsia Kooperatsia U. S. S. R., Moscow, 1930, pp. 339, 400.
[2] Estimated.

On October 1, 1927, more than half of the members of the artels resided in the villages, being engaged either in agriculture on the collective farms, or in the kustar or cottage industries, producing implements, tools, furniture, utensils, toys, etc.

The year 1931 showed a very considerable growth of artels in Soviet Russia. During the last quarter of that year, in the Ivanovsk district alone there were formed 60 new artels, with a combined membership of about 2,300, for the production of furniture, utensils, baskets, etc.

The Artel as a Means of Self-Help for Unemployed

THE spontaneous appearance of new artels in Soviet Russia has in many instances been connected with the unemployment situation. Looking over histories of individual artels one often finds a statement that this or that artel was originally formed by a group of unemployed workers of the same trade and practically of the same grade of skill.

The Vsia Kooperatsia U. S. S. R. for 1930 gives short histories of a number of artels in Soviet Russia, of which the two following may serve as samples:

The artel, "Proletarii," was founded in 1924 by 32 workers who had gone on strike against their employer, a manufacturer of iron and brass beds in Leningrad. By 1930 the members numbered 300; of these 85 per cent were skilled factory workers, 4 per cent were clerks, 6 per cent were kustari (workers skilled in some cottage industry), and 3 per cent were peasants direct from the villages. In the same year the artel produced iron and brass beds to the total value of 2,020,000 rubles ($1,010,000).

In 1928 an industrial artel, called "Krasnyi Rabochii," was founded by a number of unemployed skilled workers in Leningrad for the production of various small mechanical devices and accessories, such as those of automobiles, tractors, sewing machines, textile machines,

etc. At the end of the first year it had a membership of 50, mostly skilled workers. Its product during 1929–30 was valued at 900,000 rubles (about $450,000). The average monthly earnings per worker were about 160 rubles ($80) and the average production value per worker per month amounted to about 400 rubles ($200). This artel does not use hired, that is, outside labor, at all. During the first three years it trained 12 skilled workers for various occupations, and the same number were in training in 1929–30.

In the Russian boundary countries, especially in the Baltic States, there is an extensive development of the artels. In 1931 there were 40 artels in operation in Estonia, and practically all harbor work, such as loading and unloading, was done by them.

There is a movement on foot in these States to utilize the artel form of labor cooperation as a means of self-help for the unemployed workers. Help for securing contracts, expert advice, and credit are to be extended to these artels of unemployed workers by the public.

This idea is susceptible of adoption, with some modification, in other countries, including the United States. Thus a number of casual laborers, including odd job men, could organize a cooperative labor association. The organization would select officials and open an office. This office would solicit business (work) for the organization and make contracts with house owners and other employers for various odd jobs, such as mopping floors, cleaning windows, beating carpets, cleaning sidewalks and back yards, etc. The members of the organization would be sent out by their office to do the jobs, and the office would collect the pay for work done, paying off the members who did the jobs, and retaining a certain sum, part for office expenses, and part for a reserve fund. If, after a certain period of time, the sum of money retained reached a specified amount, it would be divided among the members of the organization on whatever basis had been chosen. Such an organization might be formed among the unemployed workers of any other trade, occupation, or degree of skill, for instance, accountants, stenographers, stage artists, and others.

LABOR AGREEMENTS, AWARDS, AND DECISIONS

Agreement in the Millinery Industry of New York City

ON MARCH 1, 1932, a 2-year agreement was entered into between the Women's Headgear Group (Inc.), New York City, and the Cloth Hat, Cap, and Millinery Workers' Union. This is the first agreement in which the union has dealt with the employers collectively, only individual agreements having been made previously.

Elimination of contract shops, for many years a source of trouble and disorganization in the hat, cap, and millinery industry, is provided for. The agreement establishes a 40-hour, 5-day week, and a minimum wage scale of from $35 to $75 a week, and provides for a strictly union shop. Time and one-half is to be paid for overtime, but overtime is to be permitted only when all members are employed full time, or when all available seats or benches are fully occupied. Week workers are to have seven holidays, with pay.

The agreement also provides for an adjustment board, with an impartial chairman, to which all disputes not settled by direct negotiations shall be referred. It is also provided that "Each party to this agreement shall have the right to call upon the other to designate a special committee to confer upon matters of mutual concern, including the question of establishing an unemployment fund for the workers in the millinery industry."

Recent Decisions of Colorado Industrial Commission

Bakery Workers—Denver, Colo.

ON APRIL 1, 1932, the managers of six baking companies of Denver presented to the Industrial Commission of Colorado a copy of their contract with Bakery and Confectionery Workers' Union No. 26, which was to expire May 1, 1932; also a copy of a proposed new contract containing a wage scale 20 per cent lower than the scale of the expiring contract, the new contract to be effective May 1, 1932.

On April 5, 1932, the representative of the bakery workers' union filed an objection to the proposed new contract and the new wage scale.

The employers contended that business conditions made it necessary to reduce the wages of their employees; and that they could not meet the competition of the chain-store bakeries if they continued to pay the present scale. They also pointed out that the cost of living has decreased since the scale was established.

The employees contended that the wage paid in Denver was from $6 to $10 per week less than that paid to union bakers in other cities of the size of Denver; that 20 per cent of the bakers in Denver were out of employment; that the chain-store bakeries were paying the union scale and that there was no reason why the independent bakeries could not do the same. The employees offered to accept a 5-day week, pointing out that under such a plan more bakers could be put to work; it would, therefore, help to relieve the unemployment situation. It was their belief, however, that by this sacrifice of one day's work and one day's pay the bakers would be doing their part to relieve unemployment conditions.

The decision of the industrial commission, rendered April 20, 1932, was that the wage scale should remain unchanged, and that the expiring contract with the union should be renewed for another year.

Building Trades—Pueblo

THE Pueblo General Contractors' Association and 13 other building-trades employers served notice on the Industrial Commission of Colorado of their intention to reduce the wages of their employees, in accordance with a schedule submitted in their notices. Among the trades involved were the plasterers, cement finishers, carpenters and joiners, painters, decorators and paperhangers, and bricklayers and masons.

The respective unions in these trades filed a protest against the proposed reductions, claiming that the amounts of reduction were too large, were not justified at this time, and should not be approved.

After a member of the commission had endeavored to effect a settlement between the parties, and had failed, the commission held a hearing on April 18, 1932. The painters' union, by mutual consent of parties to the dispute, withdrew before the hearing was held.

The employers contended that it was necessary to reduce the wages of their employees in the hope that the decrease would stimulate building and that as a result employment would be increased; that it is necessary to reduce the present high cost of labor in conformity with the reduction already made in building materials and contractors' profits; that a reduction in wages is not inconsistent with the reduced cost of living; that the proposed reduction is not inconsistent with the wage paid throughout the country, and that it is an honest attempt to meet economic conditions as they at present exist and is in a measure conducive to the benefit of those to whom it applies.

The employees contended that the amount of the reduction proposed by the employers is not justified; that a reduction of any kind would not stimulate building, and from the experience in other cities, would not increase employment; that when the number of days worked under the present scale is considered they do not receive a living wage according to the American standard of living, and that reductions in wages destroy the purchasing power of the people and will in a large measure delay the return of better times; that depressions can not and never will be cured by reducing wages.

The decision and award of the commission, rendered April 25, 1932, was that the following wages be paid for an 8-hour day. Carpenters, $8; bricklayers, $10.50; plasterers, $10.50; lathers, $8; cement finishers, $9; and bricklayers' tenders and plasterers' tenders, 75 cents per hour.

INDUSTRIAL DISPUTES

Review of Industrial Disputes in the United States from 1916 to 1931

Summary

WITH the exception of the year 1929, the year 1931 had the greatest number of strikes since 1926, there having been 894 reported for 1931 as against 903 for the year 1929 and 1,035 in 1926. The relative number of disputes and the relative number of workers involved for each year, 1916 to 1931, are shown in Table 1.

TABLE 1.—RELATIVE NUMBER OF DISPUTES AND OF EMPLOYEES INVOLVED, 1916 TO 1931

Year	Relative number of—		Year	Relative number of—	
	Disputes	Employees		Disputes	Employees
1916	100	100	1924	33	41
1917	117	77	1925	34	27
1918	88	78	1926	27	21
1919	96	260	1927	19	22
1920	90	91	1928	17	22
1921	63	69	1929	24	15
1922	29	101	1930	17	10
1923	41	47	1931	24	17

From the standpoint of the number of workers involved, by industry, there was little change in 1931 from the year 1930 with the exception of coal mining, where more than double the number of workers were on strike, and in textiles, where the figure reached five times the number of 1930.

Disputes continue to involve principally questions of wages, hours of employment, or recognition of the union.

Results of settlement of strikes in favor of employers is higher for 1931, being 47 per cent as against 44 per cent in 1930 and 40 per cent in 1929. The number of strikes in which a compromise settlement was effected in 1931 was 21 per cent as against 24 per cent in 1930 and 25 per cent in 1929.

Forty-five per cent of all strikes ending in 1931 were settled within 6 days and 67 per cent within 14 days. (See Table 19.)

Month of Occurrence

TABLE 2 shows the number of disputes beginning in each month and the number in effect at the end of each month together with the total number of workers and the man-days' loss involved from the jobs where the strikes occurred. No attempt is made to allow for time that employees may have worked on other jobs.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN, AND IN EFFECT AT END OF, EACH MONTH IN 1931

Month	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
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	46	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

Table 3 gives the number of strikes beginning in each month for the years 1916 to 1931. The usual period of unrest falls within the months of April, May, and June. However, in the year 1931 the month of September showed greater strike activity than any other month.

TABLE 3.—NUMBER OF DISPUTES BEGINNING IN EACH MONTH

Year	Number of disputes beginning in—													Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	
1916	188	206	294	434	617	354	313	326	252	261	197	149	198	3,789
1917	288	211	318	445	463	323	448	360	349	322	257	197	469	4,450
1918	191	223	312	321	392	296	288	278	212	145	208	250	237	3,353
1919	199	198	192	270	431	322	381	417	425	334	165	140	156	3,630
1920	280	214	288	427	422	317	298	264	231	192	106	108	264	3,411
1921	238	172	194	292	575	152	167	143	124	90	92	76	70	2,385
1922	131	96	75	109	104	64	101	95	85	64	64	43	81	1,112
1923	69	72	123	212	246	133	146	106	93	117	66	59	111	1,553
1924	102	70	118	144	155	98	89	81	71	74	61	40	146	1,249
1925	94	89	83	161	161	108	103	123	104	77	63	45	90	1,301
1926	62	74	84	127	141	73	84	98	85	60	48	33	66	1,035
1927	37	65	74	87	107	80	65	57	57	50	27	28	----	734
1928	48	52	41	71	80	44	54	59	52	61	44	23	----	629
1929	48	54	77	117	115	73	80	78	98	69	61	33	----	903
1930	45	52	49	64	66	59	78	51	72	47	44	26	----	653
1931	57	52	49	73	115	90	73	79	117	77	62	50	----	894

Place of Occurrence of Disputes

IN TABLE 4 is shown the number of disputes by States and geographical groups for the 16-year period, 1916 to 1931. The table shows that 715, or 80 per cent of the strikes of 1931 occurred in the group of States lying north of the Ohio River and east of the Mississippi River and that nearly 60 per cent occurred in the States of New York, Pennsylvania, New Jersey, and Massachusetts.

TABLE 4.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY STATE AND SECTION OF COUNTRY

State and section	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Alabama	15	20	13	18	25	15	4	6	----	3	5	1	----	1	1	1
Alaska	3	5	3	3	1	1	----	----	----	2	----	----	----	----	----	----
Arizona	7	20	4	7	9	4	1	1	----	----	1	----	3	----	----	2
Arkansas	20	36	11	7	15	7	2	2	3	4	----	----	1	2	1	2
California	55	112	94	102	120	99	37	47	29	40	34	20	16	28	14	23
Colorado	17	48	32	31	22	27	7	3	5	10	5	5	5	1	----	4
Connecticut	326	178	92	135	128	61	30	52	26	46	29	27	11	13	13	18
Delaware	12	17	14	11	10	4	1	1	----	4	8	2	----	3	3	1
District of Columbia	8	14	13	10	14	5	4	6	5	11	6	----	2	6	4	6
Florida	9	16	20	30	9	19	5	4	2	10	16	6	2	2	3	4
Georgia	8	28	40	39	29	21	3	4	4	5	9	1	1	3	2	3
Idaho	5	32	10	10	5	3	----	1	----	----	----	----	----	----	2	1
Illinois	159	282	248	267	254	164	63	72	80	84	72	44	40	52	37	38
Indiana	75	73	76	106	99	61	15	35	28	45	32	16	13	34	20	18
Iowa	26	65	41	57	47	42	15	14	15	12	14	6	8	5	5	13
Kansas	15	53	41	45	14	21	4	5	6	12	2	1	2	5	1	----
Kentucky	13	38	19	26	22	17	10	11	12	2	12	12	4	7	29	4
Louisiana	8	39	23	51	37	29	8	16	7	3	5	2	3	8	5	2
Maine	30	40	36	40	22	24	11	7	6	10	1	3	5	7	7	3
Maryland	48	59	72	41	57	27	12	19	25	17	7	9	8	13	10	8
Massachusetts	383	353	347	396	377	201	139	217	97	162	113	70	95	77	45	61
Michigan	71	64	60	84	63	71	18	19	10	14	12	7	7	16	14	9
Minnesota	30	53	40	49	50	45	9	14	4	5	9	11	3	9	6	9
Mississippi	4	13	5	2	4	9	----	1	----	----	----	2	----	1	1	2
Missouri	97	122	105	69	63	54	26	27	35	11	9	14	8	17	11	17
Montana	15	77	33	23	16	21	2	7	1	1	4	3	2	4	7	2
Nebraska	21	28	11	17	12	11	3	1	2	2	1	2	----	2	----	----
Nevada	----	2	7	5	4	1	3	1	1	----	----	1	----	----	----	1
New Hampshire	20	20	17	34	32	6	30	6	8	5	8	4	4	3	1	3
New Jersey	417	227	138	183	145	125	71	78	92	92	84	59	46	76	55	77
New Mexico	----	4	2	4	1	2	----	----	----	----	----	1	----	----	----	1
New York	592	711	689	536	600	384	202	403	281	301	216	181	131	179	149	237
North Carolina	8	7	14	22	21	26	6	6	4	7	2	7	1	17	5	2
North Dakota	----	2	3	----	4	8	2	1	1	----	----	----	----	----	----	----
Ohio	290	279	197	237	206	167	73	65	68	73	68	21	27	41	33	54
Oklahoma	24	35	19	32	24	29	9	2	6	10	2	3	3	3	1	6
Oregon	23	58	18	38	22	23	8	15	13	5	8	10	6	7	2	7
Pennsylvania	574	494	311	280	250	222	101	234	261	184	162	123	113	184	113	149
Rhode Island	77	105	53	78	89	42	37	25	5	25	28	23	9	17	10	20
South Carolina	5	7	3	11	5	12	2	1	1	----	1	----	----	16	2	1
South Dakota	----	3	3	3	5	3	----	----	1	----	----	----	----	1	----	1
Tennessee	26	42	26	40	27	28	8	7	10	3	7	4	7	6	1	6
Texas	28	56	41	50	73	64	10	15	16	11	4	9	5	5	6	12
Utah	3	21	14	22	14	5	1	1	2	2	----	1	----	1	----	----
Vermont	10	8	9	13	12	2	13	----	----	4	1	1	1	1	----	----
Virginia	16	35	37	28	31	14	5	3	4	1	3	1	3	5	3	2
Washington	58	294	130	113	69	63	22	36	15	15	5	9	13	10	6	17
West Virginia	40	64	50	63	49	28	8	28	23	20	11	3	----	2	13	32
Wisconsin	63	57	54	77	68	41	21	10	15	14	8	3	8	6	9	13
Wyoming	----	2	5	4	6	4	----	1	1	1	----	----	3	----	1	----
Interstate	4	25	4	21	10	19	27	23	10	12	8	6	10	7	1	2
United States [1]	3,758	4,443	3,347	3,571	3,291	2,381	1,088	1,553	1,240	1,300	1,032	734	629	903	653	894
North of the Ohio and east of the Mississippi	3,186	3,034	2,466	2,678	2,431	1,607	840	1,249	1,007	1,091	869	587	520	728	524	715
South of the Ohio and east of the Mississippi	147	309	243	278	227	186	66	71	60	51	66	49	18	60	60	57
West of the Mississippi	421	1,075	634	594	623	569	155	210	163	146	89	92	81	108	68	120
Interstate	4	25	4	21	10	19	27	23	10	12	8	6	10	7	1	2

[1] Does not include strikes in Hawaii, Puerto Rico, Canal Zone, and Virgin Islands.

New York City continues to show a greater number of strikes than any other city, it alone accounting for nearly 20 per cent of the total number of strikes reported. Newark, N. J., strikes were reduced one-half while Pittsburgh's strikes were slightly more than doubled.

TABLE 5.—NUMBER OF DISPUTES IN CITIES IN WHICH 25 OR MORE DISPUTES OCCURRED IN ANY YEAR

City	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Baltimore, Md	39	36	47	26	34	22	9	15	23	15	4	7	7	10	8	7
Boston, Mass	62	87	68	98	51	43	22	43	31	49	39	22	24	19	9	11
Bridgeport, Conn	38	30	13	25	10	2	3	2	1	4	5	5	3	1	----	2
Buffalo, N. Y	41	28	24	20	47	20	8	8	11	8	6	3	8	8	2	3
Chicago, Ill	73	123	100	126	125	89	26	44	29	58	39	29	11	32	18	21
Cincinnati, Ohio	29	33	26	39	31	18	10	10	5	3	5	----	1	4	3	4
Cleveland, Ohio	60	76	39	47	41	26	22	13	16	20	15	5	10	11	11	3
Denver, Colo	8	26	19	22	15	16	2	2	2	6	3	2	3	1	----	3
Detroit, Mich	31	19	18	40	24	39	12	14	7	9	9	5	3	10	10	2
Fall River, Mass	20	13	18	28	22	10	8	3	2	10	4	8	17	2	5	4
Hartford, Conn	28	21	8	17	19	2	2	1	3	1	3	1	1	2	3	----
Holyoke, Mass	26	9	17	18	15	3	1	8	1	3	5	----	----	3	----	2
Jersey City, N. J	28	24	7	25	14	9	9	5	7	6	7	2	3	3	7	6
Kansas City, Mo	20	36	20	16	13	17	9	6	10	2	3	2	1	2	4	2
Lynn, Mass	8	8	22	11	27	12	14	10	6	12	15	3	15	8	3	3
Milwaukee, Wis	30	14	11	27	28	9	11	6	2	4	8	----	2	1	4	7
Newark, N. J	55	50	36	33	16	23	6	13	11	15	7	4	9	13	16	8
New Orleans, La	7	23	20	40	29	23	7	11	5	2	5	1	2	5	4	1
New York, N. Y	363	484	484	370	341	193	140	296	204	228	133	127	90	113	89	167
Paterson, N. J	18	27	20	15	12	17	14	16	21	12	7	5	10	23	7	12
Philadelphia, Pa	74	89	80	60	59	61	21	32	54	37	30	23	22	73	33	36
Pittsburgh, Pa	47	37	19	19	15	23	1	5	12	11	8	8	6	11	9	19
Providence, R. I	21	46	18	31	32	17	6	5	2	8	14	9	2	4	5	3
Rochester, N. Y	16	27	35	13	37	36	17	12	13	5	1	11	2	5	2	5
San Francisco, Calif	23	37	30	34	26	22	7	14	4	11	7	7	2	5	3	4
St. Louis, Mo	58	53	70	39	40	26	11	19	21	8	4	10	5	12	4	10
Seattle, Wash	15	49	29	24	26	21	5	14	6	4	2	1	4	2	1	6
Springfield, Mass	31	27	12	20	27	6	6	10	4	7	2	----	----	2	2	----
Toledo, Ohio	16	16	27	24	20	15	3	8	3	2	3	----	1	2	2	3
Trenton, N. J	25	15	11	4	21	5	1	3	3	4	2	2	1	6	3	----
Wilkes-Barre, Pa	6	25	8	4	9	10	7	12	7	4	2	8	8	3	3	1
Worcester, Mass	18	12	11	28	18	12	2	9	4	7	3	2	2	1	1	2
Youngstown, Ohio	27	1	5	14	4	6	4	5	1	4	6	----	1	1	5	5

Sex of Workers Involved

TABLE 6 shows the number of disputes involving males, females, or both sexes, by years, 1916 to 1931.

TABLE 6.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY SEX OF EMPLOYEES

Sex of persons involved	Number of disputes beginning in—															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Males only	3,121	3,611	2,467	2,818	2,347	1,750	676	983	877	891	831	587	450	590	488	634
Females only	122	158	90	88	78	30	22	31	23	31	33	15	15	22	15	14
Both sexes	269	190	278	521	343	558	357	445	280	338	150	132	164	291	150	246
Not reported	277	491	518	203	643	47	57	94	69	41	21	----	----	----	----	----
Total	3,789	4,450	3,353	3,630	3,411	2,385	1,112	1,553	1,249	1,301	1,035	734	629	903	653	894

Relation of Workers to Unions

IN TABLE 7 it is shown that 700 or about 78 per cent of workers involved in disputes were connected with some labor organization.

TABLE 7.—RELATION OF WORKERS TO LABOR UNIONS

Relation of workers to union	Number of disputes															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Connected with unions	2,458	2,392	1,903	2,033	2,506	2,038	844	1,265	1,063	1,018	823	614	534	711	539	700
Not connected with unions	446	209	362	143	137	62	37	77	69	142	93	67	66	157	93	183
Organized after dispute began	71	55	26	30	8	5	5	18	14	16	19	16	4	20	15	2
Union and nonunion workers							12	29	31	38	15	5	4	15	6	9
Not reported	814	1,794	1,062	1,424	760	280	214	164	72	87	85	32	21			
Total	3,789	4,450	3,353	3,630	3,411	2,385	1,112	1,553	1,249	1,301	1,035	734	629	903	653	894

Causes of Disputes

MANY causes are shown as being productive of industrial strife but the chief among all of these is that of wages. Nearly 30 per cent of all strikes for the year 1931 were reported to have been brought about because of a reduction in wages. If the question of wages be studied both as a major and a minor factor in strikes it may be seen from the table following that 546 or 61 per cent of all disputes in the year 1931 contained some wage dispute element.

TABLE 8.—PRINCIPAL CAUSES OF DISPUTES BEGINNING IN EACH YEAR

Cause of dispute	Number of disputes beginning in—															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Increase of wages	1,301	1,571	1,397	1,115	1,429	120	156	445	255	277	260	142	98	101	62	52
Decrease of wages	35	36	36	86	147	896	261	49	125	117	52	57	53	72	122	264
Increase of wages and decrease of hours	481	378	256	578	269	34	16	58	30	29	39	43	27	75	53	10
Decrease of wages and increase of hours						77	40		7	4	1	1	1	2	4	7
Other causes involving wages	96	115	93	110	121	55	76	144	96	97	101	85	113	125	62	157
Decrease of hours	113	132	79	117	62	294	22	16	18	7	19	20	6	16	5	6
Increase of hours	7	18	6	25	8	18	12	5	5	6	4	3	3		1	2
Other causes involving hours	3	18	2	5	2	7		4	1		2	9	5	23	8	6
Recognition of unions	404	333	241	522	308	191	137	153	152	109	117	119	71	92	120	116
Recognition and wages	93	132	79	78	87	106	10	37	21	30	11	20	22	50	24	36
Recognition and hours	20	27	16	16	6	14	3	6	1	1		2	2	1	3	3
Recognition, wages, and hours	56	48	49	76	45	11	8	25	7	4	13	7	14	26	18	20
Recognition and other conditions	4	13	7	14	6	6	6	8	9	1	4	23	16	100	5	37
General conditions	68	116	93	123	116	83	72	80	79	89	66	47	17	95	30	18
Discharge of employees	144	246	192	163	170	45	44	79	54	74	61	50	58	41	46	42
Unfair products	7	9	1	5	30	27	18	7	8	4	16	3	7	2	3	1
Sympathy	33	71	35	108	67	36	33	31	22	39	29	23	8	20	12	21
Jurisdiction and protest	19	21	16	16	20	10	10	13	23	59	17	13	33	21	28	19
Other conditions	274	374	294	223	213	192	125	310	228	254	175		75	41	47	77
Not reported	631	792	461	250	305	163	63	83	108	100	48	67				
Total	3,789	4,450	3,353	3,630	3,411	2,385	1,112	1,553	1,249	1,301	1,035	734	629	903	653	894

Size of Disputes

THE number of disputes classified according to the number of workers involved is shown in Table 9 by years.

TABLE 9.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY CLASSIFIED NUMBER OF PERSONS INVOLVED

Number involved	Number of disputes beginning in—															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
1 to 10	210	171	152	186	161	257	80	128	125	142	60	83	61	63	64	116
11 to 25	355	304	279	297	322	336	128	182	120	167	153	158	155	188	146	181
26 to 50	427	350	343	353	349	287	156	206	145	195	105	137	126	160	135	169
51 to 100	420	361	357	404	367	352	159	157	114	166	124	112	82	156	88	151
101 to 250	399	368	384	494	381	245	144	161	119	147	119	106	71	151	107	137
251 to 500	354	287	287	356	289	164	91	135	93	97	96	60	47	86	60	73
501 to 1,000	241	194	143	217	145	103	61	78	81	52	66	45	34	46	27	29
1,001 to 10,000	238	223	204	332	184	133	61	119	78	43	58	31	49	52	25	34
Over 10,000	23	68	17	54	19	15	16	5	13	3	2	2	4	1	1	4
Not reported	1,122	2,124	1,187	937	1,194	593	216	382	361	289	252	----	----	----	----	----
Total	3,789	4,450	3,353	3,630	3,411	2,385	1,112	1,553	1,249	1,301	1,035	734	629	903	653	894

Table 10 shows the average number of workers involved in disputes in 1931 to be slightly higher than for the years 1929 and 1930.

TABLE 10.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR FOR WHICH NUMBER OF EMPLOYEES IS REPORTED, AND TOTAL AND AVERAGE NUMBER INVOLVED, 1916 TO 1931

Year	Disputes in which number of employees is reported			Year	Disputes in which number of employees is reported		
	Number of disputes	Number of employees	Average number of employees per dispute		Number of disputes	Number of employees	Average number of employees per dispute
1916	2,667	1,599,917	600	1924	898	654,641	729
1917	2,325	1,227,254	528	1925	1,012	428,416	423
1918	2,151	1,239,989	576	1926	783	329,592	421
1919	2,665	4,160,348	1,561	1927	734	349,434	476
1920	2,226	1,463,054	657	1928	629	357,145	568
1921	1,785	1,099,247	616	1929	903	230,463	255
1922	899	1,612,562	1,794	1930	653	158,114	242
1923	1,199	756,584	631	1931	894	279,299	312

The bureau has defined "establishment" as a working place and not as a company, since the term "company" frequently involves several separate and distinct units. Even on this basis, it is difficult to obtain accurate information on this point, but the best obtainable data are shown in Table 11.

TABLE 11.—NUMBER OF ESTABLISHMENTS INVOLVED

Establishments involved	Number of disputes														
	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
1	3,078	2,541	2,136	1,989	1,071	745	1,133	820	898	649	453	427	639	460	686
2	143	70	142	86	113	28	56	34	60	26	36	24	38	42	41
3	73	42	99	59	94	17	35	23	25	23	18	20	37	12	24
4	41	23	59	40	62	17	15	16	24	10	16	18	9	10	13
5	18	90	52	35	43	9	10	17	12	14	14	17	46	20	19
Over 5	403	327	910	426	584	104	103	84	98	94	163	95	134	109	111
Not reported	694	260	232	776	418	192	201	255	184	219	34	28	----	----	----
Total	4,450	3,353	3,630	3,411	2,385	1,112	1,553	1,249	1,301	1,035	734	629	903	653	894

Industries Involved in Labor Disputes

TABLE 12 shows that the four principal industries involved in labor troubles are building, clothing, mining, and textiles. Of these, there are but slight differences in the number of workers involved in 1931 as against 1930 in either building trades or clothing. There is, however, a great difference in the case of mining and textiles; the former has more than doubled, while textiles involved a number of workers five times as great as for the year 1930.

TABLE 12.—NUMBER OF PERSONS DIRECTLY INVOLVED IN INDUSTRIAL DISPUTES, 1930 AND 1931, BY SELECTED INDUSTRIES

Industry	1930	1931	Industry	1930	1931
Building trades	25,529	22,555	Printing and publishing	160	285
Clothing	54,177	54,524	Shipbuilding	----	----
Furniture	891	1,168	Slaughtering, meat cutting and packing	----	----
Iron and steel	940	1,855	Stone work	338	515
Leather	130	3,438	Textiles	11,553	58,449
Lumber	452	1,257	Tobacco	114	8,224
Metal trades	2,142	1,548	Transportation, steam and electric	767	----
Mining, coal	35,403	87,423			
Paper manufacturing	58	14			

Table 13 gives the number of disputes in selected industry or trade groups, by years, 1916 to 1931.

TABLE 13.—NUMBER OF DISPUTES IN SELECTED INDUSTRY GROUPS

Industry	Number of disputes															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Building trades	394	468	434	473	521	583	113	208	270	349	272	194	134	212	186	215
Clothing	227	495	436	322	336	240	240	395	238	231	194	129	124	169	103	162
Furniture	50	43	26	35	26	17	4	12	35	56	46	41	25	32	19	31
Iron and steel	72	56	74	76	25	25	10	10	7	7	2	2	2	3	3	5
Leather	34	19	16	27	32	26	17	17	5	5	11	12	5	11	5	14
Lumber	44	299	76	46	38	25	10	19	6	9	3	3	7	3	3	11
Metal trades	547	515	441	581	452	194	83	113	58	48	75	19	28	53	28	24
Mining, coal	373	355	162	148	161	87	44	158	177	100	78	60	83	77	76	119
Mining, other	43	94	46	28	22	8	5	1	1	4	----	----	----	----	----	----
Paper manufacturing	54	41	40	47	39	42	12	16	6	6	10	1	2	3	2	1
Printing and publishing	27	41	40	71	83	506	56	19	12	14	9	22	10	8	11	14
Shipbuilding	31	106	140	109	45	20	4	6	1	----	----	----	2	1	----	----
Slaughtering, meat cutting and packing	70	38	42	74	42	30	6	11	14	2	5	5	4	3	----	----
Stone	61	26	14	13	29	34	61	15	15	17	11	4	8	2	5	6
Textiles	261	247	212	273	211	114	115	134	80	139	90	80	65	130	67	106
Tobacco	63	47	50	58	38	19	13	16	12	4	14	3	2	5	2	10
Transportation, steam and electric	228	343	227	191	241	37	67	31	18	7	8	1	3	5	3	----

The number of disputes, by selected occupations, for the years 1916 to 1931, is shown in Table 14.

TABLE 14.—NUMBER OF DISPUTES IN SPECIFIED OCCUPATIONS, BY YEARS

Occupation	Number of disputes															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bakers	81	106	47	88	75	99	24	35	72	55	14	8	10	7	7	14
Boilermakers	23	44	28	31	22	16	4	9	3	5	4	----	----	6	----	----
Boot and shoe workers	45	38	50	54	63	28	55	53	27	31	25	13	24	53	21	29
Brewery workers	21	22	27	23	25	24	12	4	10	6	2	2	2	2	----	3
Brick and tile workers	23	9	5	16	21	12	14	6	8	13	7	1	----	4	2	4
Building laborers and hod carriers	54	74	27	49	90	10	7	39	19	35	26	22	18	27	24	62
Carpenters	75	101	81	96	73	49	20	22	34	50	27	22	35	48	39	66
Chauffeurs and teamsters	108	164	129	95	130	43	20	51	39	44	22	25	16	62	40	43
Freight handlers and longshoremen	158	194	89	58	68	36	18	23	12	10	7	3	1	4	6	11
Glass workers	41	23	13	9	11	2	4	14	7	8	6	10	4	2	----	5
Hat and cap and fur workers	26	52	38	38	51	25	40	25	34	25	32	19	12	17	13	29
Inside wiremen	32	33	45	33	51	29	7	9	18	16	17	12	10	46	23	37
Machinists	257	204	207	202	127	29	8	13	6	----	15	----	1	5	3	1
Metal polishers	43	25	29	61	78	8	3	4	10	8	10	3	6	7	8	2
Miners, coal	373	355	162	148	161	87	44	158	177	99	78	60	83	53	76	119
Molders	145	156	110	181	145	93	38	54	29	13	21	12	15	14	9	8
Painters and paper hangers	46	45	61	81	46	62	10	20	25	29	22	23	10	39	16	44
Plumbers and steam fitters	53	53	72	55	81	82	21	25	42	55	38	28	23	57	36	57
Rubber workers	38	19	15	15	14	3	3	7	2	6	2	2	2	4	----	----
Sheet-metal workers	23	33	45	19	14	82	8	13	18	9	18	6	3	19	7	30
Street-railway employees	56	118	117	110	81	12	19	21	14	5	8	2	3	2	2	----
Structural-iron workers	23	16	20	15	32	5	6	18	13	16	12	10	13	28	21	47
Tailors	38	59	51	70	42	58	19	32	11	22	16	14	6	3	2	5

Months in Which Disputes Ended

TABLE 15 shows the number of disputes ending each month, by years, 1916 to 1931.

TABLE 15.—NUMBER OF DISPUTES ENDING IN EACH MONTH

Year	Number of disputes ending in—													Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	
1916	117	132	176	292	337	216	200	217	223	173	156	78	131	2,448
1917	111	94	159	198	223	172	157	156	201	177	122	132	172	2,074
1918	105	125	168	208	261	223	211	207	175	147	117	166	85	2,198
1919	122	113	128	144	226	195	207	252	239	194	147	120	133	2,220
1920	84	85	129	197	200	188	191	157	155	117	72	60	237	1,872
1921	64	61	106	102	222	171	144	141	91	81	65	46	232	1,526
1922	42	39	37	37	77	52	58	65	70	58	61	53	92	741
1923	32	54	78	144	182	114	121	85	85	95	57	36	62	1,145
1924	69	78	92	90	129	109	83	62	55	69	47	43	33	959
1925	68	66	65	110	131	93	71	111	81	92	57	34	10	989
1926	33	46	62	76	111	73	60	77	77	59	51	37	18	780
1927	19	38	51	64	80	82	88	65	54	37	35	26	----	639
1928	41	57	52	70	72	54	58	59	60	53	48	32	----	656
1929	43	55	75	101	95	89	84	88	92	87	60	44	----	913
1930	45	33	51	61	78	54	82	48	61	55	51	48	----	667
1931	45	42	52	60	108	89	69	94	88	97	68	68	----	880

Termination of Disputes, by Result

IN TABLE 16 the number of disputes is classified by results for each year, 1916 to 1931. It will be noted that 410, or 47 per cent, of the disputes were settled in favor of employers while 241, or 27 per cent, were in favor of employees and 186, or 21 per cent, were compromised, in which case both the employer and employees gained some points.

Jurisdictional and protest strikes have increased to such an extent in recent years that it is felt that the number of such disputes may prove interesting, and for this reason such strikes have been segregated in this table. A jurisdictional dispute is one in which trades or occupations are directly involved, one against another. As far as the employer is concerned, they are often more disastrous than the dispute in which he is immediately affected. A protest strike is one which, as its name indicates, simply expresses dislike for some rule, executive, or condition. It is usually of very short duration and frequently is officially unauthorized.

TABLE 16.—RESULTS OF DISPUTES ENDING IN EACH YEAR

Result	Number of disputes ending in—															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
In favor of employers	748	395	465	687	677	701	248	368	283	253	226	169	272	367	294	410
In favor of employees	749	631	627	627	472	256	259	403	354	349	288	235	197	267	167	241
Compromise	777	720	691	797	448	291	105	168	138	138	147	129	160	226	159	186
Employees returned pending arbitration	73	137	204	50	61	80	16	46	45	51	36	29	3	3	----	----
Jurisdictional and protest	----	----	----	----	----	----	----	----	----	----	----	----	14	33	27	21
Not reported	101	191	211	59	214	198	113	160	139	198	83	77	[1] 10	[2] 17	[3] 20	[4] 22
Total	2,448	2,074	2,198	2,220	1,872	1,526	741	1,145	959	989	780	639	656	913	667	880

[1] Results of 7 strikes undetermined.
[2] Results of 16 strikes undetermined.
[3] Results of 20 strikes undetermined.
[4] Results of 22 strikes undetermined.

Duration of Disputes

TABLE 17 shows the number of disputes and the total duration and average duration of disputes, 1916 to 1931.

TABLE 17.—NUMBER OF DISPUTES FOR WHICH DURATION IS KNOWN, AND TOTAL AND AVERAGE DURATION

Year in which disputes ended	Number of disputes for which duration is reported	Total duration (days)	Average duration (days)	Year in which disputes ended	Number of disputes for which duration is reported	Total duration (days)	Average duration (days)
1916	2,116	49,680	23	1924	957	28,588	30
1917	1,435	26,981	19	1925	879	23,809	27
1918	1,709	29,895	17	1926	738	18,805	25
1919	1,855	62,930	34	1927	669	15,865	24
1920	1,321	51,893	39	1928	656	17,997	27
1921	1,258	64,231	51	1929	913	18,507	20
1922	580	21,436	37	1930	667	12,292	18
1923	968	23,177	24	1931	880	14,154	16

The classified period of duration of disputes by years is shown in Table 18, following:

TABLE 18.—DISPUTES ENDING IN EACH YEAR, BY CLASSIFIED PERIODS OF DURATION

Duration	Number of disputes ending in—															
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Less than 1 day	38	88	84	29	31	32	18	26	23	42						
1 day	141	196	145	76	57	27	48	82	42	55	51	61	95	139	66	99
2 days	185	113	171	70	64	44	39	74	46	52	47	38	56	72	53	75
3 days	147	105	127	80	54	44	27	68	31	62	42	49	50	67	54	74
4 days	125	62	111	78	51	47	23	66	46	39	32	22	39	46	39	47
5 days	131	56	72	74	36	35	26	36	27	34	34	29	27	44	27	52
6 days	112	65	67	45	44	32	18	44	30	26	30	45	44	48	32	52
7 days	93	95	115	69	66	45	34	62	47	47	48	17	14	37	36	27
8 days	86	29	60	72	45	30	19	29	21	24	13	18	13	29	36	28
9 days	50	31	38	33	30	19	10	26	14	27	21	19	11	25	19	28
10 days	108	43	58	57	31	44	15	20	17	23	25	18	21	21	20	27
11 days	41	24	24	30	28	19	5	16	17	19	12	24	15	19	15	25
12 days	42	39	26	28	24	12	6	17	6	21	10	29	21	43	14	21
13 days	27	13	16	30	21	14	10	32	12	14	6	16	12	17	10	13
14 days	64	40	49	42	40	25	9	36	26	33	19	10	7	15	17	13
15 to 18 days	148	75	88	113	83	76	41	54	39	60	34	30	36	42	43	45
19 to 21 days	83	46	72	95	25	49	27	39	23	47	20	21	13	29	14	37
22 to 24 days	40	23	40	51	41	16	15	12	17	36	20	18	12	19	18	39
25 to 28 days	61	35	32	65	56	31	9	33	39	28	25	23	21	28	22	43
29 to 31 days	53	28	65	74	47	43	9	40	27	23	25	22	14	17	14	17
32 to 35 days	25	27	31	61	21	36	13	20	23	17	25	26	9	19	15	14
36 to 42 days	50	38	39	81	46	54	14	14	26	2	24	19	21	26	18	24
43 to 49 days	24	29	36	78	48	40	14	13	26	18	22	20	11	28	14	16
50 to 63 days	53	37	48	124	69	86	29	24	43	32	21	28	23	19	25	32
64 to 77 days	40	22	18	72	51	60	18	24	27	12	15	16	12	19	18	12
78 to 91 days	27	12	17	57	41	61	14	16	12	9	8	5	14	13	14	5
92 to 200 days	99	55	35	149	125	186	51	25	55	39	25	15	30	25	12	14
Over 200 days	23	9	24	22	46	51	15	19	23	15	5	1	15	7	2	
Not reported	332	639	489	365	551	268	165	178	174	114	93					
Total	2,448	2,074	2,198	2,220	1,872	1,526	741	1,145	959	989	752	639	656	913	667	880

Termination of Disputes as Related to Length

OF THE 880 disputes terminated in 1931, 399, or 45 per cent, were settled within 6 days, and 581, or 67 per cent, within 14 days.

TABLE 19.—NUMBER OF STRIKES TERMINATED IN 1931, BY PERIOD OF DURATION

Duration	In favor of employers	In favor of employees	Compromised	Otherwise settled	Total
1 to 6 days	180	124	80	15	399
7 to 14 days	70	59	42	11	182
15 to 28 days	86	39	32	7	164
29 days and over	74	19	32	10	135
Total	410	241	186	43	880

Since 1926 it has been the policy of the bureau to omit from tabulation all strikes involving less than six workers and also those lasting less than one day.

A general summary of these strikes for the past year shows that 16 such strikes occurred in the clothing trades, 23 in the building trades, 18 in the bakery trades, and 9 among motion-picture operators, actors, and theatrical workers, leaving 39 other disputes scattered among 13 other trade groups.

Strikes and Lockouts in the United States in April, 1932

DATA regarding industrial disputes in the United States for April, 1932, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, 1930, and 1931, the number of workers involved and man-days lost for these years and for each of the months, January, 1930, to April, 1932, 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.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1930, TO APRIL, 1932, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS, 1927 TO 1931

Month and year	Number of disputes		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	----------	37,799,394
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
1930					
January	45	21	9,240	5,316	184,730
February	52	40	37,480	6,683	438,570
March	49	38	15,017	5,957	291,127
April	64	41	6,379	5,840	189,828
May	66	29	9,329	4,386	185,448
June	59	34	14,011	8,311	144,117
July	78	30	14,308	4,815	141,647
August	51	33	15,902	7,131	142,738
September	72	44	16,337	13,778	208,184
October	47	36	10,858	16,007	335,916
November	44	29	4,390	7,759	273,608
December	26	7	4,863	5,144	194,455
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	46	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	79	37	11,105	4,648	117,298
February	50	30	31,140	28,691	417,966
March [1]	54	31	32,386	12,081	690,021
April [1]	67	47	18,950	22,114	617,010

[1] Preliminary figures subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in February, March, and April, 1932, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN FEBRUARY, MARCH, AND APRIL, 1932

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	February	March	April	February	March	April
Bakers			3			39
Barbers	1		1	1,000		1,000
Brewery and soft drink workers	1			17		
Building trades	13	21	18	804	2,048	3,387
Chauffeurs and teamsters	1		4	85		586
Clothing	13	6	5	19,486	10,929	745
Farm labor			1			100
Food workers			1			25
Furniture	1	2	1	200	75	29
Glass workers	1	1		75	57	
Hospital workers			1			41
Hotel and restaurant workers		1			6	
Laundry workers	3			37		
Leather	1			125		
Longshoremen and freight handlers	1	1	2	150	10	2,500
Lumber, timber, and millwork			2			23
Metal trades	2	2	1	113	294	70
Miners	4	6	10	8,335	17,531	7,596
Motion-picture operators, actors, and theatrical workers	1	1	2	6	38	116
Paper and paper-goods workers		1			18	
Printing and publishing	2	1		23	14	
Stone		1	2		89	80
Municipal workers	1			60		
Textiles	3	7	6	601	838	1,116
Tobacco		1	1		14	22
Other occupations	1	2	6	23	425	1,475
Total	50	54	67	31,140	32,386	18,950

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in April, 1932, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN APRIL, 1932, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUPS

Industrial group	Number of disputes beginning in April, 1932, 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
Bakers	3					
Barbers					1	
Building trades	2	8	7		1	
Chaffeurs and teamsters		3	1			
Clothing		2	3			
Farm labor			1			
Food workers		1				
Furniture		1				
Hospital workers		1				
Longshoremen					2	
Lumber, timber, and mill work	2					
Metal trades		1				
Miners		4	3	1	1	1
Motion-picture operators, actors, and theatrical workers		2				
Stone		2				
Textiles		4	1	1		
Tobacco		1				
Other occupations	1	2	2	1		
Total	8	32	18	3	5	1

In Table 4 are shown the number of industrial disputes ending in April, 1932, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN APRIL, 1932, BY INDUSTRIAL GROUPS AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in April, 1932			
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months
Bakers	2			
Barbers	1			
Building trades	7	5	1	1
Chauffeurs and teamsters	4			
Clothing	3			
Food workers	1			
Furniture	1			
Hospital workers	1			
Longshoremen and freight handlers	1	1		
Lumber, timber, and mill work	2			
Metal trades	2			
Miners	2	3		
Printing and publishing			1	
Stone		1		
Textiles	6			
Tobacco	1			
Other occupations	2	1	1	
Total	36	11	3	1

Conciliation Work of the Department of Labor in April, 1932

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 54 labor disputes during April, 1932. These disputes affected a known total of 26,469 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 17 cases involving the prevailing rate of wages law. 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.

On May 1, 1932, there were 37 strikes before the department for settlement and, in addition, 57 controversies which had not reached the strike stage. The total number of cases pending was 94.

LABOR DISPUTES HANDLED BY THE UNITED STATES CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1932

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
					1932	1932		
Plumbers and steam fitters, Rochester, N. Y.	Lockout	Plumbers and steam fitters.	Wages cut $4 per day	Adjusted. Allowed $9.40 per day; former rate $12.	Apr. 1	Apr. 26	400	100
Veterans' hospital, Coatesville, Pa.	Controversy	Plumbers, steam fitters, and bricklayers.	Prevailing-wage discussion	Adjusted. Bricklayers $1.12½; plumbers and steam fitters 95c; laborers 30 to 70 cents per hour.	Mar. 20	Apr. 22	(1)	
Rochester Ice & Cold Storage Utilities, Rochester, N. Y.	Strike	Drivers and helpers.	Wage cut proposed; renewal of agreement.	Adjusted. Union wages and agreement; drivers $33, helpers $24 per week.	Apr. 1	Apr. 6	27	100
Painters, Pittsburgh, Pa.	do	Painters	Proposed wage cut of 25 per cent	Pending	Apr. 6		1,300	2,000
Henry Disston & Sons, Tacony, Philadelphia, Pa.	do	Tool making	Wage cuts	Adjusted. Allowed to retain rate in effect before strike.	Apr. 5	Apr. 6	70	
Samuel Kaplin, Philadelphia, Pa.	do	Bakery	Proposed wage cut; one discharged	Unclassified. Arbitrated matters in dispute.	do	Apr. 12	16	
Building, Cedar Rapids, Iowa	do	Building	Proposed wage cut; refusal to recognize union.	Pending	Apr. 1		750	
Pittsburgh Ry. Co., Pittsburgh, Pa.	Controversy	Employees	Proposed wage cut; changes in conditions.	Adjusted. Accepted 7½ per cent reduction; 2-year agreement.	Apr. 2		2,200	
B. & O. Storage House, Pittsburgh, Pa.	do	Building	Refusal of contractor to pay union wage.	Adjusted	Mar. 29		30	
Red Bird Baseball Park, Columbus, O.	do	Carpenters	Use of organized labor except carpenters.	Adjusted. All union crafts employed.	Apr. 4	Apr. 15	50	250
Dam No. 35, Ohio River	do	Building work on dam.	Prevailing wage not paid	Pending	Mar. 29		(1)	
Post-office building, Lawrence, Mass.	do	Carpenters	Wages not paid for labor performed	do	Apr. 6		5	16
John Conlon Coal Co., Hudson, Pa.	Strike	Miners	Wage cut; working conditions	Adjusted. Withdrew cut. Conditions improved.	Apr. 1	Apr. 24	320	5
Memorial Craftsmen's Association, Philadelphia, Pa.	Controversy	Stone and granite cutters.	Proposed wage cut from $1.25 to $1 per hour.	Pending	Apr. 6		150	150
Geo. F. Lee Coal Co., Plymouth, Pa.	Strike	Miners	Wage cut; working conditions	Adjusted. Cut withdrawn. Men reinstated.	Apr. 1	Apr. 26	275	
Post-office building, Taunton, Mass.	Controversy	Building	Wages cut; contended work should be finished at contract rates.	Adjusted. Agreed to pay prevailing rate and use local labor mainly.	Apr. 9	Apr. 12	28	24
Electrical workers, Rochester, N. Y.	Strike	Electrical	Wages cut 20 per cent	Adjusted. Accepted 20 per cent cut to $1.15½.	Apr. 13	May 4	200	100
Veterans' hospital, Biloxi, Miss.	Controversy	Building	Prevailing-wage discussion	Pending	do	Apr. 27	(1)	

Hangar, Sunnyvale, Calif.	do	Structural iron	Wages for men working on fabricated steel.	Unclassified. Not a case for conciliation.	Mar. 29	Apr. 29	60	
Post-office building, Elizabethton, Tenn.	do	Building	Nonresident labor	Adjusted. Local labor employed at prevailing wage rates.	Apr. 8	Apr. 15	40	
Post-office building, Ironwood, Mich.	do	Common laborers	Fixing of prevailing rate	Adjusted. Allowed 40 cents per hour.	Apr. 11	do	30	20
Post-office building, Long Beach, Calif.	do	Iron workers	Prevailing wage rates not being paid.	Pending	Apr. 7		20	
Post-office building, High Point, N. C.	do	Electrical workers	Prevailing-rate investigation	do	Apr. 12		(1)	
Veterans' hospital, Rutland Mass.	do	Building	do	do	Apr. 13		(1)	
Fox Hill Coal Co., Plains Township, Pa.	Strike	Miners	Wage cut	Adjusted. Agreed to pay old rate.	Mar. 28	Apr. 13	63	2
Building, Boston, Mass.	do	Building	To decide amount of wage cut	Pending	Apr. 15		78	10,000
Post-office building, La Fayette, Ind.	Controversy	do	Nonresident plasterers	Adjusted. Agreed to use local plasterers, 5-day week and closed shop; 25 per cent cut July 1, 1932.	Apr. 1	Apr. 4	300	75
Clyde-Mallory Co., Savannah Line & Morgan Line Steamship Cos., New York piers.	Strike	Longshoremen	Wages cut from 75 cents to 67 cents per hour.	Adjusted. Strike lost; perishable goods saved.	Apr. 15	Apr. 29	800	
All crafts, San Francisco, Calif.	do	Building	Wages cut 20 per cent from $10 per day, in alleged violation of agreement.	Pending	Apr. 1		300	
Forest products laboratory, Madison, Wis.	do	Carpenters	Wage cut	Adjusted. (Report not yet received).	do	Apr. 22	900	
Chester Quarry Co., Chester Mass.	Controversy	Quarry workers	Wages cut 10 per cent; agreement	Unable to adjust. Parties came to no agreement.	do	May 6	50	20
Post-office building, Monroe, Wis.	do	Building	Prevailing-wage investigation	Adjusted. Rates for various crafts fixed.	Apr. 20	Apr. 25	(1)	
Jolliff Coal Co., Flushing, Ohio	Strike	Miners	Asked contract with union recognition.	Unclassified. Conciliation not engaged. Strike continues.	Apr. 1		45	
Terminal Town Checker Taxicab Co., Rochester, N. Y.	do	Drivers	Asked that company pay for gasoline.	Adjusted. Allowed 30 per cent commission and company to buy gasoline.	Apr. 19	Apr. 21	45	20
Ambassador Hotel, Washington, D. C.	Controversy	Waiters	Wages cut from $60 to $45 per month.	Adjusted. Allowed $55 per month.	Apr. 1	do	12	
Municipal Auditorium, Worcester, Mass.	Strike	Engineers	Failure to employ union mechanic.	Adjusted. Strikers returned without master mechanic.	Apr. 25	Apr. 28	75	
Barbers, New York City	do	Barbers	Retention of present agreement	Pending	do		1,000	1,500
Motion-picture theater, Uniontown, Pa.	do	Operators	Alleged violation of working rules	do	Apr. 27		(1)	
Post-office building, South Bend, Ind.	Controversy	Bricklayers, stonemasons.	Prevailing wage rates	Adjusted. Allowed $1.50 per hour.	Apr. 1	Apr. 26	50	
Post-office building, Kansas City, Mo.	Threatened strike.	Building	Misunderstanding as to number to be employed.	Adjusted. Satisfactory agreement.	Apr. 6	Apr. 13	190	
Veterans' hospital, Columbia, S.C.	Controversy	do	Prevailing-wage discussion	Adjusted. Bricklayers 90 cents and carpenters 65 cents per hour.	Mar. 1	May 10	(1)	
Post-office building, Braddock, Pa.	do	Carpenters	do	Pending	Apr. 27		(1)	
American Terra Cotta Co., Chicago, Ill.	do	Sculptors and modelers.	Wages	Unclassified. Wages readjusted. Conciliator not engaged.	Mar. 31	May 2	(1)	

[1] Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1932—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
Textile mills, Langley, Bath, and Clearwater, S. C.	Strike	Textile workers	Wage cut	Pending	1932 Mar. 25	1932	58	1,542
Post-office building, Oakland, Calif.	do	Marble setters	Wages cut from $10 to $8 per day	Adjusted. Returned at $10 per day.	Apr. 1	Apr. 27	6	70
Administration Building, Naval Base, Norfolk, Va., Virginia Engineering Co.	Controversy	Building and moving men.	Prevailing wage	Pending	Apr. 12		124	
Officers' quarters, Naval Base, Norfolk, Va., Palmer Construction Co.	do	do	do	Adjusted	do	Apr. 25	40	
Naval Base, Norfolk, Va., Killian Construction Co.	do	Building, repair, and moving.	do	do	Apr. 10	do	40	
Veterans' hospital, Fort Harrison, Mont.	do	Lathers and laborers	do	Pending	Apr. 16		(1)	
Building of wharf, San Francisco, Calif.	do	Pile drivers and wharf carpenters.	Wages for different kinds of work	do	Apr. 23		35	
Post office and court house, Youngstown, Ohio.	Threatened strike.	Building	Alleged refusal of contractor to pay men.	Adjusted. Satisfactory agreement	Apr. 25	Apr. 27	10	25
Westerly Pink Granite Co. (Inc.), Westerly, R. I.	Controversy	Quarry workers	Renewal of wage and working agreement.	Adjusted. Wages and conditions fixed in 1-year agreement.	Apr. 15	Apr. 25	50	
Post office, Bay City, Mich	do	Electricians	Prevailing-wage discussion and employment of union men.	Adjusted. Company agreed to employ union men at prevailing rates.	Apr. 12	Apr. 20	3	5
Narcotic Farm Hospital, Lexington, Ky.	do	Building	Prevailing wages	Adjusted. Bricklayers $1.12½, electricians, plumbers and steam fitters $1, carpenters 75 cents, and laborers 25 cents per hour.	Apr. 17	May 11	150	50
Total							10,395	16,074

[1] Not reported.

RECREATION

Community Recreation in the United States in 1931

THE annual report of the National Recreation Association for the year 1932 [1] shows that, for the first time in the history of the recreation movement, the number of cities in which organized recreation service and facilities are reported exceeds one thousand. The number of cities reporting one or more playgrounds or indoor recreation centers conducted under leadership or a major recreation activity requiring regular supervision or leadership, such as a golf course, swimming pool, or bathing beach, was 1,010 in 1931 as compared with 502 ten years earlier. It is considered encouraging that during the past year when there has been a tendency to curtail public services the organized recreation movement has held its own. Although there has been no material increase in expenditures, the figures presented in the report indicate that the recreation movement has responded to the need presented by the great amount of leisure time resulting from unemployment by providing the added facilities, activities, and leadership without a corresponding increase in public expenditures.

The number of workers employed to give leadership for community recreation activities was reported by 834 cities to be 25,508. Of this total 13,053 were men and 12,455 women, the number of men exceeding the number of woman workers for the first time. Recreation workers were reported to be employed the year round by 258 cities, the number of full-time workers in these cities being 2,686. The salaries and wages for leadership and other services as reported by 793 cities amounted to $15,668,137.71 and the total expenditures for recreation purposes reported by 917 cities was $36,078,585.37.

A total of 13,324 separate play areas and centers under leadership was reported, of which 840 were opened in 1931 for the first time. The recreation facilities provided, for the cities furnishing the information, include 7,685 outdoor playgrounds, 639 recreation buildings, and 2,048 indoor recreation centers, part of these facilities being provided for colored residents. The total yearly or seasonal attendance of participants and spectators at outdoor playgrounds as reported by 565 cities was 222,619,926, while the attendance at indoor recreation centers in 144 cities was 13,769,039. These figures do not include the millions of persons using the athletic fields, bathing beaches, swimming pools, golf courses, summer camps, and other recreation areas.

The sources of support of the community recreation activities and facilities are mainly municipal and county funds, fees and charges, and private funds. The proportion supplied from municipal funds was larger than in any previous year for which reports are available,

[1] Recreation (New York), May, 1932, pp. 53-62.

approximately 90 per cent of the total amount for which the source was reported being derived from taxation. There has been a relative decrease in the past 10 years in the privately-supported programs. A marked falling off recently in the amounts received from fees and charges is considered to be due to the generally reduced incomes of the people. Bond issues for recreation purposes, totaling more than $4,000,000, were reported by 27 cities.

HOUSING

Building Permits in Principal Cities of the United States, April, 1932

THE Bureau of Labor Statistics of the United States Department of Labor has received building permit reports from 351 identical cities of the United States having a population of 25,000 or over for the months of March and April, 1932, and from 343 identical cities having a population of 25,000 or over for the months of April, 1931, and April, 1932.

The cost figures as shown in the following tables apply 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 United States Bureau of Labor Statistics in the collection of these data.

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 351 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	March, 1932	April, 1932	Per cent of change	March, 1932	April, 1932	Per cent of change
New England	$1,011,173	$1,411,099	+39.6	$851,845	$1,187,766	+39.4
Middle Atlantic	4,995,488	3,416,189	−31.6	3,814,569	11,808,233	+209.6
East North Central	1,566,066	2,178,313	+39.1	5,466,130	4,184,797	−23.4
West North Central	916,100	1,079,198	+17.8	1,065,463	1,374,241	+29.0
South Atlantic	1,674,484	1,194,720	−28.7	2,254,164	6,664,684	+195.7
South Central	837,907	886,545	+5.8	4,247,673	2,942,421	−30.7
Mountain and Pacific	2,917,357	2,417,873	−17.1	4,134,047	1,986,684	−51.9
Total	13,918,575	12,583,937	−9.6	21,833,891	30,148,826	+38.1

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	March, 1932	April, 1932	Per cent of change	March, 1932	April, 1932	Per cent of change	
New England	$1,189,332	$1,939,386	+63.1	$3,052,350	$4,538,251	+48.7	53
Middle Atlantic	3,148,476	3,796,744	+20.6	11,958,533	19,021,166	+59.1	70
East North Central	1,558,510	1,923,473	+23.4	8,590,706	8,286,583	−3.5	92
West North Central	610,887	685,698	+12.2	2,592,450	3,139,137	+21.1	25
South Atlantic	1,142,332	1,353,818	+18.5	5,070,980	9,213,222	+81.7	38
South Central	715,172	690,261	−3.5	5,800,752	4,519,227	−22.1	35
Mountain and Pacific	1,550,940	1,367,144	−11.9	8,602,344	5,771,701	−32.9	38
Total	9,915,649	11,756,524	+18.6	45,668,115	54,489,287	+19.3	351

The total cost of building operations for which permits were issued during the month of April, 1932, in these 351 cities, was $54,489,287 or 19.3 per cent greater than the estimated cost of the total building operations for which permits were issued during March. Increases in indicated expenditures for total construction were shown in four of the geographic divisions. These increases ranged from a low of 21.1 per cent in the West North Central States to a high of 81.7 per cent in the South Atlantic States. Decreases were shown in three geographic divisions.

There was a decrease of 9.6 per cent in the estimated cost of residential buildings, comparing permits issued in these 351 cities during the months of March and April. Increases were shown in four geographic divisions and decreases in three.

Indicated expenditures for new nonresidential buildings increased 38.1 per cent comparing April permits with March permits. The increase in the Middle Atlantic Division for this class of structure was 209.6 per cent.

Indicated expenditures for additions, alterations, and repairs during April were 18.6 per cent greater than during March. Five of the seven geographic divisions registered increases in this class of building.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 351 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 351 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
New England	187	253	434	701	1,584	2,392	2,205	3,346
Middle Atlantic	643	501	1,139	1,687	3,429	4,891	5,211	7,079
East North Central	272	372	939	1,865	2,295	3,655	3,506	5,892
West North Central	225	285	490	1,093	937	1,708	1,652	3,086
South Atlantic	387	267	559	661	2,478	2,953	3,424	3,881
South Central	320	357	535	511	1,830	2,067	2,685	2,935
Mountain and Pacific	777	651	1,371	1,191	3,832	3,574	5,980	5,416
Total	2,811	2,686	5,467	7,709	16,385	21,240	24,663	31,635
Per cent of change		−4.4		+41.0		+29.6		+28.3

In these 351 cities permits were issued for 31,635 building projects of all kinds during the month of April. This is an increase of 28.3 per cent over the number of projects for which permits were issued during March. Increases in the total number of building operations were shown in all geographic divisions except the Mountain and Pacific. The number of new residential buildings for which permits were issued in these 351 cities decreased 4.4 per cent comparing April permits with March permits. Four geographic divisions registered increases in the number of new residential buildings and three, decreases. The number of new nonresidential buildings increased 41.0 per cent comparing April permits with March permits. Increases were shown in all geographic divisions except the South Central and

the Mountain and Pacific. The number of additions, alterations, and repairs increased 29.6 per cent in April as compared with March. Six of the seven geographic divisions registered increases in the number of repairs.

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 351 identical cities during March and April, 1932, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 351 IDENTICAL CITIES IN MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
New England	$850,323	$1,128,499	166	221	$115,850	$200,800	32	59
Middle Atlantic	2,441,963	2,246,818	493	431	1,038,525	425,871	263	101
East North Central	1,116,999	1,560,329	238	351	118,800	100,200	35	31
West North Central	754,680	976,048	207	273	91,420	73,150	28	22
South Atlantic	1,625,924	1,052,970	373	246	15,560	48,100	17	22
South Central	710,693	750,229	292	333	88,214	68,975	41	39
Mountain and Pacific	2,295,095	2,049,847	695	597	215,912	212,376	88	80
Total	9,795,677	9,764,740	2,464	2,452	1,684,281	1,129,472	504	354
Per cent of change		−0.3		−0.5		−32.9		−29.8

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
New England	$45,000	$81,800	19	44	$1,011,173	$1,411,099	217	324
Middle Atlantic	1,215,000	637,500	353	197	4,695,488	3,310,189	1,109	729
East North Central	323,500	22,000	89	14	1,559,299	1,682,529	362	396
West North Central	24,000	30,000	9	8	870,100	1,079,198	244	303
South Atlantic	33,000	77,000	16	39	1,674,484	1,178,070	406	307
South Central	39,000	35,100	26	14	837,907	854,304	359	386
Mountain and Pacific	406,350	155,650	202	89	2,917,357	2,417,873	985	766
Total	2,085,850	1,039,050	714	405	13,565,808	11,933,262	3,682	3,211
Per cent of change		−50.2		−43.3		−22.0		−12.8

During April, 1932, there was a decrease of 22 per cent in the indicated expenditures for housekeeping dwellings comparing permits issued in these 351 identical cities. The number of families provided for in these dwellings decreased 12.8 per cent as compared with March. Four of the seven geographic divisions showed increases in the total number of families provided for comparing April permits with March permits.

There was a decrease of three-tenths of 1 per cent in the estimated cost of 1-family dwellings and a decrease of one-half of 1 per cent in the number of families provided for in 1-family dwellings. Four of the seven geographic divisions showed increases in expenditures for 1-family dwellings and three showed decreases in the number of families provided for in this class of dwelling.

Indicated expenditures for 2-family dwellings decreased 32.9 per cent and the number of family dwelling units provided decreased 29.8 per cent comparing April permits with March permits. Decreases in expenditures for 2-family dwellings were shown in all divisions except the New England and the South Atlantic. These two divi-

sions were also the only ones showing an increase in the number of families provided for in 2-family dwellings.

Indicated expenditures for apartment houses decreased 50.2 per cent and the number of family dwelling units provided for in apartment houses decreased 43.3 per cent in these 351 cities, comparing April permits with March permits.

Table 4 shows the index number of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for 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, APRIL, 1930, APRIL, 1931, AND JANUARY, FEBRUARY, MARCH, AND APRIL, 1932

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
1930					
April	62.0	51.0	100.1	81.8	73.8
1931					
April	64.6	48.6	73.9	65.2	60.6
1932					
January	14.4	10.2	25.0	25.8	18.2
February	13.0	9.1	16.5	26.7	14.3
March	15.4	10.7	18.1	27.0	15.7
April	13.4	9.7	25.0	32.0	18.8

There was a slight increase in the index number of total building operations in April, 1932, as compared with March, 1932, but a large decrease as compared with April, 1931. The index number of families provided for and the index number of new residential buildings were lower than for March. The index number of new nonresidential buildings, while higher than for March, 1932, was much lower than for April, 1931.

The charts on pages 1378 and 1379 show in graphic form the information contained in Table 4.

Table 5 shows the number and value of contracts awarded for public buildings by the different agencies of the United States Government during the months of April, 1931, and March and April, 1932

TABLE 5.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT AGENCIES OF THE UNITED STATES GOVERNMENT DURING APRIL, 1931, AND MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	April, 1931		March, 1932		April, 1932 [1]	
	Number	Cost	Number	Cost	Number	Cost
New England	8	$582,288	6	$341,858	14	$545,711
Middle Atlantic	15	1,168,840	17	799,339	20	416,660
East North Central	9	199,958	22	4,632,359	26	1,640,395
West North Central	6	511,464	11	741,040	5	209,050
South Atlantic	23	1,873,931	32	1,399,063	41	6,294,785
South Central	18	2,718,846	20	1,850,839	19	1,096,578
Mountain and Pacific	19	1,144,497	24	1,490,842	22	1,535,156
Total	98	8,199,824	132	11,255,340	147	11,738,335

[1] Subject to revision.

During April, 1932, contracts were awarded by various Federal agencies for 147 building operations to cost $11,738,335. This expenditure was higher than for either March, 1932, or April, 1931.

Table 6 shows the value of contracts awarded by the different State governments for public buildings during the months of April, 1931, and March and April, 1932, by geographic divisions.

TABLE 6.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING APRIL, 1931, AND MARCH AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	April, 1931	March, 1932	April, 1932 [1]
New England	$743,304	$219,794	$192,037
Middle Atlantic	10,658,763	1,043,741	762,943
East North Central	135,448	373,438	587,066
West North Central	10,141	44,277	124,666
South Atlantic	166,292	448,391	121,703
South Central	15,053	354,294	686,580
Mountain and Pacific	459,421	221,280	214,118
Total	12,188,422	2,705,215	2,689,113

[1] Subject to revision.

Contracts awarded by various State governments during April, 1932, totaled $2,689,113. This was slightly less than the value of contracts awarded during March, 1932, and slightly more than one-fifth of the value of contracts awarded by the State governments during April, 1931.

Table 7 shows the estimated cost of new residential building, of new nonresidential building, of additions, alterations, and repairs, and of total building construction in 343 identical cities of the United States having a population of 25,000 or over for the months of April, 1931, and April, 1932, by geographic divisions.

TABLE 7.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	April, 1931	April, 1932	Per cent of change	April, 1931	April, 1932	Per cent of change
New England	$4,115,520	$1,303,187	−68.3	$3,289,394	$1,179,551	−64.1
Middle Atlantic	28,807,325	3,380,289	−88.3	44,511,832	11,790,898	−73.5
East North Central	7,719,048	2,177,313	−71.8	11,386,922	4,184,352	−63.3
West North Central	2,740,187	1,079,198	−60.6	8,494,267	1,374,241	−83.8
South Atlantic	6,384,645	1,191,320	−81.3	1,849,034	6,660,514	+260.2
South Central	3,439,068	886,545	−74.2	6,545,872	2,942,421	−55.0
Mountain and Pacific	7,064,859	2,396,623	−66.1	4,503,053	1,985,644	−55.9
Total	60,270,652	12,414,475	−79.4	80,580,374	30,117,621	−62.6

TABLE 7.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	April, 1931	April, 1932	Per cent of change	April, 1931	April, 1932	Per cent of change	
New England	$1,850,052	$1,926,290	+4.1	$9,254,966	$4,409,028	−52.4	51
Middle Atlantic	8,799,709	3,779,267	−57.1	82,118,866	18,950,454	−76.9	68
East North Central	4,598,153	1,922,378	−58.2	23,704,123	8,284,043	−65.1	91
West North Central	943,537	685,698	−27.3	12,177,991	3,139,137	−74.2	25
South Atlantic	1,960,897	1,353,818	−31.0	10,194,576	9,205,652	−9.7	37
South Central	1,095,539	690,361	−37.0	11,080,479	4,519,327	−59.2	35
Mountain and Pacific	2,255,515	1,356,199	−39.9	13,823,427	5,738,466	−58.5	36
Total	21,503,402	11,714,011	−45.5	162,354,428	54,246,107	−66.6	343

New residential buildings decreased 79.4 per cent in estimated costs comparing permits issued in 343 identical cities in April, 1932, with April, 1931. All geographic divisions showed decreases in residential building comparing these two periods. The decreases ranged from 60.6 per cent in the West North Central States to 88.3 per cent in the Middle Atlantic States.

Indicated expenditures for new nonresidential building decreased 62.6 per cent comparing April, 1932, with April, 1931. Six of the seven geographic divisions showed decreases in expenditures for this class of structure. In the South Atlantic States, however, there was an increase of 260.2 per cent.

Indicated expenditures for additions, alterations, and repairs decreased 45.5 per cent in April, 1932, as compared with April, 1931. The one geographic division showing an increase in the expenditures for repairs was New England.

Total construction decreased 66.6 per cent, comparing April, 1932, with April, 1931. All geographic divisions showed decreases in indicated expenditure for total building construction.

Table 8 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 343 identical cities having a population of 25,000 or over for April, 1931, and for April, 1932.

TABLE 8.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 343 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	April, 1931	April, 1932	April, 1931	April, 1932	April, 1931	April, 1932	April, 1931	April, 1932
New England	546	240	1,177	678	2,679	2,359	4,402	3,277
Middle Atlantic	2,352	495	3,324	1,664	6,035	4,860	11,711	7,019
East North Central	1,303	371	3,511	1,861	5,447	3,649	10,261	5,881
West North Central	602	285	1,371	1,093	2,111	1,708	4,084	3,086
South Atlantic	1,227	265	1,574	657	3,431	2,953	6,232	3,875
South Central	828	357	826	511	2,307	2,067	3,961	2,935
Mountain and Pacific	1,475	641	1,752	1,186	4,069	3,540	7,296	5,367
Total	8,333	2,654	13,535	7,650	26,079	21,136	47,947	31,440
Per cent of change		−68.2		−43.5		−19.0		−34.4

Decreases were shown in the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in these 343 cities, comparing April, 1932, with April, 1931.

Table 9 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the cost of such dwellings for which permits were issued in 343 identical cities during April, 1931, and April, 1932, by geographic divisions.

TABLE 9.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 343 IDENTICAL CITIES IN APRIL, 1931, AND APRIL, 1932, BY GEOGRAPHIC DIVISIONS

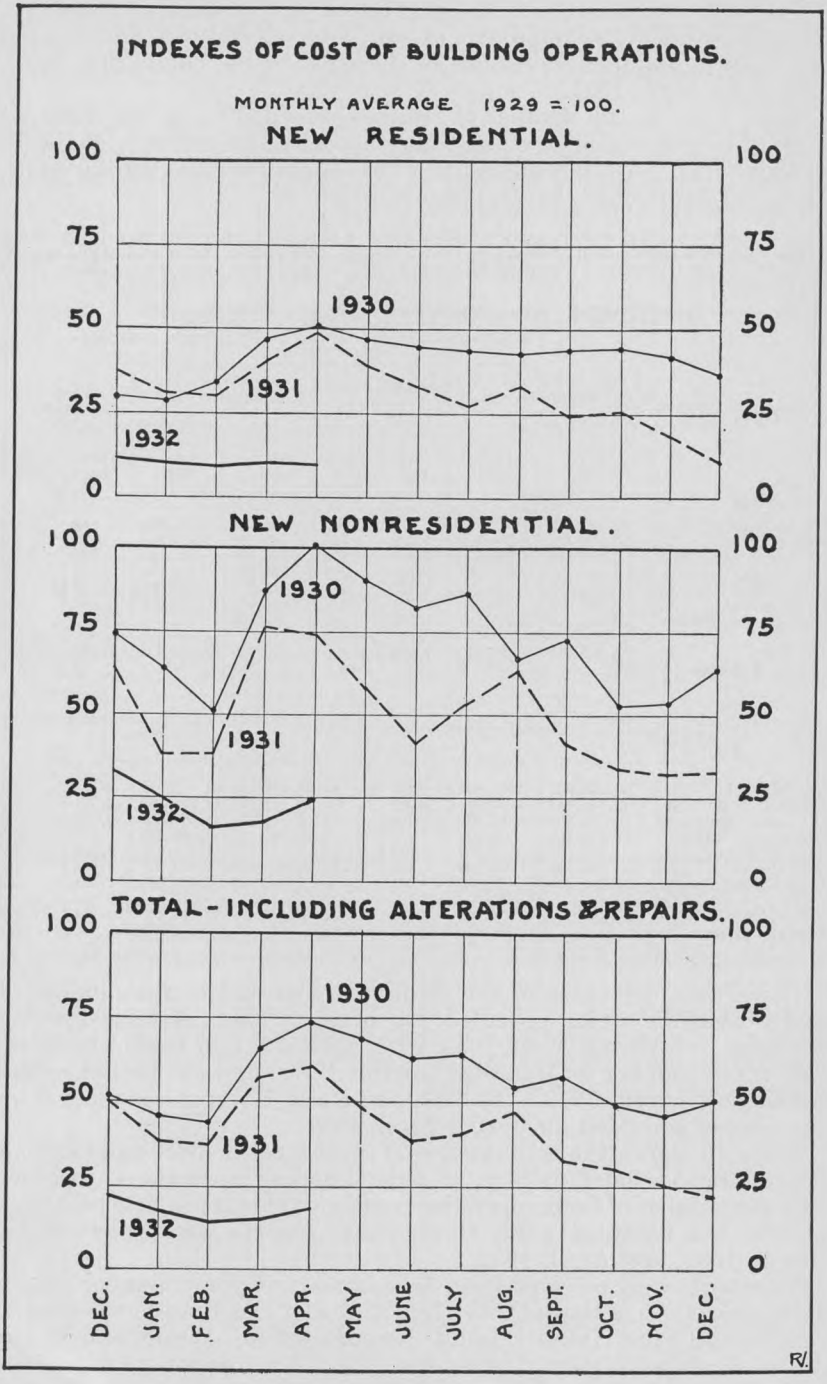
Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	April, 1931	April, 1932	April, 1931	April, 1932	April, 1931	April, 1932	April, 1931	April, 1932
New England	$2,687,120	$1,020,987	438	208	$704,400	$200,800	182	59
Middle Atlantic	10,918,428	2,210,918	1,830	425	2,767,235	425,871	782	101
East North Central	6,216,198	1,559,329	1,185	350	749,850	100,200	171	31
West North Central	2,192,587	976,048	560	273	180,100	73,150	43	22
South Atlantic	5,423,395	1,049,570	1,175	244	94,750	48,100	39	22
South Central	2,712,278	750,229	721	333	482,955	68,975	162	39
Mountain and Pacific	5,216,459	2,028,597	1,337	587	551,150	212,376	173	80
Total	35,366,465	9,595,678	7,246	2,420	5,530,440	1,129,472	1,552	354
Per cent of change		−72.9		−66.6		−79.6		−77.2

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
New England	$639,000	$81,800	195	44	$4,030,520	$1,303,587	815	311
Middle Atlantic	14,736,662	637,500	4,089	197	28,422,325	3,274,289	6,701	723
East North Central	753,000	22,000	156	14	7,719,048	1,681,529	1,512	395
West North Central	322,500	30,000	135	8	2,695,187	1,079,198	738	303
South Atlantic	604,500	77,000	222	39	6,122,645	1,174,670	1,436	305
South Central	243,835	35,100	125	14	3,439,068	854,304	1,008	386
Mountain and Pacific	1,241,250	155,650	531	89	7,008,859	2,396,623	2,041	756
Total	18,540,747	1,039,050	5,453	405	59,437,652	11,764,200	14,251	3,179
Per cent of change		−44.0		−92.6		−80.2		−77.7

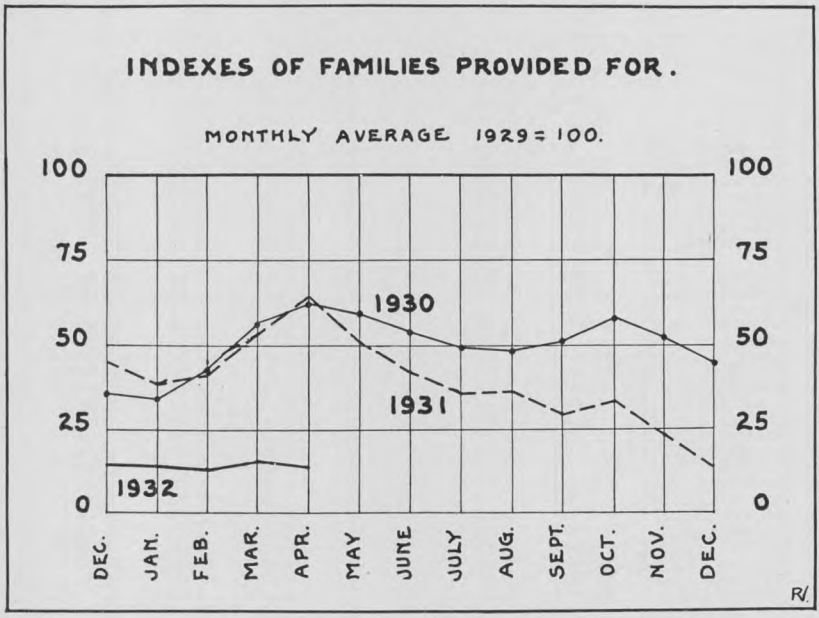
There were decreases in the estimated cost and in the number of family dwelling units provided for in each class of housekeeping dwellings, comparing April, 1932, with April, 1931, in these 343 cities. The total number of families provided for in new housekeeping dwellings in April, 1932, was 3,179, which is 77.7 per cent less than the number provided for during April, 1931.

Table 10 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, together with the number of family dwelling units provided for in new buildings for the 351 identical cities from which reports were received for March, 1932, and April, 1932.

No reports were received from New London (Conn.), Bangor (Me.), Burlington (Vt.), Atlantic City (N. J.), Butler (Pa.), Anderson (Ind.), Pontiac and Port Huron (Mich.), Newark (Ohio), West Palm Beach (Fla.), Savannah (Ga.), Lynchburg (Va.), Fort Smith (Ark.), Ashland (Ky.), Meridian (Miss.), Muskogee (Okla.), Brownsville and Port Arthur (Tex.), and San Bernardino (Calif.).



Permits were issued for the following important building projects during the month of April, 1932: In the Borough of Manhattan for a theater to cost $4,500,000; in Philadelphia for two schools to cost nearly $3,500,000; in Grand Rapids, Mich., for a public library to cost nearly $900,000; in Baltimore for a gas holder for a public utilities corporation to cost $440,000; in Austin, Tex., for an office building for the State Highway Department to cost over $400,000; in Dallas for a school building to cost $300,000; in San Francisco for two school buildings to cost $325,000.



Contracts were awarded by the Supervising Architect, Treasury Department, for a post office at Terre Haute to cost $439,000; for a building at the marine hospital in Detroit to cost nearly $400,000; in Washington, D. C., for an addition to the Library of Congress to cost $1,123,000 and for an extension and remodeling the post-office building to cost nearly $3,000,000; in Louisville, Ky., for a marine hospital to cost nearly $300,000; and in Baton Rouge, La., for a post office to cost over $300,000.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932

New England States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
Connecticut:								
Bridgeport	$64,450	$67,600	18	20	$6,210	$19,569	$82,025	$100,287
Bristol	0	9,500	0	2	0	600	2,476	17,494
Greenwich	3,000	67,500	1	4	45,400	17,750	81,415	95,524
Hartford	29,500	20,150	8	4	18,235	12,142	110,709	62,745
Meriden	8,000	3,400	2	1	6,463	1,450	19,138	12,320
New Britain	0	37,000	0	5	12,975	635	20,745	50,249
New Haven	33,300	48,500	5	9	27,210	7,850	85,495	114,420
Norwalk	82,700	39,900	12	8	4,760	10,250	100,503	67,195
Stamford	7,500	6,000	1	1	5,900	55,425	21,120	86,870
Torrington	0	12,000	0	4	235	1,315	13,265	17,190
Waterbury	4,000	11,000	1	3	2,000	1,200	14,800	21,435
West Hartford	65,023	67,412	10	6	4,005	3,485	73,746	81,078
Maine:								
Lewiston	12,000	5,300	5	2	200	900	24,200	7,200
Portland	12,500	24,800	3	7	435	11,400	59,067	48,718
Massachusetts:								
Arlington	60,400	40,100	11	7	2,600	4,730	68,800	48,145
Beverly	0	10,500	0	2	2,975	1,125	13,775	22,935
Boston [1]	142,000	231,000	28	53	331,114	304,025	863,243	1,509,574
Brockton	15,300	4,000	3	1	1,825	3,265	22,380	24,907
Brookline	27,500	29,500	3	3	1,700	3,495	36,905	50,090
Cambridge	8,000	80,000	2	42	1,175	1,250	28,285	272,061
Chelsea	0	7,000	0	2	400	173,000	5,981	182,215
Chicopee	2,500	8,800	2	3	1,500	2,510	8,150	19,160
Everett	0	7,500	0	3	4,600	490	8,000	20,890
Fall River	0	5,300	0	2	2,942	4,680	52,927	21,169
Fitchburg	0	12,000	0	2	1,181	1,128	2,931	27,593
Haverhill	0	0	0	0	2,500	2,065	6,200	11,760
Holyoke	0	6,500	0	1	8,200	7,600	19,050	34,850
Lawrence	0	8,500	0	2	1,535	2,425	10,935	28,925
Lowell	2,500	9,000	2	2	85	1,160	8,635	21,760
Lynn	14,300	9,000	3	3	550	11,745	61,785	50,810
Malden	11,300	5,000	3	1	1,415	425	16,880	13,310
Medford	25,800	26,500	6	8	1,800	2,000	36,565	42,825
New Bedford	0	0	0	0	4,150	30,100	11,000	42,175
Newton	58,300	62,300	8	10	1,700	6,965	89,540	83,345
Pittsfield	10,000	19,400	2	5	1,725	7,250	16,375	37,625
Quincy	10,400	24,600	3	7	19,425	10,813	48,387	59,757
Revere	0	8,000	0	3	3,850	1,835	23,100	57,885
Salem	17,500	14,000	3	2	1,100	13,975	66,960	49,890
Somerville	0	9,700	0	3	49,575	178,902	54,970	212,512
Springfield	13,600	51,750	5	12	20,875	14,350	64,880	75,161
Taunton	4,500	1,750	2	2	176,635	18,700	183,629	25,320
Waltham	13,000	8,400	8	3	850	15,925	14,400	30,622
Watertown	10,000	11,500	2	2	665	49,525	11,840	69,225
Worcester	49,100	83,600	9	18	3,725	28,250	82,949	131,785
New Hampshire:								
Concord	7,000	16,737	2	5	600	1,262	9,500	22,499
Manchester	8,500	20,550	3	9	1,130	3,985	24,215	40,842
Rhode Island:								
Central Falls	0	0	0	0	6,000	100	10,870	2,775
Cranston	33,600	24,400	9	6	4,945	7,290	42,045	33,935
East Providence	16,100	14,500	4	4	1,750	6,490	22,204	28,177
Newport	5,500	21,500	1	4	21,480	5,550	30,295	34,177
Pawtucket	23,650	4,350	8	2	12,510	5,100	45,330	14,520
Providence	98,850	92,800	19	13	16,975	109,435	214,840	294,385
Woonsocket	0	1,000	0	1	55	875	4,890	5,935
Total	1,011,173	1,411,099	217	324	851,845	1,187,766	3,052,350	4,538,251
Per cent of change		+39.6		+49.3		+39.4		+48.7

Middle Atlantic States

New Jersey:								
Bayonne	0	0	0	0	$1,425	$12,180	$9,845	$29,843
Belleville	$6,500	$3,000	2	1	3,450	2,600	13,435	10,005
Bloomfield	140,000	0	30	0	7,000	2,500	148,500	5,000

[1] Applications filed.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Middle Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
New Jersey—Contd.								
Camden	0	0	0	0	$15,075	$81,345	$22,562	$81,345
Clifton	$50,500	0	13	0	3,225	6,825	59,675	15,155
East Orange	8,000	$17,500	2	3	154,656	15,100	186,623	61,705
Elizabeth	31,000	13,000	4	2	17,600	9,500	48,600	22,500
Garfield	12,500	2,500	2	1	10,100	2,075	24,200	10,175
Hackensack	4,500	11,000	1	2	4,865	14,695	17,821	39,630
Hoboken	0	0	0	0	0	200,000	15,990	210,149
Irvington	11,000	17,800	4	5	8,600	8,090	25,412	36,440
Jersey City	45,500	45,200	17	11	70,360	33,337	138,085	147,112
Kearny	0	7,500	0	1	4,700	3,350	7,600	12,800
Montclair	36,350	7,000	4	1	4,450	4,325	49,020	39,527
Newark	142,500	27,500	24	5	93,500	278,814	338,775	389,489
New Brunswick	0	5,000	0	1	0	395	8,505	22,056
Orange	10,000	5,000	2	1	2,000	177,480	18,643	189,795
Passaic	4,500	4,800	1	1	0	2,930	43,244	27,582
Paterson	17,500	19,575	5	6	11,090	18,844	59,152	107,280
Perth Amboy	0	3,600	0	1	129,215	625	130,365	11,550
Plainfield	76,100	10,000	10	2	9,775	1,400	98,297	17,528
Trenton	9,000	9,000	1	2	38,150	71,515	62,095	80,515
Union City	0	0	0	0	500	58,450	18,212	72,600
West New York	0	0	0	0	0	0	6,535	13,575
West Orange	41,000	24,900	5	4	5,035	2,640	49,410	31,080
New York:								
Albany	52,800	139,500	7	10	7,000	13,100	116,890	188,335
Amsterdam	9,900	5,500	3	2	875	6,010	11,775	12,210
Auburn	0	8,300	0	2	850	6,200	5,700	21,400
Binghamton	10,225	26,700	3	7	3,905	7,116	36,591	110,952
Buffalo	73,900	63,540	18	10	213,819	42,505	333,692	176,059
Elmira	3,350	7,000	1	2	905	4,120	6,438	45,933
Jamestown	5,500	8,000	2	3	650	11,075	13,870	41,375
Kingston	11,800	16,400	4	5	2,363	17,825	18,483	43,520
Lockport	0	0	0	0	0	0	0	0
Mount Vernon	0	10,000	0	3	10,123	2,830	26,330	30,566
Newburgh	9,500	0	1	0	12,100	5,300	43,100	20,900
New Rochelle	30,900	68,500	5	5	109,200	61,758	143,219	140,074
New York City—								
The Bronx [1]	536,600	334,500	132	72	53,200	195,450	1,018,125	769,880
Brooklyn [1]	615,800	232,000	151	54	747,460	736,355	1,880,677	1,590,075
Manhattan [1]	1,000,000	250,000	192	72	323,200	4,643,550	1,846,965	5,559,555
Queens [1]	965,250	779,800	243	164	216,589	697,643	1,416,093	1,939,919
Richmond [1]	69,215	127,040	20	30	400,920	48,960	523,080	239,638
Niagara Falls	19,378	11,900	4	3	120,310	32,403	159,181	61,733
Poughkeepsie	14,500	0	2	0	3,180	5,130	31,130	20,118
Rochester	54,550	141,800	8	20	150,035	22,899	293,325	279,817
Schenectady	14,000	21,800	3	4	1,275	4,480	48,273	50,806
Syracuse	21,000	45,000	4	9	11,835	12,650	94,447	73,180
Troy	0	67,340	0	14	21,535	36,225	22,545	129,660
Utica	0	17,500	0	3	300	14,575	8,550	42,375
Watertown	0	17,600	0	5	390	1,025	1,865	34,592
White Plains	0	7,000	0	1	3,825	11,900	12,225	29,243
Yonkers	154,300	163,200	23	33	11,275	22,395	232,970	210,495
Pennsylvania:								
Allentown	30,000	3,200	4	1	8,825	11,100	50,460	20,485
Altoona	6,000	0	4	0	1,879	14,918	14,794	21,774
Bethlehem	0	16,300	0	5	2,250	1,710	2,500	19,435
Chester	0	0	0	0	1,775	600	1,775	5,315
Easton	0	89,200	0	15	11,010	760	17,735	91,695
Erie	21,000	28,050	7	6	5,710	27,560	40,860	79,675
Harrisburg	10,800	66,500	2	13	6,275	5,845	47,850	262,726
Hazleton	0	21,609	0	5	3,725	26,819	14,025	58,369
Johnstown	6,000	5,500	1	1	795	3,920	10,770	18,775
Lancaster	7,000	19,000	2	4	177,100	1,250	188,760	25,730
McKeesport	0	5,000	0	1	37,375	14,345	41,680	30,794
Nanticoke	5,000	19,000	1	6	0	0	5,500	19,000
New Castle	0	0	0	0	1,835	1,990	2,135	8,365
Norristown	0	0	0	0	12,285	1,663	14,694	6,912
Philadelphia	402,370	154,435	89	47	424,305	3,621,550	1,028,990	3,987,040

[1] Applications filed.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Middle Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
Pennsylvania—Con.								
Pittsburgh	$84,800	$67,900	21	18	$73,270	$56,919	$309,447	$241,458
Reading	75,000	60,000	15	12	9,825	8,210	108,950	85,310
Scranton	13,100	16,500	5	5	6,560	309,963	39,845	370,843
Wilkes-Barre	6,700	0	2	0	2,790	4,755	21,625	31,435
Wilkinsburg	5,000	7,000	1	1	1,200	250	6,557	10,075
Williamsport	2,000	0	1	0	640	18,376	15,380	35,186
York	1,800	33,200	1	6	3,250	3,236	28,061	43,923
Total	4,995,488	3,416,189	1,109	729	3,814,569	11,808,233	11,958,533	19,021,166
Per cent of change		−31.6		−34.3		+209.6		+59.1

East North Central States

Illinois:								
Alton	$7,500	$10,880	2	3	$2,875	$600	$17,886	$20,380
Aurora	7,900	16,505	1	6	1,100	11,798	14,755	32,608
Belleville	19,200	28,600	6	11	250	0	20,600	31,200
Berwyn	0	0	0	0	659	3,339	5,294	6,719
Bloomington	4,000	6,000	1	1	65,000	2,000	71,000	17,000
Chicago	176,000	136,900	30	30	398,025	348,565	893,716	653,031
Cicero	7,000	0	1	0	0	1,450	7,875	4,550
Danville	7,767	22,300	1	13	1,850	1,300	20,427	28,943
Decatur	6,000	7,000	1	2	12,975	8,205	32,450	17,450
East St. Louis	14,250	2,600	4	1	2,850	5,350	22,860	11,760
Elgin	0	11,500	0	3	720	3,250	9,349	30,221
Evanston	0	0	0	0	2,000	6,500	82,500	74,500
Granite City	0	0	0	0	0	0	0	0
Joliet	0	0	0	0	14,000	200	18,200	14,400
Maywood	0	4,800	0	1	150	130,350	2,090	143,572
Moline	9,000	3,150	2	2	165	6,665	13,542	19,250
Oak Park	0	10,400	0	2	8,775	11,250	16,150	26,125
Peoria	36,800	37,000	9	9	13,300	9,143	59,551	61,143
Quincy	3,000	12,500	1	3	350	1,525	3,350	14,660
Rockford	0	0	0	0	534,750	22,966	539,500	30,136
Rock Island	3,000	15,350	1	6	1,225	2,105	8,247	26,170
Springfield	8,059	44,500	2	15	3,109	2,725	33,789	208,693
Waukegan	2,000	19,000	1	3	500	13,500	3,000	35,750
Indiana:								
East Chicago	0	0	0	0	0	30,150	2,700	35,535
Elkhart	3,500	9,450	1	4	625	3,025	7,105	14,971
Evansville	8,000	6,500	2	3	7,061	13,488	34,988	45,678
Fort Wayne	4,950	0	1	0	50,800	21,040	69,799	50,851
Gary	5,000	0	2	0	1,360	525	6,360	2,125
Hammond	1,000	800	1	1	1,250	7,135	6,050	9,365
Indianapolis	89,550	74,650	20	18	161,000	33,250	325,951	158,401
Kokomo	0	0	0	0	1,085	2,065	1,525	3,167
Lafayette	7,600	4,450	3	2	0	17,000	8,600	21,450
Marion	0	1,750	0	2	3,500	915	4,810	6,732
Michigan City	2,800	25,400	1	5	1,835	300	5,360	27,085
Mishawaka	0	2,650	0	1	275	383	8,325	4,133
Muncie	1,000	0	1	0	490	33,442	6,811	37,125
Richmond	0	0	0	0	200	1,800	3,200	6,700
South Bend	13,000	7,000	3	1	1,405	5,795	19,285	25,045
Terre Haute	2,000	9,900	1	3	3,500	443,230	14,642	459,373
Michigan:								
Ann Arbor	12,600	4,000	3	1	135,190	5,545	151,831	75,821
Battle Creek	0	0	0	0	1,300	3,975	8,825	10,795
Bay City	5,000	18,000	2	5	1,105	12,665	9,730	38,725
Dearborn	23,900	42,000	6	6	3,885	2,650	35,335	55,185
Detroit	131,300	690,384	28	44	3,345,620	501,568	3,651,652	1,406,919
Flint	0	1,244	0	1	3,021	7,964	19,761	34,108
Grand Rapids	7,800	25,500	2	5	55,980	975,885	70,995	1,019,755
Hamtramck	0	0	0	0	250	0	2,850	3,765
Highland Park	0	0	0	0	6,150	535	9,190	2,970
Jackson	0	0	0	0	9,891	1,802	10,991	9,372

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
Michigan—Contd.								
Kalamazoo	$22,000	$4,000	5	2	$5,060	$1,769	$31,912	$15,634
Lansing	5,000	2,700	1	1	4,125	7,800	10,525	22,295
Muskegon	1,900	2,800	1	2	250	0	3,915	2,800
Royal Oak	0	1,000	0	1	3,400	445	5,375	2,540
Saginaw	11,865	10,100	3	4	38,469	4,104	62,769	27,259
Wyandotte	0	12,950	0	3	200	970	7,975	16,655
Ohio:								
Akron	15,000	7,400	2	6	66,312	189,515	101,587	207,485
Ashtabula	0	2,500	0	1	12,125	8,400	17,600	14,740
Canton	0	4,800	0	2	755	268,985	1,680	278,950
Cincinnati	290,495	233,650	61	41	279,670	185,932	644,045	469,597
Cleveland	242,500	125,100	46	23	36,400	42,275	500,700	512,850
Cleveland Heights	27,380	44,200	3	6	1,575	6,225	30,630	55,170
Columbus	34,000	41,800	6	7	17,000	68,100	80,000	211,650
Dayton	49,000	14,800	9	4	21,860	47,278	89,565	84,512
East Cleveland	0	0	0	0	2,750	17,520	4,420	18,295
Elyria	0	3,100	0	1	225	58,545	900	65,560
Hamilton	6,100	0	2	0	750	2,085	12,295	10,230
Lakewood	46,200	16,000	37	2	6,870	48,105	56,905	74,545
Lima	4,000	0	1	0	5,250	1,545	12,020	4,925
Lorain	0	0	0	0	1,400	900	1,600	1,585
Mansfield	8,000	9,000	1	1	2,600	3,695	11,450	15,271
Marion	0	1,500	0	1	20,450	660	20,895	2,310
Massillon	0	0	0	0	20	789	1,300	939
Middletown	0	0	0	0	1,600	1,450	14,148	4,976
Norwood	0	5,000	0	1	5,500	7,000	6,215	12,995
Portsmouth	0	0	0	0	1,100	2,270	6,375	3,820
Springfield	14,500	0	3	0	4,500	1,331	20,230	2,396
Steubenville	6,600	0	2	0	0	8,100	7,350	9,590
Toledo	26,750	28,500	5	6	9,870	11,813	50,970	62,056
Warren	0	0	0	0	140	1,380	3,545	3,780
Youngstown	0	11,000	0	2	3,225	5,585	11,800	26,180
Wisconsin:								
Appleton	15,200	13,100	4	3	655	5,190	24,655	25,011
Eau Claire	7,500	13,000	4	5	5,700	2,050	17,000	16,920
Fond du Lac	2,300	7,200	1	3	160	1,550	3,700	11,650
Green Bay	2,900	31,900	2	12	8,925	87,685	15,855	124,760
Kenosha	0	3,000	0	1	250	1,495	5,090	7,565
Madison	12,000	38,600	2	11	2,200	10,535	45,115	66,335
Milwaukee	70,400	104,750	18	22	27,845	235,749	195,624	484,565
Oshkosh	3,500	3,100	1	3	3,718	2,995	8,668	12,148
Racine	0	38,000	0	1	0	925	7,605	45,695
Sheboygan	5,200	28,100	1	4	705	6,250	14,211	50,698
Superior	0	0	0	0	620	104,309	21,860	107,549
West Allis	5,300	3,000	1	1	495	2,575	8,825	19,685
Total	1,566,066	2,178,313	362	396	5,466,130	4,184,797	8,590,706	8,286,583
Per cent of change		+39.1		+9.4		−23.4		−3.5

West North Central States

Iowa:								
Burlington	0	$2,500	0	2	$450	$450	$1,025	$5,450
Cedar Rapids	$20,550	16,850	6	7	4,630	16,008	38,696	72,419
Council Bluffs	6,500	6,000	2	2	4,400	2,600	25,900	21,600
Davenport	3,300	13,600	1	5	382,473	7,823	394,504	44,069
Des Moines	37,400	70,700	10	22	4,535	22,122	84,065	118,672
Dubuque	10,000	14,200	1	5	1,515	3,643	18,084	26,354
Ottumwa	0	15,000	0	2	0	4,850	10,500	21,850
Sioux City	17,300	26,900	5	10	50,375	7,935	69,025	36,550
Waterloo	6,000	17,100	1	11	1,145	18,390	33,605	45,940
Kansas:								
Hutchinson	14,000	10,000	6	4	520	5,225	18,660	18,395
Kansas City	9,100	10,950	11	8	9,880	5,680	21,230	22,705
Topeka	56,400	19,800	16	6	13,820	6,500	75,183	30,550
Wichita	12,500	27,700	3	7	4,546	26,745	27,751	65,168

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

West North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
Minnesota:								
Duluth	$10,500	$12,000	3	5	$6,475	$23,485	$56,038	$63,615
Minneapolis	113,325	189,650	31	44	117,523	98,615	340,998	380,525
St. Paul	101,400	119,988	21	20	256,209	438,356	470,986	700,083
Missouri:								
Joplin	0	5,000	0	4	2,225	800	9,025	10,750
Kansas City	75,000	60,500	21	18	10,800	339,800	107,000	443,500
Springfield	1,400	12,500	2	4	4,525	3,750	21,525	32,726
St. Joseph	3,750	13,000	3	4	1,060	9,745	19,160	30,867
St. Louis	311,650	252,700	75	67	119,350	53,176	519,277	443,481
Nebraska:								
Lincoln	6,600	8,900	4	5	18,702	3,665	42,303	43,085
Omaha	73,050	111,650	18	27	18,230	178,448	129,160	306,368
North Dakota: Fargo	0	12,950	0	3	3,825	1,995	4,125	29,795
South Dakota: Sioux Falls	26,375	29,060	4	11	28,250	94,435	54,625	124,620
Total	916,100	1,079,198	244	303	1,065,463	1,374,241	2,592,450	3,139,137
Per cent of change		+17.8		+24.2		+29.0		+21.1

South Atlantic States

Delaware:								
Wilmington	$8,800	$20,000	1	4	$10,110	$6,698	$35,229	$62,249
District of Columbia:								
Washington	983,900	537,250	168	90	648,905	4,440,875	1,800,687	5,195,747
Florida:								
Jacksonville	29,700	40,900	14	13	17,045	3,920	88,050	90,385
Miami	25,500	10,190	12	6	10,525	254,966	60,681	305,357
Orlando	0	0	0	0	400	0	10,900	4,920
Pensacola	6,075	3,400	5	2	2,300	4,170	115,044	7,570
St. Petersburg	20,900	3,700	3	5	3,100	6,700	36,700	16,900
Tampa	1,100	16,300	4	6	4,940	11,900	30,152	47,353
Georgia:								
Atlanta	61,950	57,800	31	23	341,576	19,505	455,544	154,271
Augusta	12,571	3,600	7	3	400	0	17,642	34,064
Columbus	500	3,000	1	1	1,265	500	4,310	13,431
Macon	1,650	16,000	2	1	318,148	60,150	331,275	93,200
Maryland:								
Baltimore	189,000	112,000	49	24	419,300	1,391,700	1,041,800	2,046,800
Cumberland	8,200	1,200	4	2	9,475	5,655	20,825	7,605
Hagerstown	0	4,500	0	1	708	5,010	708	10,785
North Carolina:								
Asheville	0	0	0	0	236	1,590	3,471	10,480
Charlotte	49,500	14,600	10	4	35,460	588	94,733	26,517
Durham	9,110	19,300	9	8	31,500	6,700	64,430	31,350
Greensboro	1,800	0	1	0	1,940	3,440	13,580	11,237
High Point	0	8,700	0	3	236,025	5,943	236,825	14,643
Raleigh	0	10,350	0	6	2,202	190	6,352	21,999
Wilmington	2,500	2,000	1	3	300	3,100	11,750	9,450
Winston-Salem	8,700	8,650	2	5	4,675	21,130	26,464	39,125
South Carolina:								
Charleston	3,750	15,350	3	3	0	775	9,749	32,167
Columbia	14,900	15,125	9	10	62,137	14,595	86,561	76,847
Greenville	6,000	3,800	2	4	2,500	1,050	27,445	12,660
Spartanburg	0	1,600	0	1	1,900	950	5,122	6,410
Virginia:								
Newport News	11,200	16,200	5	5	1,229	2,017	18,623	25,889
Norfolk	75,700	94,800	22	25	54,688	229,420	181,945	347,495
Petersburg	8,485	1,000	2	1	460	700	12,345	8,550
Portsmouth	17,650	7,800	6	3	1,790	1,120	25,442	15,387
Richmond	64,050	51,850	16	21	9,540	9,905	91,233	110,190
Roanoke	19,743	32,130	5	4	6,247	695	34,300	44,023

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

South Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
West Virginia:								
Charleston	$15,100	$45,500	4	12	$6,350	$123,397	$29,065	$182,639
Clarksburg	0	1,200	0	1	700	1,320	3,545	6,220
Huntington	5,700	8,275	3	3	2,263	7,470	13,238	37,928
Parkersburg	5,750	4,000	2	1	425	940	8,015	6,805
Wheeling	5,000	2,650	3	3	3,400	15,900	17,200	44,574
Total	1,674,484	1,194,720	406	307	2,254,164	6,664,684	5,070,980	9,213,222
Per cent of change		−28.7		−24.4		+195.7		+81.7

South Central States

Alabama:								
Birmingham	$5,000	$3,600	1	5	$22,200	$54,370	$61,800	$85,286
Mobile	7,200	6,500	6	8	9,975	16,400	25,202	40,733
Montgomery	(2)	21,290	(2)	10	770,179	26,950	770,179	61,882
Arkansas:								
Little Rock	1,000	2,375	1	3	725	4,004	43,477	20,464
Kentucky:								
Covington	8,000	0	2	0	950	1,000	18,950	7,355
Lexington	3,000	4,750	2	2	2,183	15,600	30,039	30,223
Louisville	74,750	58,000	13	12	7,450	295,986	119,845	390,186
Newport	0	4,800	0	1	0	800	600	7,200
Paducah	0	0	0	0	4,000	0	4,150	900
Louisiana:								
Baton Rouge	8,639	4,600	4	5	2,389	309,128	32,632	329,183
Monroe	0	0	0	0	4,600	22,750	8,825	27,700
New Orleans	38,750	90,536	24	31	43,275	309,778	131,314	452,864
Shreveport	18,650	17,300	11	11	1,490	5,545	35,616	48,232
Mississippi:								
Jackson	11,000	23,600	5	6	0	0	18,625	38,615
Oklahoma:								
Enid	4,000	1,750	2	2	11,300	235	17,300	4,900
Oklahoma City	59,500	90,000	19	18	1,728,225	447,875	1,802,175	566,195
Okmulgee	0	0	0	0	0	0	3,350	0
Tulsa	28,150	17,575	8	7	13,585	51,853	54,395	77,866
Tennessee:								
Chattanooga	6,350	3,000	2	2	42,400	5,330	84,619	35,371
Johnson City	8,000	0	2	0	0	450	8,000	800
Knoxville	21,920	15,960	6	7	13,970	38,112	41,940	64,062
Memphis	24,180	28,600	14	11	44,850	31,720	143,260	162,240
Nashville	36,200	78,550	15	33	8,555	14,730	64,339	110,823
Texas:								
Amarillo	12,850	8,535	5	13	23,045	18,815	43,965	33,920
Austin	30,300	50,485	20	27	444,853	506,174	495,634	566,474
Beaumont	1,000	0	1	0	32,540	20,735	45,687	37,575
Dallas	96,550	55,694	46	35	45,565	330,060	218,038	465,695
El Paso	8,400	6,650	3	2	42,015	4,585	55,074	24,759
Fort Worth	70,500	47,500	34	21	20,600	33,900	124,800	127,999
Galveston	17,750	41,300	10	16	299,828	17,132	356,722	69,281
Houston	179,400	145,730	64	61	162,100	167,350	368,900	333,730
San Angelo	1,500	0	1	0	7,875	0	14,300	19,082
San Antonio	37,468	50,865	27	31	421,875	184,681	501,174	254,147
Waco	17,900	7,000	11	6	6,265	2,533	35,132	14,985
Wichita Falls	0	0	0	0	8,811	3,840	20,694	8,500
Total	837,907	886,545	359	386	4,247,673	2,942,421	5,800,752	4,519,227
Per cent of change		+5.8		+7.5		−30.7		−22.1

[2] Building inspector's records for March destroyed by fire. The nonresidential building shown is a post-office building, contract for which was awarded by the Supervising Architect of the Treasury Department.

TABLE 10.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1932—Continued

Mountain and Pacific States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings					
	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932	March, 1932	April, 1932
Arizona:								
Phoenix	$18,500	$30,150	3	7	$10,100	$27,090	$53,955	$91,750
Tucson	15,400	24,400	5	7	13,165	4,557	36,704	56,695
California:								
Alameda	18,600	3,850	5	1	1,325	17,640	28,828	29,408
Alhambra	42,650	34,000	16	11	16,725	5,225	64,450	42,725
Bakersfield	4,300	5,700	2	1	8,823	4,550	22,838	24,820
Berkeley	30,500	28,050	7	8	2,260	50,812	46,397	107,267
Fresno	35,700	16,100	14	6	276,750	17,510	335,187	49,099
Glendale	135,850	50,590	29	12	20,290	34,180	163,640	91,320
Huntington Park	35,100	4,500	13	3	3,100	0	43,675	4,500
Long Beach	90,400	117,885	32	46	96,765	50,330	231,665	213,925
Los Angeles	953,757	692,990	372	246	1,989,808	527,320	3,486,622	1,531,814
Oakland	109,950	85,826	33	27	36,573	35,075	210,104	183,920
Pasadena	10,250	40,070	2	11	7,978	43,228	51,784	111,427
Riverside	5,000	13,500	2	3	7,691	1,290	22,887	22,059
Sacramento	33,200	99,932	14	19	884,775	11,420	1,015,517	172,056
San Diego	87,225	89,675	30	32	31,775	113,575	177,695	244,618
San Francisco	577,525	448,000	174	114	323,769	407,005	1,071,250	1,037,012
San Jose	34,550	9,000	11	2	40,970	2,965	96,305	23,245
Santa Ana	19,500	8,800	5	2	2,700	24,199	27,972	38,959
Santa Barbara	49,750	16,750	16	7	8,370	1,040	77,508	28,735
Santa Monica	61,975	52,000	25	29	20,320	15,775	87,279	78,820
Stockton	41,200	22,300	10	12	11,980	120,504	63,231	176,129
Vallejo	11,300	5,400	3	3	12,235	13,977	27,680	21,200
Colorado:								
Colorado Springs	8,250	38,950	3	8	1,000	1,945	33,807	47,355
Denver	163,500	167,100	35	41	53,200	40,475	271,650	269,855
Pueblo	5,500	1,800	3	1	4,110	1,795	18,545	11,052
Montana:								
Butte	0	0	0	0	1,400	9,670	1,895	10,530
Great Falls	2,000	5,100	1	4	400	4,795	4,650	19,545
New Mexico:								
Albuquerque	21,500	24,550	5	6	8,125	1,775	39,190	47,376
Oregon:								
Portland	128,150	87,630	29	20	158,980	242,630	375,190	404,395
Salem	5,600	0	3	0	440	13,025	10,849	43,735
Utah:								
Ogden	5,000	1,250	1	2	1,150	1,600	7,450	10,600
Salt Lake City	15,900	24,800	6	5	5,090	15,907	33,965	71,222
Washington:								
Bellingham	8,500	4,600	12	2	200	0	9,695	28,325
Everett	0	0	0	0	3,515	1,495	9,700	6,818
Seattle	63,025	64,575	35	35	48,440	81,880	202,635	240,645
Spokane	41,750	68,050	15	21	10,555	25,280	89,195	119,980
Tacoma	26,500	30,000	14	12	9,195	15,145	50,755	58,765
Total	2,917,357	2,417,873	985	766	4,134,047	1,986,684	8,602,344	5,771,701
Per cent of change		−17.1		−22.2		−51.9		−32.9

New Type of Modern Low-Cost Housing

THE Constructor, a publication of the Associated General Contractors of America, in its April issue contains an article under the heading "Revolutionary Type of Modern Housing to Sell Below $2,000." According to this article, designs for modern high-type housing which, including the land, can be sold profitably at a maximum price of $2,000 for approximately 1,000 square feet of floor space, have been perfected by the Allied Construction Industries Standardized House Conference of Los Angeles.

This organization is composed of outstanding architects, structural and mechanical engineers, and production executives, who have been

working on the problem of producing such housing for several years. At the present time the major technical and production problems appear to have been solved, according to a statement by Zara Witkin, chief engineer of the Herbert M. Baruch Corporation of Los Angeles, and chairman of the conference.

The plans developed call for factory-made units of wall sections, flexible in design and appearance and suitable for application in both detached houses and in large-scale apartment construction.

This new type of housing, as described by Mr. Witkin, is designed with hollow walls and framed with standard 3 and 4 inch I-beams. The webs of the steel are punched with elliptical holes through which pipes, conduits, and other mechanical service devices are passed. The steel framing is designed on new lines which constitute a considerable departure from traditional designs based on wood framing. The steel is fabricated at factory plants in room-side units with door and window frames hung before shipment and with piping and conduits inserted in place in the framing.

The exterior of the structure consists of high strength, reinforced concrete masonry plates which are rolled of dense concrete on steel beds. The plates are provided with color and texture and may range in thickness from ⅝ inch to 1½ inches. They may be made self-insulating through use of Haydite aggregate or be backed with special insulating material. In general, the exterior masonry plates are about one-quarter of a story in height and span across two steel upright members, being about 8 feet in length. All plates are tongued and grooved all around.

A special system of attaching the plates to the steel framing has been devised which constitutes an essential feature of the entire system. Several alternate fastening devices have also been worked out.

Interior plates are of gypsum or concrete masonry. They are cast or rolled up to room height and a few standard sizes take care of all requirements. All joints between floor and wall, wall to wall, and between wall and ceiling are coved. Ceilings are also of gypsum plate attached to special steel truss joists designed with continuous depth between chords. Roof deck is of 1½ inch rolled concrete plate with waterproofed surface.

Detached houses are designed with rooms all on one floor and with the roof arranged for use as a sun garden or sleeping porch. The basement is eliminated, the first floor being of concrete poured directly on bituminized insulation carried direct on the ground. The complete and thorough water-proofing of the floor slab and its insulation successfully provides against damp or cold floors, in this respect the house being like a ship, thoroughly isolated from the elements.

Designs for wall covering and other decorative material have been worked out far beyond current practice as to range of choice, serviceability, and economy. Another feature of the design having a great effect on economy consists of the unification of mechanical facilities for the mechanical service room, bathroom, and kitchen, which are designed as a concentrated unified group. Both detached and multiple housing can be erected of these standard units without there being any close similarity in appearance or shape, it is claimed. Monotonous similarity will therefore be avoided.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in Gasoline Filling Stations, 1931

FILLING-STATION employees earned an average of 39.3 cents per hour and $23.39 in a representative week during the months of April to July in 1931, as shown by a study made by the Bureau of Labor Statistics covering 2,960 employees of 736 filling stations in 43 representative cities.[1] These employees worked, on an average, 6.5 days during the week (counting as a day each whole or part day worked). The full-time hours per week for the employees covered in the study averaged 60, while the time actually worked averaged 59.5 hours, or 99.2 per cent of full time. At full time, the weekly earnings averaged $23.58.

These data are shown in Table 1, as are also averages for 8 of the most important occupations in the industry and for a group, designated as "other employees," including the employees in occupations in which the number of employees was too small to warrant separate occupational tabulation. The averages in this and other tables in this report are for males only; but 8 females were employed at the 736 stations included in the study. There were 198 Negroes, employed mostly by stations in cities in Southern States and working principally as car washers, greasers, or tire men. Operators and operators' helpers were the most important occupations, in point of numbers employed, forming approximately 75 per cent of the total number of employees.

The fewest days (5.3) in one week were worked by relief men, and the largest number of days (6.9) by porters.

Average full-time hours per week in the various occupations ranged from 48.3 for relief men to 67.9 for tire men, while hours actually worked ranged from 46.6 for relief men to 67.8 for tire men.

The figures in the column headed "Per cent of full time worked in week" show that car washers worked a smaller per cent of average full-time hours per week (92.5) than the employees in any other occupation in the table. Average hours in excess of full time are shown for porters and for operators. Although some employees in these occupations worked only part time, others worked overtime, and the overtime more than counterbalanced the time lost.

The average earnings per hour ranged from 19.3 cents for porters to 63.1 cents for managers; full-time earnings per week ranged from $12.56 for porters to $36.16 for managers; and actual earnings in one week ranged from $12.65 for porters to $36.09 for managers.

In addition to earnings at regular basic wage rates, employees at a few stations had other earnings or income, or were given certain advantages or privileges, but data as to the amounts involved were not of record. These amounts, however, were probably small and so would

[1] More detailed information will be published later in bulletin form.

not have affected the averages materially. It was reported at one station that extra money was received for tire-patching jobs. Employees of another station could have three meals a day without expense to them at a hotel owned by the employing company. The operator at a third station obtained his living quarters at the nominal rental of $10 per month. At other stations employees could buy gasoline and oil for their own use at a discount.

The study included filling-station employees in 2 cities in each of 8 States and in 1 city in each of 26 States and in the District of Columbia. (See Table 2, p. 1390.) In 1 city data were obtained for 9 filling stations; in each of 4 cities, 14 stations; in each of 2 cities, 15 stations; in each of 11 cities, 16 stations; in 1 city, 17 stations; in each of 16 cities, 18 stations; and in each of 8 cities, 20 stations. A greater number of stations and employees was covered in large than in small cities.

Data were obtained as to the individual hours of labor and earnings of employees for a representative pay-roll period (one week, nine days, a half month, or one month) during April, May, June, or July, 1931; the average hours and earnings, therefore, are as of those months. The wage figures for the stations with a pay period of more than one week were recomputed so that averages for all employees covered in the study could be shown on a uniform basis of one week.

The principal business of a filling station is the selling of gasoline and lubricating oil. Tire service, the washing and greasing of cars, the sale of accessories and supplies, and the minor adjustment or repair of cars are generally incidental. In selecting stations for inclusion in the report, the effort was made to include only typical filling stations in each city. Some of the 736 stations included were privately owned and operated; some belonged to small companies with a group of stations in one city; and others were those of large refining companies operating stations in practically all the large cities in the United States. In this report the stations of 239 different companies are represented.

TABLE 1.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY OCCUPATION

Occupation	Number of stations	Number of employees	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Car washers	84	151	6.5	66.9	61.9	92.5	$0.248	$16.59	$15.36
Greasers	164	280	6.4	59.9	59.6	99.5	.393	23.54	23.41
Managers	60	68	6.4	57.3	57.2	99.8	.631	36.16	36.09
Operators	683	1,182	6.6	61.0	61.3	100.5	.441	26.90	27.01
Operators' helpers	475	1,039	6.4	57.7	57.2	99.1	.362	20.89	20.71
Porters	55	72	6.9	65.1	65.7	100.9	.193	12.56	12.65
Relief men	51	52	5.3	48.3	46.6	96.5	.409	19.75	19.07
Tire men	35	56	6.6	67.9	67.8	99.9	.300	20.37	20.36
Other employees	28	60	6.4	60.0	58.5	97.5	.404	24.24	23.65
Total	736	2,960	6.5	60.0	59.5	99.2	.393	23.58	23.39

Average Hours and Earnings, by Cities

TABLE 2 shows, for each of 43 cities, the average days, hours, and earnings of the 2,960 employees included in the study.

The number of stations covered ranged from 9 in Burlington, Vt., to 20 each in Philadelphia, Baltimore, Boston, Chicago, Cleveland, Detroit, St. Louis, and New York. The number of employees ranged from 23 in Burlington to 151 in Chicago.

Average full-time hours per week ranged, by cities, from a low of 51.8 to a high of 72.7, the average for all cities combined being 60 per week.

Average hours actually worked in one week ranged in the various cities from 51.3 to 72.7, while the average for all cities combined was 59.5. The per cent of full time actually worked in one week ranged from 94.0 to 101.9. In 14 cities the percentage of full time worked was over 100, showing that there was considerable overtime work in this industry.

Average earnings per hour ranged by cities from 22.6 to 60.3 cents, while the average for all cities combined was 39.3 cents.

Average full-time earnings per week ranged by cities from $15.82 to $32.92 and for all cities combined averaged $23.58, while average actual earnings ranged from $15.82 to $30.94, with a general average of $23.39.

TABLE 2.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY CITY

City	Number of stations	Number of employees	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Altoona, Pa	16	69	6.3	53.7	53.5	99.6	$0.388	$20.84	$20.74
Philadelphia, Pa	20	95	6.3	53.9	53.2	98.7	.418	22.53	22.27
Altoona and Philadelphia	36	164	6.3	53.8	53.3	99.1	.405	21.79	21.63
Atlanta, Ga	18	100	6.7	64.6	60.7	94.0	.285	18.41	17.30
Austin, Tex	16	53	6.8	62.3	62.7	100.6	.335	20.87	21.02
Houston, Tex	18	85	6.7	57.3	57.3	100.0	.351	20.11	20.11
Austin and Houston	34	138	6.7	59.2	59.4	100.3	.345	20.42	20.47
Baltimore, Md	20	123	6.2	56.4	56.4	100.0	.438	24.70	24.70
Birmingham, Ala	18	67	6.9	64.4	64.4	100.0	.284	18.29	18.29
Boston, Mass	20	94	6.5	55.3	55.2	99.8	.491	27.15	27.11
Holyoke, Mass	14	41	6.7	59.9	60.8	101.5	.457	27.37	27.77
Boston and Holyoke	34	135	6.6	56.7	56.9	100.4	.480	27.22	27.31
Burlington, Vt	9	23	6.3	65.1	64.9	99.7	.315	20.51	20.45
Charleston, S. C	16	58	6.6	62.4	62.4	100.0	.354	22.09	22.09
Charlotte, N. C	16	57	6.5	68.4	67.5	98.7	.296	20.25	20.01
Chicago, Ill	20	151	6.4	54.6	51.3	94.0	.603	32.92	30.94
Danville, Ill	16	50	6.7	63.7	63.2	99.2	.392	24.97	24.75
Chicago and Danville	36	201	6.4	56.9	54.2	95.3	.542	30.84	29.40
Cleveland, Ohio	20	96	6.5	57.9	57.2	98.8	.470	27.21	26.91
Hamilton, Ohio	16	47	6.8	56.6	56.6	100.0	.413	23.38	23.38
Cleveland and Hamilton	36	143	6.6	57.5	57.0	99.1	.451	25.93	25.74

TABLE 2.—AVERAGE HOURS AND EARNINGS OF FILLING-STATION EMPLOYEES IN 1931, BY CITY—Continued

City	Number of stations	Number of employees	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Des Moines, Iowa	18	49	6.8	63.2	63.3	100.2	$0.371	$23.45	$23.47
Detroit, Mich	20	114	6.3	57.8	57.7	99.8	.469	27.11	27.07
Hartford, Conn	18	68	6.3	53.0	53.1	100.2	.494	26.18	26.25
Huntington, W. Va	16	42	6.6	64.2	63.7	99.2	.319	20.48	20.30
Indianapolis, Ind	18	62	6.6	60.2	60.7	100.8	.412	24.80	25.01
Jacksonville, Fla	18	78	7.0	72.7	72.7	100.0	.254	18.47	18.47
Joplin, Mo	16	38	6.9	64.1	64.4	100.5	.303	19.42	19.54
St. Louis, Mo	20	72	6.8	62.5	62.3	99.7	.396	24.75	24.65
Joplin and St. Louis	36	110	6.8	63.1	63.0	99.8	.363	22.91	22.88
Kansas City, Kans	18	51	6.5	60.5	60.0	99.2	.371	22.45	22.26
Lincoln, Nebr	14	50	6.8	64.0	65.2	101.9	.329	21.06	21.48
Little Rock, Ark	16	77	6.8	61.7	62.1	100.6	.337	20.79	20.92
Louisville, Ky	18	66	5.8	57.0	56.4	98.9	.332	18.92	18.75
Manchester, N. H	14	37	6.6	56.7	56.3	99.3	.405	22.96	22.80
Memphis, Tenn	18	71	6.7	67.0	66.8	99.7	.304	20.37	20.32
Meridian, Miss	16	66	6.8	70.0	70.0	100.0	.226	15.82	15.82
Milwaukee, Wis	15	59	6.5	61.1	60.7	99.3	.399	24.38	24.20
Superior, Wis	16	28	6.4	68.0	66.6	97.9	.365	24.82	24.31
Milwaukee and Superior	31	87	6.4	63.3	62.6	98.9	.387	24.50	24.24
Minneapolis, Minn	18	49	6.2	58.8	59.5	101.2	.380	22.34	22.63
New Orleans, La	18	68	6.9	60.9	60.9	100.0	.348	21.19	21.19
New York, N. Y	20	92	5.9	59.9	59.8	99.8	.503	30.13	30.05
Rochester, N. Y	18	73	6.1	52.0	52.3	100.6	.484	25.17	25.31
New York and Rochester	38	165	6.0	56.4	56.5	100.2	.495	27.92	27.96
Oklahoma City, Okla	18	66	6.5	65.7	65.8	100.2	.352	23.13	23.19
Portland, Me	15	53	6.9	58.4	58.7	100.5	.432	25.23	25.35
Providence, R. I	18	73	6.4	54.3	54.4	100.2	.443	24.05	24.08
Richmond, Va	14	71	6.3	62.8	62.5	99.5	.354	22.23	22.15
Trenton, N. J	18	63	6.2	51.8	52.8	101.9	.439	22.74	23.19
Washington, D. C	17	115	6.3	60.6	57.8	95.4	.449	27.21	25.94
Total	736	2,960	6.5	60.0	59.5	99.2	.393	23.58	23.39

Average and Classified Earnings per Hour

AVERAGE and classified earnings per hour are presented in Table 3 for the employees in each of the eight important occupations in the industry; for the group of "other employees"; and for all occupations combined. Average earnings per hour were computed for each employee by dividing the amount earned in one week by the number of hours actually worked in that week.

Each occupation group except that of the managers had a small number of employees earning an average of less than 10 cents per hour. Only three occupation groups (managers, operators, and operators' helpers) included any employees earning as much as 80 cents per hour. Among the managers, none earned less than 35 cents per hour, while 14 per cent earned an average of 80 cents or more per hour. At the other end of the scale were the porters, 8 per cent of whom earned less than 10 cents per hour and none of whom earned as much as 45 cents per hour.

Fourteen per cent of all the employees covered earned, on the average, less than 25 cents per hour and only about 8 per cent earned an average of 60 cents per hour or more.

TABLE 3.—AVERAGE AND CLASSIFIED HOURLY EARNINGS OF FILLING STATION EMPLOYEES IN 1931, BY OCCUPATION

Occupation	Number of stations	Number of employees	Average earnings per hour	Per cent of employees whose average earnings per hour were—															
				Under 10 cts.	10 and under 15 cts.	15 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 35 cts.	35 and under 40 cts.	40 and under 45 cts.	45 and under 50 cts.	50 and under 55 cts.	55 and under 60 cts.	60 and under 65 cts.	65 and under 70 cts.	70 and under 75 cts.	75 and under 80 cts.	80 cts. and over
			Cts.																
Car washers	84	151	24.8	1	13	14	24	12	13	12	8	1	1	1	----	----	----	----	----
Greasers	164	280	39.3	1	3	6	3	7	11	11	15	16	9	8	6	1	----	----	----
Managers	60	68	63.1	----	----	----	----	----	----	1	1	12	12	24	7	12	12	4	[1] 14
Operators	683	1,182	44.1	(2)	(2)	1	2	5	11	15	19	15	13	7	4	5	2	1	1
Operators' helpers	475	1,039	36.2	(2)	1	5	7	13	21	17	14	9	7	4	2	1	(2)	----	(2)
Porters	55	72	19.3	8	10	28	38	8	3	4	1	----	----	----	----	----	----	----	----
Relief men	51	52	40.9	2	2	4	4	6	13	15	8	17	12	6	2	4	6	----	----
Tire men	35	56	30.0	4	9	16	18	2	14	14	5	5	4	7	2	----	----	----	----
Other employees	28	60	40.4	----	3	7	10	15	2	20	3	13	10	3	7	2	3	2	----
Total	736	2,960	39.3	1	2	5	6	8	14	15	15	12	9	6	3	3	1	(2)	1

[1] Includes 6 per cent earning 85 and under 90 cents, and 1 per cent earning 90 cents and over.
[2] Less than one-half of 1 per cent.

Table 4 shows the number and per cent of employees in each classified group of average earnings per hour. At one end of the scale are three employees earning 5 but less than 6 cents and at the other extreme one employee earning $1 or more per hour. The greatest number of employees were in the groups receiving from 25 cents to 65 cents an hour.

TABLE 4.—NUMBER AND PER CENT OF FILLING-STATION EMPLOYEES IN EACH CLASSIFIED GROUP OF EARNINGS PER HOUR, 1931

Classified earnings per hour	Employees in all occupations		Classified earnings per hour	Employees in all occupations	
	Number	Per cent		Number	Per cent
5 and under 6 cents	3	(1)	30 and under 32½ cents	209	7
6 and under 7 cents	2	(1)	32½ and under 35 cents	203	7
7 and under 8 cents	2	(1)	35 and under 37½ cents	197	7
8 and under 9 cents	6	(1)	37½ and under 40 cents	235	8
9 and under 10 cents	5	(1)	40 and under 42½ cents	264	9
10 and under 11 cents	5	(1)	42½ and under 45 cents	168	6
11 and under 12 cents	9	(1)	45 and under 47½ cents	201	7
12 and under 13 cents	12	(1)	47½ and under 50 cents	141	5
13 and under 14 cents	9	(1)	50 and under 55 cents	275	9
14 and under 15 cents	17	1	55 and under 60 cents	165	6
15 and under 16 cents	13	(1)	60 and under 65 cents	100	3
16 and under 17 cents	31	1	65 and under 70 cents	77	3
17 and under 18 cents	40	1	70 and under 75 cents	42	1
18 and under 19 cents	37	1	75 and under 80 cents	10	(1)
19 and under 20 cents	23	1	80 and under 85 cents	12	(1)
20 and under 21 cents	62	2	85 and under 90 cents	5	(1)
21 and under 22 cents	33	1	90 and under 95 cents	2	(1)
22 and under 23 cents	29	1	95 cents and under $1	1	(1)
23 and under 24 cents	34	1	$1 and under $1.10	1	(1)
24 and under 25 cents	29	1			
25 and under 27½ cents	103	3	Total	2,960	100
27½ and under 30 cents	148	5			

[1] Less than one-half of 1 per cent.

Regular Full-Time Hours per Week

THE regular full-time hours per week of filling-station employees are not the same as the regular hours of operation of the establishment at which they are employed. A filling station could be, and many stations are, in operation 24 hours a day 7 days a week, and thus the regular hours of operation would be 168 hours per week. It was found in the bureau's study that the employees usually worked in two or more shifts, each employee having his own specified time of beginning and quitting work on each day of the week. No employee was supposed to work any but his own regular shift except in case of emergency.

The study showed that there is no uniformity in the regular daily or weekly hours of operation or of work in the stations in the different cities or even in the same city. Stations were generally in operation seven days each week, but the hours per day varied to a considerable extent with the location in the city of the individual station. A few stations did not conform to their schedule of regular hours, but remained open each night as long as there was profitable business. Others, located where there was much night traffic, were in operation 24 hours each day.

The full-time hours of labor, shown in Table 5 and in the preceding tables, are the regular scheduled shifts of employees; they include neither overtime nor time for meals.

Average full-time hours per week in each occupation were computed by dividing the total of the full-time hours of all employees in the occupation by the number of employees therein. In this computation no account was taken of overtime or part time.

The table shows for the employees in each occupation, and for the employees in all occupations combined, average full-time hours per week, also the per cent that the employees in each classified hours group formed of the total for all groups.

The full-time hours of 3 per cent of the employees in all occupations were less than 40 per week; those of 10 per cent were 48 per week; those of 7 per cent were 54 per week; those of 17 per cent were 56 per week; those of 6 per cent were 70 per week; and those of 2 per cent were 84 hours per week. Of the porters only 16 per cent had a full-time week of less than 56 hours; 18 per cent had one of 70 hours, and 10 per cent one of 84 hours. Of the relief men, 23 per cent had a full-time week of less than 40 hours and 25 per cent a 48-hour week. Among the managers the largest groups were those having a full-time week of 54 or 56 hours (31 and 26 per cent, respectively). Among the operators, the occupation most important numerically, 21 per cent had a 56-hour week and 12 per cent a full-time week of more than 56 but less than 60 hours.

The study revealed that 58 per cent of the 2,960 employees covered in this report had a nominal 7-day week; 6 per cent worked 7 days one week and 6 days the next; 32 per cent worked a 6-day week; 3 per cent had a nominal week of less than 6 days; and 1 per cent had a 7-day week with 1, 2, or 3 days off each month or every third or fourth Sunday off. Part of those on a schedule of less than 6 days per week alternated, working 5 days for two weeks and 4 days the third week, or 4 days one week and 3 days the next week, or 3 days one week and 2 days the next week.

TABLE 5.—AVERAGE AND CLASSIFIED FULL-TIME WEEKLY HOURS OF FILLING-STATION EMPLOYEES IN 1931, BY OCCUPATION

Occupation	Number of stations	Number of employees	Average full-time hours per week	Per cent of employees whose full-time hours per week were—						
				Under 40	40 and under 48	48	Over 48 and under 54	54	Over 54 and under 56	56
Car washers	84	151	66.9	1		2	3	7		3
Greasers	164	280	59.9			9	8	16	4	12
Managers	60	68	57.3			9		31		26
Operators	683	1,182	61.0	(1)	1	9	8	4	4	21
Operators' helpers	475	1,039	57.7	6	2	14	3	6	(1)	16
Porters	55	72	65.1	3	1	1	8	3		15
Relief men	51	52	48.3	23		25	12	10	2	4
Tire men	35	56	67.9			2		2		5
Other employees	28	60	60.0	7	2	5		2		8
Total	736	2,960	60.0	3	1	10	5	7	2	17

Occupation	Per cent of employees whose full-time hours per week were—										
	Over 56 and under 60	60	Over 60 and under 63	63	Over 63 and under 66	66	Over 66 and under 70	70	Over 70 and under 84	84	Over 84
Car washers	8	6	8	4	10	8	1	7	25	8	
Greasers	5	9	2	2	3	4	7	5	10	2	
Managers	4	7	3	4	6	4	1	1		1	
Operators	12	3	3	7	2	1	4	6	9	2	4
Operators' helpers	8	6	5	8	2	6	4	5	6	2	1
Porters	10				1	6	3	18	21	10	
Relief men		8	2				2	2	8		4
Tire men	5	2		4	18	18	7	5	27	4	2
Other employees	5	12	18	3	5	17	7	3	7		
Total	9	5	4	6	3	4	4	6	10	2	2

[1] Less than one-half of 1 per cent.

Wages and Hours of Labor in Metalliferous Mining, 1924 and 1931

THIS report is a summary of the results of studies by the Bureau of Labor Statistics of wages and hours of labor in the metalliferous mining industry in the United States in 1924 and 1931.[1] The 1924 study covered 137 mines and 38,196 wage earners, and the 1931 study 139 mines and 32,195 wage earners. The 137 mines covered in the 1924 survey included 117 underground and 20 open-pit mines; the same number of underground mines were studied in 1931, but 2 more open-pit mines were added. The basic wage data used in compiling this report were, except for a few mines, for a representative pay period in August, September, or October, 1924, and June, July, August, September, or October, 1931. The mines studied produced copper, gold, iron, lead, silver, zinc, and minor metals.

Table 1 shows the average full-time hours per week, earnings per hour, and average full-time earnings per week, in 1924 and 1931, in the mixed-ore mines of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, South Dakota, and Utah; the Michigan

[1] A more detailed report showing the results of the 1931 survey will be published later in bulletin form.

copper mines; the northern (Michigan and Minnesota) iron mines; the Alabama iron mines; and the Tri-State (Kansas, Missouri, and Oklahoma) lead and zinc mines. Averages are also given for all of these districts combined.

The average full-time hours per week of wage earners in this industry were 53.0 in 1924 and 51.6 in 1931. The average hourly earnings—55.9 cents—shown in 1924, remained unchanged in 1931. Average full-time weekly earnings, however, dropped from $29.63 in 1924 to $28.84 in 1931, due to the smaller average full-time hours per week in the latter year. These averages are for males only. Females were not employed in any of the mines.

Examination of the data for the various kinds of mines shows that, with the exception of the northern ore mines, the full-time hours in all groups decreased somewhat between 1924 and 1931, and in all but one group, the western mixed-ore mines, average earnings per hour also declined. Because of an increase in average full-time hours, the northern iron mines showed an increase in average full-time weekly earnings, although average hourly earnings decreased. The other four groups of mines showed decreases in such weekly earnings, in varying amounts.

In the Western mixed-ore mines average full-time hours per week were 53.8 in 1924 and 50.7 in 1931; average earnings per hour were 59.9 cents in 1924 and 60.8 cents in 1931; and full-time earnings per week were $32.23 in 1924 and $30.83 in 1931.

In the Michigan copper mines average full-time hours per week were 49.6 in 1924 and 49.4 in 1931; earnings per hour were 49.8 cents in 1924 and 44.3 cents in 1931; and full-time earnings per week were $24.70 in 1924 and $21.88 in 1931.

In the Northern iron mines average full-time hours per week were 52.8 in 1924 and 54.3 in 1931; earnings per hour were 56.8 cents in 1924 and 56.0 cents in 1931; and full-time earnings per week were $29.99 in 1924 and $30.41 in 1931.

In the Alabama iron mines average full-time hours per week were 60.6 in 1924 and 58.4 in 1931; average earnings per hour were 39.3 cents in 1924 and 37.2 cents in 1931; and full-time earnings per week were $23.82 in 1924 and $21.72 in 1931.

In the Tri-State lead and zinc mines average full-time hours per week were 48.6 in 1924 and 48.2 in 1931; earnings per hour were 55.2 cents in 1924 and 47.7 cents in 1931; and full-time earnings per week were $26.83 in 1924 and $22.99 in 1931.

TABLE 1.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF MINE, DISTRICT, AND STATE

Kind of mine or district and State	Number of—				Average					
	Establishments		Wage earners		Full-time hours per week		Earnings per hour		Full-time earnings per week	
	1924	1931	1924	1931	1924	1931	1924	1931	1924	1931
Western mixed ores:										
Arizona	8	9	3,662	3,969	52.4	48.8	$0.595	$0.679	$31.18	$33.14
California	6	8	1,397	1,688	51.7	50.2	.594	.593	30.71	29.77
Colorado	9	10	1,210	983	52.8	51.7	.592	.597	31.26	30.86
Idaho	4	4	1,386	1,621	54.4	47.5	.693	.581	37.70	27.60
Montana	5	5	3,084	2,495	52.7	48.2	.666	.681	35.10	32.82
Nevada	8	9	1,616	1,146	56.5	55.6	.636	.625	35.93	34.75
New Mexico	6	6	1,603	1,442	54.2	53.9	.459	.459	24.88	24.74
South Dakota	------	(1)	------	(1)	------	(1)	------	(1)	------	(1)
Utah	4	9	2,853	2,214	56.0	52.5	.560	.515	31.36	27.04
Total	50	61	16,811	16,494	53.8	50.7	.599	.608	32.23	30.83
Michigan copper	6	6	4,689	3,734	49.6	49.4	.498	.443	24.70	21.88
Northern iron:										
Michigan	24	10	6,102	2,244	50.3	50.8	.566	.602	28.47	30.58
Minnesota	23	29	4,983	4,577	55.5	56.0	.570	.545	31.64	30.52
Total	47	39	11,085	6,821	52.8	54.3	.568	.560	29.99	30.41
Alabama iron	8	8	2,678	2,132	60.6	58.4	.393	.372	23.82	21.72
Tri-State lead and zinc:										
Kansas	3	5	311	325	49.4	48.7	.520	.405	25.69	19.72
Missouri	5	7	1,301	1,671	48.5	48.1	.581	.541	28.18	26.02
Oklahoma	18	13	1,321	1,018	48.7	48.3	.521	.398	25.37	19.22
Total	26	25	2,933	3,014	48.6	48.2	.552	.477	26.83	22.99
Grand total	137	139	38,196	32,195	53.0	51.6	.559	.559	29.63	28.84

[1] Data included in total.

Average Hours and Earnings, 1924 and 1931, by Kind of Work and Occupation

TABLE 2 shows the average full-time hours per week, earnings per hour, and full-time earnings per week of surface workers, underground workers, and those doing both underground and surface work.

For the underground mines are shown data for 22 important occupations in underground work; 11 occupations in surface work; and 12 other occupations the workers in which worked underground in some mines, on the surface in other mines, and in still other mines spent part of their working time underground and part on the surface. For the open-pit mines are shown data for each of 28 occupations. The group of "other employees," shown for both the underground and open-pit mines, includes occupations in which the number of wage earners in no occupation was sufficient to warrant separate tabulation.

In the underground occupations, which form the most important group in point of numbers employed, average full-time hours per week ranged by occupation in 1924 from 48.6 for contract drilling-machine operators to 56.5 for pump men, and in 1931 from 48.2 for roof trimmers to 56.5 for trackmen's helpers. In 4 occupations weekly hours were longer and in the other 18 shorter in 1931 than in 1924.

In the various underground occupations, average earnings per hour ranged in 1924 from 42.0 cents for trackmen's helpers to 72.9 cents for contract drilling-machine operators; in 1931 the range was from

40.3 cents for drilling-machine operators' helpers to 69.5 cents for contract drilling-machine operators. Comparing 1931 with 1924, it is seen that in 7 occupations the average hourly earnings had increased, and in the other 15 occupations had decreased.

Average full-time earnings per week ranged in 1924 from $23.23 for trackmen's helpers to $35.43 for contract drilling-machine operators; in 1931 the range was from $20.63 for drilling-machine operators' helpers to $34.08 for contract drilling-machine operators. Six occupations showed greater average full-time weekly earnings in 1931 than in 1924, while in the other 16 occupations such weekly earnings were less than in 1924.

TABLE 2.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF WORK AND OCCUPATION

Kind of work and occupation	Number of establishments		Number of wage earners		Average full-time hours per week		Average earnings per hour		Average full-time earnings per week	
	1924	1931	1924	1931	1924	1931	1924	1931	1924	1931
Underground mines										
Underground work:										
Cagers	35	42	118	157	51.6	50.1	$0.627	$0.570	$32.35	$28.56
Chute loaders	37	31	596	195	49.1	50.5	.538	.563	26.42	28.43
Drilling-machine operators, company	106	95	5,327	3,684	51.4	49.5	.594	.646	30.53	31.98
Drilling-machine operators, contract	61	53	5,916	3,945	48.6	49.1	.729	.694	35.43	34.08
Drilling-machine operators' helpers	33	32	559	497	52.1	51.2	.447	.403	23.29	20.63
Drivers, mule	38	31	349	247	51.5	48.4	.474	.500	24.41	24.20
Hoistmen	47	49	185	197	53.7	51.0	.593	.538	31.84	27.44
Loading-machine operators	14	18	175	227	51.4	50.6	.588	.616	30.22	31.17
Motormen	78	75	749	833	50.9	49.6	.575	.574	29.27	28.47
Muckers	82	104	4,110	4,656	52.7	50.2	.554	.505	29.20	25.35
Nippers	48	38	288	188	51.9	48.8	.496	.537	25.74	26.21
Powder men	47	56	115	111	52.1	50.1	.573	.510	29.85	25.55
Pump men	73	81	335	371	56.5	52.8	.526	.530	29.72	27.98
Roof trimmers	26	26	176	75	52.3	48.2	.553	.470	28.92	22.65
Skippers	54	63	229	242	50.8	49.8	.572	.563	29.06	28.04
Station men	18	12	153	135	51.1	52.5	.569	.566	29.08	29.72
Timbermen	92	86	2,055	2,926	51.5	48.7	.604	.602	31.11	29.32
Timbermen's helpers	44	38	715	607	52.8	50.6	.551	.512	29.09	25.91
Trackmen	86	78	667	355	49.4	49.1	.542	.529	26.77	25.97
Trackmen's helpers	27	27	248	196	55.3	56.5	.420	.410	23.23	23.17
Trammers	97	62	2,028	635	50.9	48.9	.550	.524	28.00	25.62
Trip riders	55	45	395	417	50.8	49.9	.517	.537	26.26	26.80
Surface work:										
Drivers	42	11	104	48	57.3	57.2	.406	.369	23.26	21.11
Dryhouse men	67	51	179	134	58.9	55.2	.410	.404	24.15	22.30
Dumpers	14	32	58	119	55.5	55.3	.508	.458	28.19	25.33
Engineers, stationary	27	16	79	61	57.5	53.2	.515	.579	29.61	30.80
Firemen, stationary	50	25	277	206	60.5	50.6	.455	.441	27.53	22.31
Hoistmen	103	100	483	490	56.4	53.4	.560	.586	31.58	31.29
Timber framers	54	42	138	119	55.6	54.4	.536	.532	29.80	28.94
Tool dressers	50	46	110	158	53.8	51.8	.584	.553	31.42	28.65
Topmen	113	81	1,742	815	55.3	54.9	.428	.400	23.67	21.96
Truck operators	40	59	73	115	55.1	54.5	.514	.484	28.32	26.38
Watchmen	74	68	190	245	64.8	58.2	.452	.464	29.29	27.00
Surface and underground work:										
Blacksmiths	110	107	292	239	54.4	53.8	.593	.563	32.26	30.29
Blacksmiths' helpers	90	74	295	170	54.5	53.3	.462	.463	25.18	24.68
Carpenters	88	78	362	231	54.9	54.2	.571	.557	31.35	30.19
Carpenters' helpers	46	26	153	123	56.4	56.6	.426	.430	24.03	24.34
Compressor men	59	52	154	136	59.9	52.9	.556	.527	33.30	27.88
Electricians	78	82	194	308	54.7	53.1	.622	.629	34.02	33.40
Electricians' helpers	41	31	95	104	53.5	53.8	.521	.512	27.87	27.55
Machinists	89	82	375	360	54.2	52.4	.600	.603	32.52	31.60
Machinists' helpers	63	39	231	131	54.1	53.4	.479	.496	25.91	26.49
Oilers	41	33	148	123	54.7	52.6	.445	.443	24.34	23.30
Ore sorters	24	12	141	70	52.7	49.2	.528	.482	27.83	23.71
Pipemen	89	67	328	264	52.0	51.7	.562	.559	29.22	28.90
Other employees	117	111	2,139	2,102	53.1	51.5	.590	.587	31.33	30.23

TABLE 2.—AVERAGE HOURS AND EARNINGS OF EMPLOYEES IN METALLIFEROUS MINES, 1924 AND 1931, BY KIND OF WORK AND OCCUPATION—Continued

Kind of work and occupation	Number of establishments		Number of wage earners		Average full-time hours per week		Average earnings per hour		Average full-time earnings per week	
	1924	1931	1924	1931	1924	1931	1924	1931	1924	1931
Open-pit mines										
Blacksmiths	17	22	140	56	57.7	58.5	$0.619	$0.603	$35.72	$35.28
Blacksmiths' helpers	12	13	124	43	57.4	57.1	.498	.475	28.59	27.12
Carpenters	14	20	79	57	58.7	58.5	.570	.587	33.46	34.34
Carpenters' helpers	12	8	63	42	57.8	56.4	.470	.547	27.17	30.85
Drillers, hand	-----	7	-----	26	-----	60.0	-----	.464	-----	27.84
Drilling-machine operators	17	18	229	181	58.5	58.3	.544	.526	31.82	30.67
Drilling-machine operators' helpers	12	15	146	101	58.0	57.3	.508	.507	29.46	29.05
Dumpers	12	16	192	68	58.2	59.8	.385	.400	22.41	23.92
Electricians	-----	17	-----	78	-----	58.2	-----	.641	-----	37.31
Laborers	17	17	372	423	58.1	57.4	.352	.379	20.45	21.75
Locomotive engineers	20	22	319	234	58.3	58.7	.675	.671	39.35	39.39
Locomotive firemen	18	19	406	230	58.7	57.8	.515	.488	30.23	28.21
Machinists	17	20	192	125	57.7	58.1	.604	.628	34.85	36.49
Machinists' helpers	9	10	231	49	57.7	57.1	.499	.511	28.79	29.18
Oilers	-----	13	-----	47	-----	60.3	-----	.478	-----	28.82
Pipemen	-----	10	-----	24	-----	57.7	-----	.539	-----	31.10
Pitmen	20	22	573	171	58.4	58.7	.426	.425	24.88	24.95
Pump men	-----	15	-----	37	-----	59.2	-----	.536	-----	31.73
Repair men	-----	17	-----	168	-----	57.7	-----	.507	-----	29.25
Shot firers	12	15	54	42	59.7	57.8	.475	.507	28.36	29.30
Shovel cranemen	20	15	150	62	58.0	58.1	.666	.680	38.63	39.51
Shovel engineers	20	20	157	79	58.2	59.0	.917	.945	53.37	55.76
Shovel firemen	20	16	231	67	60.2	62.2	.504	.464	30.34	28.86
Switchmen	15	12	216	142	57.6	56.7	.446	.452	25.69	25.63
Track men	20	21	1,686	874	57.9	58.4	.393	.397	22.75	23.18
Trip riders	15	18	332	190	58.2	58.5	.510	.509	29.68	29.78
Truck operators	-----	15	-----	33	-----	57.7	-----	.479	-----	27.64
Watchmen	17	18	148	65	63.7	64.3	.451	.444	28.73	28.55
Other employees	20	21	776	714	58.9	58.5	.514	.550	30.27	32.18
All employees	137	139	38,196	32,195	53.0	51.6	.559	.559	29.63	28.84

Average Hours and Earnings in Six Specified Occupations, 1931, by Kind of Mine and State

AVERAGE hours and earnings for 1931 are presented in Table 3 for the wage earners in each of six of the more important occupations—five underground and one surface—in underground mines.

The full-time hours per week for the 3,143 company drilling-machine operators in the 58 Western mixed ore mines studied in 1931 averaged 49.6 and ranged by States from a low of 46.5 to a high of 55.5. These operators earned an average of 65.8 cents per hour, the average in the various States ranging from 44.5 to 77.4 cents per hour. Their average full-time earnings per week were $32.64, the average in the different States ranging from $23.14 to $38.41.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN SIX OCCUPATIONS IN METALLIFEROUS MINES, 1931, BY KIND OF MINE AND STATE

Occupation, kind of mine, and State	Number of establishments	Number of wage earners	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
Drilling-machine operators, company (underground):					
Western mixed ores—					
Arizona	9	1,138	47.3	$0.774	$36.61
California	8	471	50.3	.600	30.18
Colorado	10	142	51.4	.613	31.51
Idaho	4	299	46.5	.601	27.95
Montana	5	201	48.7	.608	29.61
Nevada	8	251	55.5	.692	38.41
New Mexico	5	142	52.0	.445	23.14
South Dakota	1	(1)	(1)	(1)	(1)
Utah	8	315	50.5	.534	26.97
Total	58	3,143	49.6	.658	32.64
Michigan copper	3	69	48.0	.433	20.78
Northern iron—					
Michigan	3	145	41.9	.806	33.77
Minnesota	7	53	49.5	.646	31.98
Total	10	198	44.0	.765	33.66
Alabama iron	5	95	59.7	.486	29.01
Tri-State lead and zinc	19	179	48.0	.403	19.34
All districts	95	3,684	49.5	.646	31.98
Drilling-machine operators, contract (underground):					
Western mixed ores—					
Arizona	1	8	52.5	.792	41.58
California	1	60	48.0	.894	42.91
Colorado	5	55	54.0	.826	44.60
Montana	5	483	48.1	.760	36.56
New Mexico	2	60	53.8	.520	27.98
South Dakota	1	(1)	(1)	(1)	(1)
Utah	2	27	48.0	.738	35.42
Total	17	1,004	51.2	.791	40.50
Michigan copper	5	618	48.0	.572	27.46
Northern iron—					
Michigan	9	848	48.0	.714	34.27
Minnesota	13	948	48.8	.709	34.60
Total	22	1,796	48.4	.711	34.41
Alabama iron	3	38	54.2	.512	27.75
Tri-State lead and zinc	6	489	48.0	.575	27.60
All districts	53	3,945	49.1	.695	34.12
Muckers (underground):					
Western mixed ores—					
Arizona	9	329	47.7	.611	29.14
California	8	357	48.7	.532	25.91
Colorado	10	212	50.7	.552	27.99
Idaho	4	318	46.3	.536	24.82
Montana	5	491	48.0	.699	33.55
Nevada	8	125	54.6	.589	32.16
New Mexico	5	282	53.8	.374	20.12
South Dakota	1	(1)	(1)	(1)	(1)
Utah	8	367	49.8	.472	23.51
Total	58	2,579	49.6	.553	27.43
Michigan copper	5	508	48.0	.456	21.89
Northern iron—					
Michigan	7	19	48.0	.530	25.44
Minnesota	4	32	48.0	.566	27.17
Total	11	51	48.0	.552	26.50
Alabama iron	5	687	57.1	.365	20.84
Tri-State lead and zinc	25	831	48.0	.447	21.46
All districts	104	4,656	50.2	.505	25.35

[1] Data included in total.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN SIX OCCUPATIONS IN METALLIFEROUS MINES, 1931, BY KIND OF MINE AND STATE—Continued

Occupation, kind of mine, and State	Number of establishments	Number of wage earners	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
Timbermen (underground):					
Western mixed ores:					
Arizona	9	376	49.5	$0.736	$36.43
California	7	117	49.1	.617	30.29
Colorado	10	89	50.7	.622	31.54
Idaho	4	262	47.2	.554	26.15
Montana	5	556	48.0	.721	34.61
Nevada	7	42	55.1	.652	35.93
New Mexico	4	71	51.5	.517	26.63
South Dakota	1	(1)	(1)	(1)	(1)
Utah	6	123	51.3	.504	25.86
Total	53	1,665	49.1	.655	32.16
Michigan copper	6	834	48.0	.446	21.41
Northern iron—					
Michigan	10	138	47.8	.591	28.25
Minnesota	11	270	48.1	.629	30.25
Total	21	408	48.0	.615	29.52
Alabama iron	5	17	57.3	.415	23.78
Tri-State lead and zinc	1	2	48.0	.375	18.00
All districts	86	2,926	48.7	.602	29.32
Topmen (surface):					
Western mixed ores—					
Arizona	9	117	49.8	.355	17.68
California	8	44	51.6	.510	26.32
Colorado	7	62	54.3	.547	29.70
Idaho	3	22	47.6	.503	23.94
Montana	4	27	48.3	.529	25.55
Nevada	6	20	55.1	.525	28.93
New Mexico	4	29	53.5	.337	18.03
South Dakota	1	(1)	(1)	(1)	(1)
Utah	3	11	51.6	.436	22.50
Total	45	338	51.4	.449	23.08
Michigan copper	6	128	54.0	.359	19.39
Northern iron—					
Michigan	10	101	58.3	.414	24.14
Minnesota	12	90	60.0	.411	24.66
Total	22	191	59.1	.412	24.35
Alabama iron	5	148	58.7	.264	15.50
Tri-State lead and zinc	3	10	49.2	.277	13.63
All districts	81	815	54.9	.400	21.96
Trammers (underground):					
Western mixed ores—					
Arizona	3	29	49.4	.555	27.42
California	6	72	50.2	.546	27.41
Colorado	6	53	50.7	.572	29.00
Idaho	3	23	47.3	.531	25.12
Montana	5	213	48.1	.595	28.62
Nevada	3	21	55.2	.590	32.57
New Mexico	5	49	49.0	.392	19.21
Utah	4	23	48.0	.471	22.61
Total	35	483	49.1	.554	27.20
Michigan copper	2	65	48.0	.407	19.54
Northern iron—					
Michigan	3	21	48.0	.517	24.82
Minnesota	8	27	48.9	.499	24.40
Total	11	48	48.5	.507	24.59
Tri-State lead and zinc	13	39	48.0	.332	15.94
All districts	61	635	48.9	.524	25.62

[1] Data included in total.

Classified Average Earnings per Hour, 1931

TABLE 4 gives the number and the per cent of laborers and of wage earners in all occupations combined, in each classified group of average earnings per hour. As the table shows, nearly half (48 per cent) of the laborers were in the groups earning 37½ but less than 42½ cents per hour; none earned as much as 55 cents per hour. Considering the whole group of wage earners in this industry, it is seen that 49 per cent earned between 50 and 70 cents per hour. Thirteen per cent of the laborers and 2 per cent of all the wage earners in all occupations earned less than 30 cents an hour.

TABLE 4.—NUMBER AND PER CENT OF LABORERS AND OF WAGE EARNERS IN ALL OCCUPATIONS IN METALLIFEROUS MINING, EARNING EACH CLASSIFIED AMOUNT PER HOUR, 1931

Classified earnings	Laborers		Wage earners in all occupations		Classified earnings	Laborers		Wage earners in all occupations	
	Number	Per cent	Number	Per cent		Number	Per cent	Number	Per cent
13 and under 14 cents			1	(1)	60 and under 65 cents			2,709	8
15 and under 16 cents			1	(1)	65 and under 70 cents			3,059	10
16 and under 17 cents			1	(1)	70 and under 75 cents			1,721	5
17 and under 18 cents			1	(1)	75 and under 80 cents			970	3
18 and under 19 cents			5	(1)	80 and under 85 cents			762	2
19 and under 20 cents			3	(1)	85 and under 90 cents			491	2
20 and under 21 cents	34	8	72	(1)	90 and under 95 cents			247	1
21 and under 22 cents	3	1	24	(1)	95 cents and under $1			146	(1)
22 and under 23 cents	13	3	54	(1)	$1 and under $1.10			328	1
23 and under 24 cents			50	(1)	$1.10 and under $1.20			90	(1)
24 and under 25 cents			59	(1)	$1.20 and under $1.30			80	(1)
25 and under 27½ cents	6	1	127	(1)	$1.30 and under $1.40			38	(1)
27½ and under 30 cents			272	1	$1.40 and under $1.50			8	(1)
30 and under 32½ cents	63	15	580	2	$1.50 and under $1.60			32	(1)
32½ and under 35 cents	10	2	518	2	$1.60 and under $1.70			11	(1)
35 and under 37½ cents	15	4	901	3	$1.70 and under $1.80			1	(1)
37½ and under 40 cents	96	23	1,778	6	$1.80 and under $1.90			1	(1)
40 and under 42½ cents	107	25	2,871	9	$2 and under $2.25			4	(1)
42½ and under 45 cents	7	2	1,425	4	$2.50 and under $2.75			8	(1)
45 and under 47½ cents	24	6	1,952	6	$2.75 and under $3			1	(1)
47½ and under 50 cents	36	9	857	3	$3 and under $3.50			1	(1)
50 and under 55 cents	9	2	5,067	16					
55 and under 60 cents			4,868	15	Total	423		32,195	

[1] Less than one-half of 1 per cent.

Wages and Hours of Labor in the Slaughtering and Meat-Packing Industry, 1931

LATE in 1931 the Bureau of Labor Statistics made a study of earnings and hours of labor of wage earners in the slaughtering and meat-packing industry in the United States, summary data for which are here given.[1] Wage figures covering 53,555 wage earners of 90 representative meat-packing establishments in 26 States were collected from the records of the establishments by agents of the bureau, for a weekly pay period in October, November, or December. Averages were computed from these figures and are presented in Table 1 along with averages for studies by the bureau in 1917 and in each of the odd years from 1921 to 1931 inclusive, for the wage earners of each sex separately and for both sexes combined, in 13 of the more important departments in the industry, i. e., cattle killing, hog killing, sheep and calf killing, offal (other than hides and casings), hide, casing, fresh-beef cutting, fresh-pork cutting, lard and oleo-oil, sausage, cured-

[1] More detailed information will be published later in bulletin form.

meat, canning, and maintenance and repair departments. The number of wage earners covered in 1931 is 43.7 per cent of the 122,505 reported in the industry in the United States by Census of Manufactures in 1929.

In 1931, the male employees in this industry earned an average of 47 cents per hour and $21.57 per week, as compared with 52.5 cents and $25.45 in 1929. Average earnings per hour of males were 5.5 cents or 10.5 per cent less in 1931 than in 1929. In 1931 the female employees earned an average of 32.1 cents per hour and $13.61 per week, as compared with 36.9 cents and $16.54 in 1929. Average earnings per hour of females were 4.8 cents or 13 per cent less in 1931 than in 1929. In 1931 both sexes combined earned an average of 44.9 cents per hour and $20.38 in one week, while in 1929 the figures were 50.4 cents and $24.18, respectively. Average earnings per hour for both sexes combined or for the industry were 5.5 cents or 10.9 per cent less in 1931 than in 1929.

The 53,555 males and females who were employed in the 90 establishments during the weekly pay period covered by the study in 1931 worked an average of 5.5 days in the week. (In computing average days for the week, each day or part of a day worked during the week was counted as a day and the total of such days in the week was divided by the total number of wage earners on the pay roll during the week.) The average full-time hours per week were 49.2, but the employees actually worked an average of 45.4 hours in the week or 92.3 per cent of full time. At full time, at the hourly earnings shown above—44.9 cents—they would have earned an average of $22.09 or $1.71 more than they actually earned in the week. A smaller percentage of full time was worked in 1931 than in any other year studied except 1921 (when 89 per cent of full time was worked). The highest proportion of full-time operation was reached in 1929 (97.6 per cent).

TABLE 1.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT PACKING INDUSTRY, BY SEX, IN SPECIFIED YEARS, 1917 TO 1931

Sex and year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Males:									
1917	66	55,089			54.3		$0.271		$14.73
1921	34	30,075	5.5	48.4	43.2	89.3	.511	$24.73	22.10
1923	38	45,083	5.6	52.2	49.1	94.1	.499	26.05	24.55
1925	86	52,702	5.7	50.2	48.2	96.0	.507	25.45	24.45
1927	86	50,207	5.7	49.5	47.7	96.4	.517	25.59	24.68
1929	90	52,796	5.7	49.3	48.5	98.4	.525	25.88	25.45
1931	90	45,523	5.5	49.2	45.9	93.3	.470	23.12	21.57
Females:									
1917	51	6,576			53.4		.178		8.60
1921	31	3,329	5.7	48.3	44.3	91.7	.365	17.63	15.57
1923	37	6,112	5.5	52.8	45.1	85.4	.361	19.06	16.28
1925	78	6,595	5.6	49.4	44.7	90.5	.359	17.73	16.04
1927	78	7,156	5.6	49.1	44.5	90.6	.363	17.82	16.16
1929	83	8,803	5.6	48.9	44.9	91.8	.369	18.04	16.54
1931	82	8,032	5.4	48.9	42.4	86.7	.321	15.70	13.61
Males and females:									
1917	66	61,665			54.2		.262		14.07
1921	34	33,404	5.5	48.4	43.1	89.0	.497	24.05	21.45
1923	38	51,195	5.6	52.3	48.7	93.1	.484	25.31	23.55
1925	86	59,297	5.7	50.1	47.8	95.4	.492	24.65	23.52
1927	86	57,363	5.7	49.4	47.3	95.7	.499	24.65	23.62
1929	90	61,599	5.7	49.2	48.0	97.6	.504	24.80	24.18
1931	90	53,555	5.5	49.2	45.4	92.3	.449	22.09	20.38

Time Worked and Earnings, 1929 and 1931, by Department

TABLE 2 shows average number of days on which wage earners worked, average full-time and actual hours and earnings in one week, average earnings per hour, and per cent of full time worked in week, 1929 and 1931, by department and sex, for the wage earners in all occupations combined except a very few in each of the 13 major departments of the industry, for the group of "miscellaneous wage earners" of all departments, and for the industry as a whole so far as covered in this report. The figures for each department include all wage earners in the occupations distinctive of the several departments. The group of "miscellaneous employees" includes a few occupations, such as branders and stampers, scalers and weighers, doormen, elevator men, and door and other boys, who were employed in various departments. They were grouped because of the limited number in each occupation and department.

Among the male employees in the cattle-killing department, from 1929 to 1931 the average number of days worked in one week fell from 5.4 to 5.2; full-time hours per week rose from 48.8 to 48.9; hours actually worked in one week fell from 44.1 to 41.8; earnings per hour declined from 59.9 to 53.2 cents; full-time earnings per week fell from $29.23 to $26.01; and actual earnings in one week declined from $26.38 to $22.24. Thus it is seen that in all cases, except that of full-time hours per week, the averages for the males employed were less in 1931 than in 1929. All the averages for females in this department were less in 1931 than in 1929. Males worked 90.4 per cent of full time in 1929 and 85.5 per cent in 1931, while females worked 84.4 per cent of full time in 1929 and only 60.9 per cent in 1931.

The figures for this department fairly represent the trend in the other departments in the table.

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY DEPARTMENT AND SEX

Department and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Cattle-killing department:										
Males	1929	78	3,649	5.4	48.8	44.1	90.4	$0.599	$29.23	$26.38
	1931	77	3,087	5.2	48.9	41.8	85.5	.532	26.01	22.24
Females	1929	7	19	5.3	50.0	42.2	84.4	.406	20.30	17.12
	1931	5	16	3.9	48.8	29.7	60.9	.283	13.81	8.42
Male and females	1929	78	3,668	5.4	48.8	44.0	90.2	.598	29.18	26.33
	1931	78	3,103	5.2	48.9	41.8	85.5	.531	25.97	22.17
Hog-killing department:										
Males	1929	73	3,286	5.6	49.9	46.7	93.6	.529	26.40	24.71
	1931	76	3,211	5.5	50.0	44.9	89.8	.478	23.90	21.46
Females	1929	15	46	5.5	49.5	43.6	88.1	.357	17.67	15.56
	1931	19	47	5.2	48.6	43.2	88.9	.296	14.39	12.78
Males and females	1929	73	3,332	5.6	49.9	46.7	93.6	.527	26.30	24.59
	1931	76	3,258	5.5	50.0	44.9	89.8	.475	23.75	21.33
Sheep and calf killing department:										
Males	1929	42	1,311	5.5	48.4	43.4	89.7	.580	28.07	25.14
	1931	50	1,602	5.4	48.7	43.2	88.7	.489	23.81	21.13
Offal department (other than hides and casings):										
Males	1929	86	3,181	5.6	49.2	46.5	94.5	.510	25.09	23.73
	1931	85	2,855	5.4	49.3	44.9	91.1	.452	22.28	20.29
Female	1929	46	527	5.4	49.2	41.8	85.0	.363	17.86	15.16
	1931	48	393	5.2	49.0	41.0	83.7	.314	15.39	12.87
Males and females	1929	86	3,708	5.5	49.2	45.9	93.3	.491	24.16	22.51
	1931	86	3,248	5.4	49.3	44.4	90.1	.436	21.49	19.39

TABLE 2.—AVERAGE HOURS AND EARNINGS IN THE SLAUGHTERING AND MEAT PACKING INDUSTRY, 1929 AND 1931, BY DEPARTMENT AND SEX—Continued

Department and sex	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Hide department:										
Males	1929	75	1,200	5.2	48.4	42.4	87.6	$0.502	$24.30	$21.29
	1931	68	1,136	4.8	48.7	38.9	79.9	.433	21.09	16.84
Casing department:										
Males	1929	79	3,126	5.5	49.1	46.8	95.3	.524	25.73	24.51
	1931	83	2,748	5.4	49.3	45.3	91.9	.464	22.88	21.02
Females	1929	49	825	5.6	48.7	45.6	93.6	.386	18.80	17.59
	1931	45	673	5.4	48.7	43.4	89.1	.309	15.05	13.43
Males and females	1929	80	3,951	5.6	49.0	46.5	94.9	.496	24.30	23.07
	1931	83	3,421	5.4	49.2	44.9	91.3	.435	21.40	19.53
Cutting or fresh beef department:										
Males	1929	79	4,998	5.7	48.9	50.1	102.5	.537	26.26	26.88
	1931	75	4,308	5.6	49.0	46.5	94.9	.473	23.18	22.00
Females	1929	11	50	5.4	47.2	41.2	87.3	.328	15.48	13.52
	1931	9	30	5.2	48.4	39.0	80.6	.295	14.28	11.50
Males and females	1929	79	5,048	5.7	48.9	50.0	102.2	.535	26.16	26.75
	1931	75	4,338	5.6	49.0	46.5	94.9	.472	23.13	21.93
Cutting or fresh pork department:										
Males	1929	79	5,684	5.7	49.8	47.6	95.6	.514	25.60	24.47
	1931	79	5,654	5.6	49.5	46.7	94.3	.466	23.07	21.76
Females	1929	55	1,319	5.6	49.3	42.5	86.2	.395	19.47	16.78
	1931	54	1,286	5.3	48.9	40.1	82.0	.349	17.07	14.02
Males and females	1929	79	7,003	5.7	49.7	46.6	93.8	.494	24.55	23.02
	1931	79	6,940	5.5	49.4	45.5	92.1	.447	22.08	20.33
Lard and oleo-oil department:										
Males	1929	86	2,431	5.8	49.2	51.0	103.7	.486	23.91	24.79
	1931	83	1,819	5.6	49.4	48.8	98.8	.442	21.83	21.54
Females	1929	49	270	5.5	49.4	45.4	91.9	.345	17.04	15.68
	1931	53	291	5.6	49.3	44.6	90.5	.295	14.54	13.16
Males and females	1929	86	2,701	5.8	49.2	50.4	102.4	.474	23.32	23.88
	1931	83	2,110	5.6	49.4	48.2	97.6	.423	20.90	20.38
Sausage department:										
Males	1929	83	3,262	5.8	49.5	52.2	105.5	.507	25.10	26.47
	1931	82	2,656	5.6	49.7	47.8	96.2	.458	22.76	21.90
Females	1929	81	2,844	5.6	48.8	46.0	94.3	.366	17.86	16.83
	1931	79	2,412	5.5	49.0	43.4	88.6	.319	15.63	13.83
Males and females	1929	83	6,106	5.7	49.2	49.3	100.2	.446	21.94	21.98
	1931	82	5,068	5.5	49.4	45.7	92.5	.395	19.51	18.06
Cured-meat department:										
Males	1929	83	8,198	5.8	49.9	49.9	100.0	.477	23.81	23.81
	1931	84	6,686	5.7	49.5	47.5	96.0	.432	21.38	20.52
Females	1929	61	684	5.7	49.4	46.1	93.3	.352	17.39	16.23
	1931	62	519	5.6	49.0	42.2	86.1	.304	14.90	12.84
Males and females	1929	83	8,882	5.8	49.9	49.6	99.4	.468	23.35	23.23
	1931	84	7,205	5.7	49.5	47.1	95.2	.424	20.99	19.97
Canning department:										
Males	1929	57	1,378	5.6	48.3	49.6	102.7	.478	23.09	23.68
	1931	62	939	5.5	48.9	47.0	96.1	.433	21.17	20.32
Females	1929	63	2,166	5.6	48.4	45.0	93.0	.360	17.42	16.21
	1931	70	2,141	5.4	48.9	42.5	86.9	.322	15.75	13.67
Males and females	1929	65	3,544	5.6	48.4	46.8	96.7	.409	19.80	19.12
	1931	74	3,080	5.4	48.9	43.8	89.6	.358	17.51	15.69
Maintenance and repair department:										
Males	1929	90	8,787	5.8	49.0	49.0	100.0	.583	28.59	28.59
	1931	89	6,414	5.7	48.7	45.4	93.2	.535	26.05	24.29
Miscellaneous wage earners, all departments:										
Males	1929	87	2,305	5.9	49.4	52.1	105.5	.471	23.27	24.50
	1931	86	2,408	5.7	49.2	48.8	99.2	.412	20.27	20.11
Females	1929	29	53	5.5	51.2	45.2	88.3	.378	19.35	17.07
	1931	51	224	5.5	48.9	42.5	86.9	.318	15.55	13.51
Males and females	1929	87	2,358	5.9	49.4	51.9	105.1	.469	23.17	24.33
	1931	86	2,632	5.7	49.1	48.3	98.4	.405	19.89	19.55
Total, all departments:										
Males	1929	90	52,796	5.7	49.3	48.5	98.4	.525	25.88	25.45
	1931	90	45,523	5.5	49.2	45.9	93.3	.470	23.12	21.57
Females	1929	83	8,803	5.6	48.9	44.9	91.8	.369	18.04	16.14
	1931	82	8,032	5.4	48.9	42.4	86.7	.321	15.70	13.61
Males and females	1929	90	61,599	5.7	49.2	48.0	97.6	.504	24.80	24.58
	1931	90	53,555	5.5	49.2	45.4	92.3	.449	22.09	20.38

Time Worked and Earnings, 1929 and 1931, by Department and Occupation

AVERAGE days, hours, and earnings in 1929 and 1931 and the per cent that average hours actually worked in one week was of average full-time hours per week are shown in Table 3 for each of the various occupations in the cattle-killing, hog-killing, casing, sausage, and canning departments of the industry. The other eight departments and the group of "miscellaneous wage earners" of all departments were omitted for lack of space, but will appear later in a bulletin of the bureau.

The table shows that in 1931 washers and wipers and laborers, males, with an average of 40.8 cents, earned less, and floormen or siders, males, with an average of 80 cents, earned more per hour than was earned by males in any of the other 32 occupations in the cattle-killing department. In 1929 washers and wipers earned an average of 47.6 cents per hour, laborers an average of 46.6 cents, and floormen or siders an average of 88.2 cents per hour. The average earnings per hour of males in each of the 35 occupations in this department were less in 1931 than in 1929. Females were employed in this department as carcass wipers, bruise and tail trimmers, neck rag inserters or laborers. They, as a group, earned an average of 28.3 cents an hour in 1931 and 40.6 cents in 1929.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION

Cattle-killing department

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males										
Drivers and penners	1929	53	161	5.8	49.5	47.8	96.6	$0.528	$26.14	$25.26
	1931	47	89	5.8	49.0	49.5	101.0	.465	22.79	23.01
Knockers	1929	64	85	5.5	49.0	45.0	91.8	.568	27.83	25.57
	1931	58	71	5.4	48.9	43.6	89.2	.496	24.25	21.63
Shacklers or slingers	1929	37	62	5.5	48.4	43.3	89.5	.557	26.96	24.14
	1931	35	56	5.0	49.1	39.4	80.2	.479	23.52	18.90
Head holders	1929	3	3	4.7	49.3	35.7	72.4	.753	37.12	26.87
	1931	5	7	4.6	49.3	35.3	71.6	.601	29.63	21.21
Stickers	1929	25	36	5.7	48.8	43.7	89.5	.670	32.70	29.28
	1931	29	40	5.4	49.4	43.9	88.9	.542	26.77	23.80
Headers	1929	51	106	5.5	48.8	44.8	91.8	.644	31.43	28.89
	1931	59	95	5.3	49.1	41.9	85.3	.592	29.07	24.83
Droppers and pritchers-up	1929	36	59	5.3	48.4	42.4	87.6	.532	25.75	22.57
	1931	37	55	5.0	48.7	39.5	81.1	.461	22.45	18.24
Foot skinners	1929	38	85	5.5	48.4	44.6	92.1	.568	27.49	25.32
	1931	42	80	5.0	48.6	40.4	83.1	.479	23.28	19.34
Leg breakers	1929	57	144	5.4	48.7	43.1	88.5	.580	28.25	24.98
	1931	63	143	5.1	48.7	40.7	83.6	.512	24.93	20.85
Rippers-open	1929	13	15	5.8	49.9	48.3	96.8	.582	29.04	28.14
	1931	15	17	5.6	48.9	46.2	94.5	.533	26.06	24.65
Gullet raisers	1929	10	12	5.7	48.5	44.1	90.9	.506	24.54	22.32
	1931	13	16	5.1	49.3	39.7	80.5	.412	20.31	16.38
Caul pullers	1929	25	41	5.1	48.9	42.3	86.5	.574	28.07	24.26
	1931	20	25	5.3	48.6	43.9	90.3	.470	22.84	20.60
Floormen or siders	1929	66	254	5.5	48.7	44.1	90.6	.882	42.95	38.87
	1931	70	234	5.2	48.9	41.2	84.3	.800	39.12	32.98
Breast or brisket breakers and sawyers	1929	41	56	5.6	49.2	46.4	94.3	.544	26.76	25.27
	1931	43	62	5.0	48.9	39.0	79.8	.499	24.40	19.47
Crotch breakers	1929	21	29	5.4	48.1	41.3	85.9	.536	25.78	22.15
	1931	21	30	5.1	48.2	41.7	86.5	.488	23.52	20.34

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Cattle-killing department—Continued

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males—Continued										
Hoisters	1929	37	97	5.2	48.8	41.6	85.2	$0.538	$26.25	$22.40
	1931	34	71	5.0	49.2	40.0	81.3	.450	22.14	17.99
Tail rippers and pullers	1929	33	40	5.4	49.1	43.7	89.0	.553	27.15	24.15
	1931	35	44	4.9	48.9	37.1	75.9	.494	24.16	18.30
Rumpers	1929	57	100	5.6	49.1	44.9	91.4	.755	37.07	33.87
	1931	59	100	5.3	49.1	41.8	85.1	.684	33.58	28.58
Fell cutters	1929	31	75	5.5	48.1	43.2	89.8	.690	33.19	29.84
	1931	30	68	5.3	48.8	41.5	85.0	.594	28.99	24.61
Fell pullers and beaters	1929	22	54	5.4	48.6	42.3	87.0	.526	25.56	22.26
	1931	23	42	5.2	48.9	41.5	84.9	.469	22.93	19.45
Backers	1929	60	109	5.3	48.7	43.1	88.5	.789	38.42	34.03
	1931	55	82	5.2	48.9	40.7	83.2	.710	34.72	28.88
Gutters and bung droppers	1929	61	112	5.5	48.9	44.6	91.2	.598	29.24	26.72
	1931	62	114	5.2	49.1	41.4	84.3	.517	25.38	21.40
Shank skinners	1929	19	34	5.4	49.2	44.6	90.7	.595	29.27	26.56
	1931	13	25	5.0	49.0	39.3	80.2	.516	25.28	20.24
Hide droppers	1929	59	139	5.4	48.9	43.4	88.8	.708	34.62	30.71
	1931	65	119	5.2	48.9	41.2	84.3	.617	30.17	25.43
Tail sawyers	1929	48	82	5.5	49.0	43.6	89.0	.595	29.16	25.97
	1931	46	61	5.3	48.5	41.9	86.4	.533	25.85	22.31
Splitters	1929	65	145	5.6	48.7	45.8	94.0	.879	42.81	40.25
	1931	66	123	5.3	48.9	42.1	86.1	.780	38.14	32.85
Chuck splitters	1929	36	49	5.6	49.0	46.8	95.5	.626	30.67	29.25
	1931	37	47	5.1	48.4	42.9	88.6	.571	27.64	24.50
Scribers	1929	39	52	5.5	48.5	44.6	92.0	.555	26.92	24.76
	1931	37	48	5.4	49.5	42.4	85.7	.451	22.32	19.15
Trimmers of bruises, rounds, necks, skirts, and tails	1929	41	145	5.4	48.3	43.6	90.3	.537	25.94	23.40
	1931	42	129	5.1	48.6	42.0	86.4	.452	21.97	19.02
Utility men [1]	1929	52	150	5.7	49.7	47.4	95.4	.693	34.44	32.84
	1931	47	77	5.5	48.6	43.5	89.5	.634	30.81	27.60
Washers and wipers	1929	54	180	5.4	48.8	43.8	89.8	.476	23.23	20.81
	1931	55	169	5.1	48.6	41.0	84.4	.408	19.83	16.73
Butchers, general [2]	1929	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
	1931	20	49	5.6	50.4	47.3	93.8	.676	34.07	32.02
Tonguers	1929	33	41	5.5	49.3	46.5	94.3	.552	27.21	25.70
	1931	27	34	5.1	48.3	40.3	83.4	.440	21.25	17.74
Laborers [3]	1929	73	830	5.3	48.6	42.9	88.3	.466	22.65	20.00
	1931	67	603	5.2	49.0	42.3	86.3	.408	19.99	17.24
Truckers	1929	32	67	5.2	49.5	43.2	87.3	.483	23.91	20.86
	1931	31	62	5.3	49.6	42.2	85.1	.417	20.68	17.58
Females										
Carcass wipers, bruise and tail trimmers, neck rag inserters, and laborers	1929	7	19	5.3	50.0	42.2	84.4	.406	20.30	17.12
	1931	5	16	3.9	48.8	29.7	60.9	.283	13.81	8.42

Hog-killing department

Males										
Laborers [4]	1929	70	841	5.6	49.8	46.4	93.2	$0.443	$22.06	$20.56
	1931	70	702	5.5	49.6	44.8	90.3	.400	19.84	17.90
Shacklers	1929	65	145	5.6	49.7	44.9	90.3	.571	28.38	25.62
	1931	65	139	5.5	50.7	46.3	91.3	.493	25.00	22.82
Stickers	1929	64	75	5.8	50.0	48.2	96.4	.645	32.25	31.08
	1931	66	80	5.6	50.0	44.8	89.6	.565	28.25	25.31
Scalders [5]	1929	70	314	5.7	50.2	47.7	95.0	.516	25.90	24.63
	1931	66	277	5.6	50.4	46.4	92.1	.475	23.94	22.07

[1] Included general butchers in 1929.
[2] Included as utility men in 1929.
[3] Includes floor cleaners, mark heads, spread cattle, tie guts, laundry men, taggers, etc.
[4] Includes drivers, penners, steamers, singers, washers, aitchbone breakers, and toe pullers.
[5] Includes tubmen, droppers, gamb cutters, polemen, and duckers.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Hog-killing department—Continued

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males—Continued										
Hookers-on [6]	1929	55	137	5.6	50.2	46.1	91.8	$0.500	$25.10	$23.08
	1931	60	178	5.5	50.0	43.7	87.4	.444	22.20	19.38
Shavers and scrapers	1929	70	583	5.6	49.9	45.2	90.6	.528	26.35	23.89
	1931	70	645	5.4	50.1	43.1	86.0	.480	24.05	20.68
Headers	1929	65	123	5.8	49.8	46.3	93.0	.598	29.78	27.69
	1931	64	115	5.5	50.1	45.8	91.4	.538	26.95	24.62
Gutters, bung droppers, and rippers-open	1929	70	246	5.8	50.0	47.7	95.4	.602	30.10	28.71
	1931	70	267	5.6	50.3	45.6	90.7	.527	26.51	24.03
Ham facers	1929	55	65	5.7	49.9	45.6	91.4	.580	28.94	26.43
	1931	64	78	5.6	50.1	44.7	89.2	.533	26.70	23.81
Splitters	1929	68	178	5.8	49.9	50.1	100.4	.654	32.63	32.75
	1931	67	182	5.6	49.8	46.5	93.4	.583	29.03	27.10
Leaf lard pullers	1929	60	112	5.6	49.7	45.4	91.3	.525	26.09	23.83
	1931	67	107	5.6	50.0	45.6	91.2	.470	23.50	21.47
Leaf lard scrapers	1929	37	69	5.4	49.6	44.3	89.3	.468	23.21	20.73
	1931	37	59	5.3	49.7	41.6	83.7	.412	20.48	17.14
Bruise trimmers, head removers, and kidney pullers	1929	50	112	5.6	50.4	46.2	91.7	.521	26.26	24.06
	1931	55	133	5.6	50.5	44.4	87.9	.472	23.84	20.95
Utility men	1929	63	235	5.6	49.8	49.4	99.2	.615	30.63	30.38
	1931	56	193	5.6	49.2	47.2	95.9	.557	27.40	26.28
Truckers	1929	29	51	5.4	51.0	47.4	92.9	.453	23.10	21.46
	1931	31	56	5.4	50.4	45.9	91.1	.399	20.11	18.31
Females										
Kidney pullers, shavers, singers, neck brushers, and spreaders	1929	15	46	5.5	49.5	43.6	88.1	.357	17.67	15.56
	1931	19	47	5.2	48.6	43.2	88.9	.296	14.39	12.78

Casing department

Males										
Casing pullers or runners	1929	74	686	5.6	49.2	46.8	95.1	$0.532	$26.17	$24.89
	1931	76	714	5.5	49.6	44.5	89.7	.476	23.61	21.16
Strippers	1929	61	312	5.5	49.3	47.3	95.9	.498	24.55	23.56
	1931	69	289	5.4	49.1	45.7	93.1	.429	21.06	19.58
Fatters and slimers	1929	71	598	5.5	48.9	46.0	94.1	.548	26.80	25.25
	1931	72	526	5.3	49.1	44.3	90.2	.486	23.86	21.53
Turners	1929	54	157	5.4	48.5	45.4	93.6	.518	25.12	23.53
	1931	46	98	5.3	48.8	43.5	89.1	.441	21.52	19.19
Blowers, graders, and inspectors	1929	58	238	5.5	48.9	46.9	95.9	.517	25.28	24.26
	1931	61	220	5.4	49.3	46.1	93.5	.463	22.83	21.36
Measurers and bunchers	1929	36	88	5.7	48.8	47.9	98.2	.512	24.99	24.48
	1931	38	86	5.5	50.2	47.5	94.6	.440	22.09	20.92
Salters and packers	1929	52	215	5.7	48.8	48.7	99.8	.529	25.82	25.74
	1931	58	177	5.7	48.9	49.1	100.4	.474	23.18	23.24
Trimmers of casings	1929	59	224	5.5	49.6	46.7	94.2	.538	26.68	25.11
	1931	65	258	5.4	49.0	44.9	91.6	.469	22.98	21.04
Blowers and tiers of bladders and weasands	1929	17	28	5.4	48.3	48.3	100.0	.537	25.97	25.97
	1931	11	17	5.6	48.4	44.8	92.6	.456	22.07	20.41
General workers	1929	51	142	5.7	49.3	50.5	102.4	.597	29.43	30.13
	1931	48	82	5.7	49.2	50.9	103.5	.568	27.95	28.92
Laborers [7]	1929	39	154	5.5	49.1	46.0	93.7	.442	21.70	20.30
	1931	44	128	5.2	49.3	43.3	87.8	.394	19.42	17.09
Cleaners and washers of bladders, weasands, and chitterlings	1929	53	222	5.4	49.5	45.7	92.3	.492	24.35	22.51
	1931	45	105	5.7	49.7	45.2	90.9	.412	20.48	18.61
Truckers	1929	21	62	5.0	49.0	43.1	88.0	.446	21.85	19.20
	1931	22	48	5.5	50.4	46.5	92.3	.404	20.36	18.78

[6] Includes hookers-off, hangers-off, straighteners, and chain feeders.
[7] Includes carriers, roustabouts, passers to fatters, barrel rollers, etc.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Casing department—Continued

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Females										
Casing pullers or runners	1929	16	66	5.5	50.0	43.9	87.8	$0.397	$19.85	$17.43
	1931	13	33	5.2	48.6	39.7	81.7	.312	15.16	12.37
Strippers	1929	8	38	5.6	48.8	48.0	98.4	.412	20.11	19.74
	1931	7	17	5.5	49.1	42.1	85.7	.303	14.88	12.75
Turners	1929	7	38	5.4	48.2	43.6	90.5	.347	16.73	15.13
	1931	6	11	5.3	48.2	43.7	90.7	.311	14.99	13.58
Blowers, graders, and inspectors	1929	42	280	5.6	48.6	45.9	94.4	.384	18.66	17.62
	1931	38	347	5.5	48.7	44.9	92.2	.318	15.49	14.27
Measurers and bunchers	1929	18	49	5.8	48.5	48.3	99.6	.394	19.11	19.01
	1931	24	67	5.7	48.4	46.3	95.7	.320	15.49	14.84
Salters and packers	1929	9	25	5.7	48.6	48.0	98.8	.410	19.93	19.70
	1931	9	14	5.1	47.7	45.0	94.3	.299	14.26	13.45
Trimmers of casings	1929	18	72	5.7	48.4	46.6	96.3	.419	20.28	19.54
	1931	13	53	5.2	48.6	43.0	88.5	.296	14.39	12.74
Blowers and tiers of bladders and weasands	1929	7	24	5.8	48.0	47.6	99.2	.412	19.78	19.60
	1931	4	4	6.0	49.5	49.5	100.0	.332	16.43	16.43
General workers [8]	1929	12	48	5.7	48.3	45.6	94.4	.411	19.85	18.70
	1931	12	38	5.1	48.7	40.8	83.8	.276	13.44	11.25
Cleaners and washers of bladders, weasands, and chitterlings	1929	20	185	5.5	48.9	44.0	90.0	.357	17.46	15.70
	1931	15	89	5.3	48.7	37.8	77.6	.285	13.88	10.78

Sausage department

Males										
Truckers and forkers	1929	40	195	5.7	49.2	50.2	102.0	$0.452	$22.24	$22.72
	1931	37	140	5.6	49.6	46.1	92.9	.416	20.63	19.19
Machine tenders [9]	1929	79	449	5.8	50.0	52.9	105.8	.531	26.55	28.05
	1931	78	382	5.6	49.4	47.8	96.8	.476	23.51	22.77
Casing workers [10]	1929	42	98	5.6	49.6	52.1	105.0	.475	23.56	24.72
	1931	37	103	5.6	49.2	45.3	92.1	.421	20.71	19.08
Stuffers	1929	81	447	5.8	49.8	52.0	104.4	.578	28.78	30.03
	1931	78	391	5.6	49.6	46.1	92.9	.522	25.89	24.02
Linkers, twisters, tiers, and hangers	1929	24	116	5.7	48.8	48.7	99.8	.500	24.40	24.38
	1931	22	70	5.6	49.1	45.7	93.1	.447	21.95	20.44
Ropers (wrappers and tiers)	1929	3	6	6.0	51.3	56.8	110.7	.602	30.88	34.16
	1931	5	9	6.0	50.0	47.6	95.2	.472	23.60	22.44
Laborers [11]	1929	75	977	5.7	49.2	51.3	104.3	.456	22.44	23.42
	1931	77	703	5.5	49.7	47.0	94.6	.400	19.88	18.77
Cooks	1929	69	192	5.9	49.6	55.5	111.9	.515	25.54	28.59
	1931	71	204	5.7	49.8	51.1	102.6	.468	23.31	23.91
Smokers	1929	72	158	5.9	50.1	57.5	114.8	.540	27.05	31.02
	1931	72	160	5.7	52.2	52.5	100.6	.493	25.73	25.89
Inspectors, packers, scalers, shippers, nailers, and box makers	1929	66	405	5.9	49.0	51.9	105.9	.485	23.77	25.16
	1931	58	313	5.7	49.3	47.9	97.2	.441	21.74	21.11
Utility men, assistant foremen, straw bosses, sub-foremen, handy men, small-order men, and all-around men	1929	67	219	5.9	50.2	52.9	105.4	.603	30.27	31.85
	1931	63	181	5.9	49.9	50.5	101.2	.542	27.05	27.39
Females										
Machine tenders [9]	1929	29	42	5.7	48.6	47.8	98.4	.354	17.20	16.91
	1931	24	29	5.5	47.9	44.3	92.5	.306	14.66	13.58
Casing workers [10]	1929	63	511	5.6	48.7	45.5	93.4	.372	18.12	16.92
	1931	64	483	5.4	49.1	42.3	86.2	.320	15.17	13.53

[8] Includes fatters, slimers, and laborers.
[9] Includes cutters, choppers, grinders, mixers, curers, feeders, spicers, and rockers.
[10] Includes washers, turners, re-turners, measurers, cutters, tiers, and fatters.
[11] Includes roustabouts, ham-cylinder washers, cleaners-up, ham pressers, hangers, cooks' helpers, smokers' helpers, truckers of cages or bikes, etc.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Sausage department—Continued

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week: Average number	Hours actually worked in 1 week: Per cent of full time	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
Females—Continued										
Stuffers	1929	20	96	5.7	48.7	45.5	93.4	$0.378	$18.41	$17.24
	1931	17	50	5.4	50.7	41.0	80.9	.361	18.30	14.81
Linkers, twisters, tiers, and hangers	1929	81	1,170	5.6	49.0	46.6	95.1	.377	18.47	17.56
	1931	79	1,100	5.4	49.0	42.8	87.3	.327	16.02	14.00
Ropers (wrappers and tiers)	1929	12	129	5.6	48.6	46.2	95.1	.383	18.61	17.73
	1931	15	118	5.5	49.5	41.8	84.4	.343	16.98	14.34
Cooks	1929	5	6	5.3	49.0	45.1	92.0	.345	16.91	15.57
	1931	4	6	5.0	50.1	42.0	83.8	.281	14.08	11.80
Packers [12]	1929	62	642	5.6	48.8	45.6	93.4	.342	16.69	15.60
	1931	62	547	5.6	48.8	45.8	93.9	.299	14.59	13.71
General workers [13]	1929	43	248	5.5	48.3	44.9	93.0	.351	16.95	15.78
	1931	30	79	5.3	48.4	44.1	91.1	.296	14.33	13.03
Canning department										
Males										
Cooks	1929	15	62	5.9	48.4	57.4	118.6	$0.512	$24.78	$29.40
	1931	13	26	5.2	47.8	44.3	92.7	.461	22.04	20.41
Steam tenders, process men, and retort men	1929	7	15	5.7	48.4	52.0	107.4	.479	23.18	24.95
	1931	13	26	5.5	48.7	50.1	102.9	.455	22.16	22.80
Passers and pilers, cans	1929	7	30	5.6	48.4	47.3	97.7	.471	22.80	22.27
	1931	6	19	5.5	48.6	48.6	100.0	.425	20.64	20.64
Trimmers, meat (by hand)	1929	6	16	5.4	49.7	56.4	113.5	.500	24.85	28.20
	1931	4	18	3.8	49.0	27.7	56.5	.452	22.15	12.53
Machine tenders (preparing and stuffing meat into cans)	1929	52	200	5.8	49.0	51.0	104.1	.502	24.60	25.61
	1931	55	169	5.7	49.6	49.7	100.2	.430	21.33	21.37
Stuffers (meat into cans by hand)	1929	8	14	5.9	51.0	51.3	100.6	.450	22.95	23.11
	1931	13	37	5.5	49.9	45.7	91.6	.449	22.41	20.51
Packers and nailers	1929	23	132	5.8	48.8	48.6	99.6	.461	22.50	22.42
	1931	24	141	5.6	49.4	46.4	93.9	.426	21.04	19.75
Cappers	1929	16	68	5.6	49.0	50.6	103.3	.484	23.72	24.50
	1931	17	84	5.1	49.1	41.3	84.1	.444	21.80	18.35
Machine tenders, washing and painting	1929	2	2	5.0	46.5	42.3	91.0	.456	21.20	19.28
	1931	3	7	5.4	46.3	46.6	100.7	.423	19.58	19.72
General workers	1929	19	130	5.8	46.8	51.2	109.4	.522	24.43	26.74
	1931	22	74	5.8	48.8	51.0	104.5	.502	24.50	25.58
Inspectors	1929	9	42	6.0	49.1	53.7	109.4	.500	24.55	26.86
	1931	9	44	5.4	47.9	47.4	99.0	.477	22.85	22.61
Truckers and forkers	1929	16	291	5.2	48.2	45.5	94.4	.465	22.41	21.14
	1931	19	128	5.4	47.6	46.0	96.6	.410	19.52	18.89
Laborers [14]	1929	27	376	5.6	48.1	49.6	103.1	.453	21.79	22.48
	1931	27	166	5.4	49.1	48.5	98.8	.398	19.54	19.29
Females										
Passers and pilers, cans	1929	3	30	5.4	48.4	44.0	90.9	.363	17.57	16.00
	1931	6	32	4.4	46.9	33.5	71.4	.329	15.43	11.01
Trimmers, meat (by hand)	1929	5	41	5.6	47.2	45.2	95.8	.392	18.50	17.71
	1931	8	126	5.3	49.4	41.6	84.2	.306	15.12	12.74
Machine tenders (preparing and stuffing meat into cans)	1929	17	63	5.7	49.0	46.2	94.3	.360	17.64	16.63
	1931	21	75	5.0	47.5	39.8	83.8	.325	15.44	12.92
Stuffers (meat into cans by hand)	1929	7	53	5.8	47.3	44.8	94.7	.375	17.74	16.80
	1931	8	101	5.0	49.2	39.4	80.1	.316	15.55	12.45
Packers (sliced bacon and chipped dried beef in cans, glass jars, or cartons, by hand)	1929	60	1,341	5.6	48.8	44.8	91.8	.354	17.28	15.87
	1931	66	1,286	5.5	48.9	43.1	88.1	.325	15.89	13.98

[12] Includes wrappers, inspectors, taggers, tiers, and packers' helpers.
[13] Includes labelers, laborers, box makers, sorters, and utility women.
[14] Includes roustabouts, clean-up men, cooler men, cook's helpers, shovers, and washing machine helpers.

TABLE 3.—AVERAGE HOURS AND EARNINGS IN FIVE DEPARTMENTS OF THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND OCCUPATION—Continued

Canning department—Continued

Sex and occupation	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Females—Continued										
Weighers (filled cans)	1929	29	135	5.8	48.9	46.4	94.9	$0.358	$17.51	$16.60
	1931	42	238	5.6	49.2	43.3	88.0	.314	15.45	13.58
Wipers (filled cans)	1929	4	4	5.3	49.5	39.6	80.0	.349	17.28	13.81
	1931	4	11	4.8	49.1	35.1	71.5	.362	17.77	12.71
Cappers	1929	7	28	5.7	48.0	44.3	92.3	.325	15.60	14.42
	1931	5	8	5.8	49.5	45.6	92.1	.339	16.78	15.45
Labelers and wrappers	1929	25	163	5.6	48.0	45.1	94.0	.381	18.29	17.21
	1931	30	162	5.4	48.5	41.3	85.2	.309	14.99	12.76
General workers [15]	1929	27	308	5.6	47.1	45.1	95.8	.374	17.62	16.84
	1931	29	102	5.5	48.9	43.8	89.6	.342	16.72	14.98

[15] Includes cooks, inspectors, and laborers.

Time Worked and Earnings, 1929 and 1931, by Sex and State

TABLE 4 shows for the wage earners of each sex and State, or group of two States, and of both sexes combined in each State or group of two States, average days, hours, and earnings, and the per cent of full time worked in one week in 1929 and 1931. Averages are shown for groups of two States to avoid presenting figures for one establishment only, thus possibly revealing its identity.

Average hours actually worked by males in one week in 1931 were more in California and Pennsylvania, and less in all other States and groups of States than in 1929. Such averages ranged by States and groups of States from 46.0 to 55.9 in 1929 and from 39.5 to 53.7 in 1931, and for all States combined averaged 48.5 in 1929 and 45.9 in 1931. Average hours actually worked by females in one week in 1931 were more in California, Michigan, Pennsylvania, and Wisconsin and the group of Florida and Georgia, and less in all other States and groups of States than in 1929. Averages ranged by States from 41.3 to 52.9 in 1929 and from 36.7 to 49.9 per week in 1931, and for all States combined averaged 44.9 hours per week in 1929 and 42.4 in 1931.

Average earnings per hour of males ranged by States and groups of States from 32.5 to 58.8 cents in 1929 and from 28.6 to 52.5 cents in 1931, and for all States combined averaged 52.5 cents in 1929 and 47.0 cents in 1931. Average earnings per hour of females ranged by States from 21.4 to 40.5 cents in 1929 and from 16.1 to 37.2 cents in 1931, and for all States combined averaged 36.9 cents in 1929 and 32.1 cents in 1931.

TABLE 4.—AVERAGE HOURS, AND EARNINGS, IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND STATE

Sex and State	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Males										
California	1929	4	947	5.7	47.9	47.0	98.1	$0.553	$26.49	$25.98
	1931	4	930	5.8	47.8	50.3	105.2	.498	23.80	25.06
Colorado	1929	2	401	5.8	51.5	52.1	101.2	.537	27.66	28.02
	1931	2	504	5.9	48.3	49.6	102.7	.525	25.36	26.05
Connecticut and Massachusetts[1]	1929	4	1,275	5.8	52.5	51.6	98.3	.535	28.09	27.62
	1931	4	908	5.8	54.0	47.2	87.4	.496	26.78	23.44
Florida and Georgia [1]	1929	3	232	5.7	55.4	48.3	87.2	.325	18.01	15.72
	1931	3	190	4.9	55.5	43.9	79.1	.286	15.87	12.56
Illinois	1929	14	14,264	5.7	48.0	49.3	102.7	.553	26.54	27.27
	1931	14	11,252	5.7	48.8	47.5	97.3	.488	23.81	23.19
Indiana	1929	2	1,733	5.8	48.0	46.3	96.5	.459	22.03	21.24
	1931	2	1,513	5.6	47.8	39.5	82.6	.392	18.74	15.50
Iowa	1929	7	4,879	5.8	52.0	47.3	91.0	.463	24.08	21.94
	1931	7	5,279	5.6	49.1	45.7	93.1	.438	21.51	20.01
Kansas	1929	8	6,309	5.7	48.0	47.3	98.5	.518	24.86	24.54
	1931	8	4,859	5.4	48.1	44.3	92.1	.448	21.55	19.82
Maryland	1929	3	668	5.8	54.6	55.9	102.4	.478	26.10	26.72
	1931	3	504	5.8	53.8	52.9	98.3	.489	26.31	25.90
Michigan	1929	3	1,012	5.7	60.0	55.1	91.8	.537	32.22	29.61
	1931	2	583	5.5	58.0	47.6	82.1	.465	26.97	22.15
Minnesota and South Dakota [1]	1929	5	5,342	5.7	48.0	46.9	97.7	.517	24.82	24.26
	1931	5	5,493	5.6	49.8	46.2	92.8	.475	23.66	21.98
Missouri	1929	4	2,643	5.8	48.1	47.7	99.2	.517	24.87	24.64
	1931	5	2,444	5.6	49.0	47.2	96.3	.471	23.08	22.19
Nebraska	1929	4	3,723	5.6	48.0	46.0	95.8	.533	25.58	24.55
	1931	4	3,586	5.3	48.0	42.1	87.7	.456	21.89	19.22
New Jersey and New York [1]	1929	[2] 7	[2] 2,190	[2] 5.3	[2]49.4	[2]46.3	[2] 93.7	[2] .588	[2]29.05	[2]27.20
	1931	7	2,293	5.3	52.3	43.8	83.7	.519	27.14	22.72
Ohio and West Virginia [1]	1929	4	1,293	5.7	53.9	50.6	93.9	.509	27.44	25.75
	1931	4	864	5.8	51.2	49.3	96.3	.494	25.29	24.34
Oklahoma	1929	2	1,123	5.6	48.1	47.9	99.6	.479	23.04	22.93
	1931	2	740	5.1	46.2	42.0	90.9	.416	19.22	17.48
Oregon and Washington [1]	1929	4	645	5.8	49.1	49.6	101.0	.583	28.63	28.94
	1931	4	550	5.4	48.9	47.0	96.1	.498	24.35	23.41
Pennsylvania	1929	3	742	5.8	54.1	53.2	98.3	.556	30.08	29.58
	1931	3	466	5.7	52.3	53.7	102.7	.473	24.74	25.36
Texas	1929	5	2,064	5.7	49.1	48.6	99.0	.481	23.62	23.39
	1931	5	1,460	5.2	48.1	41.9	87.1	.444	21.36	18.63
Wisconsin	1929	2	1,311	5.8	51.6	53.7	104.1	.566	29.21	30.39
	1931	2	1,165	5.7	48.1	49.7	103 3	.498	23.95	24.71
Total	1929	90	52,796	5.7	49.3	48.5	98.4	.525	25.88	25.47
	1931	90	45,523	5.5	49.2	45.9	93.3	.470	23.12	21.57
Females										
California	1929	4	171	5.7	47.8	45.1	94.4	.373	17.83	16.82
	1931	4	216	5.8	47.7	46.2	96.9	.372	17.74	17.16
Colorado	1929	2	74	5.6	48.1	43.4	90.2	.328	15.78	14.22
	1931	2	105	5.5	48.0	39.9	83.1	.332	15.94	13.25
Connecticut and Massachusetts[1]	1929	4	267	5.4	49.2	41.3	83.9	.339	16.68	14.01
	1931	4	205	5.7	49.1	40.5	82.5	.319	15.66	12.93
Florida and Georgia [1]	1929	2	24	4.3	55.8	42.7	76.5	.214	11.94	9.14
	1931	2	23	4.8	55.9	43.4	77.6	.161	9.00	6.99
Illinois	1929	12	2,538	5.6	47.7	46.3	97.1	.405	19.32	18.73
	1931	10	2,214	5.5	48.9	43.4	88.8	.359	17.56	15.60
Indiana	1929	2	328	5.7	48.0	43.6	90.8	.275	13.20	12.00
	1931	2	312	5.6	47.9	36.7	76.6	.257	12.31	9.44
Iowa	1929	7	769	5.7	52.6	45.4	86.3	.319	16.78	14.51
	1931	7	973	5.5	49.7	44.5	89.5	.293	14.56	13.05
Kansas	1929	8	1,045	5.6	48.0	44.1	91.9	.395	18.96	17.40
	1931	8	922	5.3	48.0	41.7	86.9	.318	15.26	13.24
Maryland	1929	2	141	5.8	55.0	52.9	96.2	.290	15.95	15.34
	1931	2	114	5.8	47.8	49.9	104.4	.286	13.67	14.30
Michigan	1929	3	332	5.2	54.3	44.0	81.0	.329	17.86	14.49
	1931	2	189	5.5	54.0	44.7	82.8	.293	15.82	13.11
Minnesota and South Dakota [1]	1929	5	815	5.6	48.0	44.3	92.3	.365	17.52	16.18
	1931	5	818	5.3	49.4	40.8	82.6	.307	15.17	12.54

[1] Shown together to avoid presenting data for 1 establishment in 1 State. [2] New York only.

TABLE 4.—AVERAGE HOURS, AND EARNINGS, IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1929 AND 1931, BY SEX AND STATE—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Per cent of full time			
Females—Continued										
Missouri	1929	4	249	5.8	48.0	44.8	93.3	$0.395	$18.96	$17.67
	1931	5	221	5.4	49.2	42.8	87.0	.331	16.29	14.18
Nebraska	1929	4	563	5.5	48.0	43.5	90.6	.374	17.95	16.28
	1931	4	539	5.1	48.0	39.1	81.5	.314	15.07	12.28
New Jersey and New York [1]	1929	[2] 4	[2] 300	[2] 5.3	[2] 47.7	[2] 41.7	[2] 87.4	[2] .375	[2] 17.89	[2] 15.63
	1931	5	324	5.2	50.3	40.3	80.1	.309	15.54	12.46
Ohio and West Virginia [1]	1929	4	230	5.6	49.6	46.0	92.7	.338	16.76	15.58
	1931	4	160	5.7	49.1	43.3	88.2	.310	15.22	13.44
Oklahoma	1929	2	154	5.4	48.0	44.3	92.3	.302	14.50	13.38
	1931	2	125	5.0	46.3	40.1	86.6	.258	11.95	10.36
Oregon and Washington [1]	1929	4	85	5.8	47.9	43.2	90.2	.371	17.77	16.04
	1931	4	63	5.0	46.6	39.8	85.4	.335	15.61	13.34
Pennsylvania	1929	3	93	5.3	51.8	42.1	81.3	.386	19.99	16.24
	1931	3	107	5.7	50.0	46.5	93.0	.292	14.60	13.56
Texas	1929	5	366	5.4	48.4	44.5	91.9	.322	15.58	14.32
	1931	5	214	5.1	48.3	40.3	83.4	.277	13.38	11.18
Wisconsin	1929	2	259	5.8	49.4	44.8	90.7	.404	19.96	18.10
	1931	2	188	5.7	48.0	45.4	94.6	.325	15.60	14.76
Total	1929	83	8,803	5.6	48.9	44.9	91.8	.369	18.04	16.54
	1931	82	8,032	5.4	48.9	42.4	86.7	.321	15.70	13.61
Males and females										
California	1929	4	1,118	5.7	47.9	46.7	97.5	.527	25.24	24.58
	1931	4	1,146	5.8	47.7	49.6	104.0	.476	22.71	23.57
Colorado	1929	2	475	5.7	50.9	50.8	99.8	.509	25.91	25.87
	1931	2	609	5.8	48.2	48.0	99.6	.497	23.96	23.84
Connecticut and Massachusetts [1]	1929	4	1,542	5.7	52.0	49.8	95.8	.507	26.36	25.27
	1931	4	1,113	5.8	53.1	46.0	86.6	.467	24.80	21.50
Florida and Georgia [1]	1929	3	256	5.6	55.5	47.8	86.1	.316	17.54	15.10
	1931	3	213	4.9	55.5	43.8	78.9	.273	15.15	11.96
Illinois	1929	14	16,802	5.6	48.0	48.9	101.9	.532	25.54	25.98
	1931	14	13,466	5.7	48.8	46.8	95.9	.468	22.84	21.94
Indiana	1929	2	2,061	5.8	48.0	45.9	95.6	.431	20.69	19.77
	1931	2	1,825	5.6	47.8	39.0	81.6	.370	17.69	14.46
Iowa	1929	7	5,648	5.8	52.1	47.1	90.4	.445	23.18	20.92
	1931	7	6,252	5.6	49.2	45.5	92.5	.416	20.47	18.93
Kansas	1929	8	7,354	5.7	48.0	46.9	97.7	.502	24.10	23.52
	1931	8	5,781	5.4	48.1	43.9	91.3	.428	20.59	18.77
Maryland	1929	3	809	5.8	54.7	55.3	101.1	.447	24.45	24.74
	1931	3	618	5.8	52.7	52.4	99.4	.454	23.93	23.76
Michigan	1929	3	1,344	5.6	58.6	52.4	89.4	.494	28.95	25.87
	1931	2	772	5.5	57.0	46.9	82.3	.425	24.23	19.94
Minnesota and South Dakota [1]	1929	5	6,157	5.6	48.0	46.6	97.1	.498	23.90	23.19
	1931	5	6,311	5.5	49.7	45.5	91.5	.456	22.66	20.75
Missouri	1929	4	2,892	5.8	48.1	47.4	98.5	.507	24.39	24.03
	1931	5	2,665	5.6	49.0	46.8	95.5	.460	22.54	21.53
Nebraska	1929	4	4,286	5.6	48.0	45.7	95.2	.513	24.62	23.47
	1931	4	4,125	5.2	48.0	41.7	86.9	.439	21.07	18.32
New Jersey and New York [1]	1929	[2] 7	[2] 2,490	[2] 5.3	[2] 49.2	[2] 45.7	[2] 92.9	[2] .564	[2] 27.75	[2] 25.81
	1931	7	2,617	5.3	52.1	43.4	83.3	.494	25.74	21.45
Ohio and West Virginia [1]	1929	4	1,523	5.7	53.2	49.9	93.8	.485	25.80	24.22
	1931	4	1,024	5.8	50.9	48.3	94.9	.468	23.82	22.63
Oklahoma	1929	2	1,277	5.5	48.1	47.5	98.8	.459	22.08	21.78
	1931	2	865	5.1	46.2	41.7	90.3	.394	18.20	16.45
Oregon and Washington [1]	1929	4	730	5.8	49.0	48.9	99.8	.561	27.49	27.43
	1931	4	613	5.4	48.6	46.3	95.3	.484	23.52	22.38
Pennsylvania	1929	3	835	5.7	53.9	52.0	96.5	.541	29.16	28.09
	1931	3	573	5.7	51.8	52.3	101.0	.443	22.95	23.16
Texas	1929	5	2,430	5.6	49.0	48.0	98.0	.459	22.49	22.02
	1931	5	1,614	5.2	48.1	41.7	86.7	.423	20.35	17.64
Wisconsin	1929	2	1,570	5.8	51.2	52.2	102.0	.543	27.80	28.36
	1931	2	1,353	5.7	48.1	49.1	102.1	.475	22.85	23.33
Total	1929	90	61,599	5.7	49.2	48.0	97.6	.504	24.80	24.18
	1931	90	53,555	5.5	49.2	45.4	92.3	.449	22.09	20.38

[1] Shown together to avoid presenting data for 1 establishment in 1 State. [2] New York only.

Time Worked and Earnings in Selected Occupations and Departments, by Districts

TABLE 5 shows average days, hours, and earnings, and the per cent of full time worked in one week in 1931, by department, district, and sex for wage earners in four representative occupations in the cattle-killing, hog-killing, and casing departments, for three in the sausage department, and for two in the canning department. The table is abridged to conserve space. Similar figures will be published later in a bulletin of the bureau for each of the occupations in each of the 13 departments covered in the study of the industry. The districts are eight in number, as follows:

District 1 includes 11 plants in Chicago, Ill.

District 2 includes 17 plants in East St. Louis, Ill.; Kansas City, Kans.; St. Joseph and St. Louis, Mo.; and Omaha, Nebr.

District 3 includes 17 plants in Iowa, Kansas, Minnesota, South Dakota, and Wisconsin.

District 4 includes 7 plants in Oklahoma and Texas.

District 5 includes 13 plants in Indiana, Michigan, western New York, Ohio, western Pennsylvania, and West Virginia.

District 6 includes 9 plants in Connecticut, Massachusetts, New Jersey, eastern New York, and eastern Pennsylvania.

District 7 includes 6 plants in Florida, Georgia, and Maryland.

District 8 includes 10 plants in California, Colorado, Oregon, and Washington.

Reading part of the figures for leg breakers, male, in the cattle-killing department, in explanation of the table, it is seen that—

Days worked in one week for all districts combined averaged 5.1 and the average of 3.9 for district 6 was less and of 5.8 for district 1 was more than the average for any of the other 6 districts.

Hours actually worked in one week for all districts combined averaged 40.7 and that the average of 25.1 for district 6 was less and of 50.4 for district 1 was more than the average for any other district.

The per cent of full time actually worked in one week was 83.6 for all districts combined and the 51 per cent for district 6 was less and of 103.5 for district 1 was more than the per cent of full time worked in any other district. It is seen that in districts 2, 4, 5, and 6, there was considerable part-time work. On the other hand there was some overtime in district 1.

Earnings per hour for all districts combined were 51.2 cents and the average of 44.6 cents for district 4 was less and of 92.1 cents for district 6 was more than the average for any other district.

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TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT

Cattle-killing department

District	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week: Average number	Hours actually worked in 1 week: Per cent of full time	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
Leg breakers, male									
No. 1	7	24	5.8	48.7	50.4	103.5	$0.508	$24.74	$25.61
No. 2	14	38	5.0	48.0	39.0	81.3	.478	22.94	18.62
No. 3	14	30	5.7	49.1	45.1	91.9	.493	24.21	22.25
No. 4	6	12	4.7	47.3	37.4	79.1	.446	21.10	16.68
No. 5	9	16	4.1	50.3	29.2	58.1	.503	25.30	14.67
No. 6	3	10	3.9	49.2	25.1	51.0	.921	45.31	23.07
No. 7	3	4	5.0	52.0	49.2	94.6	.502	26.10	24.69
No. 8	7	9	5.6	48.0	46.3	96.5	.544	26.11	25.21
Total	63	143	5.1	48.7	40.7	83.6	.512	24.93	20.85
Floormen or siders, male									
No. 1	7	46	5.4	48.7	45.9	94.3	$0.852	$41.49	$39.13
No. 2	15	72	5.1	48.2	39.5	82.0	.761	36.68	30.04
No. 3	16	44	5.4	49.0	42.1	85.9	.793	38.86	33.36
No. 4	6	18	5.0	47.7	39.9	83.6	.752	35.87	30.02
No. 5	10	21	4.9	51.2	35.2	68.8	.741	37.94	26.05
No. 6	3	13	4.2	49.4	27.8	56.3	1.238	61.16	34.48
No. 7	4	6	5.8	53.7	53.0	98.7	.674	36.19	35.69
No. 8	9	14	5.9	48.0	50.1	104.4	.765	36.72	38.32
Total	70	234	5.2	48.9	41.2	84.3	.800	39.12	32.98
Splitters, male									
No. 1	6	18	5.7	49.3	48.8	99.0	$0.825	$40.67	$40.24
No. 2	15	41	5.1	48.1	40.5	84.2	.764	36.75	30.95
No. 3	16	25	5.3	49.0	42.7	87.1	.746	36.55	31.90
No. 4	7	11	5.1	47.8	38.9	81.4	.699	33.41	27.21
No. 5	7	8	5.0	50.5	35.5	70.3	.815	41.16	28.96
No. 6	3	6	4.0	51.0	27.2	53.3	1.345	68.60	36.54
No. 7	4	5	5.6	53.8	49.1	91.3	.515	27.71	25.26
No. 8	8	9	6.0	47.7	50.2	105.2	.826	39.40	41.49
Total	66	123	5.3	48.9	42.1	86.1	.780	38.14	32.85
Laborers, male [1]									
No. 1	7	105	5.6	49.5	49.1	99.2	$0.436	$21.58	$21.39
No. 2	14	186	5.0	48.0	40.6	84.6	.402	19.30	16.29
No. 3	14	130	5.5	49.0	43.4	88.6	.401	19.65	17.43
No. 4	6	49	4.9	47.4	41.2	86.9	.358	16.97	14.74
No. 5	8	49	4.7	51.3	30.2	58.9	.375	19.24	11.33
No. 6	3	30	4.4	49.2	31.0	63.0	.608	29.91	18.82
No. 7	6	20	5.4	55.0	48.6	88.4	.284	15.62	13.83
No. 8	9	34	5.6	47.7	51.5	108.0	.419	19.99	21.56
Total	67	603	5.2	49.0	42.3	86.3	.408	19.99	17.24

[1] Includes floor cleaners, mark heads, spread cattle, tie guts, laundrymen, taggers, etc.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Hog-killing department

District	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week: Average number	Hours actually worked in 1 week: Per cent of full time	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
Laborers, male [2]									
No. 1	7	85	5.6	50.7	50.8	100.2	$0.418	$21.19	$21.23
No. 2	17	156	5.4	48.3	42.9	88.8	.416	20.09	17.84
No. 3	17	305	5.4	48.6	43.6	89.7	.388	18.86	16.93
No. 4	2	3	6.0	46.0	48.7	105.9	.355	16.33	17.29
No. 5	12	91	5.6	51.4	41.3	80.4	.390	20.05	16.09
No. 6	6	40	5.8	55.7	53.7	96.4	.409	22.78	21.96
No. 7	2	8	6.1	54.3	49.0	90.2	.337	18.30	16.49
No. 8	7	14	5.6	47.8	47.7	99.8	.430	20.55	20.52
Total	70	702	5.5	49.6	44.8	90.3	.400	19.84	17.90
Shavers and scrapers, male									
No. 1	7	61	5.6	49.2	46.1	93.7	$0.505	$24.85	$23.28
No. 2	17	139	5.4	48.4	42.0	86.8	.484	23.43	20.32
No. 3	17	235	5.5	49.1	44.4	90.4	.464	22.78	20.60
No. 4	4	5	5.4	46.4	47.7	102.8	.461	21.39	22.01
No. 5	12	143	5.2	52.4	37.8	72.1	.486	25.47	18.37
No. 6	5	31	5.4	55.9	47.7	85.3	.478	26.72	22.78
No. 7	2	14	5.9	54.2	52.1	96.1	.501	27.15	26.09
No. 8	6	17	5.8	48.0	48.7	101.5	.534	25.63	26.00
Total	70	645	5.4	50.1	43.1	86.0	.480	24.05	20.68
Gutters, bung droppers, and rippers-open, male									
No. 1	7	33	5.8	50.4	48.1	95.4	$0.538	$27.12	$25.85
No. 2	16	58	5.4	48.2	42.8	88.8	.521	25.11	22.30
No. 3	17	89	5.6	49.0	47.2	96.3	.520	25.48	24.57
No. 4	3	4	5.0	47.0	45.9	97.7	.481	22.61	22.06
No. 5	13	43	5.5	52.3	42.2	80.7	.523	27.35	22.05
No. 6	5	28	5.6	55.9	48.8	87.3	.542	30.30	26.46
No. 7	3	4	5.3	54.5	39.3	72.1	.595	32.43	23.39
No. 8	6	8	5.6	48.0	47.9	99.8	.551	26.45	26.38
Total	70	267	5.6	50.3	45.6	90.7	.527	26.51	24.03
Splitters, male									
No. 1	7	28	5.6	50.1	47.6	95.0	$0.622	$31.16	$29.63
No. 2	17	45	5.6	48.5	46.5	95.9	.562	27.26	26.16
No. 3	16	59	5.6	49.1	47.7	97.1	.571	28.04	27.27
No. 4	3	3	5.3	48.0	45.5	94.8	.543	26.06	24.72
No. 5	12	30	5.6	51.2	41.1	80.3	.581	29.75	23.88
No. 6	5	9	5.7	55.3	50.5	91.3	.599	33.12	30.25
No. 7	2	3	6.0	54.3	58.9	108.5	.643	34.91	37.84
No. 8	5	5	5.4	48.0	44.5	92.7	.628	30.14	27.92
Total	67	182	5.6	49.8	46.5	93.4	.583	29.03	27.10

[2] Includes drivers, penners, steamers, singers, washers, aitchbone breakers, and toe pullers.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Casings department

District	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
Casing pullers or runners, male									
No. 1	8	109	5.7	49.3	47.2	95.7	$0.483	$23.81	$22.82
No. 2	17	177	5.4	48.3	42.5	88.0	.462	22.31	19.65
No. 3	16	216	5.7	49.0	47.4	96.7	.484	23.72	22.96
No. 4	7	26	5.0	47.5	40.1	84.4	.453	21.52	18.16
No. 5	11	88	5.4	51.5	37.8	73.4	.435	22.40	16.44
No. 6	7	56	5.3	53.6	43.7	81.5	.537	28.78	23.49
No. 7	3	18	5.1	54.7	49.1	89.8	.415	22.70	20.38
No. 8	7	24	5.4	47.8	47.0	98.3	.520	24.86	24.40
Total	76	714	5.5	49.6	44.5	89.7	.476	23.61	21.16
Strippers, male									
No. 1	6	55	5.8	49.7	48.9	98.4	$0.440	$21.87	$21.51
No. 2	15	73	5.2	48.2	42.3	87.8	.432	20.82	18.27
No. 3	16	89	5.5	48.7	47.5	97.5	.411	20.02	19.53
No. 4	5	10	4.9	46.4	41.0	88.4	.399	18.51	16.36
No. 5	10	29	5.1	50.2	39.3	78.3	.421	21.13	16.56
No. 6	6	16	5.5	52.9	48.3	91.3	.462	24.44	22.30
No. 7	3	3	5.3	53.0	49.6	93.6	.362	19.19	17.97
No. 8	8	14	5.9	47.6	51.5	108.2	.483	22.99	24.85
Total	69	289	5.4	49.1	45.7	93.1	.429	21.06	19.58
Fatters and slimers, male									
No. 1	6	91	5.4	48.9	46.8	95.7	$0.509	$24.89	$23.81
No. 2	17	163	5.3	48.1	42.5	88.4	.477	22.94	20.30
No. 3	14	122	5.6	49.2	47.9	97.4	.476	23.42	22.77
No. 4	6	29	4.9	47.5	39.4	82.9	.461	21.90	18.18
No. 5	12	44	5.1	52.6	42.6	81.0	.458	24.09	19.54
No. 6	5	43	4.7	50.4	37.2	73.8	.548	27.62	20.34
No. 7	3	9	5.1	52.9	44.9	84.9	.437	23.12	19.63
No. 8	9	25	5.6	47.8	50.1	104.8	.507	24.23	25.42
Total	72	526	5.3	49.1	44.3	90.2	.486	23.86	21.53
Blowers, graders, and inspectors, female									
No. 1	4	81	5.6	49.1	45.1	91.9	$0.378	$18.56	$17.02
No. 2	13	66	5.5	48.0	44.3	92.3	.309	14.83	13.70
No. 3	11	145	5.6	48.8	47.1	96.5	.294	14.35	13.86
No. 4	1	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
No. 5	5	32	5.3	49.9	38.7	77.6	.272	13.57	10.52
No. 6	2	18	5.5	48.0	40.3	84.0	.335	16.08	13.49
No. 8	2	4	6.0	47.3	47.3	100.0	.401	18.97	18.97
Total	38	347	5.5	48.7	44.9	92.2	.318	15.49	14.27

[3] Data included in total.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Sausage department

District	Number of establishments	Number of wage earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week: Average number	Hours actually worked in 1 week: Per cent of full time	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
Machine tenders, male [4]									
No. 1	7	67	5.7	49.1	46.7	95.1	$0.475	$23.32	$22.20
No. 2	16	89	5.3	48.3	45.4	94.0	.478	23.09	21.70
No. 3	17	97	5.8	48.9	46.8	95.7	.452	22.10	21.15
No. 4	7	32	5.4	47.2	49.1	104.0	.392	18.50	19.25
No. 5	13	44	5.5	51.6	50.2	97.3	.509	26.26	25.57
No. 6	5	19	6.0	54.0	51.8	95.9	.582	31.43	30.17
No. 7	3	10	5.8	54.3	57.8	106.4	.545	29.59	31.51
No. 8	10	24	5.8	49.3	50.6	102.6	.492	24.26	24.87
Total	78	382	5.6	49.4	47.8	96.8	.476	23.51	22.77
Stuffers, male									
No. 1	7	74	5.4	48.5	44.1	90.9	$0.566	$27.45	$25.00
No. 2	16	92	5.3	48.1	45.3	94.2	.509	24.48	23.04
No. 3	17	83	5.8	49.7	46.1	92.8	.490	24.35	22.60
No. 4	6	19	5.5	47.6	46.0	96.6	.500	23.80	22.99
No. 5	12	40	5.5	49.3	49.7	100.8	.512	25.24	25.46
No. 6	6	48	5.9	54.6	44.9	82.2	.558	30.47	25.03
No. 7	4	12	5.6	54.4	52.4	96.3	.451	24.53	23.66
No. 8	10	23	5.8	48.5	48.0	99.0	.548	26.58	26.32
Total	78	391	5.6	49.6	46.1	92.9	.522	25.89	24.02
Linkers, twisters, tiers, and hangers, male									
No. 1	3	13	5.6	47.5	45.2	95.2	$0.454	$21.57	$20.55
No. 2	5	28	5.5	48.4	46.8	96.7	.475	22.99	22.24
No. 3	3	6	6.0	49.0	45.4	92.7	.382	18.72	17.34
No. 5	6	12	5.3	48.6	44.1	90.7	.419	20.36	18.49
No. 6	2	7	6.0	54.0	44.7	82.8	.471	25.43	21.05
No. 7	2	3	5.3	54.7	49.7	90.9	.364	19.91	18.12
No. 8	1	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
Total	22	70	5.6	49.1	45.7	93.1	.447	21.95	20.44
Linkers, twisters, tiers, and hangers, female									
No. 1	7	166	5.6	49.3	44.2	89.7	$0.380	$18.73	$16.82
No. 2	15	242	5.3	48.3	42.9	88.8	.347	16.76	14.88
No. 3	17	284	5.5	49.4	40.8	82.6	.297	14.67	12.14
No. 4	7	61	5.1	47.9	41.2	86.0	.310	14.85	12.80
No. 5	13	141	5.3	49.2	44.4	90.2	.296	14.56	13.15
No. 6	6	77	5.8	50.8	41.6	81.9	.334	16.97	13.92
No. 7	4	48	5.6	49.3	47.4	96.1	.275	15.56	13.06
No. 8	10	81	5.6	47.6	43.6	91.6	.346	16.47	15.10
Total	79	1,100	5.4	49.0	42.8	87.3	.327	16.02	14.00

[3] Data included in total.
[4] Includes cutters, choppers, grinders, mixers, curers, feeders, spicers, and rockers.

TABLE 5.—AVERAGE HOURS AND EARNINGS IN 17 SPECIFIED OCCUPATIONS IN THE SLAUGHTERING AND MEAT-PACKING INDUSTRY, 1931, BY DEPARTMENT, SEX, AND DISTRICT—Continued

Canning department

District	Number of establishments	Number of wage-earners	Average number of days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Per cent of full time			
	Packers, female [5]								
No. 1	7	302	5.7	48.9	46.5	95.1	$0.385	$18.83	$17.90
No. 2	13	314	5.2	48.0	42.9	89.4	.315	15.12	13.49
No. 3	17	290	5.6	50.0	41.2	82.4	.295	14.75	12.16
No. 4	7	119	5.0	47.5	38.5	81.1	.261	12.40	10.07
No. 5	9	84	5.7	50.4	43.4	86.1	.272	13.71	11.08
No. 6	4	70	5.8	50.3	41.6	82.7	.301	15.14	12.52
No. 7	3	17	5.7	49.5	51.9	104.8	.236	11.68	12.26
No. 8	6	90	5.7	47.7	43.7	91.6	.392	18.70	17.12
Total	66	1,286	5.5	48.9	43.1	88.1	.325	15.89	13.98
	Labelers and wrappers, female								
No. 1	4	60	5.1	47.8	39.6	82.8	$0.366	$17.49	$14.48
No. 2	5	18	5.5	48.0	45.3	94.4	.361	17.33	16.34
No. 3	6	21	6.0	50.3	46.1	91.7	.262	13.18	12.09
No. 4	5	6	5.2	48.0	40.5	84.4	.266	12.77	10.76
No. 5	7	52	5.4	48.6	40.3	82.9	.253	12.30	10.20
No. 6	3	5	5.2	50.4	37.7	74.8	.289	14.57	10.88
Total	30	162	5.4	48.5	41.3	85.2	.309	14.99	12.76

[5] Includes sliced bacon and chipped dried beef in cans, glass jars, or cartons, by hand.

Regular Full-Time Hours Per Week and Day, 1931

TABLE 6 shows regular or customary full-time hours per week and per day (Monday to Thursday, Friday, and Saturday), by States, for all departments covered in the 1931 study. Data are given in this table by departments rather than by establishments for the reason that the regular hours differ as between the several departments in a number of establishments. The 90 establishments canvassed had an aggregate of 1,007 departments.

Full-time hours per week ranged from 40 in 1 department to 60 in 35 departments. Hours per day ranged from 8 to 11 on Monday to Friday and from 4 to 11 on Saturday. The hours of 679 departments were 8 per day, Monday to Saturday, or 48 per week, and of 1 department were 8 per day, Monday to Friday, with no work on Saturday, or 40 per week.

TABLE 6.—NUMBER OF DEPARTMENTS IN EACH STATE WITH SPECIFIED NUMBER OF FULL-TIME HOURS PER WEEK AND PER DAY, 1931

Full-time hours per week	Full-time hours per day			Number of departments in—																				Total departments
	Monday to Thursday	Friday	Saturday	California	Colorado	Connecticut and Massachusetts	Florida and Georgia	Illinois	Indiana	Iowa	Kansas	Maryland	Michigan	Minnesota and South Dakota	Missouri	Nebraska	New Jersey and New York	Ohio and West Virginia	Oklahoma	Oregon and Washington	Pennsylvania	Texas	Wisconsin	
40	8	8	0																			1		1
44	8	8	4					11									1		11		12			35
45	8	8	5	10				10	11			1							1					33
48	8	8	8	34	25	2		92	13	72	95			52	50	52	29	22	12	45	13	46	25	679
48	[1] 9	8	5					1																1
48	[2] 8	[2] 8	[2] 8																1					1
45	[3] 8	[3] 8	[3] 5																					
49½	9	9	4½														1							1
50	9	9	5					3				8	1				8	2				11		33
50	[2] 9	[2] 9	[2] 5														3							3
49½	[3] 9	[3] 9	4½																					
52½	9½	9½	5															12						12
52½	[2] 9½	[2] 9½	[2] 5															9						9
50	[3] 9	[3] 9	[3] 5																					
54	9	9	9			22		13		13		5		13	13		13			3				95
54	[2] 9	[2] 9	[2] 9	1		10						7					1			1				20
48	[3] 8	[3] 8	[3] 8																					
54	[2] 9	[2] 9	[2] 9														4							4
53	[3] 9	[3] 9	[3] 8																					
55	10	10	5				3					9	4											16
55	10	10	[4] 5				10																	10
55	[2] 10	[2] 10	[2] 5									2												2
45	[3] 8	[3] 8	[3] 5																					
55	[2] 10	[2] 10	[2] 5										7											7
54	[3] 10	[3] 10	[3] 4										2											2
57½	10	10	7½																					
58	10	10	8					8																8
60	10	10	10				1						3				6	2			3			15
60	11	11	5				2																	2
60	[2] 10	[2] 10	[2] 10														6							6
49½	[3] 9	[3] 9	[3] 4½																					
60	[2] 10	[2] 10	[2] 10																		4			4
54	[3] 9	[3] 9	[3] 9																					
60	[2] 10	[2] 10	[2] 10										8											8
54	[3] 10	[3] 10	[3] 4																					
Total				45	25	34	16	138	24	85	95	32	25	65	63	52	72	47	25	49	32	58	25	1,007

[1] Work 8 hours on Thursday. [2] Males. [3] Females. [4] Work 10 hours on Saturday for 6 months, the remaining 6 months no Saturday work; yearly average, 5 hours.

Wage-Rate Changes in American Industries

Manufacturing Industries

DATA concerning wage-rate changes in 89 manufacturing industries included in the monthly employment survey of the Bureau of Labor Statistics are presented in the following table.

Of the 18,254 manufacturing establishments furnishing employment data in April, 17,625 establishments, or 96.6 per cent of the total, reported no change in wage rates during the month ending April 15, 1932. The employees whose wage rates were reported unchanged over the month interval totaled 2,709,502, comprising 97.1 per cent of the total number of employees included in this survey of manufacturing industries.

Decreases in rates of wages were reported by 628 establishments, or 3.4 per cent of the total number of establishments reporting. These decreases, averaging 10.8 per cent, affected 82,063 employees, or 2.9 per cent of all employees in the establishments reporting. An increase in wage rates, averaging 10 per cent and affecting all employees was reported by one establishment in the bolt and nut industry.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
All manufacturing industries	18,254	2,791,626	17,625	1	628	2,709,502	61	82,063
Per cent of total	100.0	100.0	96.6	(1)	3.4	97.1	(1)	2.9
Slaughtering and meat packing	231	81,979	225	-------	6	80,457	-------	1,522
Confectionery	343	31,701	333	-------	10	30,623	-------	1,078
Ice cream	395	12,160	389	-------	6	11,994	-------	166
Flour	456	16,506	451	-------	5	16,365	-------	141
Baking	937	63,220	916	-------	21	61,438	-------	1,782
Sugar refining, cane	16	7,957	16	-------	-------	7,957	-------	-------
Beet sugar	48	2,254	48	-------	-------	2,254	-------	-------
Beverages	343	10,132	341	-------	2	10,069	-------	63
Butter	270	5,331	261	-------	9	5,181	-------	150
Cotton goods	613	194,901	592	-------	21	188,234	-------	6,667
Hosiery and knit goods	448	100,783	433	-------	15	96,782	-------	4,001
Silk goods	270	39,665	264	-------	6	39,392	-------	273
Woolen and worsted goods	252	42,068	239	-------	13	40,041	-------	2,027
Carpets and rugs	36	14,274	36	-------	-------	14,274	-------	-------
Dyeing and finishing textiles	151	35,587	145	-------	6	34,372	-------	1,215
Clothing, men's	379	55,460	373	-------	6	54,601	-------	859
Shirts and collars	112	13,890	108	-------	4	13,656	-------	234
Clothing, women's	407	28,522	403	-------	4	28,166	-------	356
Millinery	144	10,269	140	-------	4	9,732	-------	537
Corsets and allied garments	32	5,893	30	-------	2	5,599	-------	294
Cotton small wares	114	10,709	107	-------	7	10,518	-------	191
Hats, fur-felt	38	4,710	38	-------	-------	4,710	-------	-------
Men's furnishings	75	5,746	74	-------	1	5,734	-------	12
Iron and steel	221	202,075	216	-------	5	197,985	-------	4,090
Cast-iron pipe	43	6,863	40	-------	3	6,423	-------	440
Structural and ornamental ironwork	193	18,563	182	-------	11	17,681	-------	882
Hardware	113	24,060	104	-------	9	23,032	-------	1,028
Steam fittings and steam and hot-water heating apparatus	113	18,051	111	-------	2	18,032	-------	19
Stoves	160	15,484	149	-------	11	14,482	-------	1,002
Bolts, nuts, washers, and rivets	69	8,872	67	1	1	8,768	61	43
Cutlery (not including silver and plated cutlery) and edge tools	130	10,577	128	-------	2	10,461	-------	116
Forgings, iron and steel	62	5,815	62	-------	-------	5,815	-------	-------
Plumbers' supplies	66	4,590	61	-------	5	4,417	-------	173

[1] Less than one-tenth of 1 per cent.

TABLE 1.—WAGE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Tin cans and other tinware	56	7,603	51	-------	5	7,503	-------	100
Tools (not including edge tools, machine tools, files, or saws)	127	7,822	120	-------	7	6,653	-------	1,169
Wirework	71	5,329	69	-------	2	5,256	-------	73
Lumber, sawmills	667	61,335	613	-------	54	54,023	-------	7,312
Lumber, millwork	463	20,232	448	-------	15	18,832	-------	1,400
Furniture	492	45,237	470	-------	22	44,148	-------	1,089
Turpentine and rosin	21	1,051	21	-------	-------	1,051	-------	-------
Leather	174	25,291	165	-------	9	24,532	-------	759
Boots and shoes	328	109,204	322	-------	6	108,011	-------	1,193
Paper and pulp	420	81,239	406	-------	14	77,339	-------	3,900
Paper boxes	325	22,116	321	-------	4	21,950	-------	166
Printing, book and job	760	55,583	726	-------	34	53,496	-------	2,087
Printing, newspapers and periodicals	467	71,940	451	-------	16	70,575	-------	1,365
Chemicals	111	20,697	110	-------	1	20,629	-------	68
Fertilizers	204	12,390	199	-------	5	12,028	-------	362
Petroleum refining	123	49,545	114	-------	9	41,102	-------	8,443
Cottonseed oil, cake, and meal	54	2,377	53	-------	1	2,364	-------	13
Druggists' preparations	40	7,648	37	-------	3	6,196	-------	1,452
Explosives	22	2,832	11	-------	11	1,802	-------	1,030
Paints and varnishes	371	15,994	349	-------	22	14,308	-------	1,686
Rayon	22	26,757	22	-------	-------	26,757	-------	-------
Soap	82	12,981	79	-------	3	12,917	-------	64
Cement	126	14,642	116	-------	10	13,537	-------	1,105
Brick, tile, and terra cotta	704	20,382	688	-------	16	19,804	-------	578
Pottery	121	15,183	109	-------	12	13,895	-------	1,288
Glass	190	35,549	186	-------	4	35,199	-------	350
Marble, granite, slate, and other stone products	235	6,245	225	-------	10	5,978	-------	267
Stamped and enameled ware	89	13,795	80	-------	9	12,867	-------	928
Brass, bronze, and copper products	203	29,315	193	-------	10	28,281	-------	1,034
Aluminum manufactures	25	5,253	25	-------	-------	5,253	-------	-------
Clocks, time-recording devices, and clock movements	22	4,532	22	-------	-------	4,532	-------	-------
Gas and electric fixtures, lamps, lanterns, and reflectors	55	5,197	54	-------	1	5,128	-------	69
Plated ware	55	7,677	54	-------	1	7,665	-------	12
Smelting and refining—copper, lead, and zinc	25	8,134	23	-------	2	7,728	-------	406
Jewelry	158	8,668	153	-------	5	8,595	-------	73
Chewing and smoking tobacco and snuff	37	10,038	37	-------	-------	10,038	-------	-------
Cigars and cigarettes	224	46,924	222	-------	2	46,818	-------	106
Automobiles	246	224,508	236	-------	10	222,627	-------	1,881
Aircraft	31	5,721	30	-------	1	5,698	-------	23
Cars, electric and steam railroad	34	5,235	32	-------	2	4,906	-------	329
Locomotives	15	3,668	15	-------	-------	3,668	-------	-------
Shipbuilding	92	33,704	89	-------	3	33,071	-------	633
Rubber tires and inner tubes	40	45,170	39	-------	1	44,642	-------	528
Rubber boots and shoes	10	10,931	10	-------	-------	10,931	-------	-------
Rubber goods, other than boots, shoes, tires, and inner tubes	99	18,494	92	-------	7	17,870	-------	624
Agricultural implements	69	7,242	65	-------	4	7,038	-------	204
Electrical machinery, apparatus, and supplies	287	136,935	274	-------	13	134,593	-------	2,342
Engines, turbines, tractors, and water wheels	77	16,102	74	-------	3	15,135	-------	967
Cash registers, adding machines, and calculating machines	48	15,502	46	-------	2	15,321	-------	181
Foundry and machine-shop products	1,089	115,756	1,045	-------	44	111,994	-------	3,762
Machine tools	155	13,634	150	-------	5	13,488	-------	146
Textile machinery and parts	36	6,858	35	-------	1	6,846	-------	12
Typewriters and supplies	18	10,756	18	-------	-------	10,756	-------	-------
Radio	44	15,049	43	-------	1	14,499	-------	550
Electric-railroad repair shops	406	22,901	399	-------	7	22,448	-------	453
Steam-railroad repair shops	509	78,056	507	-------	2	77,936	-------	120

Nonmanufacturing Industries

IN THE following table are presented data concerning wage-rate changes, occurring between March 15 and April 15, 1932, reported by establishments in 14 nonmanufacturing groups included in the bureau's monthly survey of employment.

Increases in rates of wages were reported in only 1 of the 14 groups shown in the following table, one establishment in the retail trade group reporting an increase in wage rates over the month interval. Decreases in wage rates were reported in each of the 14 groups, with the exception of anthracite mining in which no change in wage rates was shown. The lowest average per cent of decrease in wage rates, 4.1, was reported in the telephone and telegraph group, while the highest average per cent of decrease, 15.7, was reported in the dyeing and cleaning group. The average per cent of decrease in the remaining groups ranged from 7.4 per cent in crude petroleum producing to 13.5 per cent in the canning and preserving.

TABLE 2.—WAGE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING APRIL 15, 1932

Industry	Establishments reporting	Total number of employees	Number of establishments reporting			Number of employees having		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Anthracite mining	160	95,851	160	----	----	95,851	----	----
Per cent of total	100.0	100.0	100.0	----	----	100.0	----	----
Bituminous coal mining	1,237	162,745	1,166	----	71	149,616	----	13,129
Per cent of total	100.0	100.0	94.3	----	5.7	91.9	----	8.1
Metalliferous mining	262	27,714	237	----	25	25,638	----	2,076
Per cent of total	100.0	100.0	90.5	----	9.5	92.5	----	7.5
Quarrying and nonmetallic mining	619	21,866	587	----	32	20,871	----	995
Per cent of total	100.0	100.0	94.8	----	5.2	95.4	----	4.6
Crude petroleum producing	266	21,735	264	----	2	21,714	----	21
Per cent of total	100.0	100.0	99.2	----	0.8	99.9	----	0.1
Telephone and telegraph	8,215	287,876	7,821	----	394	283,564	----	4,312
Per cent of total	100.0	100.0	95.2	----	4.8	98.5	----	1.5
Power and light	3,541	223,200	3,486	----	55	216,639	----	6,561
Per cent of total	100.0	100.0	98.4	----	1.6	97.1	----	2.9
Electric railroad operation and maintenance, exclusive of car shops	491	132,645	479	----	12	129,494	----	3,151
Per cent of total	100.0	100.0	97.6	----	2.4	97.6	----	2.4
Wholesale trade	2,786	73,253	2,714	----	72	71,756	----	1,497
Per cent of total	100.0	100.0	97.4	----	2.6	98.0	----	2.0
Retail trade	13,223	347,094	13,160	1	62	345,762	9	1,323
Per cent of total	100.0	100.0	99.5	(1)	0.5	99.6	(1)	0.4
Hotels	2,264	136,646	2,246	----	18	134,979	----	1,667
Per cent of total	100.0	100.0	99.2	----	0.8	98.8	----	1.2
Canning and preserving	820	32,977	772	----	46	31,224	----	1,751
Per cent of total	100.0	100.0	94.1	----	5.6	94.7	----	5.3
Laundries	1,004	60,785	989	----	15	60,110	----	675
Per cent of total	100.0	100.0	98.5	----	1.5	98.9	----	1.1
Dyeing and cleaning	404	12,337	400	----	4	12,261	----	76
Per cent of total	100.0	100.0	99.0	----	1.0	99.4	----	0.6

[1] Less than one-tenth of 1 per cent.

Wage Changes Reported by Trade-Unions Since February, 1932

UNION and municipal wage changes reported to the bureau during the past month and covering the months of February to May are presented in the table following.

The number of workers covered is 38,264, of whom 19,289 were reported to have gone on the 5-day week.

No renewals of wage agreements were reported.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, FEBRUARY TO MAY, 1932

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
		Per week	*Per week*		
Bakers, Middletown, Conn	Apr. 8	$40.00	$30.00	48	48
Barbers:					
Cleveland, Ohio	Mar. 31	[1] 28.00	[2] 26.00	54	54
East Grand Forks, Minn	Mar. 1	[3] 25.00	[4] 22.75	58	58
Quincy, Mass	do	[5] 30.00	[6] 25.00	62	62
Building trades:		*Per hour*	*Per hour*		
Bricklayers—					
Centralia, Ill	Apr. 1	1.50	1.35	44	44
Elizabeth, N. J., and vicinity	Mar. 25	1.93¾	1.68¾	40	40
Evansville, Ind., and vicinity	Mar. 22	1.50	1.00	44	44
Fostoria, Ohio	Apr. 4	1.50	1.25	44	44
Geneva, N. Y	Apr. 1	1.37½	1.23¾	40	40
Newark, N. J., and vicinity	Mar. 15	1.93¾	1.68¾	40	40
St. Louis, Mo., and vicinity	Apr. 22	1.75	1.50	44	40
Schenectady, N. Y., and vicinity	Apr. 1	1.65	1.37½	40	40
Stockton, Calif	Apr. 8	1.50	1.25	44	44
Carpenters—					
Centralia, Ill	Apr. 1	1.00	.90	40	40
Colorado Springs, Colo	Apr. 14	1.12½	1.00	44	44
Evansville, Ind	Apr. 1	1.25	.85	40	40
Geneva, N. Y	do	1.00	.95	44	40
Lenox, Mass	Mar. 1	1.12½	1.00	44	40
Lindsay, Calif	Mar. 15	1.00	.87½	[7]	[7]
Morristown, N. J., and vicinity	Apr. 1	1.50	1.25	40	40
Norwich, Conn	Mar. 21	1.10	.95	40	40
Pittsfield, Mass	Apr. 1	1.25	1.00	40	40
Rochester, N. Y., and vicinity	do	1.26½	1.00	40	40
Schenectady, N. Y	Apr. 5	1.37½	1.25	40	40
Cement finishers, Newark, N. J	Mar. 15	1.93¾	1.68¾	40	40
Electrical workers—					
Albany, N. Y	Apr. 11	1.35	1.20	40	40
Geneva, N. Y	Apr. 1	1.12½	1.01¼	44	40
Madison, Wis	do	1.40	1.20	40	40
Schenectady, N. Y	Apr. 11	1.37½	1.20	40	40
Troy, N. Y	do	1.25	1.20	40	40
Elevator constructors, Cincinnati, Ohio	May 1	1.49	1.33½	40	40
Helpers	do	1.04	.93	40	40
Hod carriers and laborers—					
Christopher, Ill	Mar. 1	.75 1.00	.62½ .85	[7] [7]	[7] [7]
Geneva, N. Y	Apr. 1	.65	.60	40	40
Lathers, Madison, Wis	do	1.50	1.37½	40	40
Painters, decorators, and paperhangers—					
Centralia, Ill	do	1.12½	1.01	40	40
Denver, Colo., and vicinity, sign and pictorial painters	do	1.37½	1.25	40	40
Geneva, N. Y	do	1.00	.90	40	40
Hannibal, Mo	Feb. 22	1.00	.80	44	44
Jacksonville, Ill., and vicinity	Apr. 1	.87½	.75	44	44
Palo Alto, Calif	Mar. 1	1.12½	1.00	40	40
St. Louis, Mo., and vicinity	Apr. 15	1.50	1.25	40	40
San Mateo, Calif	Mar. 1	1.12½	1.00	40	40
Worcester, Mass	do	1.12½	.95	40	40
Plasterers—					
Centralia, Ill	Apr. 1	1.50	1.35	44	44
Cincinnati, Ohio, and vicinity	Mar. 1	1.62½	1.37½	40	40
Elizabeth, N. J., and vicinity	Mar. 25	1.93¾	1.68¾	40	40
Geneva, N. Y	Apr. 1	1.37½	1.23¾	40	40
Madison, Wis	do	1.37½	1.25	40	40
Newark, N. J., and vicinity	Mar. 15	1.93¾	1.68¾	40	40
San Francisco, Calif	Apr. 11	1.37½	1.10	40	40
Schenectady, N. Y	Apr. 1	1.65	1.37½	40	40
Plumbers and steamfitters—					
Aurora, Ill., and vicinity	Mar. 1	1.50	1.25	40	40
Centralia, Ill	Apr. 1	1.25	1.12½	44	44
Chicago, Ill., sprinkler fitters	Mar. 11	1.70	1.37½	44	40
Geneva, N. Y	Apr. 1	1.12½	1.01¼	40	40
Lockport, N. Y	Feb. 24	1.18¾	1.00	44	44
Minneapolis, Minn	Mar. 15	1.12½	1.00	40	40

[1] And 60 per cent of receipts over $38.
[2] And 60 per cent of receipts over $37.
[3] And 60 per cent of receipts over $35.
[4] And 60 per cent of receipts over $32.75.
[5] And 50 per cent of receipts over $40.
[6] And 50 per cent of receipts over $32.
[7] Not reported.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, FEBRUARY TO MAY, 1932—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—Continued.					
Roofers—		*Per hour*	*Per hour*		
Elmira, N. Y.	Apr. 1	$1.25	$1.00	40	40
St. Louis, Mo.	Apr. 15	1.37½–1.50	1.17½–1.30	44	40
Sheet-metal workers, Geneva, N. Y.	Apr. 1	.95	.90	44	40
Structural-iron workers—					
Cincinnati, Ohio, and vicinity	May 1	1.40	1.25	40	40
Elmira, N. Y., and vicinity	Apr. 1	1.37½	1.25	40	40
Chauffeurs and teamsters:					
Hammond, Ind.	do.	.70	.58	(7)	(7)
		Per day	*Per day*		
Monterey, Calif.	Mar. 15	5.55	5.00	48	48
		Per week	*Per week*		
New York, N. Y., railway-express drivers	Feb. 10	39.53	35.58	48	48
Oakland, Calif.	Apr. 10	(7)	(8)	(7)	(7)
Sacramento, Calif.—					
Building-material teamsters	Mar. 1	33.00	30.00	44½	44½
Lumber clerks	do.	33.00	30.00	44½	44½
Lumber pilers	do.	27.00	25.00	44½	44½
		Per hour	*Per hour*		
St. Louis, Mo., furniture and piano movers	Apr. 14	.70	.60	51	54
		.75	.65	51	54
Salem, Oreg.	Feb. 17	.45	.35	60	60
San Francisco, Calif.	Apr. 4	(7)	(8)	(7)	(7)
Clothing:		*Per week*	*Per week*		
Boot and shoe workers, Whitman, Mass.	May 2	30.25	17.01	48	30
Fur workers, Brooklyn, N. Y.	Feb. 1	33.00	30.00	44	40
Hat makers, New York, N. Y.	May 1	(7)	(7)	44	40
Furniture, upholsterers, Chicago, Ill.	Mar. 1	27.50	22.00	44	44
Printing and publishing:					
Compositors and machine operators—					
Columbus, Ohio—					
Newspaper, day	May 8	55.00	55.00	48	45
Newspaper, night	do.	59.00	59.00	48	45
Huntington, W. Va.—					
Daywork	Mar. 1	45.00	(9)	48	48
Nightwork	do.	48.00	(9)	48	48
Railway workers, Newark, Ohio:		*Per hour*	*Per hour*		
Carmen and helpers, car cleaners, and preparers	Feb. 1	.73	(9)	32	40
		.57	(9)	32	40
		.44	(9)	32	40
Pipe fitters	Apr. 1	.80	.72	32	40
Street railway workers, 1-man car and coach operators:					
Toledo, Ohio—					
First 6 months	Mar. 16	.57	.50	54	54
Next 6 months	do.	.59	.52	54	54
Thereafter	do.	.62	.55	54	54
Youngstown, Ohio	Apr. 1	.65	.58½	70	70
Municipal:		*Per month*	*Per month*		
Los Angeles, Calif.	do.	100.00–600.00	98.00–540.00	44	40
Ottawa, Ill.	Apr. 15	75.00–300.00	65.00–275.00	(7)	(7)
Sacramento, Calif., State-printing plant—		*Per week*	*Per week*		
Bindery women	Feb. 1	24.50	25.00	44	44
Bookbinders	do.	50.00	51.00	44	44
Compositors	do.	51.00	52.00	44	44
Pressmen	do.	50.00	51.00	44	44

[7] Not reported. [8] 50 cents a day reduction. [9] 10 per cent reduction.

Agricultural Wages in Canada, 1929 to 1931

IN CANADA in 1931 the wages of farm help were very much lower than they were in 1930, in which there was also a considerable decline from the preceding year. During the summer season of 1931 for the Dominion as a whole, the average monthly wages of male helpers were $25, as compared with $34 in the corresponding season of 1930 and $40 in the summer of 1929. The value of board per month for male agricultural workers was also less last summer, being $18, as against $22 in 1930. By the year, wages and board together for male farm workers amounted in 1931 to $439 ($240 wages and $199 board), and in 1930 to $559 ($326 wages and $233 board).

Average wages for male agricultural labor in the various Provinces of Canada in 1929, 1930, and 1931 are given in the following table, compiled from the February, 1932, issue of the Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics:

AVERAGE WAGES OF MALE FARM WORKERS IN CANADA, 1929, 1930, AND 1931

Province and year	Per month, summer season			Per year		
	Cash wage	Value of board	Total	Cash wage	Value of board	Total
Canada:						
1929	$40	$23	$63	$373	$254	$627
1930	34	22	56	326	233	559
1931	25	18	43	240	199	439
Prince Edward Island:						
1929	34	18	52	327	207	534
1930	32	18	50	308	205	513
1931	25	14	39	250	163	413
Nova Scotia:						
1929	38	19	57	383	222	605
1930	34	20	54	353	209	562
1931	27	17	44	269	196	465
New Brunswick:						
1929	40	20	60	375	214	589
1930	34	20	54	335	215	550
1931	27	16	43	276	184	460
Quebec:						
1929	41	20	61	369	208	577
1930	33	19	52	316	194	510
1931	26	15	41	244	162	406
Ontario:						
1929	35	22	57	341	254	595
1930	31	20	51	304	228	532
1931	25	28	43	237	203	440
Manitoba:						
1929	38	23	61	352	256	608
1930	32	21	53	298	238	536
1931	22	17	39	213	197	410
Saskatchewan:						
1929	44	25	69	398	287	685
1930	37	23	60	340	253	593
1931	23	19	42	215	203	418
Alberta:						
1929	43	25	68	404	274	678
1930	37	23	60	342	256	598
1931	25	19	44	232	215	447
British Columbia:						
1929	49	27	76	482	310	792
1930	46	26	72	450	291	741
1931	35	23	58	358	275	633

[1] As given in original table; probably should be $18, as the total is $43.

Wages in France in October, 1931

THE annual wage study made by the General Statistical Bureau of France [1] gives the average wages of certain classes of workers who are represented in nearly all localities and which furnish, therefore, uniform elements of comparison. The information is furnished by officers of trade councils, employers' organizations, and mayors or other competent persons. The wage rates for 1931 show little variation from those of the preceding year, in many of the occupations the average hourly rate remaining unchanged. It should be pointed out, however, that the rates given in the following tables do not reflect the partial unemployment prevailing in many of the industries, which results in reduced earnings.

Table 1 gives the hourly wages in different occupations in October, 1930 and 1931, in Paris and other cities:

TABLE 1.—AVERAGE HOURLY WAGES IN FRENCH CITIES IN OCTOBER, 1930 AND 1931, BY OCCUPATION

[Conversions into United States currency on basis of franc=3.92 cents]

Occupation	Average hourly wages in—							
	Paris and its environs				Cities other than Paris			
	1930		1931		1930		1931	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
Males	*Francs*	*Cents*	*Francs*	*Cents*	*Francs*	*Cents*	*Francs*	*Cents*
Brewers					3.60	14.1	3.52	13.8
Printers, compositors	7.20	28.2	6.95	27.2	4.45	17.4	4.45	17.4
Bookbinders	5.35	21.0	5.35	21.0	4.27	16.7	4.27	16.7
Tanners					3.80	14.9	3.80	14.9
Saddlers, harness makers					3.80	14.9	3.80	14.9
Shoemakers					3.65	14.3	3.65	14.3
Tailors	6.50	25.5	6.50	25.5	4.10	16.1	4.10	16.1
Dyers, scourers					3.77	14.8	3.77	14.8
Weavers					3.27	12.8	3.23	12.7
Rope makers					3.48	13.6	3.48	13.6
Wheelwrights					4.00	15.7	4.06	15.9
Wood turners	6.75	26.5	6.75	26.5	4.20	16.5	4.17	16.3
Coopers					4.03	15.8	4.07	16.0
Cabinetmakers	6.75	26.5	6.75	26.5	4.50	17.6	4.30	16.9
Upholsterers					4.20	16.5	4.27	16.7
Pit sawyers	6.25	24.5	6.50	25.5	4.10	16.1	4.10	16.1
Carpenters	6.25	24.5	6.50	25.5	4.23	16.6	4.39	17.2
Joiners	6.25	24.5	6.25	24.5	4.16	16.3	4.16	16.3
Coppersmiths					4.37	17.1	4.47	17.5
Tinsmiths					4.05	15.9	4.17	16.3
Plumbers	6.50	25.5	6.50	25.5	4.20	16.5	4.32	16.9
Blacksmiths	6.45	25.3	6.10	23.9	4.22	16.5	4.29	16.8
Farriers					4.00	15.7	4.00	15.7
Stove makers					4.10	16.1	4.20	16.5
Locksmiths	6.50	25.5	6.50	25.5	4.10	16.1	4.15	16.3
Metal turners	6.45	25.3	6.10	23.9	4.37	17.1	4.37	17.1
Watchmakers					4.47	17.5	4.47	17.5
Quarrymen	6.50	25.5	6.50	25.5	4.07	16.0	4.07	16.0
Stonecutters	9.25	36.3	9.25	36.3	4.67	18.3	4.67	18.3
Masons	6.50	25.5	6.50	25.5	4.42	17.3	4.42	17.3
Navvies	6.25	24.5	6.25	24.5	3.75	14.7	3.75	14.7
Roofers	6.50	25.5	6.50	25.5	4.32	16.9	4.38	17.2
House painters	6.50	25.5	6.50	25.5	4.17	16.3	4.17	16.3
Ornamental-stone cutters	7.50	29.4	7.50	29.4	5.27	20.7	5.21	20.4
Brickmakers	6.50	25.5	6.50	25.5	4.00	15.7	3.87	15.2
Potters					3.87	15.2	3.83	15.0
Glaziers	6.65	26.1	6.65	26.1	4.15	16.3	4.09	16.0
Laborers					3.18	12.5	3.15	12.3
Average, all occupations	6.64	26.0	6.61	25.9	4.08	16.0	4.08	16.0

[1] France. Ministère du Travail. Bulletin de la Statistique Générale de la France, January–March, 1932, pp. 230–242.

TABLE 1.—AVERAGE HOURLY WAGES IN FRENCH CITIES IN OCTOBER, 1930 AND 1931, BY OCCUPATION—Continued

Occupation	Average hourly wages in—							
	Paris and its environs				Cities other than Paris			
	1930		1931		1930		1931	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
Females	*Francs*	*Cents*	*Francs*	*Cents*	*Francs*	*Cents*	*Francs*	*Cents*
Ironers					2.48	9.7	2.48	9.7
Dressmakers					2.45	9.6	2.45	9.6
Seamstresses					2.29	9.0	2.29	9.0
Waistcoat makers					2.43	9.5	2.45	9.6
Lace makers					2.47	9.7	2.49	9.8
Embroiderers					2.39	9.4	2.43	9.5
Milliners					2.46	9.6	2.38	9.3
Average, all occupations					2.42	9.5	2.42	9.5

Table 2, which shows the average weekly wages paid to female workers in dressmaking and lingerie shops and the average monthly wages paid in fashionable dressmaking shops in 1931, was furnished for the study by the employment service of the clothing industries. The rates are in all instances the same as those prevailing in 1930.

TABLE 2.—AVERAGE WEEKLY AND MONTHLY WAGES IN FRENCH DRESSMAKING SHOPS, OCTOBER, 1931

[Conversions into United States currency on basis of franc=3.92 cents]

Occupation	October, 1931	
	French currency	United States currency
	Weekly rates	
Dressmaking and lingerie shops:	*Francs*	
First hands, female	218.40	$8.56
Second hands, female	163.20	6.40
Helpers, female	115.20	4.52
Apprentices, female	52.80–82.80	2.07–3.25
	Monthly rates	
Fashionable dressmaking shops:	*Francs*	
Skilled fitters	936.00	$36.69
Workers of medium skill	748.40	29.34
Helpers	520.00	20.38
Apprentices	208.00–260.00	8.15–10.19

A comparison of wages and cost of living (Table 3) as represented by the cost of board and lodging for an unmarried worker in the same localities for which data for wages were secured shows practically no change during the year in the purchasing power of wages, since there was only a very slight reduction in the average wages and no change

in living costs. The retail price index (13 articles), however, decreased about 13 per cent from November, 1930, to November, 1931.

TABLE 3.—AVERAGE DAILY WAGES AND COST OF BOARD AND LODGING IN FRANCE, OCTOBER, 1930 AND 1931, AND INDEX NUMBERS THEREOF AND OF RETAIL PRICES IN NOVEMBER, 1930 AND 1931

[Conversions into United States currency on basis of franc=3.92 cents]

Item	October, 1930		October, 1931		Index numbers (1911=100)	
	French currency	United States currency	French currency	United States currency	October, 1930	October, 1931
Daily wages:	*Francs*		*Francs*			
Men	33.66	$1.32	33.60	$1.32	730	729
Women	19.79	.78	19.73	.77	864	862
Cost of board and lodging per month	537.00	21.05	537.00	21.05	767	767
Retail price of 13 articles [1]					641	558

[1] For November, 1930 and 1931, respectively.

General Survey of Wages in Germany in 1931 [1]

WAGES in most German industries are fixed by agreement between employees and employers, or, if they can not agree, by Government arbitrators. The wage rates thus fixed are very detailed, there being in most cases separate rates according to occupation, sex, marital condition, and age; the rates also vary from place to place, generally according to the relative cost of living. The wage rates for various industries hereafter presented are generally for adult workers. The agreement wage rates do not necessarily or even in the majority of cases represent actual earnings. In most instances wages are higher than those quoted, which are for the most part basic hourly wages, i. e., minimum wages which a worker must receive.

The emergency decree of December 8, 1931, provided that wages should be reduced to the level of the scale of wages of January, 1927.[2] There was a proviso that, in cases in which the increase since January, 1927, amounted to more than 10 per cent, the reduction should amount to only 10 per cent, except that in case there had been no reduction since July 1, 1931, the reduction should amount to 15 per cent. Instances of such reductions in specific industries are noted hereafter.

Hours of labor.—The working time specified in wage agreements is generally 8 hours a day and 48 hours a week, though in some instances, noted hereafter, the hours are slightly different. In some industries having a 48-hour week the daily hours may be distributed as desired. Working hours may be reduced by the industry, and it is said that on account of the depression the 5-day week or the 6-hour day has been introduced by many manufacturers.

Payments supplementary to wages.—Supplements to wages, such as family allowances, housing, board, production bonuses, allowances in kind, etc., are made in some industries. Instances thereof, where reported, are noted under the separate industries.

Deductions from wages.—Deductions from wages for social insurance are, in general, provided for by national laws, which provide for insurance against sickness, disability and old age, and unemployment. The contributions for sickness insurance average about 6 per cent of the worker's wages or earnings, two-thirds being deducted from the worker's wages and one-third being paid by the employer. The contributions for invalidity and old-age insurance, 50 per cent of which

[1] Except where otherwise noted, this article was prepared from reports from American consular officers in Germany, as follows: Maurice W. Altaffer, Dresden (Nov. 7, 1931); Robert R. Bradford, Breslau (Oct. 16, 1931); Ralph C. Busser, Leipzig (Feb. 6, 1932); Raymond H. Geist, Berlin (Nov. 23, 1931); C. W. Gray, Berlin (Nov. 17, 1931); Charles M. Hathaway, jr., Munich (Nov. 16, 1931); W. A. Leonard, Bremen (Oct. 19, 1931); Robert D. Longyear, Munich (Oct. 16. 1931); Donn P. Medalie, Stuttgart (Oct. 15, 1931); Lester L. Schnare, Hamburg (Oct. 8, 1931); James H. Wright, Cologne (Oct. 14, 1931); and Lloyd D. Yates, Hamburg (Jan. 22, 1932).

[2] For a summary of the provisions of this decree see Labor Review for March, 1932 (pp. 588–593).

is deducted from the worker's wages and 50 per cent paid by the employer, are based on the weekly wages, as follows:

Weekly wages:	Contribution
Up to 6 marks	0.30 mark (7.1 cents) [a]
6 to 12 marks	0.60 mark (14.3 cents)
12 to 18 marks	0.90 mark (21.4 cents)
18 to 24 marks	1.20 marks (28.6 cents)
24 to 30 marks	1.50 marks (35.7 cents)
30 to 36 marks	1.80 marks (42.8 cents).
Over 36 marks	2.00 marks (47.6 cents)

The contribution for the unemployment insurance is at the rate of 6½ per cent of the gross earnings, half being deducted from the wages of the worker and half being paid by the employer.

Manufacturing Industries

Artificial-Flower Industry, Dresden

THE Dresden district produces 67.1 per cent of the total German output of artificial flowers. The industry is predominantly of the household type. In 1925 there were 3,606 plants with 10,734 workers, while in 1929, the last year for which complete statistics are available, there were only 172 plants with 5,400 workers, many small household industries having apparently been abandoned, leaving only the stronger enterprises in the field. There is no general wage agreement between the various employers and their workers at the present time, the one formerly in effect having been abrogated. This enables each employer to enter into individual contracts with his workers.

Male and female workers over 21 years of age receive an actual gross wage of 65 pfennigs (15.5 cents) and 42 pfennigs (10.0 cents) per hour, respectively. Piecework earnings are from 12½ to 15 per cent higher than those for time work.

For overtime work between the forty-ninth and fifty-third hour, inclusive, 20 per cent over the regular wage rate is paid. Actually, however, the matter of overtime does not arise, because night shifts are employed when there is urgent work to be done.

Boot and Shoe Industry [3]

An investigation of the actual earnings of adult workers in the boot and shoe industry was made by the Federal Statistical Office of Germany in March, 1929. Table 1 shows the average actual hourly and weekly earnings as shown by that study and also the wages established by agreements in effect at that time. The locality groups shown are those established by the collective agreements for wage-making purposes, the localities being classified on the basis of the cost of living.

[a] Conversions into United States currency on basis of mark = 23.8 cents; pfennig = 0.238 cent.
[3] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 277, 292.

TABLE 1.—AGREEMENT WAGE RATES AND ACTUAL EARNINGS AND HOURS IN THE BOOT AND SHOE INDUSTRY OF GERMANY, MARCH, 1929

[Conversions into United States currency on basis of mark = 23.8 cents; pfennig = 0.238 cent]

Locality groups, and sex of workers	Number of workers	Average working hours per week [1]	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings [2]	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Group I:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Male workers—								
Time work	4,127	43.3	105.2	25.0	87.0	20.7	45.73	$10.88
Piece work	8,220	42.8	124.4	29.6	97.9	23.3	53.29	12.68
Female workers—								
Time work	3,568	43.1	71.9	17.1	65.3	15.5	31.13	7.41
Piece work	7,927	42.1	83.1	19.8	73.4	17.5	35.00	8.33
Group II:								
Male workers—								
Time work	1,630	44.8	93.4	22.2	83.5	19.9	41.95	9.98
Piece work	2,923	43.9	110.5	26.3	94.0	22.4	48.56	11.56
Female workers—								
Time work	1,145	42.9	67.4	16.0	62.6	14.9	29.05	6.91
Piece work	2,322	44.5	75.9	18.1	70.5	16.8	33.82	8.05
Group III:								
Male workers—								
Time work	2,771	42.4	90.8	21.6	80.0	19.0	38.59	9.18
Piece work	3,717	41.1	101.7	24.2	90.1	21.4	41.85	9.96
Female workers—								
Time work	1,552	43.2	63.6	15.1	60.0	14.3	27.61	6.57
Piece work	2,694	41.9	70.9	16.9	67.5	16.1	29.71	7.07
Group IV:								
Male workers—								
Time work	396	38.9	81.8	19.5	76.6	18.2	31.97	7.61
Piece work	517	40.0	93.5	22.3	86.1	20.5	37.43	8.91
Female workers—								
Time work	162	37.6	58.0	13.8	57.4	13.7	21.89	5.21
Piece work	378	40.0	67.3	16.0	64.6	15.4	27.03	6.43
Group V:								
Male workers—								
Time work	167	42.7	82.3	19.6	73.1	17.4	35.30	8.40
Piece work	440	40.0	85.0	20.2	82.2	19.6	34.13	8.12
Female workers—								
Time work	39	40.5	58.8	14.0	54.8	13.0	23.84	5.67
Piece work	224	39.8	61.4	14.6	61.7	14.7	24.46	5.82

[1] Including overtime. [2] Including overtime and family allowances.

Average wage rates, fixed by collective agreements, as of April 1 of the years 1929, 1930, and 1931, are given in Table 2.

TABLE 2.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE BOOT AND SHOE INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig = 0.238 cent]

Locality groups and sex of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Group I:	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Male workers	93.96	22.4	102.60	24.4	97.20	23.1
Female workers	70.61	16.8	77.10	18.3	73.05	17.4
Group II:						
Male workers	89.77	21.4	98.03	23.3	92.87	22.1
Female workers	67.31	16.0	73.50	17.5	69.64	16.6
Group III:						
Male workers	85.75	20.4	93.63	22.3	88.70	21.1
Female workers	64.42	15.3	70.35	16.7	66.64	15.9
Group IV:						
Male workers	81.58	19.4	89.09	21.2	84.40	20.1
Female workers	61.66	14.7	67.33	16.0	63.79	15.2
Group V:						
Male workers	78.46	18.7	85.68	20.4	81.17	19.3
Female workers	59.39	14.1	64.86	15.4	61.44	14.6
Average, all groups:						
Male workers	90.05	21.4	98.33	23.4	93.16	22.2
Female workers	68.17	16.2	74.44	17.7	70.52	16.8

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 12½ per cent, effective January 1, 1932.

Brick Industry, Cologne District

Both clay brick and fire brick are made in the Cologne district.

Clay brick.—The basic hourly wage rates paid to adult workers are shown below. Younger workers are paid lower rates, according to age groups. Wage rates for piecework must be fixed so that the earnings are at least 25 per cent over the basic wage rate.

	Pfennigs
Skilled workers (foremen, press masters (*pressmeister*), molders, burners, carters, kiln setters, clamp setters, sorters, engine men, stockers, and hand workers)	88 (20.9 cents)
Semiskilled workers (workers in clay, slate, or loam pit, rolling and crushing mill operators, wagon fillers, packers, cutters, and banks men (*Abnehmer*))	83 (19.8 cents)
Other workers (haulers)	76 (18.1 cents)

Living quarters are furnished free of charge to itinerant workers.

Lost time due to climatic conditions or similar difficulties may be made up by overtime without extra pay. For other overtime work, wage rates must be agreed upon. Night and Sunday work, except regular shift work, is paid for at the rate of 50 per cent over the basic rate. Work on Easter, Whitsuntide, and Christmas is paid for at double rates.

Vacation with pay is granted as follows: For regular employees, after 1 year of continuous employment, leave of 3 days is given; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; and after 5 or more years, 8 days. For seasonal workers, after 6 months of seasonal work, the period of leave is 2 days; after 7 months, 3 days; after 9 months, 4 days; and after 12 months, 5 days.

Fire brick.—The following are the basic wage rates per hour paid to adult workers, younger workers being paid lower rates according to age groups:

	Pfennigs
Unskilled laborers	72 (17.1 cents)
Semiskilled workers (silica mixers, chamotte-brick formers, painters, burners, brick setters, loaders, mixers, and shunters)	74 (17.6 cents)
Skilled workers	85 (20.2 cents)
Female workers	52 (12.4 cents)

Burners stoking for daily wages receive a 10 per cent bonus for each good batch.

Piecework hourly earnings must be at least 15 per cent in excess of the basic hourly wage. Married workers are entitled to a family allowance of 2 pfennigs (0.48 cent) per hour for wife and each child under 14 years of age.

The regular working time is 48 hours per week for all employees except burners, whose working time is 60 hours per week.

For the first 4 hours of overtime per week the wage is increased by 20 per cent, and for all time thereafter by 25 per cent. Sunday and holiday work is paid for at the rate of 50 per cent over the basic wage. Night-shift work is paid for at regular rates, but irregular night work within the 48-hour working week calls for 15 per cent over the basic wage. Regular Sunday shift work is paid for at the rate of time and a quarter, but if the working week exceeds 60 hours by reason of the Sunday work, time and a half is paid. Janitors, watchmen, tool

keepers, stokers, machinists, and engine drivers are not entitled to overtime pay, but their wages are adjusted for necessary overtime work. For work on Easter, Whitsuntide, and Christmas double time is paid.

Leave of absence with pay is granted to all workers as follows: After 1 year of service, 3 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 6 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days.

Building Trades [4]

The Federal Statistical Office investigation, already referred to, showed the following average actual hourly and daily earnings, union rates, and hours of labor of building-trades workers in August, 1929:

TABLE 3.—AVERAGE ACTUAL HOURLY AND DAILY EARNINGS IN THE BUILDING INDUSTRY OF GERMANY, AUGUST, 1929

[Conversions into United States currency on basis of mark = 23.8 cents; pfennig = 0.238 cent]

Occupation	Number of workers	Average working hours per day	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average daily earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Masons	69,239	8.00	145.5	34.6	130.4	31.0	11.72	$2.79
Carpenters	25,457	8.06	138.6	33.0	132.8	31.6	11.27	2.68
Concrete workers, skilled	3,439	8.58	143.6	34.2	136.5	32.5	12.58	2.99
Mixers, concrete works	2,823	8.33	149.7	35.6	139.1	33.1	12.66	3.01
Concrete workers	1,817	8.52	131.1	31.2	125.1	29.8	11.38	2.71
Building helpers	60,968	8.18	113.4	27.0	110.0	26.2	9.38	2.23
Underground workers	41,275	8.51	95.5	22.7	91.5	21.8	8.26	1.97
Painters' helpers	21,038	8.07	133.6	31.8	131.5	31.3	10.82	2.58
Roofers	2,048	8.08	144.2	34.3	142.8	34.0	11.68	2.78

Average hourly wage rates of masons and building-trades helpers under agreements in effect on April 1, 1929, 1930, and 1931 are shown in Table 4.

TABLE 4.—AVERAGE AGREEMENT HOURLY WAGE RATES OF MASONS AND HELPERS IN GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig = 0.238 cent]

Date	Masons		Building helpers	
	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*
Apr. 1, 1929	119.5	28.4	94.0	22.4
Apr. 1, 1930	125.2	29.8	98.5	23.4
Apr. 1, 1931	118.8	28.3	92.7	22.1

[4] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 278, 286

Cement Industry, Westphalia

Wages in this industry are paid according to the age and sex of the worker and the type of the work to be performed. The following are the basic hourly wages paid to adult cement workers, younger workers being paid lower wage rates:

	Pfennigs
Skilled workers	85 (20.2 cents).
Semiskilled workers:	
Machinists, firemen, locomotive drivers, dredge operators, dredge firemen, and electricians	77 (18.3 cents).
Quarry workers, oven workers, packers and burners, millers, coal unloaders, crushers working with shovel	75 (18 cents).
Greasers, pressers, drum heaters, unloaders and rope railway workers, crushers not working with shovel, helpers in blacksmith and mechanics' shops, and other unskilled workers	73 (17.4 cents).

Female workers receive 75 per cent of the basic wage rates for male workers of their respective age and class of work.

Overtime is paid for at 25 per cent over the basic rate, and Sunday and holiday work at 50 per cent more. Regular Sunday shift work calls for 25 per cent extra, unless Sunday work causes the total for the week to exceed 48 hours, when all time over 48 hours is paid for at the rate of 50 per cent extra. For work on Christmas, Easter, and Whitsuntide double time is paid. Night work does not call for an increased wage when part of a regular shift.

All workers over 17 years of age are entitled to leave with pay according to the following schedule: After 1 year of service, 4 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 5 years, 7 days; after 6 years, 8 days; and after 7 years, 9 days.

Ceramic Industry

Average hourly wage rates under collective agreements in effect in the fine ceramic industry on April 1, 1929, 1930, and 1931 are shown in Table 5.

TABLE 5.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE FINE CERAMIC INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers, male	82.3	19.6	87.4	20.8	82.1	19.5
Skilled workers, female	50.0	11.9	54.0	12.9	50.4	12.0
Helpers, male	68.1	16.2	72.5	17.3	68.2	16.2
Helpers, female	42.2	10.0	44.5	10.6	42.0	10.0

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 290.

In Upper and Lower Silesia an increase of 25 per cent over the regular rate is paid for time worked in excess of 48 hours, and for Sunday and holiday work an increase of 50 per cent.

All workers in Upper and Lower Silesia are granted, after 1 year's employment, a vacation of 3 days with full pay and 1 additional day for each year of service up to eight years. After 10 years' service, 10 days and after 15 years' service 12 days vacation is allowed.

Chemical Industry

The actual hourly and weekly earnings, in June, 1931, of adult workers in the chemical industry are shown in Table 6. The agreement wage rates effective at that time are also shown.

TABLE 6.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CHEMICAL INDUSTRY OF GERMANY, BY OCCUPATION AND SEX, JUNE, 1931 [1]

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Branch of industry, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings including supplementary payments		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Dyes								
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Skilled workers:								
Time work	529	42.8	108.2	25.8	96.8	23.0	46.30	$11.02
Bonus work [2]	1,096	40.3	121.7	29.0	98.1	23.3	49.00	11.66
Piece work	2,926	39.6	130.4	31.0	108.1	25.7	51.65	12.29
Factory workers, male:								
Time work	2,110	42.8	88.4	21.0	79.5	18.9	37.86	9.11
Bonus work	5,741	40.8	103.5	24.6	79.9	19.0	42.17	10.04
Piece work	1,182	41.0	107.7	25.6	89.8	21.4	44.12	10.50
Factory workers, female:								
Time work	185	43.3	61.7	14.7	51.3	12.2	26.71	6.36
Bonus work	192	46.7	60.3	14.4	51.9	12.4	28.16	6.70
Piece work	409	41.2	66.2	15.8	59.6	14.2	27.24	6.48
Nitrogen and artificial fertilizers								
Skilled workers:								
Time work	711	44.9	105.4	25.1	93.7	22.3	47.35	11.27
Bonus work	2,476	39.3	136.4	32.5	101.2	24.1	53.65	12.77
Piece work	1,446	41.0	135.6	32.3	106.7	25.4	55.57	13.23
Factory workers, male:								
Time work	2,556	45.2	89.4	21.3	76.6	18.2	40.44	9.62
Bonus work	5,722	38.9	108.4	25.8	81.3	19.3	42.21	10.05
Piece work	1,599	42.1	118.5	28.2	90.2	21.5	49.91	11.88
Tar distillation								
Skilled workers:								
Time work	412	45.3	98.0	23.3	90.4	21.5	44.34	10.55
Piece work	94	40.8	112.8	26.8	102.0	24.3	46.05	10.96
Factory workers, male:								
Time work	1,519	44.9	85.7	20.4	75.8	18.0	38.48	9.16
Piece work	104	42.6	113.1	26.9	82.6	19.7	48.20	11.47
Factory workers, female: Time work	137	40.6	46.6	11.1	47.1	11.2	18.94	4.51
Drugs								
Skilled workers:								
Time work	1,260	43.9	111.4	26.5	95.2	22.7	48.90	11.64
Bonus work	112	43.3	117.5	28.0	94.2	22.4	50.83	12.10
Piece work	169	43.6	112.4	26.8	107.1	25.5	48.97	11.65
Factory workers, male:								
Time work	3,306	43.5	89.7	21.3	79.6	18.9	39.00	9.28
Bonus work	1,134	44.8	100.0	23.8	79.3	18.9	44.78	10.66
Piece work	132	48.4	107.5	25.6	96.8	23.0	52.07	12.39
Factory workers, female:								
Time work	723	44.0	59.4	14.1	55.9	13.3	26.12	6.21
Bonus work	169	43.6	66.7	15.9	55.2	13.1	29.07	6.92
Piece work	467	44.7	73.3	17.4	66.6	15.9	32.78	7.80

[1] Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Mar. 2, 1932, pp. 177–181.
[2] Time work, including a production bonus.

TABLE 6.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CHEMICAL INDUSTRY OF GERMANY, BY OCCUPATION AND SEX, JUNE, 1931—Continued

Branch of industry, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings including supplementary payments		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Photochemicals								
Skilled workers:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Time work	180	42.4	120.7	28.7	104.9	25.0	51.23	$12.19
Bonus work	375	40.8	131.2	31.2	100.7	24.0	53.54	12.74
Factory workers, male:								
Time work	575	45.7	89.6	21.3	83.0	19.8	40.96	9.75
Bonus work	707	40.3	104.1	24.8	81.2	19.3	41.95	9.98
Factory workers, female:								
Time work	768	44.2	60.4	14.4	54.4	12.9	26.68	6.35
Bonus work	827	41.9	67.0	15.9	54.3	12.9	28.08	6.68
Piece work	62	43.2	67.4	16.0	61.4	14.6	29.08	6.92
Essential oils								
Skilled workers: Time work	87	41.3	117.2	27.9	90.6	21.6	48.38	11.51
Factory workers, male: Time work	314	42.1	90.2	21.5	80.7	19.2	38.01	9.06
Factory workers, female: Time work	71	47.4	53.5	12.7	51.9	12.4	25.35	6.03
Artificial silk (rayon)								
Skilled workers:								
Time work	320	46.4	110.3	26.3	96.6	23.0	51.20	12.19
Bonus work	396	46.4	119.4	28.4	94.2	22.4	55.37	13.18
Piece work	298	40.6	112.3	26.7	102.2	24.3	45.64	10.86
Factory workers, male:								
Time work	1,915	47.3	87.1	20.7	76.7	18.3	41.18	9.80
Bonus work	2,426	45.9	95.3	22.7	76.0	18.1	43.74	10.41
Piece work	76	40.7	96.5	23.0	86.9	20.7	39.25	9.34
Factory workers, female:								
Time work	504	43.8	56.0	13.3	52.8	12.6	24.53	5.84
Bonus work	2,373	43.8	60.3	14.4	48.9	11.6	26.43	6.29
Piece work	2,276	43.2	64.5	15.4	58.3	13.9	27.86	6.63
Explosives								
Skilled workers:								
Time work	261	43.5	93.8	22.3	85.8	20.4	40.83	9.72
Bonus work	304	41.1	121.1	28.8	98.3	23.4	49.76	11.84
Piece work	24	46.5	123.0	29.3	107.5	25.6	57.13	13.60
Factory workers, male:								
Time work	1,003	39.7	78.4	18.7	71.4	17.0	31.14	7.41
Bonus work	776	45.7	107.0	25.5	78.9	18.8	48.89	11.64
Piece work	211	32.4	115.4	27.5	86.8	20.7	37.40	8.90
Factory workers, female:								
Time work	618	41.0	51.2	12.2	49.4	11.8	21.01	5.00
Bonus work	377	42.2	64.9	15.4	50.6	12.0	27.41	6.52
Piece work	32	39.6	63.2	15.0	57.7	13.7	25.00	5.95

Average agreement hourly wage rates in the industry in effect April 1, 1929, 1930, and 1931 are shown in Table 7.

TABLE 7.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE GERMAN CHEMICAL INDUSTRY, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers	102.3	24.3	107.5	25.6	106.5	25.3
Male workers	82.2	19.6	86.4	20.6	85.3	20.3
Female workers	55.2	13.1	57.9	13.8	56.9	13.5

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 285.

While the normal working hours in the chemical industry are 8 per day or 48 per week, in some districts—Cologne, for instance—in case of necessity the hours can be increased to 9 per day or 54 per week.

The following practices as regards overtime, vacations, etc., in effect in Cologne, seem to be typical of this industry: For overtime, 25 per cent extra compensation; for Sunday work, 50 per cent extra; and for work on Christmas, Easter, and the Pentecostal holidays, 100 per cent extra. Workers are entitled to leave of absence with pay as follows: After 1 and 2 years of service, 4 days, and 1 additional day for each succeeding year of service, up to a maximum of 12 days.

As illustrative of family allowances supplementary to the wages paid in the industry, the following are presented: Berlin, 80 pfennigs (19 cents) for each dependent; Cologne, 114 pfennigs (27.1 cents) for wife and each child; Rhine Province, 74 to 103 pfennigs (17.6 to 24.5 cents) for wife and each child; Wuppertal, 70 pfennigs (16.7 cents) for wife and each dependent child.

Chocolate Industry, Dresden District

In 1930 the chocolate industry of the Dresden district included 120 factories and employed some 8,200 workers. This was 18.6 per cent of the entire German chocolate industry. All of the large chocolate factories in the district are located in Dresden itself, the city being known as the chief center of the industry in Germany.

From 1925 to 1928 wage rates increased by about 30.3 per cent. In 1929 they increased a further 4 per cent, but from January 1 to November, 1931, they decreased 5 per cent, making the rates in November, 1931, about 1 per cent lower than in 1928.

According to data furnished by the largest local chocolate manufacturer average full-time wages for the principal class of adult workers in the industry are as follows:

TABLE 8.—WAGE RATES IN THE CHOCOLATE INDUSTRY OF DRESDEN, GERMANY NOVEMBER, 1931

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

Class of workers	Basic rates per—				Piecework earnings per—			
	Hour		48-hour week		Hour		48-hour week	
	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Marks		*Marks*		*Marks*		*Marks*	
Skilled workers	1.00	$0.24	47.76	$11.37	1.22	$0.29	58.56	$13.94
Helpers	.86	.20	41.04	9.77	1.05	.25	50.40	12.00
Female workers	.56	.13	26.64	6.34	.67	.16	32.16	7.65

Due to the reduced working schedule made necessary by slack business the above can not be considered the actual earnings of workers at the present time. During 1931 up to the middle of September the plant to which these statistics apply furnished, on the average, 37 hours' employment per week for its employees.

Rates for piecework are fixed so that hourly earnings are at least 15 per cent more than the basic wages per hour. Piece rates are the same for workers of all ages.

Overtime is paid for at the rate of 20 per cent additional per hour. For Sunday, holiday, and night work employees receive 50 per cent additional per hour.

Cigars, Tobacco, etc., Industry

Smoking-tobacco and snuff works.—The basic hourly wage rates paid to skilled and unskilled workers in smoking-tobacco and snuff works in the district of Bavaria are shown in the following table:

TABLE 9.—BASIC HOURLY WAGE RATES IN SMOKING-TOBACCO AND SNUFF WORKS IN BAVARIA, GERMANY

[Conversions into United States currency on basis of pfennig =0.238 cent]

Locality group	Skilled workers, male		Unskilled workers, female	
	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*
Group I	84.1	20.0	58.4	13.9
Group II	74.7	17.8	51.9	12.4
Group III	71.6	17.0	49.7	11.8
Group IV	68.5	16.3	47.6	11.3

Cigar manufacture.—There is a considerable manufacture of cigars in the Hamburg district, particularly in the free port of Hamburg where the cigars produced can be exported without the high import duty and monopoly taxes on tobacco.

The wage agreement in effect provides for four geographical classes, in which wages vary apparently according to the cost of living in the different localities. The basic hourly wage rates for adult workers provided in the agreement are as follows, younger workers being paid lower rates according to age groups:

TABLE 10.—BASIC HOURLY WAGE RATES IN THE CIGAR INDUSTRY OF HAMBURG, GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

Locality class	Male workers				Female workers	
	Single		Married			
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Class I	59.0	14.0	67.0	15.9	42.5	10.1
Class II	66.5	15.8	72.0	17.1	45.5	10.8
Class III	72.5	17.3	77.5	18.4	49.5	11.8
Class IV	76.0	18.1	84.0	20.0	53.0	12.6

Additional wages are paid for length of service at the rate of 2 pfennigs per hour after 1 year, 4 pfennigs after 2 years, 5.5 pfennigs after 3 years, 7.5 pfennigs after 5 years, and 9.5 pfennigs after 10 years.

Mothers having children under 14 years of age and female workers having disabled husbands receive an additional payment of 5 per cent of the agreement rates.

A large amount of piecework—in fact, the greater part of the work—is done in the homes of the workers, and payment therefor is according to kind of tobacco, style, shape, and size of cigars, etc. It is practically impossible to determine how the payments for such piecework compare with the hourly wage rates given above.

No vacation is provided for in the wage agreement.

Cigarette manufacture.—The basic wage rates for adult workers in effect in the Hamburg and Dresden districts are as follows, younger workers being paid lower rates according to age groups:

TABLE 11.—BASIC HOURLY AND WEEKLY WAGE RATES IN THE CIGARETTE INDUSTRY OF GERMANY

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

Occupation and sex of worker	Wage rates per week		Wage rates per hour	
	German currency	United States currency	German currency	United States currency
Hamburg district				
Males:	*Marks*		*Marks*	*Cents*
Machine operators	85. 85–90. 95	$20. 43–$21. 65	2. 02–2. 14	48. 1–50. 9
Skilled workers and bookbinders	74. 80	17. 80	1 76	41. 9
Tobacco cutters	64. 60	15. 37	1. 52	36. 2
Knife sharpeners	58. 65	13. 96	1. 38	32. 8
Helpers	54. 40	12. 95	1. 28	30. 5
Females:				
Workers in tobacco-working sections and machine shops	34. 85	8. 29	. 82	19. 5
Assembling and packing-machine operators	37. 40	8. 90	. 88	20. 9
Other workers	33. 15	7. 89	. 78	18. 6
Dresden district				
Males:				
Machine operators	79. 90–90. 95	19. 02–21. 65	1. 88–2. 14	44. 7–50. 9
Cutters, knife sharpeners, etc	35. 55–54. 40	8. 46–12. 95	. 86–1. 28	20. 5–30. 5
Females:				
Machine operators	33. 15	7. 89	. 78	18. 6
Other workers	17. 85–38. 25	4. 25–9. 10	. 42–. 90	10. 0–21. 4

In the Hamburg district payment for piecework must be so arranged that the workers can earn on an average 15 per cent more than the weekly or hourly wages stipulated. Forewomen are paid 30 per cent more than the regular rate and, in the case of piecework, 35 per cent additional.

The working week in both Dresden and Hamburg consists of 5 days of 8½ hours each, or 42½ hours.

For overtime after 8 p. m. and before 6 a. m. during the summer and 7 a. m. during the winter, time and a half is paid; work on Sundays and legal holidays must be paid for at double the regular rates.

A vacation of from 4 to 15 working days per annum, depending on length of service, with pay, is provided for in Hamburg.

Clock and Watch Industry, Stuttgart District

This industry claims to be suffering from the loss of the United States markets. Wages have been reduced continuously. Watchmakers receive 90 to 120 pfennigs (21.4 to 28.6 cents) per hour if over 20 years of age and 60 to 90 pfennigs (14.3 to 21.4 cents) per hour if under 20 years of age.

Confectionery, Baking, and Pastry Trades

Table 12 shows the average actual hourly and weekly earnings and weekly hours of labor of adult workers in the German confectionery, baking, and pastry trades in March, 1931, disclosed by a study made by the Federal Statistical Office and covering 299 establishments with 33,405 workers in 137 localities.

TABLE 12.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE CONFECTIONERY, BAKING, AND PASTRY TRADES OF GERMANY, MARCH, 1931[1]

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Class and sex of workers	Average weekly working hours	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Weekly earnings	
		German currency	United States currency	German currency	United States currency	German currency	United States currency
Skilled workers, male:		*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Time work	47.0	109.3	26.0	101.1	24.1	51.35	$12.22
Piece work	44.5	129.2	30.7	119.1	28.3	57.48	13.68
Unskilled workers, male:							
Time work	46.4	89.3	21.3	85.8	20.4	41.44	9.86
Piece work	47.4	104.1	24.8	97.8	23.3	49.31	11.74
Female workers:							
Time work	44.8	58.0	13.8	56.0	13.3	25.97	6.18
Piece work	44.5	67.7	16.1	65.6	15.6	30.08	7.16

[1] Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Nov. 1, 1931, pp. 767–770.

The wage rates paid under agreements in effect on April 1, 1929, 1930, and 1931, are given in the following table:

TABLE 13.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE CONFECTIONERY, BAKING, AND PASTRY TRADES IN GERMANY, APRIL 1, 1929, 1930, AND 1931[1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers	96.9	23.1	101.0	24.0	96.0	22.8
Helpers	82.7	19.7	86.2	20.5	81.9	19.5
Female workers	55.5	13.2	57.8	13.8	54.9	13.1

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 293.

Flour-Milling Industry

Bavaria.—In the milling industry in Bavaria, overtime on week days is paid for at the rate of time and a quarter and Sunday work at the rate of time and a half.

Table 14 shows the basic weekly wage rates and overtime rates in the various occupational groups in this industry. Occupations included in these groups are as follows: Group A includes skilled millers, helpers on shift work, steam engineers, stokers, and truck helpers; Group B includes helpers and night watchmen; and Group C includes female workers. Milling-machine tenders, grinders,

drivers of horses and auto trucks, and hand workers receive a wage 5 per cent higher than that shown in Group A. Workers, male and female, under 20 years of age receive 10 per cent less wages than adult workers, according to their class.

TABLE 14.—BASIC WEEKLY WAGE RATES AND OVERTIME RATES PER HOUR IN THE MILLING INDUSTRY OF BAVARIA, GERMANY

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

Locality class, and occupational group	Weekly wage rate		Overtime rate per hour for—			
			Week days		Sunday	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Large cities:	*Marks*		*Marks*	*Cents*	*Marks*	*Cents*
Group A	48.00	$11.42	1.25	29.8	1.50	35.7
Group B	44.20	10.52	1.15	27.4	1.40	33.3
Group C	31.70	7.54	.85	20.2	1.00	23.8
Class I establishments:						
Group A	45.10	10.73	1.20	28.6	1.45	34.5
Group B	41.50	9.88	1.10	26.2	1.30	30.9
Group C	29.80	7.09	.75	17.9	.90	21.4
Class II establishments:						
Group A	42.20	10.04	1.10	26.2	1.30	30.9
Group B	38.90	9.26	1.00	23.8	1.25	29.8
Group C	27.90	6.64	.70	16.7	.85	20.2
Class III establishments:						
Group A	39.40	9.38	1.00	23.8	1.25	29.8
Group B	36.20	8.62	.95	22.6	1.15	27.4
Group C	26.00	6.19	.65	15.5	.80	19.0
Class IV establishments:						
Group A	37.40	8.90	.95	22.6	1.15	27.4
Group B	34.50	8.21	.90	21.4	1.10	26.2
Group C	24.70	5.88	.65	15.5	.80	19.0
Aichach (Class III plus 3 per cent):						
Group A	40.60	9.66	1.05	25.0	1.26	30.0
Group B	37.40	8.90	.98	23.3	1.18	28.1
Group C	26.80	6.38	.69	16.4	.83	19.8

Rhineland and Westphalia.—The basic weekly wage rates paid in this district are shown in the following table. The group classifications are residential, based on the relative cost of living.

TABLE 15.—WEEKLY WAGE RATES IN THE MILLING INDUSTRY OF RHINELAND AND WESTPHALIA, GERMANY

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

Class of workers	Group I		Group II		Group III	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Skilled workers, roller operators, millers, enginemen, and stokers	*Marks* 52.50	$12.50	*Marks* 51.50	$12.26	*Marks* 50.50	$12.02
Workers in sacking department	49.88	11.87	48.93	11.65	47.98	11.42
Other workers	47.25	11.25	46.35	11.03	45.45	10.82
Female workers	30.71	7.31	30.13	7.17	29.54	7.03

The regular working time and overtime pay in Rhineland and Westphalia are the same as in Bavaria. Work on a regular night shift is paid 5 per cent more than the basic hourly wage. Regular workers doing occasional dirty work, i. e., cleaning boilers, etc., re-

ceive an increase of 33⅓ per cent of the basic hourly wage for such work.

Leave of absence with pay is granted to all workers as follows: After 1 year of service in the same employ, 3 days; after 2 years, 4 days; after 3 years, 6 days; after 4 years, 7 days; after 5 years, 8 days; after 6 years, 10 days; and after 8 years, 12 days.

A family allowance of 5 per cent of the worker's hourly wage is granted to married male workers, widows having their own households, single workers supporting destitute, unemployed or sick relatives, and female workers whose husbands are unemployed or who have been prevented from working by sickness for more than 17 days. Workers receiving family allowances are entitled to a free supply of 3 pounds of flour per week. If both husband and wife are employed in the same mill, the wife receives an additional supply of 3 pounds of flour per week.

Fur Tailoring Industry, Central Germany

The following basic hourly wage rates were being paid in the fur-tailoring industry of central Germany in September, 1931. Under the national emergency decree of December 8, 1931, however, the wage rates in this industry were reduced 10 per cent, effective January, 1, 1932.

TABLE 16.—BASIC HOURLY WAGE RATES IN THE FUR-TAILORING INDUSTRY OF CENTRAL GERMANY, SEPTEMBER, 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

Occupation and period	Wage rates per hour	
	German currency	United States currency
	Pfennigs	*Cents*
Furriers, male:		
First year after apprenticeship	67	15.9
Second year after apprenticeship	78	18.6
Third year after apprenticeship	94	22.4
Over 3 years after apprenticeship	111	26.4
Fur seamstresses, sewing-machine workers (2 years' apprenticeship):		
First year after apprenticeship	37	8.8
Second year after apprenticeship	46	10.9
Third year after apprenticeship	56	13.3
Over 3 years after apprenticeship	65	15.5
Sewing-machine workers, female (6 weeks' apprenticeship):		
From 6 weeks to 6 months' work at trade	33	7.9
From 6 months to 1 year's work at trade	37	8.8
Second year of work at trade	56	13.3
Over 3 years' work at trade	65	15.5
Other seamstresses, unskilled	65	15.5
Piece selectors	42	10.0

Glass Industry

Hollow glass.—As an example of the basic wage rates in the hollow-glass industry, the following data are given showing the hourly wage rates paid to skilled workers under the agreement effective in 1928 in the hollow-glass works in Thuringia:

TABLE 17.—BASIC HOURLY WAGE RATES IN THE HOLLOW-GLASS INDUSTRY IN THURINGIA, GERMANY, EFFECTIVE 1928

[Conversions into United States currency on basis of pfennig=0.238 cent]

Occupation	Perfume bottles		Chemical and technical glassware		Miscellaneous glass articles	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Foremen:	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Smelters	77–96	18.3–22.8	107	25.5		
Patternmakers			85	20.2		
Pot makers	74–83	17.6–19.8	85	20.2		
Glassmakers			98	23.3		
Tube makers					91.5	21.8
Finishers	88	20.9				
Marblemakers (*Maerbelmacher*)					66.0	15.7
Journeymen:						
Smelters			66	15.7		
Pot makers	50–55	11.9–13.1	55	13.1		
Grinders	70	16.7	77	18.3		
Glassmakers			77	18.3		
Blowers	70	16.7				
Tube drawers					74.5	17.7
Furnace firemen	62–66	14.8–15.7	66	15.7	66.0	15.7
Matrix mixers			34–37	8.1–8.8		
Carriers	23–32	5.5–7.6	26–32	6.2–7.6	26.0–32.0	6.2–7.6
Glass inspectors	50–55	11.9–13.1	60	14.3		
Emptiers	50–55	11.9–13.1	55	13.1		
Yardmen	50–55	11.9–13.1	55	13.1	55.0	13.1
Packers	50–55	11.9–13.1	55	13.1	55.0	13.1
Grinders, female	36–40	8.6–9.5	40	9.5		
Helpers, female	36–40	8.6–9.5	40	9.5		

Under the national emergency decree of December 8, 1931, agreement wage rates were reduced 12.5 per cent for skilled male workers and 15 per cent for helpers and female workers, effective January 1, 1932.

Plate glass.—The following wages are paid for a 48-hour week in the plate-glass industry in Silesia:

TABLE 18.—WEEKLY WAGES IN THE PLATE-GLASS INDUSTRY IN SILESIA, GERMANY

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

Occupation, class of worker, and marital condition	Wages per 48-hour week	
	German currency	United States currency
Foremen:		
Smelters on 10-pot furnaces—	*Marks*	
Married	44.89	$10.68
Single	39.80	9.47
Smelters on 12-pot furnaces—		
Married	46.02	10.95
Single	40.92	9.74
Mold makers, married	[1] 49.01	[1] 11.66
Mold makers, single	[1] 38.84	[1] 9.24
Pot makers, married	[1] 49.01	[1] 11.67
Pot makers, single	[1] 38.84	[1] 9.24
Journeymen:		
Smelters (2 to a furnace)—		
Married	30.20	7.19
Single	27.93	6.65
Smelters (only 1 to a furnace)—		
Married	33.58	7.99
Single	30.20	7.19
Mold makers	[1] 21.32–30.36	[1] 5.07–7.23
Mold makers with 6 years' experience—		
Married	[1] 39.97	[1] 9.51
Single	[1] 32.06	[1] 7.63
Pot makers, married	[1] 34.04	[1] 8.10
Pot makers, single	[1] 28.09	[1] 6.69
Pot makers with 6 years' experience—		
Married	[1] 37.15	[1] 8.84
Single	[1] 30.92	[1] 7.36

[1] Per 54-hour week.

TABLE 18.—WEEKLY WAGES IN THE PLATE-GLASS INDUSTRY IN SILESIA, GERMANY—Continued

Occupation, class of worker, and marital condition	Wages per 48-hour week	
	German currency	United States currency
	Marks	
Glassmakers at furnaces, single or married	30.62–35.41	$7.29–$8.43
Stokers, married	35.28	8.40
Stokers, single	31.99	7.61
Emptiers, single or married	27.36	6.51
Emptiers and block carriers, married	30.24	7.20
Emptiers and block carriers, single	29.28	6.97
Glass examiners, married	[1] 35.45–37.15	[1] 8.44–8.80
Glass examiners, single	[1] 28.66–33.18	[1] 6.82–7.90
Glass sorters, married	[1] 33.18	[1] 7.90
Glass sorters, single	[1] 26.41	[1] 6.29
Packers, married	27.84–30.24	6.63–7.20
Packers, single	24.48–27.36	5.83–6.51
Adjusters and sand blowers, married (over 23 years of age)	31.68	7.54
Adjusters and sand blowers, single (20 to 23 years of age)	28.32	6.74
Polishers, single or married	29.63–34.29	7.05–8.16
Decorators and engravers, married	39.97	9.51
Decorators and engravers, single	36.02	8.57
Etchers, married	35.53	8.46
Etchers, single	32.01	7.62
Laborers, yard, married	26.88–30.24	6.40–7.20
Laborers, yard, single	24.00–26.88	5.71–6.40
Female workers	14.64	3.48

[1] Per 54-hour week.

Iron and Steel Industry

The Federal Statistical Office made a study of the actual earnings of adult workers in the iron and steel industry in October, 1928; the hourly and weekly earnings of such workers and also the agreement wage rates shown in the following table are taken from the published results of its study.[5]

TABLE 19.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE IRON AND STEEL INDUSTRY OF GERMANY, BY DEPARTMENTS, OCTOBER, 1928

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Department, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Blast furnaces			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Smelters: Piece work	484	53½	107.2	25.5	81.1	19.3	58.85	$14.01
Other workers:								
Time work	1,419	57¾	87.3	20.8			51.78	12.32
Piece work	5,780	56¼	102.0	24.3			58.92	14.02
Steel works								
Smelters: Piece work	1,088	50¼	121.2	28.8	81.9	19.5	62.48	14.87
Other workers:								
Time work	687	51¾	86.4	20.6			45.92	10.93
Piece work	9,215	50½	104.2	24.8			54.19	12.90
Rolling mills								
Rollers: Piece work	3,056	48¾	136.3	32.4	79.8	19.0	67.49	16.06
Other workers:								
Time work	1,509	53	82.9	19.7			45.18	10.75
Piece work	16,930	50¾	107.2	25.5			55.77	13.27

[5] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reichs, 1931, Berlin, 1931, p. 275.

TABLE 19.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE IRON AND STEEL INDUSTRY OF GERMANY, BY DEPARTMENTS, OCTOBER, 1928—Continued

Department, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Foundries								
Skilled workers:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Time work	77	55½	92.0	21.9	74.5	17.7	52.82	$12.57
Piece work	1,149	52¾	109.4	26.0	85.7	20.4	58.92	14.02
Semiskilled workers:								
Time work	473	52¾	84.1	20.0	70.1	16.7	45.66	10.87
Piece work	1,981	52¾	100.9	24.0	76.1	18.1	54.39	12.94
Unskilled workers:								
Time work	483	51½	74.5	17.7	63.7	15.2	39.30	9.35
Piece work	450	52¼	95.7	22.8	67.1	16.0	51.42	12.24
Mechanical and electrical repair shops								
Skilled workers:								
Time work	2,180	55¼	90.3	21.5	75.6	18.0	51.39	12.23
Piece work	5,354	55¾	98.3	23.4	82.8	19.7	56.49	13.44
Semiskilled workers:								
Time work	838	55½	78.3	18.6	66.7	15.9	44.87	10.68
Piece work	1,328	54¾	89.5	21.3	74.7	17.8	50.48	12.01
Unskilled workers:								
Time work	322	54½	69.0	16.4	61.6	14.7	39.15	19.3
Piece work	538	53¼	90.0	21.4	67.8	16.1	50.13	13.92

Jewelry Industry, Stuttgart

There is a concentration of the jewelry industry in the vicinity of Pforzheim and Gmünd. Employment in the industry was poor during the year 1931, but increased toward the end of autumn due to stimulation in buying for the Christmas trade.

Employers are paying from 10 to 20 per cent below the agreement wage rates. Below are shown the hourly wages which were being paid in the jewelry industry late in 1931.

	Pfennigs	
Unskilled workers:		
Males, over 23 years of age	70	(16.7 cents)
Males, under 23 years of age	50–60	(11.9–14.3 cents)
Females, under 23 years of age	45–55	(10.7–13.1 cents)
Polishers, skilled, over 23 years of age	55–65	(13.1–15.5 cents)
Goldsmiths, skilled:		
Over 23 years of age	85–100	(20.2–23.8 cents)
Under 23 years of age	60–85	(14.5–20.2 cents)

Lingerie, Wash Wear, and Corset Industry, Cologne

Hourly wage rates in this industry for adult workers are as follows, younger workers being paid less according to age groups:

	Pfennigs	
Seamstresses and ironers, female	56	(13.3 cents)
Helpers, female	49	(11.7 cents)
Packers, males ironers, and cutters	88	(21.0 cents)
Ironers who are skilled tailors	96	(22.9 cents)
Cutters	98	(23.3 cents)
Corset cutters	96	(22.8 cents)

The wage of the chief cutter is fixed by free agreement. Female cutters receive 15 per cent more than seamstresses and ironers, and

forewomen and cutters designing patterns independently receive 25 per cent more.

Rates for piecework must be so fixed as to enable a normally efficient worker to earn at least 56 pfennigs (13.3 cents) per hour.

In this industry, 6 hours' overtime per week must be worked if required by the employers; this overtime is paid for as follows: For the first 2 hours, 10 per cent increase over the regular rates; for the third and fourth hours, 25 per cent increase; and for the fifth and sixth hours, 30 per cent increase. Night and Sunday work is paid for at the rate of 50 per cent extra.

Leave of absence with pay varies with the period of continuous employment of the worker, as follows: After 9 months, 4 days; after 21 months, 5 days; after 33 months, 6 days; and after 45 months, 7 days.

Lumber Industry

Forestry (lumbering) in Germany includes the planting of trees and their care during growth until they are large enough to cut, as well as the felling of trees and hauling the logs. The logs are not usually cut into lumber on the spot but shipped to sawmills, which are generally located in or near the larger centers of population, where the cut lumber is in demand. The industry is not, therefore, to be likened to American logging and lumbering activities. The logs produced are comparatively small and easily handled, and little or no equipment especially made for the logging industry is required.

Employment in the industry in the Stuttgart district was poor in the fall of 1931. The national conservation policy is strictly upheld by the various States regardless of repeated requests for extensions of quotas. Timber cutters and woodchoppers earn about 80 pfennigs (19 cents) per hour and manage to work three or four days a week. Foremen earn 1.20 marks (28.6 cents) per hour, and factory hands, 84 to 89 pfennings (20.0–21.2 cents) per hour.

The sawmill operators are attempting to cancel the wage agreement now in existence which, under the terms of the contract, can not be terminated until May 31, 1932.

In the district of Bavaria, workers in sawmills are paid the following basic hourly wage rates: Sawyers, male, 76–92 pfennigs (18.1–21.9 cents); unskilled workers, male, 68–85 pfennigs (16.2–20.2 cents); unskilled workers, female, 50–59 pfennigs (11.9–14.0 cents).

Margarine Industry

Basic wage rates in this industry are fixed according to the age and sex of the worker and the type of work performed, and also according to residential classifications based on the relative cost of living. Piece rates must be such as to yield minimum earnings per hour 20 per cent over the basic hourly rate. Regular night-shift work is paid 10 per cent more than day work.

The following table indicates the basic wage rates in force in the German margarine industry for adults over 20 years of age, lower wage rates being paid for younger workers. It should be noted, however, that, effective November 1, 1931, an average reduction of about 4.5 per cent in all wages was scheduled.

TABLE 20.—BASIC HOURLY WAGES IN THE MARGARINE INDUSTRY OF GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

Locality group	Males		Females	
	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*
Group I	110.0	26.2	73.5	17.5
Group II	97.5	23.2	65.0	15.5
Group III	85.5	20.3	57.0	13.6
Group IV	76.5	18.2	51.0	12.1
Group V	69.0	16.4	46.0	10.9

Overtime work in the margarine industry is paid for at the rate of 25 per cent extra and Sunday work 50 per cent extra. For work on Christmas, Easter, Whitsuntide, and New Year's Day double rates are paid and for work on other legal holidays time and a half.

Four days' leave with pay, each year, is granted to workers under 20 years of age. Workers over 20 years of age are given a number of working-days off with pay each year, the number varying according to the period of service, as follows: For from 1 to 4 years' service, 6 days; for 5 to 7 years' service, 9 days; for 8 to 9 years' service, 10 days; for 9 to 10 years' service, 11 days; after 10 years' service, 12 days. Sick leave with pay is granted as follows: For 3 months' service, 1 day; for 3 months to 1 year of service, 3 days; from 1 to 2 years' service, 6 days; from 2 to 5 years' service, 9 days; and over 5 years' service, 12 days.

Metal-Working Industry

Table 21 shows the actual earnings of adult metal workers in October, 1928, as shown by a study made by the Federal Statistical Office of Germany.

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928[1]

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Branch of industry and class of workers	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Iron and steel goods								
Skilled workers:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Time work	5,739	50¼	98.0	23.3	79.3	18.9	49.79	$11.85
Piece work	6,690	48	117.8	28.0	89.8	21.4	56.71	13.50
Semiskilled workers:								
Time work	2,230	49¾	87.7	20.9	71.7	17.1	44.15	10.51
Piece work	4,150	47¾	108.1	25.7	83.8	19.9	52.18	12.42
Helpers:								
Time work	2,540	49¼	82.0	19.5	68.6	16.3	40.98	9.75
Piece work	1,411	47¾	104.3	24.8	79.9	19.0	50.38	11.99
Female workers:								
Time work	1,247	44¾	53.1	12.6	46.8	11.1	23.89	5.69
Piece work	2,731	45¼	63.2	15.0	52.8	12.6	28.60	6.81

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 276.

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928—Continued

Branch of industry and class of workers	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Metal goods								
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Skilled workers:								
Time work	2,377	48¾	103.9	24.7	82.2	19.6	51.01	$12.14
Piece work	2,779	47¼	118.0	28.1	92.0	21.9	56.09	13.35
Semiskilled workers:								
Time work	1,785	50	82.4	19.6	71.3	17.0	41.78	9.94
Piece work	2,341	48	100.8	24.0	80.9	19.3	48.79	11.61
Helpers:								
Time work	1,553	48¼	73.6	17.5	68.0	16.2	35.81	8.52
Piece work	553	46½	96.8	23.0	76.9	18.3	45.19	10.76
Female workers:								
Time work	1,650	46¾	50.8	12.1	46.7	11.1	23.96	5.70
Piece work	1,768	46¼	62.5	14.9	55.9	13.3	28.90	6.88
Machine construction								
Skilled workers:								
Time work	11,302	49	105.6	25.1	83.5	19.9	52.75	12.55
Piece work	26,748	47¼	116.8	27.8	93.3	22.2	56.00	13.33
Semiskilled workers:								
Time work	6,659	48¾	85.5	20.3	74.7	17.8	42.50	10.12
Piece work	11,165	47½	106.3	25.3	85.0	20.2	51.23	12.19
Helpers:								
Time work	7,641	48¾	76.6	18.2	67.6	16.1	37.94	9.03
Piece work	1,444	47¾	92.7	22.1	79.1	18.8	45.02	10.71
Female workers:								
Time work	1,683	46	51.1	12.2	44.3	10.5	23.57	5.61
Piece work	1,338	45½	65.5	15.6	57.2	13.6	29.82	7.10
Boilers, heating apparatus, etc.								
Skilled workers:								
Time work	2,213	50	109.3	26.0	89.8	21.4	55.61	13.24
Piece work	5,509	46¾	121.3	28.9	103.4	24.6	57.20	13.61
Semiskilled workers:								
Time work	1,346	49½	88.1	21.0	78.2	18.6	44.21	10.52
Piece work	2,585	47½	111.4	26.5	88.0	20.9	53.60	12.76
Helpers:								
Time work	1,468	49	78.5	18.7	72.4	17.2	39.11	9.31
Piece work	211	48¼	91.9	21.9	77.8	18.5	44.89	10.68
Female workers:								
Time work	253	42	50.8	12.1	48.5	11.5	21.41	5.10
Piece work	524	47	65.2	15.5	57.0	13.6	30.88	7.35
Steel construction								
Skilled workers:								
Time work	1,813	51	99.2	23.6	83.1	19.8	51.93	12.36
Piece work	1,153	48	112.7	26.8	96.8	23.0	54.74	13.03
Semiskilled workers:								
Time work	998	50	87.0	20.7	73.7	17.5	44.53	10.60
Piece work	757	47¼	101.6	24.2	87.4	20.8	48.52	11.55
Helpers:								
Time work	1,088	49¾	81.7	19.4	73.6	17.5	41.55	9.89
Piece work	423	47	91.3	21.7	84.3	20.1	43.23	10.29
Shipbuilding								
Skilled workers:								
Time work	1,054	50¼	108.7	25.9	85.8	20.4	56.31	13.40
Piece work	5,925	47¼	110.3	26.3	101.0	24.0	53.09	12.64
Semiskilled workers:								
Time work	442	48¾	89.1	21.2	80.3	19.1	44.80	10.66
Piece work	866	46¾	96.7	23.0	92.7	22.1	46.21	11.00
Helpers:								
Time work	466	47¼	78.8	18.8	72.2	17.2	37.83	9.00
Piece work	624	43¾	81.8	19.5	82.4	19.6	36.40	8.66

TABLE 21.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF METAL WORKERS IN GERMANY, OCTOBER, 1928—Continued

Branch of industry and class of workers	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Vehicles, aircraft, etc.								
Skilled workers:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Time work	5,158	47	112.5	26.8	84.5	20.1	53.55	$12.74
Piece work	12,486	46	126.8	30.2	96.1	22.9	58.86	14.01
Semiskilled workers:								
Time work	2,124	47	94.3	22.4	75.3	17.9	44.82	10.67
Piece work	4,733	44¾	113.7	27.1	86.3	20.5	51.22	12.19
Helpers:								
Time work	1,939	48	79.6	18.9	69.6	16.6	38.70	9.21
Piece work	850	45	99.7	23.7	79.3	18.9	45.17	10.75
Female workers:								
Time work	499	43	57.5	13.7	49.0	11.7	24.92	5.93
Piece work	551	43¼	72.6	17.3	55.3	13.2	31.47	7.49
Railway rolling stock								
Skilled workers:								
Time work	969	49	104.6	24.9	82.9	19.7	52.28	12.44
Piece work	5,410	47¼	115.4	27.5	96.5	23.0	54.97	13.08
Semiskilled workers:								
Time work	521	48¾	83.4	19.8	74.0	17.6	41.20	9.81
Piece work	1,317	47¼	100.2	23.8	86.3	20.5	48.04	11.43
Helpers:								
Time work	908	49¼	74.3	17.7	67.8	16.1	37.36	8.89
Piece work	200	47	84.5	20.1	75.5	18.0	40.18	9.56
Female workers:								
Time work	47	45	48.5	11.5	43.7	10.4	21.86	5.20
Piece work	197	45¾	59.1	14.1	49.7	11.8	27.11	6.45
Electrical apparatus								
Skilled workers:								
Time work	9,696	49½	113.2	26.9	96.2	22.9	56.76	13.51
Piece work	21,389	47½	124.0	29.5	109.8	26.1	59.23	14.10
Semiskilled workers:								
Time work	4,722	49½	89.3	21.3	79.9	19.0	44.99	10.71
Piece work	9,854	46¾	108.3	25.8	92.9	22.1	51.02	12.14
Helpers:								
Time work	9,474	49	81.5	19.4	77.8	18.5	40.31	9.59
Piece work	4,576	47¼	95.3	22.7	89.6	21.3	45.31	10.78
Female workers:								
Time work	5,449	45½	59.3	14.1	55.2	13.1	27.14	6.46
Piece work	21,984	46¼	66.8	15.9	63.0	15.0	30.96	7.37
Scientific and optical instruments								
Skilled workers:								
Time work	3,119	48½	112.4	26.8	82.3	19.6	55.06	13.10
Piece work	4,974	47¾	126.2	30.0	102.3	24.3	60.60	14.42
Semiskilled workers:								
Time work	703	49	94.4	22.5	71.3	17.0	46.82	11.14
Piece work	1,877	46¼	117.7	28.0	89.0	21.2	54.62	13.00
Helpers:								
Time work	1,166	49	83.6	19.9	69.4	16.5	41.50	9.88
Piece work	302	47½	104.3	24.8	93.2	22.2	49.69	11.83
Female workers:								
Time work	1,988	47	55.6	13.2	50.1	11.9	26.22	6.24
Piece work	3,468	45½	71.8	17.1	59.1	14.1	32.84	7.82
All branches								
Skilled workers:								
Time work	43,440	49¼	107.4	25.6	86.1	20.5	53.61	12.76
Piece work	93,063	47¼	120.1	28.6	99.0	23.6	57.24	13.62
Semiskilled workers:								
Time work	21,530	49	87.7	20.9	75.5	18.0	43.74	10.41
Piece work	39,645	47	107.9	25.7	87.4	20.8	51.21	12.19
Helpers:								
Time work	28,243	48¾	79.1	18.8	71.9	17.1	39.19	9.33
Piece work	10,594	47	95.7	22.8	84.3	20.1	45.34	10.79
Female workers:								
Time work	12,831	45¾	55.7	13.3	50.7	12.1	25.58	6.09
Piece work	32,573	46	66.7	15.9	60.7	14.4	30.78	7.33

In Table 22 are shown average wage rates, established by collective agreement, for metal workers on April 1, 1929, 1930, and 1931.

TABLE 22.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE METAL-WORKING INDUSTRY, IN GERMANY, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers	93.4	22.2	95.4	22.7	90.9	21.6
Semiskilled workers	84.9	20.2	87.1	20.7	82.5	19.6
Helpers, male	74.7	17.8	76.5	18.2	72.8	17.3
Helpers, female	54.3	12.9	56.0	13.3	52.8	12.6

[1] Data are from Germany, Statistisches Reichsamt, Statistisches] Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 284.

A special allowance is frequently given for especially dirty or dangerous work.

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 10 per cent, effective January 1, 1932.

The usual increases in rates for overtime work and work on holidays are as follows: Overtime, 25 per cent; Sundays and legal holidays, 50 per cent; and work on Easter, Christmas, and Whitsuntide, 100 per cent. In some districts a higher rate (usually 30 or 50 per cent) is paid after the first two hours of overtime. Leave of absence with pay is generally granted after one year's service, beginning with 3 days' leave and increasing 1 day with each year of service up to from 6 to 11 days, according to locality.

Family allowances, ranging from 1 to 3.3 pfennigs (0.24 to 0.78 cent) per hour for wife and each dependent child, according to locality, are usual.

Paper Industry

Table 23 shows the results of an investigation of wages and hours of labor in the paper industry in May, 1930, made by the German Federal Statistical Office and covering 27,499 workers in 327 establishments manufacturing paper, cardboard, cellulose, and wood pulp; this was about one-third of the adult workers engaged in the paper industry in Germany. The table shows the average hourly earnings, excluding overtime and family allowances, the agreement hourly wage rates or wages on the piece-rate basis, the average weekly hours, including overtime; and the average gross weekly earnings, including overtime. About three-fourths of the workers covered in the study were paid on a time-rate basis and about one-fourth on a piece-rate basis.

TABLE 23.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE PAPER INDUSTRY OF GERMANY, MAY, 1930, BY OCCUPATIONS [1]

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

Occupation	Number of workers	Average working hours per week [2]	Average hourly earnings		Agreement hourly rates on time or piecework basis		Average gross weekly earnings [2]	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Time rates (including production bonus)			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Paper-machine operators	1,022	47.7	109.6	26.1	96.2	22.9	53.94	$12.84
First paper-machine assistants	1,333	46.9	90.0	21.9	83.2	19.8	43.57	10.37
Beater men, paper	1,275	46.2	92.1	21.9	84.3	20.1	43.68	10.40
Calender men and cutting-machine operators	1,690	45.3	86.9	20.7	82.6	19.7	40.04	9.53
Cardboard-machine operators	208	49.0	90.5	21.5	81.9	19.5	46.18	10.98
Takers-off, cardboard	456	46.0	74.2	17.7	71.3	17.0	34.92	8.31
Beater men, cardboard	199	47.5	81.2	19.3	76.5	18.2	39.87	9.49
Assistant beater men	285	45.6	77.2	18.4	73.8	17.6	36.25	8.63
Boiler men, cellulose	201	51.1	98.2	23.4	86.0	20.5	54.00	12.85
Machine operators, cellulose	225	50.7	93.4	22.2	84.5	20.1	50.83	12.10
Chopper men	897	48.8	81.8	19.5	77.4	18.4	41.59	9.90
Takers-off, wood pulp	635	47.5	77.8	18.5	76.2	18.1	38.14	9.08
Wood peelers	604	46.4	82.5	19.6	76.4	18.2	39.01	9.28
Assistants, unskilled, male	6,616	46.9	79.2	18.8	75.1	17.9	38.34	9.12
Female employees	4,221	43.0	53.5	12.7	50.3	12.0	23.07	5.49
Piece rates								
First paper-machine assistants	21	40.7	103.7	24.7	102.0	24.3	42.81	10.19
Calender men and cutting-machine operators	91	44.6	110.0	26.2	99.1	23.6	49.35	11.75
Takers-off, cardboard	16	45.6	93.1	22.2	91.8	21.8	42.44	10.10
Machine operators, cellulose	22	48.6	96.6	23.0	99.2	23.6	48.28	11.49
Wood peelers	1,650	44.8	101.4	24.1	90.2	21.5	46.26	11.01
Assistants, unskilled, male	2,132	44.8	106.4	25.3	87.5	20.8	48.90	11.64
Female employees	3,275	41.7	62.7	14.9	59.1	14.1	26.19	6.23

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 279.
[2] Including overtime.

In Table 24 are presented the average agreement hourly wage rates for workers in the paper-making and paper-goods branches of the industry which were in effect on April 1, 1929, 1930, and 1931.

TABLE 24.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PAPER INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Occupation or class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Paper-machine operators	89.4	21.3	93.5	22.3	87.8	20.9
Yard workers	69.9	16.6	73.2	17.4	68.8	16.4
Female workers	47.2	11.2	49.6	11.8	46.4	11.0
Account books and envelopes:						
Skilled workers, male	110.6	26.3	115.7	27.5	108.4	25.8
Skilled workers, female	63.5	15.1	66.6	15.9	62.4	14.9
Semiskilled workers	99.2	23.6	103.9	24.7	97.1	23.1
Helpers	79.0	18.8	82.5	19.6	77.4	18.4

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 288.

TABLE 24.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PAPER INDUSTRY OF GERMANY, APRIL 1, 1929, 1930, AND 1931—Continued

Occupation or class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Bookbinding on a large scale:	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers, male	119.8	28.5	125.4	29.8	117.9	28 1
Skilled workers, female	72.0	17.1	75.4	17.9	70.7	16.8
Printing and binding:						
Skilled workers, male	108.7	25.9	112.7	26.8	105.7	25.2
Skilled workers, female	64.6	15.4	66.8	15.9	62.7	14.9
Cardboard boxes:						
Skilled workers, male	100.0	23.8	105.1	25.0	97.6	23.2
Skilled workers, female	62.6	14.9	66.1	15.7	61.4	14.6
Helpers, male	84.4	20.1	89.4	21.3	83.0	19.8
Helpers, female	51.5	12.3	54.7	13.0	50.8	12.1
All branches:						
Skilled workers, male	110.5	26.3	115.5	27.5	108.2	25.8
Skilled workers, female	64.9	15.4	68.0	16.2	63.7	15.2
Helpers, male	82.2	19.6	86.7	20.6	80.8	19.2
Helpers, female	51.5	12.3	54.7	13.0	50.8	12.1

In western Rhineland rag cutters, rag thrashers, straw-cooker chargers, and rag sorters are paid 2 pfennigs (0.48 cent) per hour extra because of the disagreeable nature of the work. Married workers having to support more than one child are entitled to an increase of 10 per cent of their hourly wage.

Under the national emergency decree of December 8, 1931, the wage rates in this industry in central Germany were reduced 15 per cent, effective January 1, 1932.

In western Rhineland overtime is compensated by an increase in wages as follows: 20 per cent from the forty-ninth to the fifty-fourth hour and 25 per cent after the fifty-fourth hour. Sunday work is paid 50 per cent extra, and work on Christmas, Easter, and Whitsuntide 100 per cent extra.

All workers in this district are granted leave of absence as follows: After 1 year of service, 3 days; after 2 years, 4 days; after 3 years, 5 days; after 4 years, 6 days; after 5 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days.

Printing Trades [6]

Table 25 shows the actual earnings and hours of labor of 46,212 workers in the printing trades in Germany in June, 1929, as shown by an investigation made by the Federal Statistical Office.

[6] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, pp. 277, 289.

TABLE 25.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE PRINTING TRADES IN GERMANY, JUNE, 1929

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Occupation	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Hand compositors	13,806	47.6	133.7	31.8	118.3	28.2	65.69	$15.63
Machine compositors	5,103	47.9	170.4	40.6	141.1	33.6	89.79	21.37
Pressmen	5,569	47.7	139.2	33.1	119.0	28.3	68.13	16.21
Newspaper pressmen	1,493	49.8	155.8	37.1	119.9	28.5	95.00	22.61
Stereotypers	1,447	48.7	164.0	39.0	119.5	28.4	89.81	21.37
Helpers	6,193	48.3	114.5	27.3	103.7	24.7	63.35	15.08
Helpers, female	2,536	46.2	63.4	15.1	57.5	13.7	29.76	7.08
Feeders, female	4,177	46.8	73.4	17.5	69.7	16.6	34.65	8.25

An investigation of actual earnings and hours of labor of workers engaged in lithographic work in Germany in July, 1929, covering 14,251 workers, gave the following results:

TABLE 26.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN LITHOGRAPHIC WORK IN GERMANY, JULY, 1929

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Occupation	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Workers on flat-bed press	2,647	47.4	131.3	31.2	----------	----------	63.03	$15.00
Workers on offset press	1,214	47.9	156.1	37.2	----------	----------	76.86	18.29
Lithographers	1,542	47.0	138.3	32.9	----------	----------	65.56	15.60
Stone polishers	582	48.1	107.1	25.5	102.3	24.3	52.01	12.38
Other workers, male	887	49.2	101.6	24.2	95.5	22.7	51.67	12.30
Feeders, female	1,597	46.6	67.6	16.1	66.0	15.7	31.90	7.59
Delivery tenders, female	1,094	46.8	60.4	14.4	59.0	14.0	28.69	6.83
Other workers, female	1,366	46.6	55.9	13.3	53.1	12.6	27.01	6.43

Agreement wage rates in effect in the printing trades on April 1, 1929, 1930, and 1931, were, on the average, as shown in Table 27.

TABLE 27.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE PRINTING TRADES IN GERMANY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Occupation	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Hand compositors	117.3	27.9	117.3	27.9	110.3	26.3
Helpers	103.3	24.6	103.3	24,6	96.7	23.0
Feeders and other helpers, female	64.2	15.3	64.2	15.3	60.4	14.4

Under the national emergency decree of December 8, 1931, wage rates in the printing industry were reduced 15 per cent, effective January 1, 1932.

Rubber Industry, Cologne

Wages in this industry are paid according to the age and sex of the worker and the type of the work performed. Where piecework rates are used actual earnings must be 15 per cent greater than the wages set forth herein. The following are the basic hourly wage rates for adult workers:

	Pfennigs
Male workers:	
Unskilled workers	77.0 (18.3 cents)
Semiskilled workers	78.5 (18.7 cents)
Semiskilled specialists	79.5 (18.9 cents)
Specialists	80.0 (19.0 cents)
Female workers:	
Unskilled workers	50.5 (12.0 cents)
Semiskilled workers	51.5 (12.3 cents)
Semiskilled specialists	52.5 (12.5 cents)
Specialists	56.0 (13.3 cents)

Wages must be paid each week, and in no case later than on Friday. Special allowances of from 1 to 2 pfennigs (0.24 to 0.48 cent) per hour are made for work detrimental to the health of the worker.

Married workers are entitled to a family allowance of 114 pfennigs (27.1 cents) per week for wife and each child. Female workers who are self-supporting are entitled to an hourly allowance of 4 pfennigs (1 cent). Foremen, in their first year of service as such, receive an allowance of 4.5 pfennigs (1.1 cents) per hour, in their second year of service, 5.5 pfennigs (1.3 cents) per hour, and after two years' service, 7.5 pfennigs (1.8 cents) per hour.

The normal working time in the rubber industry—8 hours per day or 48 hours per week—may, in case of necessity, be increased to 9 hours per day or 54 hours per week.

Overtime—i. e., all time over 8 hours per day—is paid for at the rate of time and a quarter and Sunday work at the rate of time and a half. Double time is paid for work done on Christmas, Easter, and the Pentecostal holidays.

All workers under 20 years of age are entitled to four days' leave of absence with pay during a calendar year. Workers over 20 years of age are entitled to leave of absence with pay according to the following schedule: 1 and 2 years' service, 4 days; 3 years' service, 5 days; 4 years' service, 6 days; 5 years' service, 7 days; 6 years' service, 8 days; 7 years' service, 9 days; 8 years' service, 10 days; 9 years' service, 11 days; 10 years' service, 12 days.

Shipbuilding, Hamburg District

The general basic hourly rates in the Hamburg district for adult workers in the shipbuilding industry are as follows, lower wages being paid, by age groups, to workers under 20 years of age:

TABLE 28.—BASIC HOURLY WAGE RATES IN THE SHIPBUILDING INDUSTRY IN THE HAMBURG DISTRICT OF GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Hamburg		North Sea shipyards		Baltic Sea shipyards	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Unskilled laborers	72–76	17.1–18.1	66–69	15.7–16.4	66–69	15.7–16.4
Partly skilled workers	81–85	19.3–20.2	74–78	17.6–18.6	73–77	17.4–18.3
Skilled workers	88–92	20.9–21.9	81–85	19.3–20.2	80–84	19.0–20.0

Skilled workers in Hamburg shipyards receive an additional "production payment" (bonus) of 3 pfennigs (0.7 cent) per hour. Only male workers are employed.

All married workers receive 1 pfennig (0.24 cent) extra per hour and 2 pfennigs (0.48 cent) extra per hour for each minor child until it has finished public school.

Piecework is paid for at rates which permit the workers to earn from 20 to 25 per cent more than the hourly time rate. It is said that 95 per cent of all work in the shipyards is piecework.

Overtime is paid for at the regular rate plus 25 per cent for the first two hours and 40 per cent thereafter. All overtime on Sundays or holidays is paid for at 50 per cent over the regular rates.

A vacation of six days per annum is granted each worker and is paid for in advance.

Soap Industry, Rhenish Westphalia

The wage rates vary according to the age and sex of the worker, and according to locality groups based on relative cost of living. When piecework is done, the minimum earnings per hour must be at least 20 per cent in excess of the normal basic time rate per hour.

The following are the basic wage rates per hour paid to adult workers:

TABLE 29.—BASIC HOURLY WAGE RATES IN THE SOAP INDUSTRY OF RHENISH WESTPHALIA, GERMANY

[Conversions into United States currency on basis of pfennig=0.238 cent]

Locality group	Male workers		Female workers	
	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*
Group I	80	19.0	56	13.3
Group II	75	17.9	53	12.6
Group III	65	15.5	46	10.9
Group IV	64	15.2	45	10.7

The normal working time in the soap industry in this district is 8 hours per day and 48 hours per week. However, with the consent of the labor unions, employers may increase this working time to 9 or 10 hours per day.

Overtime, i. e., all work in excess of 8 hours per day, is paid for at the rate of time and a quarter. Sunday work is paid for at the rate of time and a half, work on Christmas, Easter, and Whitsuntide at the rate of double time, and work on other holidays at the rate of time and a half.

Leave of absence with pay is granted to all employees on the following basis: All workers under 20 years of age are entitled to 4 days' leave with pay per year. Workers over 20 years of age are entitled to a certain number of working days off, with pay, each year, the number varying with the period of service, as follows: 1 year of service, 4 days; 2 years, 4 days; 3 years, 5 days; 4 years, 6 days; 5 years, 7 days; 6 years, 8 days; 7 years, 9 days; 8 years, 10 days; 9 years, 11 days; and 10 years, 12 days.

Each married worker is entitled to a family allowance of 2 pfennigs per hour (0.5 cent) for his wife and each minor dependent child.

Sugar Industry

The following basic hourly wage rates are paid to adult workers in the sugar industry; younger workers are paid lower rates according to age groups:

	Pfennigs
Unskilled workers	72 (17.1 cents)
Hand workers	81–85 (19.3–20.2 cents)
Female workers	45 (10.7 cents)

Foremen are paid 10 per cent more than the regular wage rates of their respective groups.

Family allowances are paid to heads of households of 1 mark (23.8 cents) per week for every child under 14 years of age and 1 mark per week for wife or invalid husband.

Allowances in kind are granted to regular workers of at least one year's continuous service as follows: Unmarried workers, 10 pounds of sugar per month; married workers, 20 pounds of sugar per month.

For overtime work an additional 25 per cent of the wage rate is paid on week days and for work on Sundays and holidays 50 per cent additional.

Leave of absence with pay is granted to all employees over 18 years of age who have served for at least 1 year under the same management, according to the following schedule: From 1 to 2 years' service, 3 days; from 3 to 4 years' service, 5 days; after 4 years' service, 6 days.

Textile Industry

Table 30 shows the results of an investigation of wages and hours in the textile industry in Germany, made by the German Federal Statistical Office, covering 55,795 textile workers employed in 466 establishments in 121 localities in September, 1930.[7]

[7] Germany. Statistisches Reichsamt. Wirtschaft und Statistik, Berlin, June 2, 1931, pp. 459–462. See Labor Review for October, 1931 (p. 189), for report of investigation by the German Union of Textile Workers of actual earnings of workers in the industry from December, 1929, to May, 1931.

TABLE 30.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS OF SPINNERS AND WEAVERS IN GERMANY, 1930

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

Occupations, sex, and age	Number of workers	Average working hours per week	Average hourly earnings				Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			Including allowances		Excluding allowances					
			German currency	U. S. currency	German currency	U. S. currency	German currency	U. S. currency	German currency	U. S. currency
Spinners:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Male	2,002	42.51	92.1	21.9	90.9	21.6	80.5	19.2	39.14	$9.32
Female	7,400	40.74	60.7	14.4	60.3	14.4	53.3	12.7	24.73	5.89
Weavers: [1]										
Male	22,182	43.60	93.9	22.3	92.3	22.0	73.1	17.4	40.94	9.74
Female	13,423	41.59	71.7	17.1	70.5	16.8	60.7	14.4	29.57	7.04
Assistants:										
Male, over 20 years	5,321	45.41	70.0	16.7	68.9	16.4	62.8	14.9	31.80	7.57
Female, over 20 years	5,467	43.04	51.3	12.2	50.9	12.1	46.8	11.1	22.06	5.25

[1] Including frame workers and twist hands.

Table 31, from the same study, shows the number of workers covered, the average number of hours worked per week, the average hourly earnings, the average agreement wages per hour, and the average weekly earnings in each of the 10 branches of the textile industry investigated.

TABLE 31.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE TEXTILE INDUSTRY IN GERMANY, SEPTEMBER, 1930

[Conversions into United States currency on basis of mark=23.8 cents, pfennig=0.238 cent]

Branch of industry, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Cotton								
Spinners:			*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Male	942	40.14	87.9	20.9	78.2	18.6	35.75	$8.51
Female	4,782	40.53	61.9	14.7	54.4	12.9	25.26	6.01
Weavers:								
Male	6,766	41.92	80.6	19.2	69.7	16.6	34.29	8.16
Female	6,574	41.39	68.2	16.2	61.2	14.6	28.42	6.76
Assistants:								
Male, over 20 years	2,738	44.13	66.4	15.8	61.3	14.6	29.69	7.07
Female, over 20 years	2,139	42.55	48.9	11.6	45.6	10.9	20.98	4.99
Worsted spinning								
Spinners:								
Male	673	45.58	96.2	22.9	87.2	20.8	44.18	10.51
Female	1,174	42.39	57.3	13.6	53.1	12.6	24.50	5.83
Assistants:								
Male, over 20 years	646	48.92	70.7	16.8	63.2	15.0	35.03	8.34
Female, over 20 years	403	46.98	46.6	11.1	43.9	10.4	22.15	5.27
Wool								
Spinners:								
Male	387	42.93	88.0	20.9	73.4	17.5	38.61	9.19
Female	721	45.64	54.2	12.9	49.7	11.8	24.98	5.95
Weavers:								
Male	9,085	44.73	93.7	22.3	73.0	17.4	42.26	10.06
Female	2,788	43.98	77.0	18.3	63.0	15.0	34.01	8.09
Assistants:								
Male, over 20 years	930	49.07	73.3	17.4	66.9	15.9	36.73	8.74
Female, over 20 years	1,137	45.84	55.0	13.1	50.5	12.0	25.38	6.04

TABLE 31.—AVERAGE ACTUAL HOURLY AND WEEKLY EARNINGS IN THE TEXTILE INDUSTRY IN GERMANY, SEPTEMBER, 1930—Continued

Branch of industry, occupation, and sex	Number of workers	Average working hours per week	Average hourly earnings		Agreement hourly wage or wage on piece-rate basis		Average weekly earnings	
			German currency	United States currency	German currency	United States currency	German currency	United States currency
Linen								
			Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Marks*	
Spinners, female	723	34.57	61.3	14.6	50.0	11.9	21.31	$5.07
Weavers:								
Male	733	36.64	74.6	17.8	66.8	15.9	27.41	6.52
Female	1,270	36.89	59.3	14.1	54.2	12.9	21.92	5.22
Assistants:								
Male, over 20 years	446	41.18	67.3	16.0	60.1	14.3	28.18	6.71
Female, over 20 years	425	35.67	49.4	11.8	44.1	10.5	17.70	4.21
Ribbon weaving								
Weavers:								
Male	990	45.99	101.0	24.0	79.6	18.9	48.77	11.61
Female	26	45.12	74.8	17.8	60.5	14.4	34.18	8.13
Assistants:								
Male, over 20 years	46	43.75	72.5	17.3	63.4	15.1	32.56	7.75
Female, over 20 years	328	45.68	50.3	12.0	48.3	11.5	23.15	5.51
Hosiery								
Frame workers:								
Male	1,554	47.32	113.7	27.1	74.7	17.8	55.13	13.12
Female	288	43.46	63.4	15.1	44.8	10.7	27.66	6.58
Assistants:								
Male, over 20 years	17	49.90	67.3	16.0	58.4	13.9	33.68	8.02
Female, over 20 years	99	43.53	49.1	11.7	41.0	9.8	21.51	5.12
Knit goods								
Frame workers:								
Male	591	43.93	107.7	25.6	73.7	17.5	47.65	11.34
Female	596	40.90	64.6	15.4	50.7	12.1	27.28	6.49
Assistants:								
Male, over 20 years	284	46.51	74.2	17.7	64.2	15.3	34.81	8.28
Female, over 20 years	535	41.44	53.1	12.6	46.9	11.2	22.21	5.29
Lace making								
Twist hands:								
Male	430	29.02	124.3	29.6	85.6	20.4	36.47	8.68
Female	116	29.05	65.1	15.5	56.2	13.4	18.90	4.50
Assistants:								
Male, over 20 years	60	40.38	67.2	16.0	63.5	15.1	20.69	4.92
Female, over 20 years	220	36.92	47.7	11.4	44.6	10.6	17.65	4.20
Velvet weaving								
Weavers, male	1,031	45.44	106.1	25.3	87.0	20.7	50.58	12.04
Assistants:								
Male, over 20 years	30	42.67	62.2	14.8	66.0	15.7	27.00	6.43
Female, over 20 years	11	44.43	54.0	12.9	53.5	12.7	24.18	5.75
Silk weaving								
Weavers:								
Male	1,002	45.89	89.2	21.2	71.6	17.0	42.06	10.01
Female	1,765	42.67	78.7	18.7	65.3	15.5	34.03	8.10
Assistants:								
Male, over 20 years	124	48.56	72.7	17.3	65.0	15.5	36.74	8.74
Female, over 20 years	170	47.03	58.0	13.8	50.7	12.1	27.67	6.59

In the textile industry the average hourly wage rates paid under agreements in effect on April 1, 1929, 1930, and 1931 were as follows:

TABLE 32.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE TEXTILE INDUSTRY, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Branch of industry, occupation, and sex of worker	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Worsted spinning:	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Spinners, male	78.8	18.8	86.2	20.5	83.0	19.8
Spinners, female	51.3	12.2	55.9	13.3	53.9	12.8
Weavers, male	77.9	18.5	80.9	19.3	76.3	18.2
Weavers, female	59.9	14.3	62.3	14.8	58.5	13.9
Assistants, male	62.6	14.9	66.0	15.7	63.3	15.1
Assistants female	44.5	10.6	48.0	11.4	46.3	11.0
Wool:						
Spinners, male	77.7	18.5	79.6	18.9	75.0	17.9
Spinners, female	51.2	12.2	52.6	12.5	49.9	11.9
Weavers, male	70.9	16.9	72.6	17.3	68.7	16.4
Weavers, female	61.9	14.7	63.1	15.0	59.8	14.2
Assistants, male	62.7	14.9	64.0	15.2	61.0	14.5
Assistants, female	48.4	11.5	49.5	11.8	46.9	11.2
Cotton:						
Spinners, male	79.9	19.0	80.9	19.3	76.1	18.1
Spinners, female	53.8	12.8	54.4	12.9	51.2	12.2
Weavers, male	74.3	17.7	75.2	17.9	70.6	16.8
Weavers, female	62.4	14.9	63.3	15.1	59.6	14.2
Assistants, male	61.9	14.7	62.6	14.9	59.1	14.1
Assistants, female	46.7	11.1	47.2	11.2	44.7	10.6
Linen:						
Spinners, female	53.4	12.7	55.0	13.1	51.2	12.2
Hacklers and weavers, male	69.7	16.6	72.7	17.3	68.1	16.2
Hacklers and weavers, female	53.4	12.7	55.7	13.3	52.4	12.5
Assistants, male	57.8	13.8	60.0	14.3	56.2	13.4
Assistants, female	42.8	10.2	54.5	13.0	42.0	10.0
Silk weaving:						
Weavers, male	72.2	17.2	73.1	17.4	69.0	16.4
Weavers, female	63.3	15.1	64.1	15.3	60.3	14.4
Assistants, male	67.2	16.0	63.0	15.0	64.2	15.3
Assistants, female	51.1	12.2	51.7	12.3	48.7	11.6
Velvet weaving:						
Weavers, male	94.7	22.5	98.9	23.5	87.0	20.7
Weavers, female	66.7	15.9	66.7	15.9	62.8	14.9
Helpers, male	76.8	18.3	80.5	19.2	75.6	18.0
Helpers, female	50.9	12.1	53.1	12.6	51.5	12.3
Ribbon weaving:						
Weavers, male	78.9	18.8	79.8	19.0	75.4	17.9
Weavers, female	59.6	14.2	60.6	14.4	56.7	13.5
Assistants, male	66.8	15.9	67.6	16.1	63.8	15.2
Assistants, female	50.1	11.9	51.1	12.2	47.6	11.3
Lace making:						
Weavers, male	85.6	20.4	85.6	20.4	80.5	19.2
Assistants, male	63.5	15.1	63.5	15.1	59.7	14.2
Assistants, female	44.6	10.6	44.6	10.6	42.4	10.1
Hosiery:						
Knitters, male	76.4	18.2	76.7	18.3	72.7	17.3
Knitters, female	52.8	12.6	53.1	12.6	50.8	12.1
Assistants, male	63.1	15.0	63.4	15.1	60.1	14.3
Assistants, female	45.6	10.9	45.8	10.9	43.8	10.4
All branches:						
Spinners and weavers, male	74.6	17.8	76.0	18.1	71.8	17.1
Spinners and weavers, female	57.5	13.7	58.7	14.0	55.6	13.2
Assistants, male	62.1	14.8	63.5	15.1	60.2	14.3
Assistants, female	46.5	11.1	47.4	11.3	45.0	10.7

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 290.

Under the national emergency decree of December 8, 1932, wage rates in the textile industry in central Germany were reduced 15 per cent.

For overtime, 25 per cent extra and for Sunday and holiday work 50 per cent extra are generally paid, while in some districts work on Christmas, Easter, and Whitsunday is paid for at the rate of 100 per cent extra. In some places six days' leave of absence per year with pay is granted to workers.

Vegetable Oil Mills, Hamburg

These oil mills are located in Harburg, across the Elbe River from the city of Hamburg and are actually located within the Bremen consular district, but they are generally regarded as a part of the industries of the port of Hamburg.

The basic hourly wage rates in effect in these mills are as follows:

	Marks
Yard laborers	0.97 (23.1 cents)
Factory laborers	0.98 (23.3 cents)
Operators of presses	0.99 (23.6 cents)
Machinists and firemen	1.07 (25.5 cents)
Female workers	0.65 (15.5 cents)
Skilled workers	1.28 (30.5 cents)
Semiskilled workers	1.11 (26.4 cents)

In some cases firemen also receive an additional payment up to 5.4 per cent of the amount stated. Machinists' wages, including bonuses, amount to 1.34 marks (31.9 cents) per hour for first-class machinists and 1.28 marks (30.5 cents) for second-class machinists.

Piecework is paid for at about 5.4 per cent above the time-work rate. For dangerous, unhealthful, or particularly dirty work, extra wages are paid by agreement.

Overtime is paid for at a 25 per cent increase over the regular rates. Work on Sundays and holidays (except Christmas, Easter, and Ascension Day) is paid for at 50 per cent increase, and work on Christmas, Easter, and Ascension Day double the regular rates.

A vacation of from 4 to 12 days, according to length of service, is granted each worker, with payment of 50 per cent in advance.

Woodworking Industry

Table 33 shows the actual hourly and weekly earnings, and the hours of labor of adult workers in the woodworking industry in Germany, as shown by a study made by the Federal Statistical Office. This study covered 23,752 workers in 1,262 establishments; among these were 1,195 establishments, with 21,442 male workers, engaged in general woodworking and furniture making, and 67 establishments, with 2,310 workers, engaged in musical-instrument manufacture.

TABLE 33.—AVERAGE ACTUAL EARNINGS IN THE WOODWORKING INDUSTRY OF GERMANY, MARCH, 1931 [1]

[Conversions into United States currency on basis of mark=23.8 cents; pfennig=0.238 cent]

Industry group and class of workers	Average working hours per week	Hourly earnings [2]		Weekly net earnings	
		German currency	United States currency	German currency	United States currency
Woodworking and furniture					
Skilled workers:		*Pfennigs*	*Cents*	*Marks*	
Time work	39.63	117.3	27.9	46.49	$11.06
Piece work	40.43	120.8	28.8	48.85	11.63
Semiskilled workers:					
Time work	40.62	91.9	21.9	37.34	8.89
Piece work	40.70	90.6	21.6	36.89	8.78
Unskilled workers, time work	41.08	89.1	21.2	36.59	8.71
Musical instruments					
Male workers:					
Skilled workers—					
Time work	39.8	122.6	29.2	48.83	11.62
Piece work	34.7	126.0	30.0	43.70	10.40
Semiskilled workers, time work	38.2	95.9	22.8	36.59	8.71
Unskilled workers, time work	40.2	98.0	23.3	39.39	9.37
Female workers:					
Skilled workers, piece work	29.2	74.9	17.8	21.88	5.20
Semiskilled workers—					
Time work	38.5	65.8	15.7	35.34	6.03
Piece work	34.7	67.6	16.1	23.48	5.59

[1] Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, Oct. 2, 1931, pp. 734–736.
[2] Includes additional pay for overtime, night, Sunday, and holiday work, and for installation and repair work.

Table 34 shows average agreement wage rates in effect in the industry on April 1, 1929, 1930, and 1931.[8]

TABLE 34.—AVERAGE AGREEMENT HOURLY WAGE RATES IN THE WOODWORKING INDUSTRY, APRIL 1, 1929, 1930, AND 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

Class of workers	Apr. 1, 1929		Apr. 1, 1930		Apr. 1, 1931	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Skilled workers	111.4	26.5	117.3	27.9	114.6	27.3
Semiskilled workers	101.3	24.1	104.9	25.0	102.5	24.4
Helpers	91.4	21.8	96.1	22.9	93.9	22.3

Under the national emergency decree of December 8, 1931, wage rates in this industry in central Germany were reduced 10 per cent, effective January 1, 1932.

In the woodworking industry in and around Cologne 25 per cent extra is paid for overtime work, 50 per cent extra for night work, and 100 per cent extra for Sunday and holiday work. Leave with pay is granted to all employees on the following basis: During first year of service and after at least 4 months' service, 4 days; after 2 years' service, 5 days; after 3 years' service, 7 days; after 4 years' service, 8 days.

[8] Germany. Statistisches Reichsamt. Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 289.

Mining and Quarrying

Coal Mining

THE following two tables show the actual earnings of coal miners and lignite miners in Germany in January and July, 1930 and 1931, as reported by the mine operators' associations to the German Federal Statistical Office.[9]

TABLE 35.—ACTUAL EARNINGS OF COAL MINERS, JANUARY AND JULY, 1930 AND 1931

[Weighted averages for West Upper Silesia, Lower Silesia, Ruhr District, Aachen, and Saxony. Conversions into United States currency on basis of mark = 23.8 cents]

Year and month	Earnings per shift									
	Underground workers				Surface workers					
	Pick miners		All others (excluding haulers)		Adults, male		Young workers, male		Female workers	
	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency
1930:	*Marks*		*Marks*		*Marks*		*Marks*		*Marks*	
January	9.97	$2.37	7.42	$1.77	7.63	$1.82	2.41	$0.57	3.45	$0.82
July	9.91	2.36	7.55	1.80	7.64	1.82	2.39	.57	3.47	.83
1931:										
January	9.25	2.20	7.17	1.71	7.24	1.72	2.28	.54	3.29	.78
July	9.14	2.18	7.09	1.69	7.15	1.70	2.22	.53	3.45	.82

TABLE 36.—ACTUAL EARNINGS OF LIGNITE MINERS IN GERMANY, JANUARY AND JULY, 1930 AND 1931

[Weighted averages for Middle-German Kernreviere I, Lower Lausitz, Middle-German Rondreviere, and East-Elba Rondreviere I and II. Conversions into United States currency on basis of mark = 23.8 cents]

Year and month	Earnings per shift									
	Coal miners				Laborers		Young workers, male		Female workers	
	Surface		Underground							
	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency	German currency	United States currency
1930:	*Marks*		*Marks*		*Marks*		*Marks*		*Marks*	
January	8.43	$2.01	9.14	$2.18	8.01	$1.91	3.93	$0.94	4.16	$0.99
July	8.15	1.94	9.09	2.16	8.11	1.93	3.84	.91	4.12	.98
1931:										
January	8.04	1.91	8.72	2.08	7.98	1.90	3.71	.88	4.15	.99
July	7.80	1.86	8.46	2.01	7.44	1.77	3.47	.83	3.89	.93

The hourly wage rates shown in Table 37 are average agreement rates in the coal-mining industry in effect on April 1, 1929, 1930, and 1931.

[9] Germany. Statistisches Reichsamt. Wirtschaft und Statistik, Oct. 1, 1931, pp. 698–700.

TABLE 37.—AVERAGE AGREEMENT HOURLY WAGE RATES IN COAL MINING, APRIL 1, 1929, 1930, AND 1931 [1]

[Conversions into United States currency on basis of pfennig=0.238 cent]

Date	Pick miners		Surface workers, male [2]	
	German currency	United States currency	German currency	United States currency
	Pfennigs	*Cents*	*Pfennigs*	*Cents*
Apr. 1, 1929	118.3	28.2	74.3	17.7
Apr. 1, 1930	120.8	28.8	75.7	18.0
Apr. 1, 1931	113.9	27.1	71.5	17.0

[1] Data are from Germany, Statistisches Reichsamt, Statistisches Jahrbuch für das Deutsche Reich, 1931, Berlin, 1931, p. 284.
[2] Excluding skilled workers.

Under the national emergency decree of December 8, 1931, the agreement wage rates in this industry in central Germany were reduced 15 per cent, effective January 1, 1932.

The general working hours for miners are 7 or 7½ per day, including the time required for entering and leaving the mine, and for surface workers, 8 per day. In some districts—for example, in Rhenish Westphalia and Upper Silesia—in mines where the temperature is 28° C. (82.4° F.) the shift period is 6 hours.

For work outside of regular working hours the following increases over the regular rate are generally paid: Overtime, 25 per cent; Sunday and holiday work, 50 per cent; work on Easter, Christmas, and Whitsuntide, 100 per cent.

After 1 year's service, 3 days' leave of absence with pay is usually granted, with an additional day for each succeeding year of service up to 9 days. In many cases underground workers are granted additional leave as follows: After 10 years' service, 10 days; after 15 years' service, 11 days; and after 20 years' service, 12 days.

An annual allowance of coal is given in many mines to workers who are married or the heads of households, while explosives to be used by miners in blasting are furnished at cost, and light, tools, and repairs to tools are furnished free. Family allowances are frequently paid, generally of 9 or 10 pfennigs per shift for wife and each dependent child.

Iron Mining, Siegerland

The average wage rate per shift for pickmen (*Hauer*) is 6.20 marks ($1.48). The following are the basic wage rates per shift for various other workers over 23 years of age, lower rates being paid to younger workers according to their age groups:

	Marks	
Boiler attendants, elevator machinists, timber men, and locomotive drivers	5.96	($1.42)
Machinists and firemen	5.61	($1.34)
Unskilled laborers	5.15	($1.23)
Female workers	3.60	($0.86)

Foremen are entitled to an increase of 11 pfennigs (2.6 cents) per shift over the rates for workers of their respective groups.

Main elevator machinists (*Hauptfördermaschinisten*) are entitled to an increase of 11 pfennigs (2.6 cents) per shift over the rates for skilled workers.

A family allowance of 12 pfennigs (2.9 cents) per shift is paid to workers maintaining households for wife or head of household and for

each dependent child. Piecework rates must be so fixed that the worker of normal efficiency can earn a wage 5 per cent over the shift rate for his class.

The normal working time for underground mine workers is 7½ hours per day or shift, including time required for entering and leaving the mine and a half-hour lunch period. The normal working time for surface workers is 8 hours per day or shift.

Overtime work calls for increased pay as follows: On week days, 20 per cent increase for the first two hours and 30 per cent increase thereafter; on Sundays and legal holidays, 50 per cent increase.

Leave with pay is granted according to the following schedule: All employees having 1 year of service, 2 days; 2 years, 2 days; 3 years, 3 days; 4 years, 3 days; 5 years, 4 days; 10 years, 5 days. Mine workers only, after 10 years of service, receive a paid vacation of 6 days; after 15 years, 7 days; after 20 years, 8 days.

Copper Mining

Wages in copper mines in the Prussian Province of Saxony under the agreement of October 14, 1931, are shown in the following table. These wages were reduced 9 per cent commencing January 1, 1932.

TABLE 38.—BASIC WAGE RATE PER SHIFT IN COPPER MINES IN SAXONY, OCTOBER 14, 1931

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

Occupation	Wage rate per shift	
	German currency	United States currency
	8-hour day	
	Marks	
Miners (ore getters in opening of mine)	6.15	$1.46
Miners (preparatory and mining and timber work)	5.15	1.23
Car pushers and loaders, underground	4.80	1.14
Hangers-on, unloaders, and clinchers:		
In main pits at drawing shaft	4.80	1.14
In main pits at side lodes and side deposits	4.35	1.04
Hangers-on, hoisters, unloaders, shunters and others doing underground hauling at inclined planes, at flat and blind pits:		
At main hoisting points	4.55	1.08
At subsidiary hoisting points	4.35	1.04
Workers at pit head and in yards	4.45	1.06
Helpers, underground	4.35	1.04
Operators of main hoisting engines	6.10	1.45
Pumpmen at large pumping stations and stokers at main boilers	5.65	1.34
Locomotive drivers	5.15	1.23
Operators of large underground conveying and hoisting machinery	4.70	1.12
Pump men and operators of smaller machinery	4.35	1.04
Ore weighers	5.15	1.23
Chief and first sorters	4.50	1.07
Sorters and carriers	4.35	1.04
Supervisors of mining and hoisting work	5.65	1.34
Timekeepers	5.15	1.23
Distributors of dynamite	5.05	1.20
Roundsmen, trappers, and helpers	4.35	1.04
	9-hour day	
Transport and cable operators in side lodes, machine operators at auxiliary hoists and main compressor plants, switchboard operators and coal and ash carriers	4.65–4.85	1.11–1.15
Engine and boiler men:		
Stokers at auxiliary stations	5.15	1.23
Truck drivers	4.65–4.85	1.11–1.15
Coal unloaders	4.40	1.05
Operators at small engines	4.40	1.05
Mechanics	4.95–6.10	1.18–1.45
Ore loaders, tip-car operators	5.05	1.20
Work testers and weighers	4.75	1.13
Samplers and crushers, material distributors, watchmen, and porters	4.35	1.04
Mine watchmen, messengers, car oilers, and other helpers	4.35	1.04
Female workers	2.65	.63

Potash Industry, Central Germany

The following basic wage rates are paid in the potash industry in central Germany under an agreement effective from February 1, 1929:

TABLE 39.—BASIC WAGE RATE PER SHIFT IN THE POTASH INDUSTRY OF CENTRAL GERMANY, EFFECTIVE FEBRUARY 1, 1929

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

Occupation	Wage rate per shift	
	German currency	United States currency
Underground workers [1]		
Miners, hangers-on at main pits, hoisting engineers, carpenters, potash removers, blasting miners, grubbers, mechanics, removers	*Marks* 7.00	$1.67
Transport workers, other hangers-on, trammers, carriers, rope and chain railway operators, machine operators, locomotive drivers, windlass operators, motor operators, brakemen, shunters, selectors, mill workers, washers and hand coggers, slide operators, electric truck drivers, line sweepers, track layers, distributors of explosives, railway and tip-car drivers	6.20	1.48
Surface workers		
Hoisting machine engineers and hangers-on	7.00	1.67
Trammers and carriers and truck oilers	5.80	1.38
Mill and factory [2]		
"Monitor" workers washing residue, workers at appliances for dissolving crude potash, dissolvers in Epsom and Glauber salt works, workers at bromide towers, and at potash-magnesia and sulphate boilers, and box cleaners	6.20	1.48
Mill and factory workers, bolting millers, workers at preheaters and vacuum apparatus, at suction filter and centrifugal machines, at clearing apparatus, at pumps, at residue washing plants, and at mud-preparing plants, chimney coolers, workers at decomposition plants and at evaporation plants, conveyor and elevator men, workers at drying-drum heaters, in kieserite preparation, at Epsom salt manufacture, at magnesium of chloride tubs, in Glauber salt works, in acid works, at lime kilns, in other chemical sections, at the scrapers, at cooling towers, and at drying drums, weighers, bag fillers, sewing-machine operators, bag markers, packers and loaders of bromide, operators of automatic punches and licking-stone presses, box cleaners, and workers in kieserite stone manufacture	6.00	1.43
Weighers at pits, carters, rope and chain car operators, car-service operators, whipper operators, loaders, workers in refrigerating room, case fillers and drawers, licking-stone makers, emptiers of Epsom salt tubs, sample takers, workers at mixing stations, unloaders, crude salt conveyor operators, spout cleaners, and car cleaners	5.80	1.38
Auxiliary works [3]		
Skilled hand workers	7.00	1.67
Engineers at main engines, main switchboard men, locomotive drivers, truck drivers, and hoisting crane operators	6.20	1.48
Semiskilled hand workers, stokers, boiler feeders, boiler men, gang foremen, shunters, other engine operators, accumulator men, motormen, electric-car drivers, storekeepers, watchmen, gas-generator attendants, workers in tar purifying works, construction-work helpers, coal grinders, and gate keepers	6.00	1.43
Carters, coal unloaders, boiler cleaners, assistant machine operators, oilers, locomotive stokers, brakemen, track workers, safety-gate men, storeroom workers, laboratory assistants, yard workers, timekeepers, messengers, telephone operators, and pump men	5.80	1.38
Females		
Workers over 20 years of age	3.70	.88

[1] 25 per cent increase for sinking a shaft and necessary construction work; 15 per cent increase for timbering and walling a shaft and laying cable in hoisting shafts.
[2] 20 per cent increase for work dangerous to health.
[3] 5 per cent increase for heavy yard work.

Workers under 20 years are paid lower wages according to age groups.

For extraordinary and especially dirty work, such as cleaning of boilers, furnace flues, deep basins, and the like, but not box-cleaning, carrying of wet residues, etc., 10 per cent increase is paid.

Superintendents receive 15 per cent in addition, and foremen and chief firemen, 10 per cent.

Beside the shift wage there is granted a family allowance, including coal allowance, amounting to 30 pfennigs (7.14 cents) per shift and a children's allowance, amounting to 10 pfennigs (2.38 cents) per shift.

Under the emergency decree of December 8, 1931, the rates shown in the table were reduced 15 per cent, effective February 1, 1932.

Pumice-Stone Industry, Rhineland

Wages in this industry vary according to the age and sex of the worker and the type of work performed. When piecework is possible the minimum earnings per hour must be 20 per cent in excess of the basic hourly time rate.

Below are given the basic hourly wages for male workers in this industry:

	Pfennigs
Teamsters and truckmen	78 (18.6 cents)
Other male workers, aged—	
14 to 15 years	30 (7.1 cents)
15 to 16 years	33 (7.9 cents)
16 to 17 years	37 (8.8 cents)
17 to 18 years	48 (11.4 cents)
18 to 19 years	59 (14.0 cents)
19 to 20 years	67 (15.9 cents)
Over 20 years	74 (17.6 cents)

Female workers are entitled to 80 per cent of the above wages for the respective age classes.

Skilled workers receive 92 pfennigs (21.9 cents) per hour.

For overtime, time and a quarter is paid; for work on Sundays and legal holidays, time and a half; and for work on Easter, Whitsuntide, and the Christmas holidays, double time.

Regular employees are entitled to leave with pay, after specified periods of continuous service, as follows: After 1 year, 3 days; after 4 years, 5 days; after 6 years, 7 days; after 8 years, 8 days; and after 10 years, 9 days. Seasonal workers employed more than one season in the same enterprise are entitled, after 50 shifts in the second season, to half the leave for regular workers with the same period of service, while after 75 shifts they are entitled to three-quarters of the full leave.

Married workers are entitled to a family allowance of 1 pfennig (2.4 cents) per hour for wife and each child under 14 years of age.

Mineral Oil Industry

Producing and Drilling Plants, Bremen District

THE following wage rates (per working-day of 7½ hours for underground workers and 8 hours for surface workers) have been in force for the Bremen district since October 1, 1928:

	Marks
Pickmen	6.60 ($1.57)
Crew foremen	6.50 ($1.55)
Skilled workmen	6.50 ($1.55)
Engineers	5.65 ($1.34)
Drillers, cable workmen, laborers operating chain and cable cars, and stokers	5.55 ($1.32)
Semiskilled laborers, unskilled laborers assisting engineers and oilers	5.45 ($1.30)
Pumping crews (other laborers, cleaning crews and laborers operating elevators)	5.20 ($1.24)
Crews working above ground, pump watchmen, porters, watchmen, telephone operators, messengers and drivers	5.15 ($1.23)

The wages for contract and piece work are fixed on an average of 15 per cent minimum above the usual shift wages. The contract and piecework laborers are guaranteed full shift wages provided they do a normal day's work.

An extra allowance is given for each household and for each child of 10 pfennigs (2.4 cents) per working-day.

For overtime, Sunday, and holiday work, time and a quarter is paid and for work on Christmas, Easter, or Whitsuntide, double time is paid.

Workers are given the following vacation: After 1 year of continuous work in the industry, 3 days; after 3 years, 4 days; after 4 years, 5 days; and after 5 years, 6 days. Underground workers, after 6 years of continuous work in the industry, receive 7 days' vacation and after 7 years, 8 days' vacation.

Refineries, Hamburg District

The oil refineries in the Hamburg district are all located in the free port of Hamburg. The basic hourly wage rates in effect in October, 1931, in these refineries were as follows:

	Marks
Males:	
Skilled labor in all departments	1.16 (27.6 cents)
Partly trained labor, during first six months	1.03 (24.5 cents)
Partly trained labor, after six months	1.04 (24.8 cents)
Machinists and firemen, after one year's training	1.16 (27.6 cents)
Machinists and firemen, during first year of training	1.03 (24.5 cents)
Cranemen, after one year's training	1.16 (27.6 cents)
Cranemen, during first year's training	1.03 (24.5 cents)
Workers tending machines and boilers	1.03 (24.5 cents)
Skilled workers on responsible jobs	1.16 (27.6 cents)
Other skilled labor	1.03 (24.5 cents)
Unskilled workers	1.00 (23.8 cents)
Females:	
Skilled workers with experience	.68 (16.2 cents)
Unskilled workers	.60 (14.3 cents)

The hours of labor are 8 per day and 48 per week, but may be extended for sufficient reasons by one hour per day upon agreement with the workers' representatives.

In concerns which, for technical reasons employ three shifts per day, a week's work consists of 56 hours. In these concerns the worker is entitled to 36 hours' rest every three weeks.

Overtime is paid for by an additional 20 per cent for the ninth hour, and 25 per cent for each succeeding hour of overtime during the day. Work at night and on Sundays entitles the worker to a 50 per cent increase.

A vacation with full pay is granted each employee of from 3 working-days (after having been employed one year) to 10 working-days (after 10 years of employment).

Agriculture

THE following schedule of wages has been published by the Association of Trade Unions in Germany for farm labor throughout the country, and includes not only the rate of pay but also the value of payments in kind to the various workers, effective at the end of June, 1931:

TABLE 40.—HOURLY WAGES OF FULL-TIME AGRICULTURAL WORKERS IN GERMANY, JUNE, 1931

[Conversions into United States currency on basis of pfennig=0.238 cent]

Sex of workers, and Province	Cash		Deliveries in kind		Total remuneration	
	German currency	United States currency	German currency	United States currency	German currency	United States currency
Males	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*	*Pfennigs*	*Cents*
Pomerania	16.00	3.81	24.80	5.90	40.80	9.71
Mecklenburg	8.70	2.07	29.10	6.93	37.80	9.00
Brandenburg	16.50	3.93	24.61	5.86	41.11	9.78
Silesia	12.50	2.98	24.96	5.94	37.46	8.92
Hannover	28.50	6.78	14.43	3.43	42.93	10.21
Schleswig-Holstein	16.00	3.81	24.78	5.90	40.78	9.71
Saxony	29.50	7.02	13.04	3.10	42.54	10.12
Anhalt	26.00	6.19	14.17	3.37	40.17	9.56
Dresden zone	29.00	6.90	14.39	3.42	43.39	10.33
Thuringia	22.50	5.36	11.25	2.68	33.75	8.03
Hessen-Nassau	29.50	7.02	10.32	2.46	39.82	9.48
Rheinhessen	40.00	9.52	----	----	40.00	9.52
Westfalen	27.00	6.43	21.02	5.00	48.02	11.43
Württemberg	47.00	11.19	----	----	47.00	11.19
Bavaria	35.00	8.33	7.84	1.87	42.84	10.20
Females						
Pomerania	26.00	6.19	----	----	26.00	6.19
Mecklenburg	23.00	5.47	3.71	.88	26.71	6.36
Brandenburg	16.00	3.81	5.30	1.26	21.30	5.07
Silesia	20.00	4.76	----	----	20.00	4.76
Hannover	20.00	4.76	3.71	.88	23.71	5.64
Schleswig-Holstein	26.00	6.19	----	----	26.00	6.19
Saxony	28.00	6.66	----	----	28.00	6.66
Anhalt	18.50	4.40	3.80	.90	22.30	5.31
Dresden zone	21.50	5.12	8.48	2.02	29.98	7.14
Thuringia	18.00	4.28	4.07	.97	22.07	5.25
Hessen-Nassau	24.00	5.71	5.65	1.34	29.65	7.06
Rheinhessen	24.00	5.71	----	----	24.00	5.71
Westfalen	35.00	8.33	----	----	35.00	8.33
Württemberg	33.00	7.85	----	----	33.00	7.85
Bavaria	26.27	6.25	6.87	1.64	33.14	7.89

The working hours in this industry vary from 8 to 10 hours per day, according to the season, a common schedule being 8 hours per day during 4 months, 9 hours during 2 months, and 10 hours during 6 months of the year.

Most agreements seem to provide for extra pay for overtime and holidays, the common rate for overtime being 25 per cent and for Sundays and holidays 50 per cent over the usual rate.

Vacations of from 1 to 6 days, depending on length of service, are provided for in some agreements.

TREND OF EMPLOYMENT

Summary for April, 1932

EMPLOYMENT decreased 2.7 per cent in April, 1932, as compared with March, 1932, and earnings decreased 5.1 per cent.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the earnings for one week, for both March and April, 1932, together with the per cents of change in April, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND EARNINGS, MARCH AND APRIL, 1932

Industrial group	Establishments	Employment		Per cent of change	Earnings in 1 week		Per cent of change
		March, 1932	April, 1932		March, 1932	April, 1932	
1. Manufacturing	**18,254**	**2,900,901**	**2,791,626**	[1] **−3.6**	**56,734,275**	**$52,771,568**	[1] **−7.3**
2. Coal mining	**1,397**	**287,681**	**258,596**	**−10.1**	**5,483,579**	**5,071,846**	**−7.5**
Anthracite	160	100,749	95,851	−4.9	2,430,613	2,861,565	+17.7
Bituminous	1,237	186,932	162,745	−12.9	3,052,966	2,210,281	−27.6
3. Metalliferous mining	**262**	**28,807**	**27,714**	**−3.8**	**532,713**	**502,676**	**−5.6**
4. Quarrying and nonmetallic mining	**619**	**20,729**	**21,866**	**+5.5**	**348,226**	**363,659**	**+4.4**
5. Crude petroleum producing	**266**	**20,358**	**21,735**	**+6.8**	**643,784**	**663,076**	**+3.0**
6. Public utilities	**12,247**	**646,623**	**643,721**	**−0.4**	**19,438,763**	**18,631,667**	**−4.2**
Telephone and telegraph	8,215	289,510	287,876	−0.6	8,418,962	7,955,314	−5.5
Power, light, and water	3,541	225,091	223,200	−0.8	7,061,683	6,811,614	−3.5
Electric railroad operation and maintenance exclusive of car shops	491	132,022	132,645	+0.5	3,958,118	3,864,739	−2.4
7. Trade	**16,009**	**420,379**	**420,347**	−[2]	**9,674,954**	**9,533,458**	**−1.5**
Wholesale	2,786	74,066	73,253	−1.1	2,132,404	2,061,211	−3.3
Retail	13,223	346,313	347,094	+0.2	7,542,550	7,472,247	−0.9
8. Hotels	**2,264**	**138,877**	**136,646**	**−1.6**	[3] **2,077,542**	[3] **1,997,490**	**−3.9**
9. Canning and preserving	**820**	**25,446**	**32,977**	**+29.6**	**389,376**	**462,554**	**+18.8**
10. Laundries	**1,004**	**60,758**	**60,785**	+[2]	**1,037,913**	**1,033,815**	**−0.4**
11. Dyeing and cleaning	**404**	**11,947**	**12,337**	**+3.3**	**234,701**	**251,011**	**+6.9**
12. Building construction	**9,875**	**77,205**	**85,503**	**+10.7**	**2,059,769**	**2,387,133**	**+15.9**
Total	**63,421**	**4,639,711**	**4,513,853**	**−2.7**	**98,655,595**	**93,669,953**	**−5.1**

[1] Weighted per cent of change for the combined 89 manufacturing industries, repeated from Table 1, manufacturing industries; the remaining per cents of change, including total, are unweighted.

[2] Less than one-tenth of 1 per cent.

[3] The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

Data are not yet available concerning railroad employment for April, 1932. Reports of the Interstate Commerce Commission for Class I railroads show that the number of employees (exclusive of executives and officials) increased from 1,078,926 on February 15, 1932, to 1,082,276 on March 15, 1932, or 0.3 per cent; the amount of pay roll increased from $125,697,573 in February to $133,651,340 in March, or 6.3 per cent.

Employment in Selected Manufacturing Industries in April, 1932

Comparison of Employment and Earnings in April, 1932, with March, 1932, and April, 1931

EMPLOYMENT in manufacturing industries decreased 3.6 per cent in April, 1932, as compared with March, 1932, and earnings decreased 7.3 per cent over the month interval. Comparing April, 1932, with April, 1931, decreases of 17.8 per cent in employment and 34.7 per cent in earnings are shown over the 12-month period.

The per cents of change in employment and earnings in April, 1932, as compared with March, 1932, are based on returns made by 18,254 establishments in 89 of the principal manuacturing industries in the United States, having in April 2, 791,626 employees whose earnings in one week were $52,771,568.

The index of employment in April, 1932, was 62.2 as compared with 64.5 in March, 1932, 65.6 in February, 1932, and 75.7 in April, 1931. The earnings index in April, 1932, was 44.7 as compared with 48.2 in March, 1932, 49.6 in February, and 68.5 in April, 1931. The 12-month average for 1926 equals 100.

A statement relative to the expansion of the bureau's indexes to cover 89 manufacturing industries, instead of 54 as previously reported, has been published in each of the three preceding issues of this pamphlet.

In Table 1, which follows, are shown the number of identical establishments reporting in both March and April, 1932, 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 April 15, and the amount of their weekly earnings in April, the per cents of change over the month and the year intervals, and the index numbers of employment and earnings in April, 1932.

The monthly per cents 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 earnings reported in identical establishments for the two months considered. The per cents 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 per cents 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 earnings.

TABLE. 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN **MANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931

Industry	Establishments reporting in both March and April, 1932	Employment			Earnings			Index numbers, April, 1932, (average 1926=100)	
		Number on pay roll April, 1932	Per cent of change		Amount of pay roll (1 week) April, 1932	Per cent of change		Employment	Earnings
			March to April, 1932	April, 1931, to April, 1932		March to April, 1932	April, 1931, to April, 1932		
Food and kindred products	**3,039**	**231,240**	**−0.5**	**−7.9**	**$5,248,624**	**−1.4**	**−17.5**	**79.8**	**70.3**
Slaughtering and meat packing	231	81,979	−1.4	−5.3	1,856,339	−0.6	−17.4	84.7	74.3
Confectionery	343	31,701	−3.6	−12.2	493,406	−4.6	−22.8	68.6	56.5
Ice cream	395	12,160	+3.9	−9.6	363,498	+2.4	−19.0	71.0	64.3
Flour	456	16,506	−0.1	−3.6	372,829	+2.1	−13.9	84.7	72.7
Baking	937	63,220	−0.7	−8.0	1,490,180	−3.7	−16.6	82.9	73.0
Sugar refining, cane	16	7,957	−2.8	−10.9	209,047	−3.3	−19.3	74.4	67.4
Beet sugar	48	2,254	+9.7	−1.4	64,996	+5.1	−12.1	29.1	29.8
Beverages	343	10,132	+5.3	−11.7	272,590	+5.8	−21.4	76.2	65.1
Butter	270	5,331	+3.8	−8.9	125,739	+1.2	−15.9	97.3	85.9
Textiles and their products	**3,071**	**562,477**	**−7.5**	**−15.8**	**7,617,023**	**−16.5**	**−35.7**	**67.9**	**46.2**
Cotton goods	613	194,901	−7.5	−10.3	2,176,300	−14.9	−32.1	69.3	48.5
Hosiery and knit goods	448	100,783	−2.9	−1.6	1,363,348	−9.2	−22.1	79.3	56.8
Silk goods	270	39,665	−8.8	−34.4	519,974	−10.8	−52.2	52.9	34.4
Woolen and worsted goods	252	42,068	−18.8	−24.7	644,777	−29.4	−42.4	54.0	37.7
Carpets and rugs	36	14,274	−6.8	−24.7	235,663	−12.0	−43.8	58.1	36.3
Dyeing and finishing textiles	151	35,587	−6.0	−13.7	667,762	−17.5	−34.1	80.7	59.7
Clothing, men's	379	55,460	−8.0	−13.9	733,589	−23.5	−37.8	65.5	36.2
Shirts and collars	112	13,890	−5.3	−24.0	147,870	−10.5	−41.4	57.1	36.8
Clothing, women's	407	28,522	−1.7	−22.5	546,157	−12.5	−35.2	76.2	54.2
Millinery	144	10,269	−10.0	−10.2	194,972	−13.1	−24.8	75.8	58.4
Corsets and allied garments	32	5,893	−2.7	−3.6	91,723	−8.9	−28.8	105.2	86.7
Cotton small wares	114	10,709	−5.6	−21.3	164,340	−15.2	−40.5	81.8	59.3
Hats, fur felt	38	4,710	−7.2	−29.2	62,910	−29.5	−42.7	62.2	29.2
Men's furnishings	75	5,746	−6.6	−20.6	67,638	−20.7	−39.0	61.7	40.5
Iron and steel and their products, not including machinery	**1,424**	**335,704**	**−3.1**	**−20.9**	**5,323,043**	**−9.1**	**49.5**	**59.1**	**32.0**
Iron and steel	221	202,075	−2.8	−21.5	3,005,714	−10.5	−56.3	59.8	29.4
Cast-iron pipe	43	6,863	−8.1	−42.2	108,689	−9.7	−60.7	35.0	22.9
Structural and ornamental ironwork	193	18,563	−4.4	−30.0	359,173	−5.7	−46.6	51.9	32.4
Hardware	113	24,060	−3.0	−18.7	357,347	−10.4	−41.8	55.9	31.2
Steam fittings and steam and hot-water heating apparatus	113	18,051	−10.2	−32.1	317,827	−9.0	−47.0	39.2	23.7
Stoves	160	15,484	+0.5	−21.1	267,880	−4.0	−41.2	51.6	29.4
Bolts, nuts, washers, and rivets	69	8,872	−2.5	−19.8	143,693	−7.9	−44.7	66.3	39.2
Cutlery (not including silver and plated cutlery) and edge tools	130	10,577	+0.4	−4.8	210,819	+0.8	−15.4	75.2	55.5
Forgings, iron and steel	62	5,815	−13.4	−11.1	95,766	−19.7	−46.3	58.6	32.0
Plumbers' supplies	66	4,590	−1.2	−15.6	72,023	−4.4	−36.7	64.7	37.5
Tin cans and other tinware	56	7,603	+0.3	−19.1	155,298	−1.6	−27.3	73.7	46.0
Tools (not including edge tools, machine tools, files, or saws)	127	7,822	−1.9	−18.9	129,312	−6.6	−34.1	71.8	44.3
Wirework	71	5,329	−3.0	+2.1	99,502	−13.3	−17.2	95.2	70.9
Lumber and allied products	**1,643**	**127,855**	**−1.2**	**−27.5**	**1,725,142**	**−4.6**	**−48.2**	**39.6**	**23.0**
Lumber, sawmills	667	61,335	+2.2	−29.4	751,891	+0.3	−50.1	36.1	20.0
Lumber, millwork	463	20,232	−4.7	−30.3	312,914	−4.0	−49.5	38.5	24.1
Furniture	492	45,237	−6.7	−22.2	645,910	−12.2	−44.7	48.4	27.5
Turpentine and rosin	21	1,051	−0.6	−26.8	14,427	+4.9	−42.7	44.8	37.2
Leather and its manufactures	**502**	**134,495**	**−3.0**	**−4.5**	**2,204,331**	**−10.6**	**−21.1**	**77.8**	**53.8**
Leather	174	25,291	−0.6	−9.4	492,608	−5.0	−25.2	70.3	54.8
Boots and shoes	328	109,204	−3.6	−3.4	1,711,723	−12.2	−19.9	79.7	53.5
Paper and printing	**1,972**	**230,878**	**−1.3**	**−9.7**	**6,252,551**	**−3.1**	**−20.7**	**83.1**	**74.1**
Paper and pulp	420	81,239	−1.8	−6.8	1,611,715	−6.3	−24.2	76.4	57.2
Paper boxes	325	22,116	−1.1	−11.6	420,188	−3.8	−22.8	72.5	63.4
Printing, book and job	760	55,583	−1.8	−14.4	1,598,736	−4.1	−25.5	78.7	69.0
Printing, newspapers and periodicals	467	71,940	−0.7	−6.7	2,621,912	−0.9	−14.3	100.4	94.4

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN **MANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931—Continued

Industry	Establishments reporting in both March and April, 1932	Employment			Earnings			Index numbers, April, 1932, (average 1926=100)	
		Number on pay roll April, 1932	Per cent of change		Amount of pay roll (1 week) April, 1932	Per cent of change		Employment	Earnings
			March to April, 1932	April, 1931, to April, 1932		March to April, 1932	April, 1931, to April, 1932		
Chemicals and allied products	**1,029**	**151,221**	**+0.9**	**−13.1**	**$3,536,579**	**−2.2**	**−23.8**	**80.6**	**68.2**
Chemicals	111	20,697	−1.4	−8.8	530,120	−4.0	−19.1	87.7	68.0
Fertilizers	204	12,390	+40.8	−22.7	148,829	+36.5	−44.8	90.0	58.2
Petroleum refining	123	49,545	−0.2	−16.4	1,411,098	−2.4	−26.3	65.1	58.7
Cottonseed oil, cake, and meal	54	2,377	−11.7	−24.6	29,615	−10.8	−23.2	41.1	40.4
Druggists' preparations	40	7,648	−6.8	−9.4	158,037	−6.5	−20.0	74.2	74.5
Explosives	22	2,832	−3.2	−27.5	56,241	−8.6	−39.0	75.4	51.5
Paints and varnishes	371	15,994	−1.9	−13.5	383,223	−3.4	−25.9	72.8	62.8
Rayon	22	26,757	−3.4	−6.2	490,367	−5.6	−16.2	138.8	125.6
Soap	82	12,981	−0.3	−5.0	329,049	+1.2	−17.0	96.5	90.5
Stone, clay, and glass products	**1,376**	**92,001**	(1)	**−28.7**	**1,676,082**	**−0.9**	**−45.6**	**48.1**	**32.9**
Cement	126	14,642	+0.7	−32.1	278,777	−1.6	−51.6	43.4	27.9
Brick, tile, and terra cotta	704	20,382	+4.7	−39.5	265,344	+5.0	−61.3	30.9	14.9
Pottery	121	15,183	−2.3	−16.0	257,942	−6.9	−36.1	67.7	45.1
Glass	190	35,549	−2.7	−13.3	722,312	−1.7	−26.6	63.2	50.0
Marble, granite, slate, and other stone products	235	6,245	+1.9	−43.0	151,707	+2.7	−54.5	53.4	41.4
Nonferrous metals and their products	**632**	**82,571**	**−4.3**	**−19.2**	**1,488,627**	**−7.4**	**−40.3**	**58.0**	**39.9**
Stamped and enameled ware	89	13,795	−2.8	−11.7	249,687	−5.7	−30.8	65.2	46.6
Brass, bronze, and copper products	203	29,315	−5.4	−19.2	513,095	−10.7	−41.6	56.3	35.9
Aluminum manufactures	25	5,253	−5.0	−34.7	82,466	−4.7	−57.8	52.7	31.5
Clocks, time recording devices, and clock movements	22	4,532	−8.2	−22.8	67,974	−2.1	−39.2	47.7	32.4
Gas and electric fixtures, lamps, lanterns, and reflectors	55	5,197	−2.5	−21.6	112,442	−7.3	−35.0	72.8	53.6
Plated ware	55	7,677	−1.5	−16.4	155,809	−6.9	−33.9	63.7	43.4
Smelting and refining—copper, lead, and zinc	25	8,134	−3.2	−16.7	145,828	−3.8	−46.9	64.7	44.1
Jewelry	158	8,668	−6.2	−22.1	161,326	−12.5	−36.3	40.6	27.9
Tobacco manufactures	**261**	**56,962**	**−2.8**	**−14.1**	**718,699**	**−5.6**	**−24.6**	**70.5**	**52.4**
Chewing and smoking tobacco and snuff	37	10,038	−2.2	+9.0	139,973	−0.6	−2.3	87.0	72.2
Cigars and cigarettes	224	46,924	−2.9	−17.0	578,726	−6.4	−27.5	68.4	50.0
Transportation equipment	**418**	**272,836**	**−6.2**	**−20.9**	**6,285,422**	**−5.7**	**−31.6**	**59.4**	**46.2**
Automobiles	246	224,508	−7.7	−21.6	5,046,979	−8.2	−33.4	60.2	45.8
Aircraft	31	5,721	−6.8	−26.8	185,806	−6.7	−29.2	214.3	218.8
Cars, electric and steam railroad	34	5,235	−3.5	−33.7	97,435	−4.8	−42.7	22.0	14.1
Locomotives	15	3,668	+4.1	−38.2	89,651	+1.1	−42.0	21.4	18.4
Shipbuilding	92	33,704	+2.8	−9.2	865,551	+9.0	−15.3	91.1	80.4
Rubber products	**149**	**74,595**	**−1.5**	**−7.2**	**1,481,597**	**−6.2**	**−27.1**	**67.5**	**46.7**
Rubber tires and inner tubes	40	45,170	−0.3	−5.9	968,632	−4.9	−30.3	64.9	45.4
Rubber boots and shoes	10	10,931	−4.2	−7.1	172,629	−11.8	−12.8	57.3	38.3
Rubber goods, other than boots, shoes, tires, and inner tubes	99	18,494	−2.7	−9.6	340,336	−7.1	−24.9	81.1	56.1
Machinery, not including transportation equipment	**1,823**	**337,834**	**−4.8**	**−27.4**	**6,750,471**	**−7.8**	**−43.1**	**55.3**	**36.7**
Agricultural implements	69	7,242	−10.6	−39.2	123,937	−17.0	−35.3	36.4	28.2
Electrical machinery, apparatus, and supplies	287	136,935	−5.2	−23.8	2,980,914	−8.2	−38.0	65.7	48.9
Engines, turbines, tractors, and water wheels	77	16,102	−5.6	−36.4	339,079	−5.1	−51.4	48.5	32.1

[1] No change.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN **MANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931—Continued

Industry	Establishments reporting in both March and April, 1932	Employment			Earnings			Index numbers, April, 1932, (average 1926=100)	
		Number on pay roll April, 1932	Per cent of change		Amount of pay roll (1 week) April, 1932	Per cent of change		Employment	Earnings
			March to April, 1932	April, 1931, to April, 1932		March to April, 1932	April, 1931, to April, 1932		
Machinery, not including transportation equipment—Continued.									
Cash registers, adding machines, and calculating machines	48	15,502	−2.2	−11.8	$355,203	−4.1	−28.6	73.7	52.3
Foundry and machine-shop products	1,089	115,756	−3.7	−28.3	2,083,513	−6.9	−46.7	51.2	30.8
Machine tools	155	13,634	−9.2	−42.8	272,968	−11.8	−52.6	40.5	26.6
Textile machinery and parts	36	6,858	−7.2	−20.3	133,332	−13.6	−32.6	61.3	43.7
Typewriters and supplies	18	10,756	−1.1	−16.2	168,555	−5.0	−35.1	70.6	43.5
Radio	44	15,049	−10.7	−30.0	292,970	−9.5	−42.8	57.3	46.3
Railroad repair shops	**915**	**100,957**	**+0.8**	**−19.0**	**2,463,377**	**+0.9**	**−34.4**	**52.9**	**43.3**
Electric railroad	406	22,901	−0.1	−12.6	646,939	−1.8	−19.5	71.3	64.6
Steam railroad	509	78,056	+1.0	−19.5	1,816,438	+1.3	−35.9	51.5	41.6
Total, 89 industries	**18,254**	**2,791,626**	**−3.6**	**−17.8**	**52,771,568**	**−7.3**	**−34.7**	**62.2**	**44.7**

Per Capita Weekly Earnings

IN THE following tables are shown the actual per capita weekly earnings in April, 1932, for each of the 16 industrial groups and each of the 89 separate manufacturing industries included in the bureau's monthly trend of employment survey, together with per cents of change in April, 1932, as compared with March, 1932, and April, 1932.

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN APRIL, 1932, IN 16 INDUSTRIAL GROUPS AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931

Industrial group	Per capita weekly earnings in April, 1932	Per cent of change April, 1932, compared with—	
		March, 1932	April, 1931
1. Manufacturing (89 industries)	$18.90	[1] −3.7	−20.6
2. Coal mining:			
Anthracite	29.85	+23.7	+16.3
Bituminous	13.58	−16.8	−24.0
3. Metalliferous mining	18.14	−1.9	−28.2
4. Quarrying and nonmetallic mining	16.63	−1.0	−25.0
5. Crude petroleum producing	30.51	−3.5	−14.6
6. Public utilities:			
Telephone and telegraph	27.63	−5.0	−4.7
Power and light	30.52	−2.7	−3.3
Electric railroads	29.14	−2.8	−9.2
7. Trade:			
Wholesale	28.14	−2.3	−10.5
Retail	21.53	−1.1	−9.1
8. Hotels (cash payments only)[1]	14.62	−2.3	−10.1
9. Canning and preserving	14.03	−8.3	−15.9
10. Laundries	17.01	−0.4	−9.5
11. Dyeing and cleaning	20.35	+3.6	−12.0
12. Building construction	27.92	+4.6	[2]
Total	[3] 20.61	[3] −2.6	[3] −15.2

[1] The additional value of board, room, and tips can not be computed.
[2] Data not available.
[3] Does not include building construction.

Per capita earnings given in the foregoing table and in Table 3 following must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees reported which includes part-time as well as full-time workers.

TABLE 3.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN APRIL, 1932, AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931

Industry	Per capita weekly earnings in April, 1932	Per cent of change compared with—	
		March, 1932	April, 1931
Food and kindred products:			
Slaughtering and meat packing	$22.64	+0.8	−12.9
Confectionery	15.56	−1.1	−12.3
Ice cream	29.89	−1.5	−10.6
Flour	22.59	+2.3	−10.5
Baking	23.57	−3.1	−9.3
Sugar refining, cane	26.27	−0.5	−9.3
Beet sugar	28.84	−4.2	−10.8
Beverages	26.90	+0.4	−11.0
Butter	23.59	−2.4	−7.5
Textiles and their products:			
Cotton goods	11.17	−8.0	−24.1
Hosiery and knit goods	13.53	−6.5	−20.8
Silk goods	13.11	−2.2	−27.4
Woolen and worsted goods	15.33	−13.0	−23.7
Carpets and rugs	16.51	−5.6	−25.3
Dyeing and finishing textiles	18.76	−12.3	−23.7
Clothing, men's	13.23	−16.8	−27.7
Shirts and collars	10.65	−5.4	−22.7
Clothing, women's	19.15	−11.0	−16.5
Millinery	18.99	−3.4	−16.1
Corsets and allied garments	15.56	−6.4	−26.3
Cotton small wares	15.35	−10.1	−24.3
Hats, fur-felt	13.36	−24.0	−19.0
Men's furnishings	11.77	−15.1	−23.2
Iron and steel and their products, not including machinery:			
Iron and steel	14.87	−8.0	−44.6
Cast-iron pipe	15.84	−1.7	−31.8
Structural and ornamental ironwork	19.35	−1.4	−23.9
Hardware	14.85	−7.6	−28.5
Steam fittings and steam and hot-water heating apparatus	17.61	+1.4	−22.0
Stoves	17.30	−4.5	−25.8
Bolts, nuts, washers, and rivets	16.20	−5.4	−31.0
Cutlery (not including silver and plated cutlery), and edge tools	19.93	+0.5	−10.8
Forgings, iron and steel	16.47	−7.3	−39.6
Plumbers' supplies	15.69	−3.2	−29.5
Tin cans and other tinware	20.43	−1.8	−10.1
Tools (not including edge tools, machine tools, files, or saws)	16.53	−4.8	−18.8
Wirework	18.67	−10.7	−18.9
Lumber and allied products:			
Lumber, sawmills	12.26	−1.8	−29.1
Lumber, millwork	15.47	+0.7	−27.6
Furniture	14.28	−5.9	−28.8
Turpentine and rosin	13.73	+5.5	−21.7
Leather and its manufactures:			
Leather	19.48	−4.4	−17.6
Boots and shoes	15.67	−8.9	−17.0
Paper and printing:			
Paper and pulp	19.84	−4.6	−18.5
Paper boxes	19.00	−2.8	−12.7
Printing, book and job	28.76	−2.4	−13.0
Printing, newspapers and periodicals	36.45	−0.2	−8.0
Chemicals and allied products:			
Chemicals	25.61	−2.6	−11.0
Fertilizers	12.01	−3.1	−28.6
Petroleum refining	28.48	−2.2	−11.8
Cottonseed oil, cake, and meal	12.46	+1.1	+1.9
Druggists' preparations	20.66	+0.3	−11.7
Explosives	19.86	−5.6	−16.1
Paints and varnishes	23.96	−1.4	−14.3
Rayon	18.33	−2.3	−10.6
Soap	25.35	+1.5	−12.8

TABLE 3.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN APRIL, 1932, AND COMPARISON WITH MARCH, 1932, AND APRIL, 1931—Continued

Industry	Per capita weekly earnings in April, 1932	Per cent of change compared with—	
		March, 1932	April, 1931
Stone, clay, and glass products:			
Cement	$19.04	−2.3	−28.6
Brick, tile, and terra cotta	13.02	+0.3	−36.0
Pottery	16.99	−4.7	−23.5
Glass	20.32	+1.0	−15.5
Marble, granite, slate, and other stone products	24.29	+0.7	−20.5
Nonferrous metals and their products:			
Stamped and enameled ware	18.10	−3.1	−21.5
Brass, bronze, and copper products	17.50	−5.6	−28.4
Aluminum manufactures	15.70	+0.3	−35.3
Clocks, time recording devices, and clock movements	15.00	+6.7	−21.2
Gas and electric fixtures, lamps, lanterns, and reflectors	21.64	−4.9	−17.1
Plated ware	20.30	−5.4	−20.8
Smelting and refining—copper, lead, and zinc	17.93	−0.7	−36.2
Jewelry	18.61	−6.7	−18.3
Tobacco manufactures:			
Chewing and smoking tobacco and snuff	13.94	+1.6	−10.4
Cigars and cigarettes	12.33	−3.7	−12.8
Transportation equipment:			
Automobiles	22.48	−0.5	−15.3
Aircraft	32.48	+0.1	−2.8
Cars, electric and steam railroad	18.61	−1.3	−13.6
Locomotives	24.44	−2.9	−6.5
Shipbuilding	25.68	+6.0	−7.1
Rubber products:			
Rubber tires and inner tubes	21.44	−4.7	−26.2
Rubber boots and shoes	15.79	−7.9	−6.2
Rubber goods, other than boots, shoes, tires, and inner tubes	18.40	−4.6	−17.0
Machinery, not including transportation equipment:			
Agricultural implements	17.11	−7.1	+6.5
Electrical machinery, apparatus, and supplies	21.77	−3.1	−18.4
Engines, turbines, tractors, and water wheels	21.06	+0.5	−5.8
Cash registers, adding machines, and calculating machines	22.91	−2.0	−18.9
Foundry and machine-shop products	18.00	−3.3	−25.6
Machine tools	20.02	−3.0	−17.2
Textile machinery and parts	19.44	−6.9	−15.4
Typewriters and supplies	15.67	−3.9	−22.5
Radio	19.47	+1.4	−18.5
Railroad repair shops:			
Electric-railroad repair shops	28.25	−1.7	−7.9
Steam-railroad repair shops	23.27	+0.3	−20.2

General Index Numbers of Employment and Earnings in Manufacturing Industries

GENERAL index numbers of employment and earnings in manufacturing industries by months from January, 1926, to December, 1931, inclusive, are shown in the following table for the 54 industries which were formerly used in constructing indexes of employment and earnings. In addition, similar indexes computed from the 89 industries listed in Table 1 are presented for each of the 12 months of 1931 and for January, February, March, and April, 1932.

TABLE 4.—GENERAL INDEXES OF EMPLOYMENT AND EARNINGS IN **MANUFACTURING** INDUSTRIES, JANUARY, 1926, TO DECEMBER, 1931, BASED ON 54 INDUSTRIES, AND FROM JANUARY, 1931, TO APRIL, 1932, BASED ON 89 INDUSTRIES

[12-month average, 1926=100]

Month	Employment								Earnings							
	Based on 54 industries						Based on 89 industries		Based on 54 industries						Based on 89 industries	
	1926	1927	1928	1929	1930	1931	1931	1932	1926	1927	1928	1929	1930	1931	1931	1932
January	100.4	97.3	91.6	95.2	90.2	73.1	74.6	64.8	98.0	94.9	89.6	95.5	87.6	62.3	68.7	48.6
February	101.5	99.0	93.0	97.4	90.3	74.1	75.3	65.6	102.2	100.6	93.9	101.8	90.7	67.0	68.1	49.6
March	102.0	99.5	93.7	98.6	89.8	74.8	75.9	64.5	103.4	102.0	95.2	103.9	90.8	68.5	69.6	48.2
April	101.0	98.6	93.3	99.1	89.1	74.5	75.7	62.2	101.5	100.8	93.8	104.6	89.8	67.4	68.5	44.7
May	99.8	97.6	93.0	99.2	87.7	74.1	75.2	-----	99.8	99.8	94.1	104.8	87.6	66.6	67.7	-----
June	99.3	97.0	93.1	98.8	85.5	72.2	73.4	-----	99.7	97.4	94.2	102.8	84.1	62.5	63.8	-----
July	97.7	95.0	92.2	98.2	81.6	70.4	71.7	-----	95.2	93.0	91.2	98.2	75.9	59.1	60.3	-----
August	98.7	95.1	93.6	98.6	79.9	70.0	71.2	-----	98.7	95.0	94.2	102.1	73.9	58.5	59.7	-----
September	100.3	95.8	95.0	99.3	79.7	69.6	70.9	-----	99.3	94.1	95.4	102.6	74.2	55.4	56.7	-----
October	100.7	95.3	95.9	98.3	78.6	67.3	68.9	-----	102.9	95.2	99.0	102.3	72.7	53.7	55.3	-----
November	99.5	93.5	95.4	94.8	76.5	65.4	67.1	-----	99.6	91.6	96.1	95.1	68.3	51.0	52.5	-----
December	98.9	92.6	95.5	91.9	75.1	65.3	66.7	-----	99.8	93.2	97.7	92.0	67.4	50.9	52.2	-----
Average	**100.0**	**96.4**	**93.8**	**97.5**	**83.7**	**70.9**	**72.2**	[1]**64.3**	**100.0**	**96.5**	**94.5**	**100.4**	**80.3**	**60.2**	**61.5**	[1]**47.8**

[1] Average for 4 months.

Time Worked in Manufacturing Industries in April, 1932

REPORTS as to working time in April were received from 12,662 establishments in 89 manufacturing industries. Two per cent of these establishments were idle, 45 per cent operated on a full-time basis, and 52 per cent worked on a part-time schedule.

An average of 85 per cent of full-time operation in April was shown by reports received from all the operating establishments included in this tabulation. The establishments working part time in March averaged 72 per cent of full-time operation.

TABLE 5.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	2,291	(1)	72	27	94	78
Slaughtering and meat packing	181	-----	77	23	97	87
Confectionery	257	-----	33	67	84	76
Ice cream	311	(1)	65	35	95	86
Flour	357	1	76	23	94	72
Baking	647	-----	85	15	96	77
Sugar refining, cane	8	-----	63	38	93	81
Beet sugar	48	-----	67	33	95	86
Beverages	296	1	74	24	93	73
Butter	186	-----	84	16	98	85
Textiles and their products	2,150	5	49	46	87	73
Cotton goods	517	3	39	57	83	71
Hosiery and knit goods	348	3	55	42	88	73
Silk goods	229	17	44	40	86	72
Woolen and worsted goods	185	4	44	52	83	69
Carpets and rugs	24	4	29	67	79	70
Dyeing and finishing textiles	128	-----	38	62	87	78

[1] Less than one-half of 1 per cent.

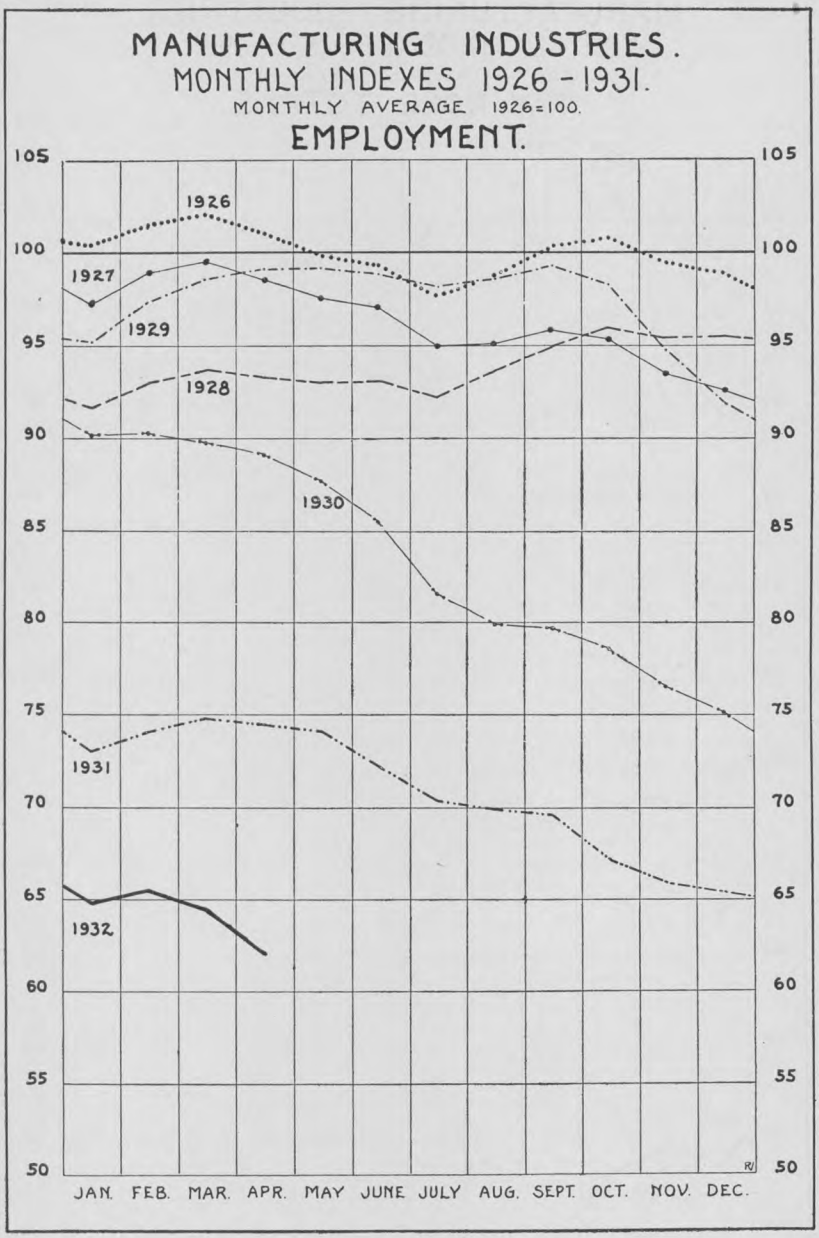
TABLE 5.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932—Continued

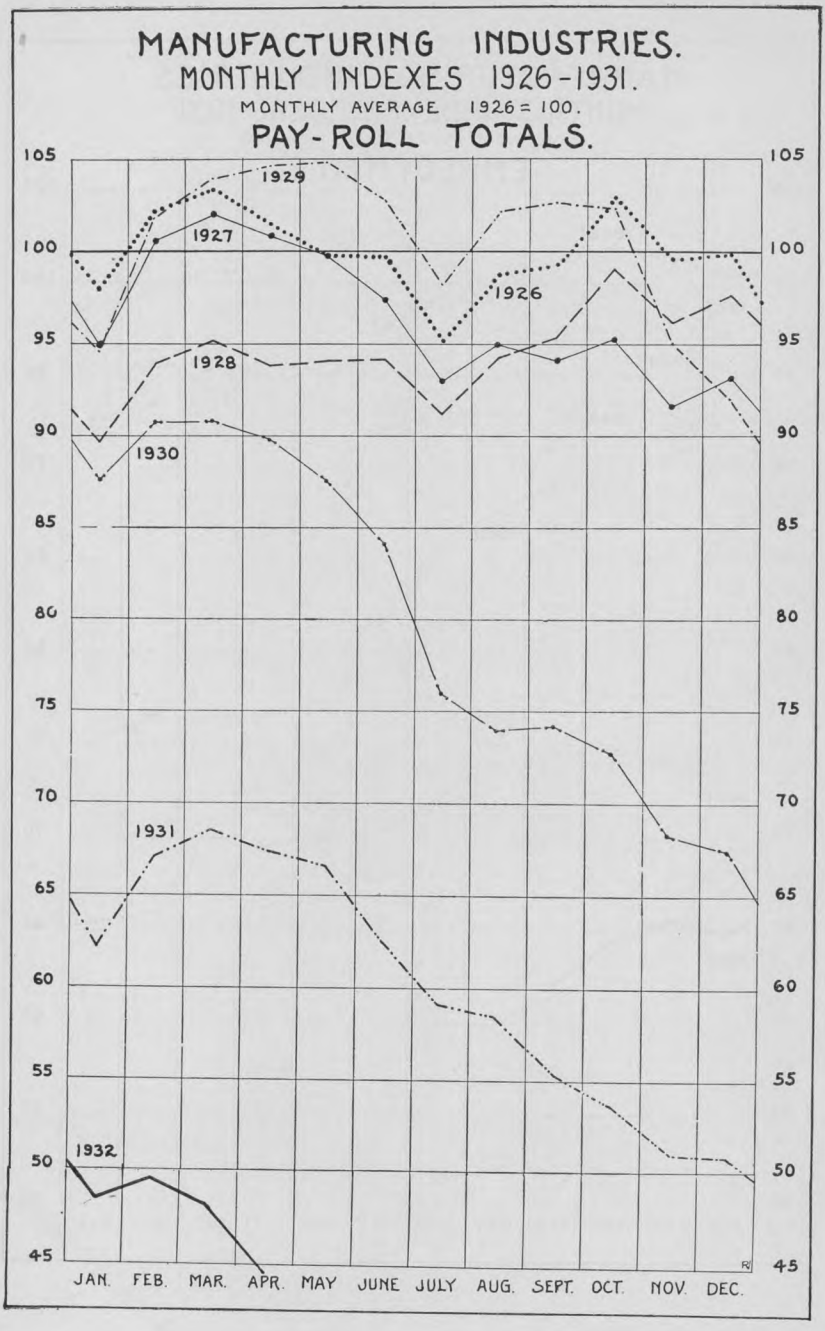
Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Textiles and their products—Continued.						
Clothing, men's	226	7	55	38	92	80
Shirts and collars	64	9	50	41	91	79
Clothing, women's	191	3	74	23	95	78
Millinery	83	----	61	39	92	79
Corsets and allied garments	14	----	43	57	85	74
Cotton small wares	83	1	54	45	90	77
Hats, fur-felt	19	----	21	79	65	56
Men's furnishings	39	----	56	44	88	74
Iron and steel and their products, not including machinery	894	2	19	79	72	65
Iron and steel	133	6	15	79	68	62
Cast-iron pipe	37	19	8	73	63	58
Structural and ornamental ironwork	125	----	12	88	76	72
Hardware	53	----	21	79	70	63
Steam fittings and steam and hot-water heating apparatus	89	1	8	91	62	59
Stoves	100	1	9	90	67	64
Bolts, nuts, washers, and rivets	49	----	22	78	73	65
Cutlery (not including silver and plated cutlery) and edge tools	65	2	40	58	79	65
Forgings, iron and steel	26	4	15	81	65	58
Plumbers' supplies	39	----	26	74	74	65
Tin cans and other tinware	44	----	39	61	88	80
Tools (not including edge tools, machine tools, files, or saws)	90	2	28	70	74	64
Wirework	44	----	23	77	82	76
Lumber and allied products	1,032	3	27	71	76	67
Lumber, sawmills	453	3	25	72	74	66
Lumber, millwork	264	1	20	79	76	70
Furniture	306	3	35	62	78	66
Turpentine and rosin	9	----	56	44	93	85
Leather and its manufactures	368	1	43	56	85	73
Leather	120	1	41	58	88	79
Boots and shoes	248	2	44	55	84	71
Paper and printing	1,515	4	46	53	88	77
Paper and pulp	303	2	37	61	82	71
Paper boxes	267	----	19	81	79	75
Printing, book and job	558	----	35	65	88	81
Printing, newspapers and periodicals	387	----	89	11	99	90
Chemicals and allied products	741	1	67	32	94	80
Chemicals	63	----	84	16	96	76
Fertilizers	152	1	70	30	94	80
Petroleum refining	67	----	79	21	98	89
Cottonseed oil, cake, and meal	25	----	76	24	96	82
Druggists' preparations	22	----	55	45	93	86
Explosives	17	6	59	35	87	65
Paints and varnishes	335	1	62	37	92	79
Rayon	13	----	54	46	94	87
Soap	47	----	62	38	94	85
Stone, clay, and glass products	745	13	36	51	81	67
Cement	69	12	75	13	97	81
Brick, tile, and terra cotta	307	22	13	65	69	63
Pottery	91	2	24	74	75	67
Glass	129	5	71	23	94	75
Marble, granite, slate, and other stone products	149	7	44	48	86	74
Nonferrous metals and their products	425	2	30	69	78	68
Stamped and enameled ware	60	----	13	87	79	76
Brass, bronze, and copper products	120	3	32	66	77	66
Aluminum manufactures	13	----	31	69	80	71
Clocks, time recording devices, and clock movements	16	----	31	69	73	60
Gas and electric fixtures, lamps, lanterns, and reflectors	34	3	35	62	81	69
Plated ware	138	1	28	71	76	67
Smelting and refining—copper, lead, and zinc	26	4	35	62	76	63
Jewelry	18	----	67	33	92	76

TABLE 5.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1932—Continued

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
Tobacco manufactures	194	4	20	77	78	73
Chewing and smoking tobacco and snuff	27		19	81	80	76
Cigars and cigarettes	167	4	20	76	78	72
Transportation equipment	300	1	31	68	79	69
Automobiles	164		14	86	71	66
Aircraft	26	12	69	19	94	71
Cars, electric and steam railroad	25		12	88	72	69
Locomotives	13		38	62	84	75
Shipbuilding	72		63	38	93	81
Rubber products	133	1	35	65	83	75
Rubber tires and inner tubes	33		15	85	78	74
Rubber boots and shoes	9		44	56	86	75
Rubber goods, other than boots, shoes, tires, and inner tubes	91	1	41	58	85	75
Machinery, not including transportation equipment	1,210	1	23	76	74	66
Agricultural implements	57		25	75	78	71
Electrical machinery, apparatus, and supplies	139		24	76	79	73
Engines, turbines, tractors, and water wheels	52	2	19	79	74	68
Cash registers, adding machines, and calculating machines	42		48	52	85	71
Foundry and machine-shop products	737	1	22	77	72	64
Machine tools	116	2	16	82	71	65
Textile machinery and parts	29		38	62	79	66
Typewriters and supplies	12		42	58	77	60
Radio	26		38	62	85	75
Railroad repair shops	664	4	53	47	91	81
Electric-railroad repair shops	360		68	32	95	85
Steam-railroad repair shops	304	1	34	65	86	78
Total, 89 industries	12,662	2	45	52	85	72

[1] Less than one-half of 1 per cent.





Employment in Nonmanufacturing Industries in April, 1932

IN THE following table are presented employment and earnings data for 14 groups of nonmanufacturing industries the totals of which also appear in the summary table of employment and earnings.

TABLE 1.—COMPARISON OF EMPLOYMENT AND EARNINGS IN **NONMANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1932, AND APRIL, 1931

Industrial group	Establishments reporting in March and April, 1932	Employment			Earnings			Index numbers April, 1932 (average 1929=100)	
		Number on pay rolls, April, 1932	Per cent of change		Amount of pay roll (1 week) April, 1932	Per cent of change		Employment	Earnings
			March to April, 1932	April, 1931, to April, 1932		March to April, 1932	April, 1931, to April, 1932		
Anthracite mining	160	95,851	−4.9	−17.7	$2,861,565	+17.7	−4.3	70.1	72.0
Bituminous coal mining	1,237	162,745	−12.9	−23.7	2,210,281	−27.6	−42.2	65.5	33.9
Metalliferous mining	262	27,714	−3.8	−32.2	502,676	−5.6	−51.4	43.3	25.0
Quarrying and nonmetallic mining	619	21,866	+5.5	−36.1	363,659	+4.4	−52.1	48.6	30.0
Crude petroleum producing	266	21,735	+6.8	−21.3	663,076	+3.0	−32.9	54.9	44.5
Telephone and telegraph	8,215	287,876	−0.6	−7.8	7,955,314	−5.5	−12.2	81.2	83.4
Power, light, and water	3,541	223,200	−0.8	−12.7	6,811,614	−3.5	−15.6	84.8	82.4
Electric railroad operation and maintenance, exclusive of car shops	491	132,645	+0.5	−10.1	3,864,739	−2.4	−18.4	78.0	70.7
Wholesale trade	2,786	73,253	−1.1	−9.7	2,061,211	−3.3	−19.1	78.9	68.9
Retail trade	13,223	347,094	+0.2	−9.4	7,472,247	−0.9	−17.7	81.6	72.7
Hotels	2,264	136,646	−1.6	−13.8	1,997,490	−3.9	−22.6	82.7	69.6
Canning and preserving	820	32,977	+29.6	−21.1	462,554	+18.8	−33.6	47.0	37.9
Laundries	1,004	60,785	(1)	−9.3	1,033,815	−0.4	−17.8	(2)	(2)
Dying and cleaning	404	12,337	+3.3	−13.2	251,011	+6.9	−23.7	(2)	(2)

[1] Less than one-tenth of 1 per cent. [2] Data not available.

Indexes of Employment and Earnings for Nonmanufacturing Industries

INDEX numbers of employment and earnings for the years 1929, 1930, and 1931, and by months, January, 1931, to April, 1932, for 12 of the 14 nonmanufacturing industries appearing in the preceding table are shown in Table 2. Index numbers for the laundering and the dyeing and cleaning groups are not presented as data for the index base year (1929) are not available.

TABLE 2.—INDEXES OF EMPLOYMENT AND EARNINGS FOR **NONMANUFACTURING** INDUSTRIES, 1929 TO APRIL, 1932

[12-month average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining		Quarrying and nonmetallic mining		Crude petroleum producing		Telephone and telegraph		Power, light, and water		Operation and maintenance of electric railroads [1]		Wholesale trade		Retail trade		Hotels		Canning and preserving	
	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings	Employment	Earnings
1930 average	**93.4**	**95.3**	**93.4**	**81.3**	**83.2**	**78.0**	**84.3**	**79.3**	**87.4**	**85.9**	**97.9**	**102.9**	**103.0**	**104.3**	**93.4**	**93.5**	**96.0**	**95.9**	**95.9**	**96.2**	**99.2**	**98.5**	**103.9**	**96.1**
1931																								
January	90.6	89.3	93.9	73.3	68.3	55.0	64.4	50.4	74.8	71.5	90.5	96.3	99.2	98.6	86.9	85.6	89.5	87.5	90.0	89.4	95.0	91.0	48.9	46.1
February	89.5	101.9	91.5	68.3	65.3	54.6	66.6	54.4	73.2	70.0	89.2	94.8	97.8	99.7	86.6	87.1	88.2	88.4	87.1	86.7	96.8	93.7	48.3	48.6
March	82.0	71.3	88.8	65.2	63.5	52.8	70.0	58.2	72.2	73.2	88.6	97.9	96.7	102.4	86.4	88.1	87.4	89.1	87.8	87.5	96.8	93.4	53.0	50.3
April	85.2	75.2	85.9	58.6	63.9	51.4	76.1	62.6	69.8	66.3	88.1	95.0	97.1	97.6	86.8	86.6	87.4	85.2	90.1	88.3	95.9	89.9	59.6	57.1
May	80.3	76.1	82.4	54.4	62.4	49.3	75.0	62.3	67.8	64.7	87.4	94.1	97.6	98.7	85.9	85.1	87.1	84.7	89.9	88.0	92.5	87.7	56.0	56.0
June	76.1	66.7	78.4	52.4	60.0	46.1	72.3	60.1	65.0	62.7	86.9	95.0	97.2	98.3	85.3	84.8	87.1	84.1	89.1	87.6	91.6	85.4	70.6	58.6
July	65.1	53.7	76.4	50.4	56.2	41.3	71.0	57.3	65.3	59.2	86.6	93.3	96.7	97.4	85.6	83.3	86.8	83.3	83.9	83.3	93.3	85.2	102.2	74.2
August	67.3	56.4	77.0	50.6	55.8	40.2	68.9	55.1	62.4	56.3	85.9	92.3	95.9	96.2	84.8	81.9	86.5	82.1	81.8	80.3	92.8	83.8	142.9	104.7
September	80.0	64.9	80.4	53.6	55.5	40.0	66.6	51.2	61.2	55.2	85.0	92.1	94.7	94.3	84.0	81.2	86.1	81.4	86.6	83.5	90.6	81.9	180.1	129.4
October	86.8	91.1	81.3	56.2	53.8	37.4	64.5	48.7	60.4	54.4	84.1	91.6	92.7	93.2	82.7	79.0	85.2	79.9	89.8	84.6	[2]87.4	79.7	108.1	77.6
November	83.5	79.5	81.1	54.6	52.8	35.1	59.3	43.3	57.6	52.0	83.5	89.7	91.3	93.3	81.5	79.7	84.1	79.7	90.9	85.4	[2]84.9	77.1	60.8	48.1
December	79.8	78.4	81.2	52.3	51.2	34.3	53.9	36.9	58.2	54.9	83.1	92.7	90.3	91.2	79.9	77.8	83.7	77.8	106.2	94.1	[2]83.1	75.4	40.7	36.9
1931 average	**80.5**	**75.4**	**83.2**	**57.5**	**59.1**	**44.8**	**67.4**	**53.4**	**65.7**	**61.7**	**86.6**	**93.7**	**95.6**	**96.7**	**84.7**	**83.4**	**86.6**	**83.6**	**89.4**	**86.6**	**[2]91.7**	**85.4**	**80.9**	**65.6**
1932																								
January	76.2	61.5	80.8	47.0	49.3	29.7	48.9	30.2	54.9	46.5	83.0	89.1	89.3	88.4	79.5	74.3	81.1	74.1	84.3	78.0	[2]83.2	73.9	35.0	31.8
February	71.2	57.3	77.4	47.0	46.9	27.8	47.4	29.6	54.4	46.9	82.0	89.6	87.2	86.0	78.9	73.6	80.9	72.5	80.5	73.7	[2]84.3	[2]73.9	37.1	32.7
March	73.7	61.2	75.2	46.8	45.0	26.5	46.0	28.7	51.4	43.2	81.7	88.2	85.5	85.4	77.6	72.4	79.8	71.3	81.4	73.4	[2]84.0	[2]72.4	36.3	31.9
April	70.1	72.0	65.5	33.9	43.3	25.0	48.6	30.0	54.9	44.5	81.2	83.4	84.8	82.4	78.0	70.7	78.9	68.9	81.6	72.7	[2]82.7	69.6	47.0	37.9

[1] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair shop groups, manufacturing industries, Table 1

[2] Revised.

Trend of Employment in April, 1932, by States

IN THE following table are shown the fluctuations in employment and earnings in April, as compared with March, 1932, in certain industrial groups, by States. These tabulations have been prepared from information secured directly from reporting establishments and from data supplied by cooperating State agencies. The fluctuations in employment and earnings over the month interval in the combined total of all groups included in this monthly survey, with the exception of the building construction group, are presented, together with the changes in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundries, and dyeing and cleaning groups. Information available concerning employment in the building construction industry in certain cities and State localities is presented in a separate table following these State tabulations. In publishing data concerning the public utility group, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group in this State compilation. 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 earnings in March and April as reported by identical establishments in this industry are included, however, in the combined total of "all groups."

As the anthracite mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in the summary table are the fluctuations in this industry by State total.

Where 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 have been included in the State totals for "all groups." Data are not presented for any industrial group where the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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, April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change	Number of establishments	Number on pay roll, April, 1932	Per cent of change	Amount of pay roll (1 week), April, 1932	Per cent of change
Alabama	527	53,022	−1.8	$613,481	−4.8	218	35,664	−2.1	$409,857	−3.7
Arkansas	*442*	*14,244*	*−3.6*	*213,499*	*−6.9*	*181*	*9,196*	*−2.3*	*116,539*	*−7.8*
Arizona	375	11,002	−1.2	251,162	−0.3	66	2,110	+3.9	52,485	+5.4
California	*1,407*	*208,359*	*+4.2*	*5,282,365*	*+0.9*	*1,143*	*127,098*	*+7.4*	*3,091,256*	*+2.7*
Colorado	790	29,688	−2.6	639,796	−7.4	123	10,965	−0.7	234,257	−0.1
Connecticut	1,087	135,353	−3.5	2,546,705	−7.4	686	115,670	−4.2	2,008,750	−8.8
Delaware	132	9,184	+1.1	181,051	−4.6	53	6,290	−1.1	125,078	−6.1
District of Columbia	225	28,284	+1.4	712,808	−0.5	57	4,127	+0.1	147,145	−2.8
Florida	560	24,466	−13.2	424,575	−12.9	138	13,758	−6.8	211,477	−7.0
Georgia	648	71,582	−2.0	926,317	−5.4	316	58,481	−2.1	634,236	−5.4
Idaho	195	6,903	−3.5	129,510	−9.3	43	3,070	−7.9	50,748	−12.4
Illinois	[1] *1,342*	*276,344*	*−6.0*	*6,256,449*	*−7.7*	*1,027*	*174,607*	*−4.0*	*3,384,247*	*−7.3*
Indiana	1,284	120,092	−5.6	2,312,760	−12.6	588	90,673	−4.4	1,696,472	−11.3
Iowa	1,170	43,906	−2.5	878,293	−5.2	465	23,323	−3.0	455,091	−2.3
Kansas	[2] *640*	*41,778*	*+1.9*	*930,735*	*+0.7*	*450*	*23,486*	*+1.6*	*531,811*	*+1.7*
Kentucky	1,006	61,438	−0.9	933,791	−7.0	219	22,739	+1.0	350,992	−3.2
Louisiana	502	30,380	+3.1	477,875	−0.3	219	18,687	+4.6	269,203	+2.5
Maine	552	36,543	−6.8	662,514	−11.1	188	29,805	−8.3	510,643	−13.0
Maryland	[1] *885*	*82,607*	*−0.3*	*1,635,542*	*−0.1*	*473*	*57,357*	*−1.3*	*1,044,638*	*−2.1*
Massachusetts	[1] *7,648*	*329,625*	*−3.4*	*7,430,115*	*−5.0*	*1,665*	*150,107*	*−8.9*	*2,819,639*	*−12.7*
Michigan	1,783	284,529	−4.8	6,379,738	−6.2	*430*	*191,241*	*−10.6*	*4,363,543*	*−3.0*
Minnesota	1,104	61,521	−3.3	1,364,344	−3.1	290	31,080	−0.5	651,331	−2.3
Mississippi	401	9,481	−3.1	122,921	−7.3	77	5,296	−3.9	58,670	−6.7
Missouri	1,120	105,316	−1.7	2,264,212	−3.7	525	59,952	−2.6	1,193,464	−2.4
Montana	293	7,170	−1.8	174,312	−12.0	50	2,205	+2.1	45,410	−3.3
Nebraska	627	22,634	+0.3	524,359	−1.5	133	10,873	+0.9	257,221	+1.4
Nevada	141	1,627	−0.9	44,679	−2.7	26	295	+0.3	8,737	+1.2
New Hampshire	425	28,954	−10.5	512,059	−14.3	167	25,334	−11.8	422,691	−16.4
New Jersey	1,453	188,292	−2.1	4,362,920	−4.9	[3] *735*	*175,102*	*−3.0*	*13,902,395*	*−5.9*
New Mexico	177	4,542	−2.3	78,209	−7.1	26	352	+5.7	6,298	+0.7
New York	3,335	498,098	−2.2	12,291,988	−5.3	[3] *1,660*	*326,594*	*−3.8*	*7,628,957*	*−6.9*
North Carolina	1,075	85,861	−1.3	1,044,790	−6.3	466	79,098	−1.4	935,128	−6.9
North Dakota	320	3,723	+1.5	83,905	+0.1	59	1,159	+2.7	28,857	+1.5
Ohio	4,448	368,745	−3.9	7,313,958	−8.4	1,959	274,753	−4.1	5,303,774	−9.4
Oklahoma	654	25,032	−0.4	558,567	−2.9	128	8,613	+0.8	190,309	+1.8
Oregon	752	26,778	+3.4	548,553	−0.5	178	14,907	+5.2	262,335	+3.5
Pennsylvania	4,104	609,249	−3.0	12,113,457	−1.4	*1,750*	*336,878*	*−4.1*	*5,459,276*	*−9.1*
Rhode Island	553	51,754	−7.0	979,427	−11.6	282	40,075	−8.5	692,000	−14.5
South Carolina	396	46,778	−5.3	492,083	−9.3	176	42,956	−5.5	423,104	−10.5
South Dakota	234	5,576	+0.1	130,527	−5.1	48	1,953	−1.3	35,842	−6.8
Tennessee	777	62,094	−2.9	888,597	−4.3	293	44,725	−3.4	608,952	−4.7
Texas	*747*	*59,097*	*+0.8*	*1,376,234*	*−0.2*	*351*	*31,704*	*+0.7*	*655,177*	*−0.8*
Utah	264	11,832	−6.2	229,385	−13.9	83	3,035	−1.3	60,088	−3.2
Vermont	363	9,510	−5.1	198,707	−3.0	124	4,989	−11.4	100,040	−8.3
Virginia	1,168	77,035	−0.6	1,280,368	−2.5	420	57,102	−0.7	927,897	−2.3
Washington	1,160	49,006	+0.1	1,081,176	−2.7	278	23,832	+1.0	460,016	−1.2
West Virginia	724	82,068	−2.6	1,405,548	−7.3	190	33,069	−2.6	634,900	−7.7
Wisconsin [4]	1,471	95,743	−2.2	1,850,769	−5.3	441	64,464	−4.5	1,115,163	−8.5
Wyoming	169	6,068	−7.1	150,238	−12.2	28	1,335	−6.0	42,742	−8.7

[1] Includes building construction.
[2] Includes transportation and financial institutions.
[3] Includes laundries and dry cleaning.
[4] Bureau of Labor Statistics figures; report compiled by State bureaus not received in time for inclusion in this table.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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 April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change	Number of establishments	Number on pay roll April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change
Alabama	17	596	−1.5	$16,006	−12.1	72	2,083	+0.1	$33,373	−2.7
Arkansas	*17*	*477*	*−0.4*	*13,979*	*+0.1*	*135*	*1,590*	*+2.1*	*30,417*	*+1.5*
Arizona	21	195	+0.5	5,502	+0.1	181	1,540	−5.0	31,120	−2.2
California	*62*	*4,442*	*−0.3*	*135,835*	*−1.6*	*91*	*21,280*	*−1.5*	*459,430*	*−3.2*
Colorado	27	706	−1.3	21,874	−1.6	312	4,364	−2.1	97,493	−0.8
Connecticut	62	1,272	−1.4	38,284	−3.8	127	5,392	+1.5	115,582	+0.3
Delaware	10	179	+5.9	4,936	−0.3	14	184	−4.7	2,881	−3.2
District of Columbia	30	375	+1.1	12,262	−2.3	39	8,508	−0.7	197,390	−0.2
Florida	55	852	+0.5	21,934	+0.5	82	1,076	−15.7	23,582	−15.1
Georgia	31	358	+0 3	10,437	−3.8	42	2,062	−4.5	36,164	−3.2
Idaho	7	113	−0.9	3,375	−2.2	55	587	+4.3	11,559	−3.9
Illinois	*13*	*526*	*−5.9*	*13,295*	*−5.7*	*64*	*17,731*	*−2.8*	*451,406*	*−2.9*
Indiana	66	1,307	−0.8	36,373	−1.8	260	6,625	+2.1	128,333	+1.5
Iowa	34	1,023	−0.6	30,274	−2.0	128	3,445	+0.2	65,286	−1.2
Kansas	*23*	*755*	*−1.0*	*23,069*	*+2.8*	*41*	*2,407*	*+6.4*	*50,441*	*+3.7*
Kentucky	24	642	+2.6	13,275	−2.7	204	2,112	+1.2	39,321	−1.0
Louisiana	30	707	−2.8	15,626	−3.5	55	3,100	+0.4	48,589	−3.3
Maine	17	456	−0.7	10,561	−3.3	84	1,347	+1.7	25,469	+ [5]
Maryland	*34*	*832*	*−1.0*	*19,754*	*−0.6*	*38*	*5,219*	*+2.0*	*93,511*	*+1.8*
Massachusetts	*679*	*14,310*	*−1.4*	*403,791*	*−2.6*	*3,879*	*57,931*	*−0.3*	*1,282,111*	*−1.3*
Michigan	66	1,811	+0.2	59,764	−1.7	480	12,951	+0.5	283,216	−2.3
Minnesota	61	4,012	−2.8	115,402	−3.7	341	7,698	−17.8	147,604	−8.2
Mississippi	5	126	−3.1	2,312	−12.4	77	471	−2.5	5,709	−6.9
Missouri	57	5,128	−1.0	129,204	−4.6	137	6,425	+0.7	132,437	+0.6
Montana	15	248	−2.4	7,566	−9.2	43	766	−0.1	17,326	−2.5
Nebraska	44	1,279	−0.6	37,006	−3.1	94	1,371	+1.0	26,751	+0.1
Nevada	7	86	[6]	3,276	−8.0	35	288	+3.6	7,700	+0.6
New Hampshire	15	167	+0.6	4,678	−1.6	64	596	−3.1	11,235	−4.2
New Jersey	33	694	−0.6	21,887	−2.2	415	7,779	+0.2	181,054	−2.8
New Mexico	10	114	−3.4	4,240	−4.3	42	258	+1.6	6,339	−5.5
New York	189	5,670	+0.9	188,091	−1.7	366	48,301	+2.3	1,169,063	+0.4
North Carolina	21	484	+0.2	12,068	−0.9	437	1,987	−0.1	31,947	−0.4
North Dakota	16	226	+1.3	6,724	−1.6	41	433	−7.2	7,316	+4.8
Ohio	225	4,971	−1.3	137,237	−4.1	1,311	31,932	+3.6	634,602	+0.5
Oklahoma	45	858	−6.5	25,161	−2.9	74	1,555	+2.8	30,950	−0.5
Oregon	61	1,414	−2.8	41,891	−1.4	250	2,509	−1.2	53,986	−3.1
Pennsylvania	140	3,513	+0.3	96,848	−2.9	345	26,976	+2.4	558,453	−0.1
Rhode Island	46	1,075	−0.1	27,514	−4.3	150	5,034	−2.4	112,804	−3.0
South Carolina	19	275	−3.2	6,468	−2.2	92	755	+1.1	10,372	−1.4
South Dakota	11	138	[6]	4,299	−3.1	21	342	+22.1	5,347	−2.7
Tennessee	37	718	+1.4	14,697	−4.3	87	3,634	−0.7	61,274	−0.5
Texas	*132*	*2,770*	*−3.9*	*79,676*	*−1.6*	*78*	*6,996*	*+5.3*	*140,307*	*+1.2*
Utah	16	500	−1.4	12,257	−7.3	14	345	+4.5	5,985	−2.0
Vermont	5	109	+1.9	2,883	+1.3	51	530	+3.5	9,649	−0.4
Virginia	41	1,284	−10.0	26,442	−10.6	415	3,911	−0.7	76,440	−0.3
Washington	95	2,342	+2.0	70,062	−1.7	424	6,528	−2.8	141,882	+2.2
West Virginia	42	622	−3.0	18,751	−4.7	52	975	+1.6	18,938	+0.7
Wisconsin	45	1,594	+0.6	42,756	−2.5	576	9,433	+4.0	205,509	+2.6
Wyoming	10	88	−4.3	3,255	−0.9	21	177	−1.7	4,856	−2.2

[5] Less than one-tenth of 1 per cent.

[6] No change.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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, April, 1932	Per cent of change	Amount of pay roll (1 week), April, 1932	Per cent of change	Number of establishments	Number on pay roll, April, 1932	Per cent of change	Amount of pay roll (1 week), April, 1932	Per cent of change
Alabama	6	274	−7.4	$3,223	−13.3	6	1,101	−1.1	$11,376	−14.5
Arkansas	9	195	+13.4	2,290	+4.8					
Arizona						14	4,658	−2.1	107,915	+1.2
California	30	782	−3.0	17,422	−4.3	21	1,680	−3.3	45,875	−3.4
Colorado						15	693	−3.7	18,741	−2.1
Connecticut	10	273	+13.7	4,338	−6.3					
Delaware										
District of Columbia										
Florida	7	418	+0.7	5,899	−0.8					
Georgia	16	751	+0.4	7,912	−12.6					
Idaho										
Illinois	27	556	+21.9	9,134	+8.1	12	2,071	−1.3	43,664	−9.4
Indiana	34	1,613	+4.5	28,955	+11.4					
Iowa	18	255	+19.7	4,448	+31.7					
Kansas	*20*	*856*	*+5.9*	*19,996*	*+1.0*	*7*	*309*	*+7.3*	*5,282*	*+30.2*
Kentucky	26	622	+17.6	5,126	+29.8					
Louisiana	3	248	+3.8	2,842	+18.9					
Maine	5	82	−41.8	2,579	−48.7					
Maryland	*18*	*445*	*+29.0*	*6,691*	*+49.0*					
Massachusetts										
Michigan	17	848	−5.0	9,877	−36.5	43	7,957	−3.9	85,590	−6.8
Minnesota	5	135	+50.0	2,839	+38.1	33	839	−11.0	12,065	−26.8
Mississippi	3	44	−35.3	346	−45.0					
Missouri	15	296	+5.0	3,878	+8.5	11	1,051	−6.7	21,287	−6.7
Montana	3	32	+220.0	411	+105.5	13	37	−51.9	841	−28.6
Nebraska	3	101	+90.6	1,718	+260.9					
Nevada						16	340	−11.9	9,332	−8.0
New Hampshire	9	88	+37.5	1,577	+9.9					
New Jersey	3	53	+55.9	1,186	+30.6	3	112	(6)	1,745	−29.1
New Mexico						4	786	−1.5	13,733	−5.7
New York	42	1,781	+17.2	37,089	+14.5					
North Carolina	8	108	−11.5	1,477	−1.7					
North Dakota										
Ohio	56	1,558	+7.6	29,987	+11.9					
Oklahoma	4	73	+1.4	995	−12.6	28	605	−16.0	10,655	−18.8
Oregon						4	77	+2.7	1,566	−0.2
Pennsylvania	60	2,810	+5.7	33,850	+6.4					
Rhode Island										
South Carolina	*5*	99	+10.0	768	+1.6					
South Dakota										
Tennessee	21	1,019	−12.6	14,331	−4.4	4	308	−3.1	3,449	−8.9
Texas	*22*	*574*	*+11.2*	*12,993*	*+12.3*					
Utah						13	2,601	−4.8	47,265	−6.9
Vermont	39	2,350	+5.6	54,401	+7.0					
Virginia	18	995	+6.0	9,872	+6.6					
Washington	7	117	−6.4	2,476	−8.7					
West Virginia	7	423	−8.8	5,073	−4.8					
Wisconsin	10	289	+68.0	4,784	+38.7					
Wyoming										

[6] No change.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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 April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change	Number of establishments	Number on pay roll April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change
Alabama	44	9,153	−1.8	$73,780	−11.2					
Arkansas	*5*	*136*	*−47.2*	*992*	*−57.0*	7	209	+4.0	$4,900	−1.8
Arizona										
California						40	5,380	+23.0	182,568	+14.9
Colorado	44	4,571	−11.6	65,562	−39.7					
Connecticut										
Delaware										
District of Columbia										
Florida										
Georgia										
Idaho										
Illinois	*33*	*473*	*−25.7*	*14,082*	*−25.4*	8	199	−1.0	3,815	−4.8
Indiana	46	2,840	−52.8	63,181	−63.5	3	13	+8.3	161	+3.2
Iowa	23	2,529	−8.6	37,932	−44.4					
Kansas	*21*	*1,825*	*−5.4*	*27,047*	*−25.6*	30	1,137	+3.6	29,284	+6.7
Kentucky	152	24,313	−3.9	303,624	−15.9	7	179	−3.2	3,162	−10.4
Louisiana						7	142	+22.4	4,071	+31.4
Maine										
Maryland	*14*	*1,413*	*+0.4*	*16,635*	*−12.0*					
Massachusetts										
Michigan										
Minnesota										
Mississippi										
Missouri	18	909	−24.9	16,061	−39.2					
Montana	10	960	−5.0	20,523	−36.7	5	51	+4.1	1,215	−7.8
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	13	1,886	−3.1	26,276	−13.1	4	45	−19.6	1,552	−0.7
New York						5	189	+4.4	4,637	−5.2
North Carolina										
North Dakota										
Ohio	54	4,652	−45.9	46,854	−68.6	6	71	+9.2	1,185	−5.7
Oklahoma	16	309	−38.3	4,753	−31.9	62	4,770	+5.0	126,052	−2.1
Oregon										
Pennsylvania	391	54,597	−0.4	751,643	−2.6	18	359	+0.3	8,973	−5.5
Rhode Island										
South Carolina										
South Dakota										
Tennessee	17	2,758	−2.7	27,392	−4.5					
Texas						*3*	*6,250*	*−0.2*	*229,424*	*−2.9*
Utah	14	1,790	−22.5	35,341	−44.4					
Vermont										
Virginia	24	3,934	−3.6	38,707	−11.6					
Washington	11	1,491	−1.9	32,187	−6.8					
West Virginia	251	38,498	−3.1	528,139	−8.0	9	341	−11.7	8,288	−15.0
Wisconsin										
Wyoming	32	3,470	−10.0	76,166	−17.5	7	163	+1.9	4,932	−0.2

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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, April, 1932	Per cent of change	Amount of pay roll (1 week), April, 1932	Per cent of change	Number of establishments	Number on pay roll, April, 1932	Per cent of change	Amount of pay roll (1 week), April, 1932	Per cent of change
Alabama	123	2,069	−1.3	$45,294	+0.1	29	1,279	+0.3	$12,481	+0.7
Arkansas	*46*	*1,170*	*−15.0*	*30,864*	*−12.7*	*17*	*981*	*−0.6*	*11,810*	*−1.3*
Arizona	64	1,547	+5.4	38,181	−5.2	15	449	−16.9	7,417	−17.4
California	*40*	*49,478*	+[5]	*1,472,072*	*−1.0*	235	10,904	−3.1	191,254	−4.8
Colorado	198	5,891	−0.7	157,035	−4.3	32	1,154	+2.5	18,243	−0.3
Connecticut	134	10,260	+0.3	337,381	−2.3	30	1,220	+1.2	17,036	*−0.9*
Delaware	28	1,102	+2.5	30,538	+0.5	6	270	[6]	*3,595*	−1.3
District of Columbia	22	8,479	+1.4	246,466	−0.9	51	4,550	+6.4	70,986	+4.3
Florida	183	4,357	−1.7	117,266	−8.7	60	2,765	−33.0	33,319	−41.4
Georgia	184	7,474	−1.3	214,020	−5.9	32	1,539	+0.3	14,256	−4.2
Idaho	57	742	+1.5	15,019	−6.0	15	254	−0.4	3,741	−4.8
Illinois	*61*	*72,307*	*+1.2*	*2,199,894*	*+2.2*	[7] *50*	*8,376*	*−2.5*	*142,520*	*−2.0*
Indiana	135	10,642	−1.7	270,122	−5.2	59	2,896	+8.9	36,737	+6.6
Iowa	427	10,325	−1.0	250,248	−2.1	55	2,402	−5.4	26,188	−5.0
Kansas	*24*	*7,555*	*+3.2*	*187,686*	*+1.8*	*21*	*636*	*+5.8*	*7,267*	*−0.3*
Kentucky	303	7,385	−0.1	173,751	−1.1	37	2,062	+4.5	24,552	+5.0
Louisiana	153	4,649	−1.8	111,032	−5.3	21	2,009	−3.3	23,523	−3.7
Maine	172	3,101	+0.6	87,533	−3.4	7	499	−5.1	7,762	−1.0
Maryland	*92*	*12,119*	*−0.1*	*368,669*	*+4.0*	*24*	*1,573*	*+0.2*	*22,075*	*−2.0*
Massachusetts	*138*	*47,980*	*−1.6*	*1,447,253*	*−2.3*	*99*	*5,395*	*−0.6*	*86,265*	*+2.9*
Michigan	416	24,993	−0.2	717,978	−5.1	71	4,004	+0.4	57,628	−0.3
Minnesota	267	13,262	−0.9	368,260	−1.8	59	2,958	−1.4	40,905	−2.3
Mississippi	202	2,227	−3.2	44,070	−8.8	23	722	+0.4	6,908	−2.7
Missouri	218	23,340	+0.4	651,240	−5.6	78	4,612	+0.6	60,272	−1.8
Montana	113	2,136	−4.6	67,098	−11.5	19	294	+1.4	4,840	−1.0
Nebraska	300	6,298	−0.8	162,774	−5.8	36	1,656	−4.3	20,110	−11.3
Nevada	40	403	+5.2	11,470	−2.7	12	146	[6]	2,541	−0.7
New Hampshire	145	2,291	−0.9	64,812	−2.8	8	196	−1.0	2,560	−0.2
New Jersey	277	24,489	−[5]	770,454	−3.2	56	3,914	+0.2	55,203	−2.5
New Mexico	56	564	−3.3	12,496	−3.1	15	285	−5.6	3,400	−5.9
New York	919	109,817	−0.9	3,483,174	−4.6	209	28,663	−2.2	484,624	−3.9
North Carolina	97	1,947	−1.6	39,640	−2.2	28	1,354	+2.4	14,263	−1.1
North Dakota	171	1,235	−1.8	31,885	−1.4	20	408	+3.3	4,487	−3.6
Ohio	480	33,452	−0.6	886,735	−2.6	174	9,612	−0.7	137,790	−1.4
Oklahoma	245	6,483	−0.9	148,771	−7.0	38	901	+0.6	8,869	−3.0
Oregon	184	5,842	+1.7	156,584	−5.4	41	1,078	−1.4	17,003	−5.8
Pennsylvania	704	54,151	−0.9	1,620,492	−4.0	139	9,415	+0.1	132,750	−4.2
Rhode Island	35	3,751	−1.3	114,266	−4.7	14	387	−0.5	5,803	−4.1
South Carolina	70	1,766	−4.5	42,194	+0.4	17	401	−7.2	3,817	−11.8
South Dakota	128	1,076	−1.8	28,691	−7.3	15	318	[6]	4,064	−2.8
Tennessee	251	5,242	−0.5	122,142	−4.2	41	2,509	+1.7	23,939	−2.8
Texas	*112*	*7,435*	*−0.9*	*215,685*	*−1.6*	*49*	*3,368*	*+0.2*	*42,972*	*−3.5*
Utah	69	1,898	−3.2	41,003	−5.5	13	542	−2.9	8,391	−2.1
Vermont	117	1,038	−0.1	25,334	−1.8	17	376	−2.6	4,627	−2.3
Virginia	178	6,291	+0.7	157,330	−2.3	37	2,308	+6.8	28,458	+2.6
Washington	204	10,232	−1.0	299,532	−6.6	61	2,199	+0.5	30,479	−3.1
West Virginia	123	6,462	+1.2	168,489	−5.4	16	654	+0.5	7,958	−2.9
Wisconsin	275	16,007	+2.1	419,401	−1.0	30	1,597	−3.3	22,121	−4.8
Wyoming	47	447	−0.4	11,040	−5.4	14	201	+0.5	3,273	−4.0

[5] Less than one-tenth of 1 per cent. [6] No change. [7] Includes restaurants.

COMPARISON OF EMPLOYMENT AND EARNINGS IN **IDENTICAL** ESTABLISHMENTS IN MARCH AND APRIL, 1932, 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 April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change	Number of establishments	Number on pay roll April, 1932	Per cent of change	Amount of pay roll (1 week) April, 1932	Per cent of change
Alabama	5	478	+1.9	$4,839	−3.8	4	161	−4.2	$1,965	−3.7
Arkansas	*19*	*512*	*+1.2*	*5,264*	*−1.8*	3	34	+3.0	447	+2.8
Arizona	10	459	−3.6	7,613	−4.7					
California	[8] *71*	*6,061*	*−1.4*	*123,772*	*−3.1*					
Colorado	11	889	−0.7	14,261	+0.3	12	165	+10.7	3,379	+6.9
Connecticut	28	1,036	−1.1	19,645	−1.5	9	215	+1.4	5,434	+2.9
Delaware	4	316	(6)	5,154	−1.9	3	35	+2.9	573	+3.6
District of Columbia	19	2,098	+1.9	35,444	+0.3	6	141	+4.4	2,999	+9.2
Florida	9	428	−2.3	5,081	−4.0	6	50	+6.4	845	+10.5
Georgia	14	673	+2.7	6,911	+2.0	4	133	−2.2	1,659	−1.1
Idaho										
Illinois	[8] *21*	*1,506*	*−0.9*	*25,012*	*−0.8*					
Indiana	21	1,732	−0.3	25,765	−0.1	13	216	+2.9	3,983	+3.0
Iowa	4	236	+5.8	4,033	+4.8					
Kansas	*24*	*1,032*	*+0.2*	*13,604*	*+2.9*	*3*	*21*	(6)	*302*	*−1.9*
Kentucky	19	821	+2.2	11,046	+0.2	5	237	+3.5	3,900	+8.2
Louisiana						3	35	+9.4	495	+7.6
Maine	23	481	+0.2	7,629	+1.0	4	119	+4.4	2,216	+4.6
Maryland	*23*	*1,931*	*+2.5*	*30,373*	*+1.2*	*13*	*185*	*+8.2*	*3,290*	*+3.2*
Massachusetts	*77*	*2,639*	*−0.1*	*48,141*	*−1.4*	*116*	*1,284*	*+3.0*	*27,465*	*+14.5*
Michigan	25	1,730	−0.7	26,897	−0.8	18	518	+9.5	11,324	+19.4
Minnesota	15	811	+1.1	14,442	+2.6	12	345	+6.8	7,007	+12.5
Mississippi	5	235	−3.3	2,228	−5.2					
Missouri	37	2,867	−0.3	42,098	−0.9	15	449	+6.1	8,291	+13.1
Montana	17	402	−1.2	8,233	−0.4	3	17	(6)	433	−3.8
Nebraska	9	777	+3.7	13,458	+3.6	5	155	+9.9	3,554	+7.7
Nevada	4	60	+1.7	1,399	+0.9					
New Hampshire	15	258	+0.4	4,112	+0.3					
New Jersey	28	3,024	+0.2	65,260	+1.1	9	351	+2.9	10,727	+16.0
New Mexico	6	246	−2.0	3,718	−1.0					
New York	70	7,112	+1.6	133,375	+1.3	21	666	+3.1	14,940	+13.0
North Carolina	13	794	+0.9	9,255	−0.3	4	63	−4.5	812	+11.5
North Dakota	11	238	+0.8	4,177	+0.2					
Ohio	77	4,590	−(5)	79,962	+1.1	42	1,772	+4.1	35,017	+12.3
Oklahoma	7	619	−1.6	8,457	−2.3	6	235	−0.4	3,453	−2.0
Oregon	4	272	(6)	4,735	+3.6	5	46	−4.2	1,186	+1.2
Pennsylvania	49	3,703	+1.5	61,290	+0.4	26	1,139	+2.6	22,846	+4.8
Rhode Island	19	1,126	+0.4	21,017	−0.4	5	277	+1.5	5,450	+3.0
South Carolina	9	341	−1.2	3,490	−2.2					
South Dakota	7	156	−1.9	2,476	−2.2					
Tennessee	14	1,002	−2.2	9,719	−2.8	7	67	−5.6	999	−11.6
Texas	21	940	−1.6	11,543	−3.5	17	333	−0.3	5,966	+4.0
Utah	7	568	−0.2	8,644	+0.4	7	127	+3.3	2,662	+11.1
Vermont	6	77	(6)	1,058	−0.9	3	26	(6)	470	+3.3
Virginia	11	799	+0.9	9,531	−5.4	18	277	+1.8	4,180	+4.8
Washington	16	783	−2.5	18,238	−0.8	11	121	+3.5	2,475	+11.3
West Virginia	23	792	−2.5	11,281	−1.1	11	232	+0.4	3,731	−0.2
Wisconsin	19	611	−3.2	9,012	−3.1	5	193	+3.2	3,914	+9.9
Wyoming	6	123	+1.7	2,507	+5.3					

[5] Less than one-tenth of 1 per cent. [6] No change. [8] Includes dyeing and cleaning.

Employment and Pay Roll in April, 1932, in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and earnings in April, 1932, as compared with March, 1932, in 13 cities of the United States having a population of 500,000 or over. These fluctuations are based on reports received from identical establishments in each of the months considered.

These city tabulations include all establishments reporting in all of the industrial groups, except building construction in these 13 cities, and also additional employment information secured from banks, insurance companies, garages, and other establishments in these 13 cities. Building construction data are not included in these totals, as information is not available for all cities at this time.

COMPARISON OF EMPLOYMENT AND PAY ROLL IN CITIES OF OVER 500,000 POPULATION, MARCH AND APRIL, 1932

Cities	Number of establishments reporting in both months	Number on pay roll		Percent of change	Amount of pay roll (1 week)		Percent of change
		March, 1932	April, 1932		March, 1932	April, 1932	
New York City	1,711	296,649	292,885	−1.3	$8,773,847	$8,341,833	−4.9
Chicago, Ill	1,846	210,394	203,992	−3.0	5,500,791	5,214,985	−5.2
Philadelphia, Pa	651	116,445	111,979	−3.8	2,731,166	2,487,525	−8.9
Detroit, Mich	563	193,008	183,708	−4.8	4,847,269	4,649,720	−4.1
Los Angeles, Calif	434	53,815	53,666	−0.3	1,379,154	1,339,525	−2.9
Cleveland, Ohio	993	82,865	79,578	−4.0	1,864,088	1,736,060	−6.9
St. Louis, Mo	488	69,494	68,027	−2.1	1,562,997	1,502,603	−3.9
Baltimore, Md	549	49,213	48,738	−1.0	1,028,998	991,878	−3.6
Boston, Mass	2,453	87,920	86,018	−2.2	2,313,667	2,217,069	−4.2
Pittsburgh, Pa	312	49,902	49,343	−1.1	1,070,461	1,041,384	−2.7
San Francisco, Calif	885	40,550	39,883	−1.6	1,070,661	1,018,840	−4.8
Buffalo, N. Y	262	41,546	41,470	−0.2	1,003,636	999,044	−0.5
Milwaukee, Wis	453	39,315	38,361	−2.4	838,659	798,047	−4.8

Employment in Executive Civil Service of the United States, April, 1932

THE table following shows for the months of April, 1931, and March and April, 1932, the number of officers and employees of the executive civil service of the United States Government. The figures are complete except for temporary employees in the field service of the Post Office Department. The number of temporary employees in this department varies greatly, mainly because of seasonal demand. The principal demand for such workers is during the Christmas mail rush. Their term of service is usually quite brief.

As indicated by the title of this article, the figures do not include the legislative, judicial, or Army and Navy services. The data are compiled by the various Federal departments and offices and sent to the United States Civil Service Commission where they are assembled. They are published here by courtesy of the commission and in compliance with the direction of Congress. No information has yet been collected relative to the amounts of pay rolls. Because of the importance of Washington as a Government center the figures for the District of Columbia are shown separately and included in the total for the entire service.

At the end of April, 1932, there were 575,338 employees in the executive civil service of the United States. Of this number, 544,986

were permanent employees and 30,352 were temporary employees. In the interval between April, 1931, and April, 1932, there was a gain of 2,709 employees, or 0.44 per cent. Comparing the number on the pay roll on April 30, 1932, with the March 31, 1932, figure there were was a gain of 519, or 0.09 per cent.

The number of employees in the District of Columbia, however, showed a decrease of 2,774, or 3.84 per cent comparing April, 1932, with April, 1931, and a decrease of 28 or less than one-tenth of 1 per cent comparing April, 1932, with March, 1932.

During the month of April, 1932, 14,490 employees were hired in the entire Federal service and 13,971 employees were separated from the service because of resignation, termination of employment, death, retirement, or other causes. This gives a net turnover rate of 2.43 during the month.

The turnover rate for the District of Columbia was less than one-half that for the entire service, this being only 0.98 per cent. There were 69,454 employees on the Government pay roll in the District of Columbia at the end of April, 1932.

EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, APRIL, 1931; MARCH, APRIL, 1932

Class	District of Columbia			Entire service		
	April, 1931	March, 1932	April, 1932	April, 1931	March, 1932	April, 1932
Permanent employees	63,875	66,163	66,262	568,947	[1] 545,591	[1] 544,986
Temporary employees (not including those in the field service of the Post Office Department	8,353	2,906	3,192	44,900	28,097	30,352
Total	72,228	69,069	69,454	613,847	[1] 573,688	[1] 575,338

Gain or loss	District of Columbia		Entire service	
	Number	Per cent	Number	Per cent
April, 1931 to April, 1932	−2,774	−3.84	+2,709	+0.44
March, 1932 to April, 1932	−[2] 28	([3])	+[4] 519	+.09

Labor turnover	District of Columbia	Entire service
Additions in April, 1932	[2] 677	[4] 14,490
Separations in April, 1932	705	13,971
Monthly turnover April, 1932	0.98	2.43

[1] 35,800 star-route and other contractors, clerks in charge of mail contract stations, clerks in third-class post offices, and special-delivery messengers, who were previously included in these totals have been deducted.

[2] Does not include 413 employes of the Reconstruction Finance Corporation reported for the first time. (These employees are included in the totals for the District of Columbia.)

[3] Less than one-tenth of 1 per cent.

[4] Does not include 1,131 employees of the Reconstruction Finance Corporation reported for the first time. (These employees are included in the total for the entire service.)

Employment in Building Construction in April, 1932

EMPLOYMENT in building construction increased 10.7 per cent in April as compared with March, and earnings increased 15.9 per cent during the same period. This information is based on reports received from 7,344 firms engaged on building operations in 50 cities covered by the Federal bureau and 2,531 additional firms in various localities in Pennsylvania, California, Massachusetts, New York State, Wisconsin, and the city of Baltimore, Md. Information regarding employment in the building industry in New York State is presented for the first time in these reports. This is possible through the cooperation of the bureau of statistics and information of the New York State Department of Labor. All information other than for the 50 cities covered by the Federal bureau in the first section of the table is supplied by cooperating State labor departments which collect this information within their respective jurisdictions.

COMPARISON OF EMPLOYMENT AND EARNINGS IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, MARCH AND APRIL, 1932

Locality	Number of firms reporting	Number on pay roll week ending near—		Per cent of change	Amount of pay roll week ending near—		Per cent of change
		Mar. 15	Apr. 15		Mar. 15	Apr. 15	
Akron	71	338	321	−5.0	$6,808	$6,382	−6.3
Atlanta	123	1,222	1,149	−6.0	18,716	18,361	−1.9
Birmingham	79	435	414	−4.8	6,544	5,818	−11.1
Bridgeport	136	570	597	+4.7	15,057	15,893	+5.6
Charlotte	37	208	217	+4.3	3,372	3,374	+0.1
Cincinnati [1]	511	2,802	3,400	+21.3	72,651	96,821	+33.3
Cleveland	418	1,894	2,414	+27.5	49,826	63,224	+26.9
Dallas	130	666	818	+22.8	12,414	14,951	+20.4
Dayton	110	470	534	+13.6	10,539	11,744	+11.4
Denver	211	860	898	+4.4	22,408	23,912	+6.7
Des Moines	101	499	508	+1.8	11,353	12,099	+6.6
Detroit	429	2,962	2,904	−2.0	76,952	74,540	−3.1
Duluth	53	208	273	+31.3	3,881	5,305	+36.7
Flint	31	138	139	+0.7	3,334	2,468	−26.0
Fort Wayne	105	531	651	+22.6	10,269	13,510	+31.6
Grand Rapids	98	307	333	+8.5	6,235	6,807	+9.2
Hartford	257	1,044	1,501	+43.8	28,504	39,481	+38.5
Houston	113	742	686	−7.5	12,040	12,464	+3.5
Indianapolis	147	833	837	+0.5	20,270	20,618	+1.7
Jacksonville	56	241	228	−5.4	3,744	3,408	−9.0
Kansas City [2]	229	1,477	1,673	+13.3	43,043	49,846	+15.8
Knoxville	31	364	493	+35.4	4,984	7,087	+42.2
Louisville	133	1,042	1,088	+4.4	19,820	23,104	+16.6
Memphis	93	672	737	+9.7	12,079	15,405	+27.5
Miami	83	624	560	−10.3	14,873	12,291	−17.4
Minneapolis	243	1,466	1,675	+14.3	36,130	42,978	+19.0
Nashville	77	1,035	1,059	+2.3	17,381	19,654	+13.1
New Haven	208	1,943	2,146	+10.4	66,873	67,786	+1.4
New Orleans	126	1,174	1,311	+11.7	20,801	22,972	+10.4
Norfolk-Portsmouth	87	454	516	+13.0	9,007	10,293	+14.3
Oklahoma City	100	557	647	+16.2	11,364	12,121	+6.7
Omaha	137	688	887	+28.9	14,651	22,240	+51.8
Portland, Me	85	409	444	+8.6	10,822	10,951	+1.2
Portland, Oreg	193	1,146	1,072	−6.5	27,149	24,158	−11.0
Providence	221	1,346	1,761	+30.8	32,700	43,657	+33.5
Richmond	151	1,219	1,176	−3.5	24,196	25,624	+5.9
St. Louis	436	1,991	2,068	+3.9	58,599	63,147	+7.8
St. Paul	138	937	1,110	+18.5	21,189	29,667	+40.0
Salt Lake City	81	483	546	+13.0	10,249	12,294	+20.0
San Antonio	68	527	609	+15.6	7,877	9,210	+16.9

[1] Includes Covington and Newport, Ky.
[2] Includes both Kansas City, Kans., and Kansas City, Mo.

COMPARISON OF EMPLOYMENT AND EARNINGS IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, MARCH AND APRIL, 1932—Continued

Locality	Number of firms reporting	Number on pay roll week ending near—		Per cent of change	Amount of pay roll week ending near—		Per cent of change
		Mar. 15	Apr. 15		Mar. 15	Apr. 15	
Seattle	189	952	994	+4.4	$23,220	$22,113	−4.8
South Bend	44	302	297	−1.7	6,528	6,639	+1.7
Spokane	44	161	166	+3.1	3,539	3,705	+4.7
Tacoma	64	211	130	−38.4	4,925	2,881	−41.5
Tulsa	59	295	247	−16.3	5,924	4,826	−18.5
Washington, D. C	551	7,391	8,496	+15.0	188,652	239,413	+26.9
Wheeling	52	213	227	+6.6	4,329	4,622	+6.8
Wichita	63	227	236	+4.0	4,069	3,960	−2.7
Wilmington, Del	98	1,102	1,512	+37.2	24,827	32,065	+29.2
Youngstown	44	229	140	−38.9	4,749	3,063	−35.5
Total, 50 cities	7,344	47,607	52,845	+11.0	1,129,466	1,298,952	+15.0
Erie [3]	24	128	196	+53.1	2,859	4,114	+43.9
Philadelphia [3]	478	3,525	3,643	+3.3	85,543	92,226	+7.8
Pittsburgh [3]	240	1,320	1,748	+32.4	43,674	54,315	+24.4
Reading [3]	63	372	398	+7.0	7,580	8,414	+11.0
Scranton [3]	36	165	187	+13.3	3,900	3,885	−0.4
Nine additional cities over 50,000, under 100,000 [3]	189	1,021	1,202	+17.7	18,956	22,539	+18.9
Total, 14 cities	1,030	6,531	7,374	+12.9	162,512	185,493	+14.1
Los Angeles [3]	25	737	715	−3.0	16,928	15,874	−6.2
San Francisco-Oakland [3]	38	901	979	+8.7	19,518	25,219	+29.2
California (including all localities) [3]	89	2,213	2,250	+1.7	50,187	54,543	+8.7
Baltimore, Md. [3]	140	1,138	1,416	+24.4	23,447	27,996	+19.4
Massachusetts [3]	760	5,774	6,663	+15.4	165,930	184,889	+11.4
New York State [3]	447	12,645	13,683	+8.2	496,526	604,286	+21.7
Wisconsin [3]	65	1,297	1,272	−1.9	31,701	30,974	−2.3
Grand total, all localities	9,875	77,205	85,503	+10.7	2,059,769	2,387,133	+15.9

[3] Data supplied by cooperating State bureaus.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to March, 1932, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO MARCH, 1932

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7	61.2
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	-------
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	-------
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	-------
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	-------
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	-------
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	-------
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	-------
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	-------
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	-------
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	[1] 60.7

[1] Average for 3 months.

Table 2 shows the total number of employees on the 15th day each of March, 1931, and February and March, 1932, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, MARCH, 1931, AND FEBRUARY AND MARCH, 1932

[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]

Occupation	Number of employees at middle of month			Total earnings		
	Mar. 15, 1931	Feb. 15, 1932	Mar. 15, 1932	March, 1931	February, 1932	March, 1932
Professional, clerical, and general	232,325	198,721	197,049	$34,512,272	$26,360,210	$26,992,117
Clerks	127,011	106,284	105,267	17,791,296	13,178,957	13,649,048
Stenographers and typists	21,703	18,719	18,536	2,867,003	2,221,214	2,271,947
Maintenance of way and structures	269,047	208,905	210,004	25,492,320	15,810,444	17,237,901
Laborers, extra gang and work-train	24,708	12,313	13,415	1,754,802	650,963	780,384
Laborers, track and roadway section	140,287	113,922	113,413	9,593,712	5,721,358	6,421,656
Maintenance of equipment and stores	367,593	302,254	307,146	47,455,024	31,072,558	33,446,735
Carmen	76,358	61,312	62,359	11,016,008	6,946,863	7,558,704
Machinists	47,988	41,474	42,427	7,286,742	4,909,497	5,350,669
Skilled trades helpers	80,763	65,890	67,021	8,754,144	5,513,638	5,976,245
Laborers (shops, engine houses, power plants, and stores)	30,170	24,994	25,080	2,843,957	1,906,133	2,020,674
Common laborers (shops, engine houses, power plants, and stores)	39,358	31,644	32,044	2,985,670	1,850,788	2,043,077
Transportation, other than train, engine and yard	164,788	141,551	140,491	20,909,629	15,436,359	16,204,960
Station agents	27,960	26,338	26,234	4,452,211	3,631,649	3,826,751
Telegraphers, telephoners, and towermen	20,255	17,792	17,634	3,198,288	2,376,071	2,520,480
Truckers (stations, warehouses, and platforms)	24,744	19,489	19,419	2,288,523	1,451,674	1,567,758
Crossing and bridge flagmen and gatemen	19,063	18,222	18,205	1,480,658	1,261,888	1,264,942
Transportation (yard masters, switch tenders, and hostlers)	18,520	15,445	15,418	3,616,242	2,537,001	2,618,187
Transportation, train and engine	251,195	212,050	212,168	49,759,270	34,481,001	37,151,440
Road conductors	28,526	24,202	24,285	6,785,540	4,849,927	5,186,902
Road brakemen and flagmen	54,874	46,174	46,087	9,235,939	6,399,139	6,888,225
Yard brakemen and yard helpers	42,592	36,032	36,144	7,177,387	4,769,154	5,179,072
Road engineers and motormen	33,719	28,841	28,740	9,035,912	6,424,258	6,895,901
Road firemen and helpers	34,652	29,663	29,481	6,540,947	4,616,986	4,959,494
All employees	1,303,468	1,078,926	1,082,276	181,744,757	125,697,573	133,651,340

RETAIL PRICES

Retail Prices of Food in April, 1932

WITH the March, 1932, issue the Bureau of Labor Statistics began the publication of the data relating to retail prices and wholesale prices in separate pamphlets each month. Heretofore this material has been incorporated in the same publication.

It has been the custom of the Bureau of Labor Statistics to publish each month certain information in regard to the retail prices of food by cities and articles. In the interest of economy in the cost of printing some of these detailed statistics are temporarily eliminated from current publications. Information comparable to that shown in previous publications is on record in the files of the bureau and available to those desiring to make use of it.

Rates of electricity for household use and price per 1,000 cubic feet of gas, by cities, are published in June and December of each year.

Table 1 shows for 51 cities of the United States, retail prices and index numbers of food on April 15, 1931, and March 15 and April 15, 1932. These prices are simple averages of actual selling prices reported monthly by retail dealers in 51 cities. The index numbers are based on the average prices in the year 1913.

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF FOOD IN THE UNITED STATES, APRIL 15 AND MARCH 15, 1932, AND APRIL 15, 1931

Article	Unit	Average retail price on—			Index numbers [1913=100]		
		Apr. 15, 1931	Mar. 15, 1932	Apr. 15, 1932	Apr. 15, 1931	Mar. 15, 1932	Apr. 15, 1932
		Cents	*Cents*	*Cents*			
Sirloin steak	Pound	40.0	33.0	33.4	157.5	129.9	131.5
Round steak	do	34.9	28.5	28.6	156.5	127.8	128.3
Rib roast	do	29.7	24.4	24.3	150.0	123.2	122.7
Chuck roast	do	22.3	17.3	17.4	139.4	108.1	108.8
Plate beef	do	15.1	11.6	11.7	124.8	95.9	96.7
Pork chops	do	29.7	21.5	21.5	141.4	102.4	102.4
Bacon, sliced	do	38.1	25.7	24.9	141.1	95.2	92.2
Ham, sliced	do	47.2	36.6	36.3	175.5	136.1	134.9
Lamb, leg of	do	31.3	24.9	25.6	165.6	131.7	135.4
Hens	do	32.6	27.3	26.5	153.1	128.2	124.4
Salmon, red, canned	do	34.0	28.5	28.1			
Milk, fresh	Quart	12.6	11.3	11.0	141.6	127.0	123.6
Milk, evaporated	14½-oz. can	9.4	7.6	7.5			
Butter	Pound	35.2	29.5	26.8	91.9	77.0	70.0
Oleomargarine (all butter substitutes).	do	21.2	15.9	15.4			
Cheese	do	29.3	23.8	23.3	132.6	107.7	105.4
Lard	do	14.2	9.0	8.7	89.9	57.0	55.1
Vegetable lard substitute	do	23.4	21.5	21.4			
Eggs, strictly fresh	Dozen	27.4	21.1	20.0	79.4	61.2	58.0
Bread	Pound	7.7	7.0	6.9	137.5	125.0	123.2
Flour	do	3.8	3.2	3.2	115.2	97.0	97.0
Corn meal	do	4.8	3.9	3.9	163.3	130.0	130.0
Rolled oats	do	8.2	7.7	7.6			
Corn flakes	8-oz. pkg.	9.1	8.7	8.7			
Wheat cereal	28-oz. pkg.	24.5	22.7	22.6			

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF FOOD IN THE UNITED STATES, APRIL 15 AND MARCH 15, 1932, AND APRIL 15, 1931—Continued

Article	Unit	Average retail price on—			Index numbers [1913=100]		
		Apr. 15, 1931	Mar. 15, 1932	Apr. 15, 1932	Apr. 15, 1931	Mar. 15, 1932	Apr. 15, 1932
		Cents	*Cents*	*Cents*			
Macaroni	Pound	17.4	15.6	15.5			
Rice	do	8.4	7.1	6.9	96.6	81.6	79.3
Beans, navy	do	8.4	5.3	5.2			
Potatoes	do	2.8	1.7	1.7	164.7	100.0	100.0
Onions	do	3.6	8.6	10.3			
Cabbage	do	4.1	5.6	6.4			
Pork and beans	No. 2 can	9.7	8.0	7.9			
Corn, canned	do	13.9	11.1	10.8			
Peas, canned	do	14.6	13.1	13.1			
Tomatoes, canned	do	10.5	9.6	9.5			
Sugar	Pound	5.7	5.2	5.1	103.6	94.5	92.7
Tea	do	75.2	73.3	72.3	138.2	134.7	132.9
Coffee	do	34.6	30.8	30.5	116.1	103.4	102.3
Prunes	do	12.1	9.9	9.6			
Raisins	do	11.2	11.5	11.5			
Bananas	Dozen	27.8	23.5	22.8			
Oranges	do	33.1	30.7	31.9			
Weighted food index					124.0	105.0	103.7

Table 2 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 2.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, BY YEARS FOR 1913, 1920, 1928, 1929, 1930, 1931, AND BY MONTHS, 1931 AND 1932

[Average cost in 1913=100]

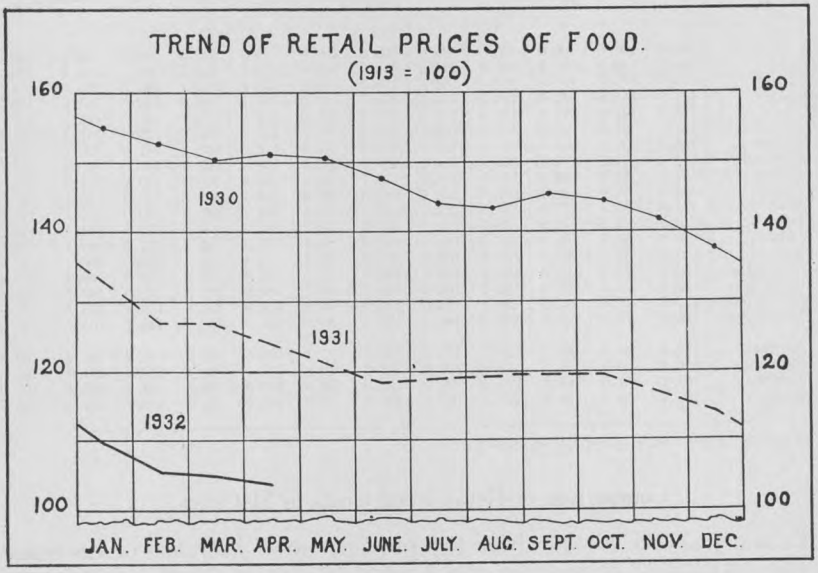
Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913	100.0	100.0	100.0	1931—Continued.			
1920	232.1	185.7	185.1	July	134.3	147.8	109.6
1928	167.2	179.2	150.0	August	132.0	149.1	111.9
1929	164.1	188.4	148.6	September	130.2	147.7	114.3
1930	158.0	175.8	136.5	October	129.8	142.7	117.0
1931: Average for year	135.9	147.0	114.6	November	129.1	135.4	114.4
January	147.1	159.5	123.6	December	127.8	129.3	111.4
February	144.6	153.4	120.2	1932:			
March	142.4	152.5	120.5	January	126.4	123.4	106.5
April	138.9	151.4	116.5	February	125.0	117.3	102.9
May	137.7	149.3	110.3	March	124.3	118.9	101.9
June	136.3	145.7	108.3	April	122.9	118.6	97.4

Index Numbers of Retail Prices of Food in the United States

In Table 3 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913, 1920, 1928, 1929, 1930, 1931, and by months for 1931 and 1932.[1] These index numbers, or relative prices, are based on the year 1913 as 100.0 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913.

In the last column are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Table 1, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 105.0 for March, 1932, and 103.7 for April, 1932.

The accompanying chart shows the trend in the cost of the food budget in 51 cities of the United States by months, January 15, 1930, to date.



The curve pictures more readily to the eye the changes in the cost of all articles of food than do the index numbers given in Table 3.

[1] For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.

TABLE 3.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920, 1928, 1929, 1930, 1931, AND BY MONTHS FOR 1931 AND 1932

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lamb, leg of	Hens	Milk	Butter
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	207.9	209.9	187.6	183.0
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	208.5	175.6	159.6	147.5
1929	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	212.2	186.4	160.7	143.9
1930	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	185.7	166.7	157.3	120.4
1931	155.1	154.3	146.0	134.4	118.2	138.6	134.8	170.6	156.1	145.5	138.2	92.4
January	167.3	168.2	159.1	152.5	138.0	141.9	148.9	188.1	166.1	153.5	149.4	98.4
February	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	164.6	148.8	146.1	94.8
March	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	164.0	150.2	144.9	97.4
April	157.5	156.5	150.0	139.4	124.8	141.4	141.1	175.5	165.6	153.1	141.6	91.9
May	155.5	154.7	147.0	135.6	119.8	143.3	139.3	172.9	165.1	148.8	138.2	81.5
June	152.4	151.1	142.9	130.6	112.4	140.0	136.7	170.6	161.9	146.0	134.8	80.7
July	154.3	154.3	142.9	130.0	110.7	151.4	137.0	171.4	158.7	144.6	136.0	82.8
August	155.5	155.2	143.9	130.0	109.9	158.6	135.6	171.4	156.6	145.1	136.0	89.8
September	155.1	154.3	142.9	130.6	111.6	153.3	134.1	169.5	152.4	145.1	136.0	96.1
October	152.0	150.7	141.4	129.4	111.6	139.5	127.0	164.3	145.5	140.4	134.8	104.2
November	146.9	144.8	137.9	126.3	109.9	119.0	118.9	155.4	138.1	137.1	134.8	97.4
December	142.9	140.4	134.8	122.5	108.3	103.8	112.2	147.6	131.7	134.3	130.3	95.3
1932:												
January	137.4	135.0	129.8	115.6	101.7	99.5	101.5	139.8	127.5	131.0	129.2	84.3
February	130.7	127.4	123.2	108.1	96.7	91.0	96.7	136.4	125.4	127.2	128.1	77.0
March	129.9	127.8	123.2	108.1	95.9	102.4	95.2	136.1	131.7	128.2	127.0	77.0
April	131.5	128.3	122.7	108.8	96.7	102.4	92.2	134.9	135.4	124.4	123.6	70.0

Year and month	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles [1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1928	174.2	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	171.9	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930	158.8	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
1931	127.1	84.2	91.9	135.7	109.1	153.3	94.3	135.3	103.6	138.6	113.4	121.3
January	145.2	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February	141.2	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March	137.1	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4
April	132.6	89.9	79.4	137.5	115.2	163.3	96.6	164.7	103.6	138.2	116.1	124.0
May	124.0	85.4	71.9	137.5	112.1	153.3	95.4	164.7	101.8	136.9	112.4	121.0
June	119.9	82.3	74.8	135.7	112.1	150.0	94.3	141.2	101.8	136.8	111.1	118.3
July	118.6	82.3	82.9	133.9	109.1	150.0	93.1	135.3	101.8	137.3	109.1	119.0
August	119.9	81.0	92.5	132.1	103.0	150.0	93.1	129.4	103.6	138.6	108.7	119.7
September	122.2	79.8	98.0	130.4	100.0	150.0	92.0	117.6	103.6	139.3	108.7	119.4
October	122.6	74.5	109.9	130.4	100.0	146.7	89.7	105.9	101.8	139.0	107.7	119.1
November	121.3	77.2	115.1	130.4	100.0	140.0	86.2	100.0	101.8	138.1	106.7	116.7
December	118.6	70.9	111.6	128.6	100.0	136.7	85.1	105.9	100.0	138.1	105.7	114.3
1932:												
January	115.4	63.9	86.1	126.8	100.0	133.3	85.1	100.0	98.2	136.2	104.4	109.3
February	110.4	59.5	70.1	125.0	100.0	133.3	82.8	100.0	96.4	135.3	104.0	105.3
March	107.7	57.0	61.2	125.0	97.0	130.0	81.6	100.0	94.5	134.7	103.4	105.0
April	105.4	55.1	58.0	123.2	97.0	130.0	79.3	100.0	92.7	132.9	102.3	103.7

[1] 22 articles in 1913–1920; 42 articles in 1921–1932.

Comparison of Retail Food Costs in 51 Cities

TABLE 4 shows for 39 cities the percentage of increase or decrease in the retail cost of food in the United States in April, 1932, compared with the average cost in the year 1913, in April, 1931, and March, 1932. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city. The consumption figures which have been used since January, 1921, are given in the Labor Review for March, 1921 (p. 26). Those used

for prior dates are given in the Labor Review for November, 1918 (pp. 94 and 95).

TABLE 4.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD, IN APRIL, 1932, COMPARED WITH THE COST IN MARCH, 1932, APRIL, 1932, AND WITH THE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase April, 1932, compared with 1913	Percentage decrease April, 1932, compared with—	
		April, 1931	March, 1932
United States	3.7	16.4	1.3
Atlanta	1.4	19.3	0.9
Baltimore	6.4	17.8	0.7
Birmingham	4.4	14.6	[2] 1.4
Boston	3.3	17.3	1.0
Bridgeport		13.7	2.8
Buffalo	10.8	12.1	[2] 3.1
Butte		15.0	2.0
Charleston, S. C.	8.5	16.2	1.1
Chicago	13.4	15.7	2.1
Cincinnati	0.4	23.5	4.2
Cleveland	[1] 2.4	17.7	0.6
Columbus		19.0	2.1
Dallas	0.7	16.0	[2] 0.6
Denver	[1] 4.6	14.5	2.1
Detroit	[1] 3.9	23.6	3.0
Fall River	2.8	15.3	1.3
Houston		18.2	3.3
Indianapolis	[1] 0.9	16.5	0.1
Jacksonville	[1] 5.5	18.1	0.4
Kansas City	1.3	19.6	1.2
Little Rock	[1] 7.8	21.5	0.8
Los Angeles	[1] 7.4	16.7	3.6
Louisville	[1] 3.0	16.1	1.7
Manchester	2.8	15.9	1.1
Memphis	[1] 3.0	15.7	1.5
Milwaukee	5.3	13.3	0.8
Minneapolis	2.5	17.2	2.5
Mobile		17.8	0.4
Newark	7.5	13.9	[2] 0.7
New Haven	12.2	12.8	1.4
New Orleans	3.9	13.8	1.4
New York	11.2	13.7	0.2
Norfolk		16.2	1.1
Omaha	[1] 1.7	16.2	2.0
Peoria		17.6	1.3
Philadelphia	7.0	17.4	1.4
Pittsburgh	2.0	18.5	1.0
Portland, Me.		12.1	0.0
Portland, Oreg.	[1] 2.9	11.5	0.3
Providence	5.4	14.3	0.4
Richmond	6.2	16.6	0.9
Rochester		15.8	1.1
St. Louis	4.8	17.9	1.9
St. Paul		16.4	1.8
Salt Lake City	[1] 10.7	16.2	1.7
San Francisco	9.0	11.9	0.9
Savannah		19.0	0.1
Scranton	11.0	14.7	[2] 0.4
Seattle	4.3	12.3	0.2
Springfield, Ill.		16.1	0.7
Washington	9.8	18.2	0.6
Hawaii:			
Honolulu		6.8	1.1
Other localities		7.9	0.0

[1] Decrease. [2] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of April schedules were received from 99 per cent of the firms in the 51 cities from which retail prices of food are collected.

Out of about 1,236 food reports 13 were not received—1 each in Baltimore, Birmingham, Boston, Cleveland, Detroit, Mobile, Philadelphia, Portland (Me.), Portland (Oreg.), San Francisco, and 3 in Seattle.

Out of about 350 bread reports 3 were missing—1 each in Jacksonville, Los Angeles, and Portland (Oreg.).

A perfect record is shown for the following-named cities: Atlanta, Bridgeport, Buffalo, Butte, Charleston (S. C.), Chicago, Cincinnati, Columbus, Dallas, Denver, Fall River, Houston, Indianapolis, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Newark, New Haven, New Orleans, New York, Norfolk, Omaha, Peoria, Pittsburgh, Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, Savannah, Scranton, Springfield (Ill.), and Washington.

Retail Prices of Coal in April, 1932[1]

RETAIL prices of coal are secured in each of the 51 cities in 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 table shows the average prices of coal per ton of 2,000 pounds and index numbers for the United States on April 15, 1932, in comparison with the average prices on April 15, 1931, and March 15, 1932, together with the percentage change in the year and in the month.

TABLE 1.—AVERAGE RETAIL PRICE PER 2,000 POUNDS OF COAL FOR THE UNITED STATES AND PER CENT OF CHANGE ON APRIL 15, 1932, COMPARED WITH APRIL 15, 1931, AND MARCH 15, 1932

Article	Average retail price on—			Per cent of decrease Apr. 15, 1932, compared with—	
	Apr. 15, 1931	Mar. 15, 1932	Apr. 15, 1932	Apr. 15, 1931	Mar. 15, 1932
Pennsylvania anthracite:					
Stove—					
Average price per 2,000 pounds	$14.45	$14.54	$13.62	5.7	6.3
Index (1913=100.0)	187.0	188.2	176.3		
Chestnut—					
Average price per 2,000 pounds	$14.39	$14.45	$13.46	6.5	6.9
Index (1913=100.0)	181.8	182.6	170.0		
Bituminous:					
Average price per 2,000 pounds	$8.46	$8.01	$7.85	7.2	2.0
Index (1913=100.0)	155.8	147.3	144.5		

Table 2 shows average retail prices of coal by cities. 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.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

[1] Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1931, AND MARCH 15 AND APRIL 15, 1932

City, and kind of coal	1931	1932	
	Apr. 15	Mar. 15	Apr. 15
Atlanta, Ga.:			
Bituminous, prepared sizes	$6.66	$6.54	$5.73
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	14.00	14.00	11.50
Chestnut	13.50	13.75	11.25
Bituminous, run of mine—			
High volatile	7.82	7.18	6.93
Birmingham, Ala.:			
Bituminous, prepared sizes	6.54	6.26	5.33
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	14.75	15.00	13.35
Chestnut	14.75	15.00	13.10
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	14.00	13.25	13.00
Chestnut	14.00	13.25	13.00
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	12.40	12.25	11.75
Chestnut	12.40	12.00	11.50
Butte, Mont.:			
Bituminous, prepared sizes	10.49	9.74	9.73
Charleston, S. C.:			
Bituminous, prepared sizes	9.67	9.50	9.50
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	16.40	16.75	16.75
Chestnut	16.30	16.75	16.75
Bituminous—			
Prepared sizes—			
High volatile	7.93	7.83	7.86
Low volatile	11.46	10.41	10.41
Run of mine—			
Low volatile	7.75	7.23	7.23
Cincinnati, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.05	5.75	4.75
Low volatile	7.03	8.00	6.50
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	14.56	14.38	14.44
Chestnut	14.44	14.31	14.31
Bituminous—			
Prepared sizes—			
High volatile	6.67	6.56	6.56
Low volatile	9.25	9.14	9.21
Columbus, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.43	5.25	5.25
Low volatile	7.17	6.75	6.67
Dallas, Tex.:			
Arkansas anthracite—Egg	15.00	14.00	14.00
Bituminous, prepared sizes	12.58	10.25	10.00
Denver, Colo.:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	15.25	15.00	14.88
Stove, 3 and 5 mixed	15.25	15.00	14.88
Bituminous, prepared sizes	9.57	8.00	7.87
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	14.50	14.17	13.67
Chestnut	14.50	14.17	13.58
Bituminous—			
Prepared sizes—			
High volatile	6.94	6.13	6.04
Low volatile	8.16	6.63	6.61
Run of mine—			
Low volatile	7.13	6.13	6.25
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	15.00	16.00	14.00
Chestnut	15.00	16.00	13.75
Houston, Tex.:			
Bituminous, prepared sizes	$11.40	$10.60	$10.20
Indianapolis, Ind.:			
Bituminous—			
Prepared sizes—			
High volatile	5.93	5.00	5.54
Low volatile	9.17	7.96	7.96
Run of mine—			
Low volatile	7.00	6.55	6.55
Jacksonville, Fla.:			
Bituminous, prepared sizes	10.00	10.00	10.00
Kansas City, Mo.:			
Arkansas anthracite—			
Furance	12.44	11.38	11.38
Stove No. 4	13.50	12.67	12.67
Bituminous, prepared sizes	6.71	6.06	6.12
Little Rock, Ark.:			
Arkansas anthracite—Egg	13.00	12.25	12.25
Bituminous, prepared sizes	9.90	9.17	8.72
Los Angeles, Calif.:			
Bituminous, prepared sizes	16.50	16.25	16.25
Louisville, Ky.:			
Bituminous—			
Prepared sizes—			
High volatile	4.93	5.18	4.73
Low volatile	7.50	7.50	6.75
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	15.50	15.50	14.50
Chestnut	15.50	15.50	14.50
Memphis, Tenn.:			
Bituminous, prepared sizes	7.66	6.72	6.82
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	15.75	15.05	15.05
Chestnut	15.50	14.80	14.80
Bituminous—			
Prepared sizes—			
High volatile	7.70	7.48	7.45
Low volatile	10.60	10.01	10.01
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	16.90	18.05	16.60
Chestnut	16.90	18.05	16.35
Bituminous—			
Prepared sizes—			
High volatile	9.61	9.32	9.34
Low volatile	12.63	12.04	12.04
Mobile, Ala.:			
Bituminous, prepared sizes	8.38	8.75	8.13
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	12.70	12.50	11.75
Chestnut	12.70	12.25	11.50
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	14.90	14.90	13.75
Chestnut	14.90	14.90	13.75
New Orleans, La.:			
Bituminous, prepared sizes	8.07	9.93	9.93
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	12.92	13.38	11.67
Chestnut	12.92	13.38	11.42
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	15.00	14.50	14.50
Chestnut	15.00	14.50	14.50
Bituminous—			
Prepared sizes—			
High volatile	7.38	6.94	7.00
Low volatile	9.00	9.00	9.00
Run of mine—			
Low volatile	7.00	7.00	7.00
Omaha, Nebr.:			
Bituminous, prepared sizes	9.45	8.74	8.74

TABLE 2.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1931, AND MARCH 15 AND APRIL 15, 1932—Continued

City, and kind of coal	1931	1932	
	Apr. 15	Mar. 15	Apr. 15
Peoria, Ill.:			
Bituminous, prepared sizes	$6.33	$6.12	$6.10
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	12.25	11.75	11.00
Chestnut	12.25	11.54	10.75
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Chestnut	14.50	14.00	13.75
Bituminous, prepared sizes	4.73	4.47	4.46
Portland, Me.:			
Pennsylvania anthracite—			
Stove	15.84	16.80	14.88
Chestnut	16.80	16.80	14.64
Portland, Oreg.:			
Bituminous, prepared sizes	13.21	12.09	11.98
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[1] 14.75	[1] 15.75	[1] 14.00
Chestnut	[1] 14.75	[1] 15.75	[1] 13.75
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	15.00	14.38	14.00
Chestnut	15.00	14.38	14.00
Bituminous—			
Prepared sizes—			
High volatile	8.75	7.42	7.25
Low volatile	9.83	8.57	8.05
Run of mine—			
Low volatile	7.50	7.11	6.75
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	13.38	13.38	12.50
Chestnut	13.38	13.38	12.25
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.20	16.60	16.47
Chestnut	15.95	16.60	16.47
Bituminous, prepared sizes	5.86	5.76	5.61
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	$16.90	$18.15	$16.60
Chestnut	16.90	18.15	16.35
Bituminous—			
Prepared sizes—			
High volatile	9.70	9.32	9.36
Low volatile	12.80	12.06	12.06
Salt Lake City, Utah:			
Bituminous, prepared sizes	7.58	7.58	7.54
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	26.00	26.00	26.00
Colorado anthracite—			
Egg	25.50	25.50	25.50
Bituminous, prepared sizes	17.00	17.00	17.00
Savannah, Ga.:			
Bituminous, prepared sizes	[2] 9.62	[2] 8.45	[2] 8.53
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	9.30	9.05	8.55
Chestnut	9.28	8.78	8.28
Seattle, Wash.:			
Bituminous, prepared sizes	10.88	10.24	10.24
Springfield, Ill.:			
Bituminous, prepared sizes	4.34	4.34	4.34
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	12.76	[3] 14.36	[3] 13.36
Chestnut	12.76	[3] 14.06	[3] 13.06
Bituminous—			
Prepared sizes—			
High volatile	7.39	[3] 8.46	[3] 8.29
Low volatile	9.32	[3] 10.21	[3] 9.86
Run of mine—			
Mixed	6.98	[3] 7.50	[3] 7.50

[1] The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bin.

[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.

Retail Prices of Food in the United States and in Foreign Countries

THE index numbers of retail prices of food published by certain foreign countries have been brought together with those of the Bureau of Labor Statistics of the United States Department of Labor in the subjoined table, the base years in all cases being as given in the original reports. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in prices in the several countries, should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates. Indexes are shown for July of each year from 1926 to 1930, inclusive, and by months since January, 1931.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	France	Germany
Number of localities	51	60	59	Prague	100	21	Except Paris	Paris	72
Commodities included	42 foods	29 foods	Foods	Foods	53 foods	36 foods	13 (11 foods)	Foods	Foods
Base=100	1913	1913	1921	July, 1914	July, 1914	January–June, 1914	August, 1914	January–June, 1914	October, 1913–July, 1914
1926									
July	157.0	151	184.9	117.8	159	1,105	[1] 610	507	145.3
1927									
July	153.4	149	209.6	126.2	153	1,102	[1] 553	559	156.8
1928									
July	152.8	147	203.8	125.5	153	1,155	[1] 536	544	154.1
1929									
July	158.5	150	212.3	123.1	149	1,116	[2] 118	590	155.7
1930									
July	144.0	149	205.5	116.7	137	969	[2] 127	----	145.9
1931									
January	132.8	134	195.1	105.1	126	893	----	----	133.5
February	127.0	129	186.8	103.8	----	883	[3] 131	----	131.0
March	126.4	124	183.1	102.2	----	879	----	641	129.6
April	124.0	121	180.1	104.5	123	870	----	----	129.2
May	121.0	116	176.6	106.3	----	849	[3] 128	----	129.9
June	118.3	111	176.5	109.2	----	842	----	642	130.9
July	119.0	110	174.8	108.2	119	846	----	----	130.4
August	119.7	112	171.5	102.8	----	870	[3] 124	----	126.1
September	119.4	109	172.9	104.8	----	844	----	607	124.9
October	119.1	107	170.2	103.4	119	848	----	----	123.4
November	116.7	107	167.9	100.6	----	885	[3] 115	----	121.8
December	114.3	107	160.7	99.6	----	919	----	----	119.9
1932									
January	109.3	105	156.5	98.3	117	916	----	----	116.1
February	105.3	100	151.3	94.6	----	908	[3] 112	----	113.9
March	105.0	99	148.2	98.6	----	911	----	----	114.4

[1] For succeeding month. [2] In gold; for succeeding month. [3] In gold.

INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Italy	Netherlands	Norway	Sweden	Switzerland	United Kingdom	South Africa	India	New Zealand	Australia
Number of localities	47	The Hague	31	49	34	630	9	Bombay	25	30
Commodities included	20 foods and charcoal	Foods	Foods	Foods	Foods	21 foods	24 foods	17 foods	59 foods	46 foods and groceries
Base=100	1913	1921	July, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	1926–1930 (1,000)	1923–1927 (1,000)
1926										
July	645.2	[4] 73.5	198	156	159	161	117	155	[5] 1,026	----
1927										
July	540.2	[4] 76.5	175	148	157	159	119	154	[5] 983	----
1928										
July	516.1	[4] 76.2	173	156	157	157	116	143	[5] 1,004	----
1929										
July	557.8	[4] 74.5	158	148	155	149	116	145	[5] 1,013	1,041
1930										
July	506.6	[4] 71.6	151	138	152	141	109	136	981	958
1931										
January	462.9	----	146	132	148	138	108	111	910	876
February	450.0	----	144	----	146	136	107	106	879	864
March	446.1	66.8	143	----	144	134	107	103	856	854
April	446.1	----	141	130	142	129	107	104	851	851
May	448.6	----	139	----	141	129	108	102	847	840
June	447.7	68.7	138	----	141	127	106	101	839	833
July	442.1	----	140	127	140	130	104	100	824	811
August	438.0	----	138	----	139	128	103	100	820	805
September	438.4	62.6	136	----	139	128	102	100	812	804
October	441.4	----	136	128	138	128	103	100	834	805
November	444.6	----	136	----	137	130	102	100	832	812
December	443.6	61.0	136	----	134	132	100	101	835	809
1932										
January	440.9	----	135	127	132	131	99	103	827	814
February	435.8	----	135	----	129	131	99	102	810	----
March	----	----	135	----	128	129	----	103	----	----

[4] For second month following.

[5] Year.

Price Fixing Under Emergency Decree in Germany [1]

THE fourth emergency decree of the German Government of December 8, 1931, created the office of Federal price commissioner and provided in general for a reduction of salaries and wages to the level of January, 1927. It was the task of the price commissioner to adjust retail prices to the present economic situation and to the new lowered standard of wages and salaries above mentioned. As a basis upon which to work, retail prices of commodities of vital importance were not later than January 1, 1932, to be reduced by at least 10 per cent as compared with the price level existing on June 30, 1931. Likewise, the commissioner was charged with the duty of controlling margins of profits and surcharges.

In addition to this the decree aimed at a general reduction of the wholesale price level in Germany. Prices fixed by cartels, syndicates, and agreements among large enterprises, as is the case in Germany in the iron producing industry, the iron and metal consuming industry, the building trades, the chemical, paper, glass, ceramic, textile, and fertilizers industries were, not later than January 1, 1932, to be reduced by at least 10 per cent as compared with the level existing on June 30, 1931. If the Federal minister considered a further reduction of such fixed prices essential for commodities of vital importance he was authorized to adopt appropriate measures. If the cartels, syndicates, etc., failed to comply with the provisions of the decree or the ministerial instructions, the pertinent provisions of the cartel or syndicate agreement and contracts for delivery were to become inoperative as of January 1, 1932. The foregoing provisions were also to apply to prices of so-called trade-marked commodities where the retail price is fixed by the seller of the article and not by the retailer. They were to apply also to potash and nitrogenous products.

The commissioner was under the direct supervision of the chancellor and was vested with very extensive powers. He was authorized to take forcible measures, if necessary, and was assured of the assistance of the Federal and State Governments. In carrying out his work, however, the commissioner did not resort to the law nor to public forces to gain the desired end. He relied entirely on personal negotiations with the interested parties and by vigorous persuasive methods was able to accomplish his purpose.

Although a downward tendency had been noted as far back as the beginning of 1930, prices fixed by cartels, syndicates, and sale agreements came in for particular attention on the part of the commissioner.

The index figure for wholesale prices as published by the Federal Statistical Office for the beginning of January, 1932, was 10 per cent lower than the figure for June 30, 1931, indicating that in the main the provisions of the emergency decree had actually been carried out. It is well to note that wholesale prices had been voluntarily reduced by 6 per cent by the first of December, 1931, so that the January index figure was only 4 per cent less than that of the previous December. The wholesale-price index figure of 101.4 on January 1, 1932, was almost at the pre-war level, since 1913 is taken as 100.

The following are some of the results of the activities of the price commissioner:

[1] Report of C. W. Gray, American vice consul at Berlin, Germany, dated Apr. 1, 1932.

Bread.—There was a general reduction of the bakers' profits, which, with a decrease in the price of flour, led to a reduction of 10 per cent in the price of bread.

Milk.—The price of milk was reduced from 6½ to 6¼ cents per quart.

Meat.—A maximum margin of profit was established for retail butchers, which in the case of pork must not exceed 3¼ cents per pound; beef, 4⅓ cents per pound; veal and mutton, 5⅗ cents per pound. In Berlin the price of pork was reduced about 10 per cent; beef, about 17 per cent; veal and mutton, about 13 per cent.

Fish.—It is reported that retail prices of fish were reduced 10 per cent in all parts of Germany on January 1.

Coal.—Prices of hard coal and lignite, as listed in the official publication of the Government, were reduced 10 per cent at the beginning of January.

Gas.—The municipal gas works of Berlin reduced the price of gas 10 per cent.

Electricity.—It is reported that most of the electrical companies throughout Germany have reduced prices of electricity by from 8 to 10 per cent.

Transportation.—In Berlin the cost of transportation was reduced an average of about 9 per cent on the subway, street car, and omnibus service, and a slight reduction was made in taxi charges.

The association of German forwarding agents and companies reduced its charges on January 1, 1932, by 10 per cent, and on February 15 rates were further reduced by 10 per cent on shipments of raw materials, coal, building material, and foodstuffs, and by 5 per cent on semifinished products.

Beer.—After a reduction of the tax on beer the price was reduced 10 per cent.

Rents.—Rents on old buildings were reduced 10 per cent on the first of January and on new buildings the reduction was in proportion to the amount saved by the forced reduction of interest on mortgages.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, April, 1932

WITH the March, 1932, issue the Bureau of Labor Statistics began the publication of all data relating to wholesale prices of commodities in a separate pamphlet. Heretofore a general summary of wholesale price movements has been included in the monthly separate devoted to prices. In the future a pamphlet will deal with retail prices, while this one will treat only of wholesale prices.

The following table presents the index numbers of wholesale prices by groups of commodities, for specified years, and by months, from January, 1931, to date.

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100.0]

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
1920	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
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
1931:											
January	73.1	80.7	88.7	71.3	73.3	86.9	83.8	84.5	88.3	72.2	78.2
February	70.1	78.0	86.9	70.9	72.5	86.5	82.5	83.3	88.1	71.5	76.8
March	70.6	77.6	87.6	70.0	68.3	86.4	82.5	82.9	88.0	72.0	76.0
April	70.1	76.3	87.5	68.2	65.4	85.7	81.5	81.3	87.9	71.5	74.8
May	67.1	73.8	87.6	67.4	65.3	85.0	80.0	80.5	86.8	70.5	73.2
June	65.4	73.3	88.0	66.6	62.9	84.4	79.3	79.4	86.4	69.7	72.1
July	64.9	74.0	89.4	66.5	62.9	84.3	78.1	78.9	85.7	69.7	72.0
August	63.5	74.6	88.7	65.5	66.5	83.9	77.6	76.9	84.9	68.3	72.1
September	60.5	73.7	85.0	64.5	67.4	83.9	77.0	76.3	82.7	68.2	71.2
October	58.8	73.3	82.5	63.0	67.8	82.8	76.1	75.6	81.0	66.6	70.3
November	58.7	71.0	81.6	62.2	69.4	82.6	76.2	76.1	80.9	68.7	70.2
December	55.7	69.1	79.8	60.8	68.3	82.2	75.7	76.1	78.5	66.8	68.6
1932:											
January	52.8	64.7	79.3	59.9	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February	50.6	62.5	78.3	59.8	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March	50.2	62.3	77.3	58.7	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April	49.2	61.0	75.0	57.0	70.2	80.3	72.5	74.4	76.3	64.7	65.5

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES

Group	April, 1931	March, 1932	April, 1932
Raw materials	68.3	56.1	55.5
Semimanufactured articles	71.5	60.8	59.6
Finished products	78.3	71.5	71.1
Nonagricultural commodities	75.7	69.3	68.9
All commodities other than farm products and foods	75.9	70.9	70.6

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities as issued during the month of April will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR THE WEEKS OF APRIL, 1932

Group	Week ending—				
	Apr. 2	Apr. 9	Apr. 16	Apr. 23	Apr. 30
All commodities	65.9	65.7	66.0	65.8	65.5
Farm products	49.5	49.7	50.1	49.7	48.8
Foods	61.7	61.4	61.3	61.0	61.0
Hides and leather products	75.8	75.6	75.6	74.4	73.9
Textile products	58.4	57.7	57.2	56.8	56.5
Fuel and lighting	69.5	69.8	71.7	71.7	72.0
Metals and metal products	80.8	80.2	80.1	80.2	80.2
Building materials	73.1	72.9	72.4	72.2	72.4
Chemicals and drugs	74.4	74.3	74.5	74.5	74.4
House-furnishing goods	78.3	78.2	78.2	78.2	76.3
Miscellaneous	64.7	64.6	64.8	64.8	64.6

Wholesale Price Trends During Month

THE index number of wholesale prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a slight decrease from March, 1932, to April, 1932. This index number, which includes 784 commodities or price series weighted according to the importance of each article, and based on the average prices for the year 1926 as 100.0, stands at 65.5 for April as compared with 66.0 for March, showing a decrease of approximately three-fourths of 1 per cent between the two months. When compared with April, 1931, with an index number of 74.8, a decrease of about 12½ per cent has been recorded.

In the group of farm products, decreases in the average prices of barley, corn, calves, steers, hogs, live poultry, cotton, lemons, oranges, peanuts, tobacco, and wool caused the group as a whole to decline 2 per cent from the previous month. Increases in prices during the month were shown for oats, rye, wheat, cows, lambs, hay, onions, and sweetpotatoes.

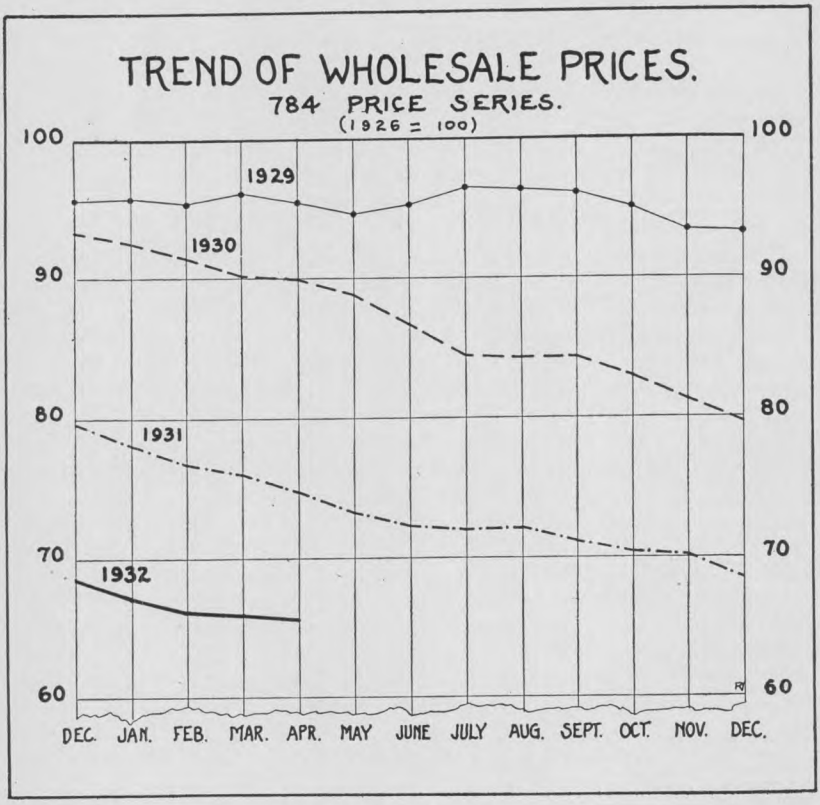
Among foods, price decreases were reported for butter, cheese, evaporated milk, most meats, lard, bread, canned fruits, and raw and granulated sugar. On the other hand, flour, bananas, and coffee averaged higher than in the month before. The group as a whole declined 2 per cent in April when compared with March.

The hides and leather products group decreased approximately 3 per cent during the month, with all the subgroups except other leather products sharing in the decline. The group of textile products as a whole decreased nearly 3 per cent from March to April, due to marked declines for cotton goods, knit goods, silk and rayon, woolen and worsted goods, and other textile products. The subgroup of clothing declined slightly.

In the group of fuel and lighting materials increases in the prices of fuel oil, gasoline, and crude petroleum more than offset decreases in the prices of anthracite coal, bituminous coal, coke, electricity, and gas. Due to the sharp advance in the prices of petroleum products the fuel and lighting group increased nearly 3½ per cent over the March level.

Metals and metal products showed a slight downward tendency for April. Increases in iron and steel were offset by decreases in motor vehicles and nonferrous metals. Agricultural implements and plumbing and heating fixtures showed practically no change between March and April. In the group of building materials, cement showed no change in average prices. Structural steel moved upward, while average prices for brick and tile, paint and paint materials, and other building materials continued their downward movement, forcing the group as a whole to decline approximately 1 per cent.

Mixed fertilizers showed further recession during April, as did also chemicals and drugs and pharmaceuticals. Fertilizer materials, on



the other hand, increased slightly in the month. The group as a whole decreased more than 1 per cent from the March level.

Furniture averaged 2 per cent lower in April than in March, while furnishings showed practically no change. As a whole the house-furnishing goods group declined about 1 per cent from the month before.

The general average of the miscellaneous commodity group for April remained at the March level. Increases in the prices of cattle feed, paper and pulp, and other miscellaneous items counterbalanced the further price recessions in crude rubber. Automobile tires and tubes showed no change between the two months.

The average for the group of all commodities other than farm products and foods remained unchanged for the two months. The April average for all of the other special groups showed decreases from the previous month, ranging from one-half of 1 per cent for finished products to 2 per cent for semimanufactured articles.

Between March and April, price decreases took place in 271 instances and increases in 79 instances, while in 434 instances no change in price occurred.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Commodity groups and subgroups	April, 1931	March, 1932	April, 1932	Purchasing power of the dollar April, 1932
All commodities	74.8	66.0	65.5	$1.527
Farm products	70.1	50.2	49.2	2.033
Grains	59.5	43.5	44.5	2.247
Livestock and poultry	70.3	51.4	49.2	2.033
Other farm products	73.4	52.1	51.2	1.953
Foods	76.3	62.3	61.0	1.639
Butter, cheese, and milk	80.6	64.2	61.6	1.623
Cereal products	74.3	68.3	68.2	1.466
Fruits and vegetables	76.2	62.3	62.3	1.605
Meats	79.9	61.4	59.8	1.672
Other foods	69.9	57.1	55.8	1.792
Hides and leather products	87.5	77.3	75.0	1.333
Boots and shoes	94.8	88.5	88.4	1.131
Hides and skins	62.0	44.7	40.8	2.451
Leather	88.4	73.4	67.2	1.488
Other leather products	101.6	98.8	98.0	1.020
Textile products	68.2	58.7	57.0	1.754
Clothing	76.9	69.0	68.7	1.456
Cotton goods	71.4	56.2	55.1	1.815
Knit goods	60.7	54.9	51.9	1.927
Silk and rayon	43.4	33.5	31.3	3.195
Woolen and worsted goods	69.0	62.7	59.7	1.675
Other textile products	76.2	69.5	68.2	1.466
Fuel and lighting materials	65.4	67.9	70.2	1.425
Anthracite coal	86.4	89.9	85.7	1.167
Bituminous coal	84.4	83.5	82.7	1.209
Coke	83.7	80.4	79.8	1.253
Electricity	93.7	104.4	(1)	
Gas	96.1	97.5	(1)	
Petroleum products	37.4	39.8	45.5	2.198
Metals and metal products	85.7	80.8	80.3	1.245
Agricultural implements	94.3	85.0	85.0	1.176
Iron and steel	84.1	79.7	80.1	1.248
Motor vehicles	94.5	95.3	93.8	1.066
Nonferrous metals	67.5	50.5	49.3	2.028
Plumbing and heating	86.6	64.4	64.4	1.553
Building materials	81.5	73.2	72.5	1.379
Brick and tile	83.9	79.3	78.4	1.276
Cement	81.0	75.0	75.0	1.333
Lumber	73.4	61.5	60.0	1.667
Paint materials	81.2	75.4	74.7	1.339
Plumbing and heating	86.6	64.4	64.4	1.553
Structural steel	84.3	79.7	81.7	1.224
Other building materials	86.9	80.6	80.2	1.247
Chemicals and drugs	81.3	75.3	74.4	1.344
Chemicals	85.1	80.9	79.7	1.255
Drugs and pharmaceuticals	63.4	59.7	58.9	1.698
Fertilizer materials	80.6	68.6	70.1	1.427
Mixed fertilizers	83.5	73.2	71.1	1.406
House-furnishing goods	87.9	77.1	76.3	1.311
Furnishings	84.2	75.4	75.4	1.326
Furniture	91.9	79.1	77.4	1.292
Miscellaneous	71.5	64.7	64.7	1.546
Automobile tires and tubes	46.9	39.2	39.2	2.551
Cattle feed	81.2	52.4	53.4	1.873
Paper and pulp	82.1	76.8	76.8	1.302
Rubber, crude	13.3	7.2	6.6	15.152
Other miscellaneous	89.3	84.5	84.5	1.183
Raw materials	68.3	56.1	55.5	1.802
Semimanufactured articles	71.5	60.8	59.6	1.678
Finished products	78.3	71.5	71.1	1.406
Nonagricultural commodities	75.7	69.3	68.9	1.451
All commodities less farm products and foods	75.9	70.9	70.9	1.410

[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 in certain foreign countries and those of the Bureau of Labor Statistics of the United States Department of Labor 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 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, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926 to 1931, inclusive, and by months since January, 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi
Base period	1926 (100)	1926 (100)	January–June, 1914 (100)	April, 1914 (100)	July, 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	1913 (100)
Commodities	784	502	47	126	69	118	139	126	400	140
1926	100.0	100.0	123	744	955	163	100	695	134.4	602.0
1927	95.4	97.6	133	847	979	153	101	642	137.6	495.3
1928	96.7	96.4	130	843	979	153	102	645	140.0	461.6
1929	95.3	95.6	130	851	923	150	98	627	137.2	445.3
1930	86.4	86.6	117	744	[1] 118.5	130	90	554	124.6	383.0
1931	73.0	72.2	109	626	[1] 107.5	114	84	----------	110.9	-------
1931										
January	78.2	76.7	105	661	[1] 110.1	118	86	541	115.2	341.7
February	76.8	76.0	107	658	[1] 108.9	117	86	538	114.0	338.1
March	76.0	75.1	107	660	[1] 108.8	116	86	539	113.9	339.3
April	74.8	74.5	108	652	[1] 110.5	115	85	540	113.7	337.0
May	73.2	73.0	107	640	[1] 110.3	113	84	520	113.3	331.7
June	72.1	72.2	110	642	[1] 108.7	110	83	518	112.3	326.5
July	72.0	71.7	114	635	[1] 112.1	110	82	500	111.7	324.3
August	72.1	70.9	110	616	[1] 107.8	109	81	488	110.2	321.6
September	71.2	70.0	108	597	[1] 105.2	109	79	473	108.6	319.1
October	70.3	70.4	109	591	[1] 104.6	113	82	457	107.1	322.2
November	70.2	70.6	112	584	[1] 104.3	117	87	447	106.6	320.4
December	68.6	70.3	112	573	[1] 103.8	119	92	442	103.7	318.9
1932										
January	67.3	69.4	114	557	[1] 102.3	118	94	439	100.0	316.6
February	66.3	69.2	112	554	[1] 101.4	119	93	446	99.8	314.4
March	66.0	69.1	113	548	[1] 101.4	117	92	----------	99.8	315.0

[1] In gold.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway [2]	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand [2]	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Ministry of Labor and Prevision	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office	Office of Census and Statistics	Bank of Japan Tokyo	National Tariff Commission, Shanghai	Department, etc.,[3] Calcutta
Base period	1913 (100)	1913 (100)	1913 (100)	1913 (100)	July, 1914 (100)	1924 (100)	1911 (1,000)	1909–13 (1,000)	1910 (1,000)	October, 1900 (100)	1926 (100)	July, 1914 (100)
Commodities	48	95	74	160	121	150	92	180	188	56	155	72
1926	145	-------	181	149	145	89.1	1832	1620	1387	237	100.0	148
1927	148	-------	172	146	142	85.2	1817	1541	1395	225	104.4	148
1928	149	157	167	148	145	84.4	1792	1555	1354	226	101.7	145
1929	142	148	171	140	141	82.1	1803	1552	1305	220	104.5	141
1930	117	137	172	122	126	71.9	1596	1511	1155	181	114.8	116
1931	97	122	174	111	110	62.6	1429	1394	1119	153	126.4	96
1931												
January	105	128	173	115	115	64.3	1454	1475	1148	159	119.7	98
February	104	126	175	114	115	63.9	1448	1441	--------	158	127.4	99
March	103	124	174	113	114	63.7	1456	1432	--------	158	126.1	100
April	102	123	172	112	112	63.6	1447	1416	1115	158	126.2	98
May	102	121	169	111	111	62.8	1440	1399	--------	154	127.5	97
June	100	120	169	110	110	62.1	1425	1392	--------	151	129.2	93
July	97	120	175	110	109	61.5	1428	1377	1104	153	127.4	93
August	94	120	177	109	108	59.9	1399	1381	--------	152	130.3	92
September	91	117	178	107	106	59.7	1391	1381	--------	150	129.2	91
October	89	119	175	108	106	62.8	1402	1385	1109	147	126.9	96
November	89	119	176	110	106	64.0	1428	1394	--------	147	124.8	97
December	85	122	177	111	103	63.7	1425	1392	--------	151	121.8	98
1932												
January	84	123	176	109	101	63.7	1414	1393	1083	159	119.9	97
February	83	123	178	110	100	63.4	--------	--------	--------	161	--------	97
March	82	122	-------	109	99	63.0	--------	--------	--------	158	--------	94

[2] Revised figures.

[3] Department of Commercial Intelligence and Statistics.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for March, 1932

By J. J. Kunna, Chief Statistician, United States Bureau of Immigration

IMMIGRATION during March continued at a low level, with 2,103 immigrant aliens admitted, as against an average of 3,242 for the preceding eight months of the current fiscal year, and 3,577 for the corresponding month a year ago. The number for March, 1932, was 74 per cent below the monthly average of 8,095 for the last fiscal year, and 90 per cent below the 20,142 monthly admissions during 1930, the last full year of normal immigration.

Since 1930 German immigrants have dropped off 92 per cent, Irish 98 per cent, Hebrew 80 per cent, Italian 68 per cent, and Mexican 87 per cent.

During March, 1,408 Europeans came to this country for intended future permanent residence. Italy led the list with 604, about 70 per cent of whom were admitted as wives and unmarried children of American citizens. Germany contributed 145, Poland 137, and Great Britain 86. Other European countries sent less than 50 each. There were 309 immigrants from Canada, 147 from Mexico, 96 from Asia, and 143 from other countries.

In the same month, 6,239 resident aliens of the United States left for intended future permanent residence in a foreign country, 2,932 going to Europe, 360 to Asia, 2,399 to Mexico, and 548 to Canada and other countries.

For the first time in the history of the immigration service, deportations during a single month outnumbered the immigrants admitted. A record number of 2,112 aliens were deported from the United States during March, 1932, which is more than twice the number for the same month in 1928 and larger than the total for the entire fiscal year 1918. Of the March, 1932, deportees, 697 were sent to Mexico, 613 to Asia (mostly Chinese to China), 545 to Europe, 183 to Canada, and 74 to other countries. The principal causes for their deportation were: Entered without proper visa (974), remained longer than permitted (361), criminal and immoral classes (259), and mentally or physically defective (149). Less than 8 per cent of these deportees were females and about three-fifths of the total were Mexicans and Chinese.

Indigent aliens returned to their native land at their own request numbered 299 during March, 1932, the bulk of whom were bound for European countries, principally Scotland, England, Germany, Italy, and Sweden.

During the month of March, 1932, a total of 11,351 aliens of all classes were admitted to the United States. Of the total, including 2,103 immigrants and 9,248 nonimmigrants, 4,168 came in under the

immigration act of 1924 as returning residents, 2,705 were persons passing through the country on their way elsewhere, 2,175 entered as temporary visitors for business or pleasure, 833 as quota immigrants, 717 as husbands, wives, and unmarried children of American citizens, and 391 as natives of nonquota countries, principally Canada and Mexico. The remaining 362 aliens entered as Government officials, ministers, professors, and other miscellaneous classes. Seven thousand seven hundred and forty-nine gave European countries as their place of birth, principally Great Britain, Italy, Germany, Scandinavia, France, and Poland, in the order given; 1,539 were born in Canada, 375 in Mexico, 684 in Asia, 549 in the West Indies, 93 in Central America, 172 in South America, and 190 in other countries.

INWARD AND OUTWARD PASSENGER MOVEMENT, JULY 1, 1931, TO MARCH 31, 1932

Period	Inward					Outward					
	Aliens admitted			United States citizens arrived	Total	Aliens debarred from entering [1]	Aliens departed			United States citizens departed	Total	Aliens deported after entering [2]
	Immigrant	Nonimmigrant	Total				Emigrant	Nonemigrant	Total			
1931												
July	3,174	12,361	15,535	30,944	46,479	761	7,428	20,450	27,878	46,961	74,839	1,681
August	4,090	16,580	20,670	59,372	80,042	657	9,541	23,009	32,550	65,895	98,445	1,584
September	5,017	20,940	25,957	62,581	88,538	684	8,733	20,393	29,126	42,247	71,373	1,446
October	3,913	17,096	21,009	32,427	53,436	806	10,857	16,525	27,382	35,016	62,398	1,663
November	2,899	9,832	12,731	16,823	29,554	573	11,318	14,271	25,589	23,224	48,813	1,524
December	2,642	8,086	10,728	16,932	27,660	485	10,727	17,370	28,097	24,351	52,448	1,336
1932												
January	2,220	7,242	9,462	17,158	26,620	577	8,550	14,693	23,243	25,016	48,259	1,537
February	1,984	7,346	9,330	19,829	29,159	392	6,188	9,691	15,879	22,920	38,799	1,505
March	2,103	9,248	11,351	22,012	33,363	445	6,239	10,097	16,336	24,718	41,054	2,112
Total	28,042	108,731	136,773	278,078	414,851	5,380	79,581	146,499	226,080	310,348	536,428	14,388

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

PUBLICATIONS RELATING TO LABOR

Official—United States

MINNESOTA.—Compensation Insurance Board. *Fourth biennial bulletin, covering period ending December 31, 1930. St. Paul, 1931. 24 pp., charts.*

A discussion of the supervision of compensation insurance premium rate changes in Minnesota. Tables show the experience of insurance companies operating in the State, comparison of compensation benefits in various States, and other data relating to rate making.

NEW JERSEY.—Commission to Investigate the Employment of Migratory Children. *Supplement to the report of the commission. Trenton, 1932. 64 pp.*

Reviewed briefly in this issue of the Labor Review.

NEW YORK.—Comptroller. *Eleventh report on the operation of the State Employees' Retirement System, together with the report of the actuary on the eleventh valuation of its assets and liabilities, as of June 30, 1931. New York, 1932. 50 pp. Legislative Document (1932), No. 12.*

—— Department of Labor. *Special Bulletin No. 173: Unemployment in Syracuse, November, 1931. Issued by Division of Statistics and Information. New York, 1932. 46 pp., charts.*

A digest of the data obtained in this survey was published in the Labor Review for April, 1932.

OHIO.—Commission on Unemployment Insurance. *Questions to consider with respect to an unemployment insurance law suitable to conditions in the State of Ohio. Columbus, 1932. 11 pp.*

Questions are raised as to the proper scope of unemployment insurance, the amount of premiums and contributions, benefits to be paid, insurance carrier, and administration.

ORLEANS PARISH (LOUISIANA).—Factories Inspection Department. *Twenty-fourth report, year ending December 31, 1931. New Orleans, 1932. 8 pp.*

Data on accidents, taken from the report, are given in this issue of the Labor Review.

PRESIDENT'S CONFERENCE ON HOME BUILDING AND HOME OWNERSHIP.—*Planning for residential districts. Reports of the committees on city planning and zoning, subdivision, layout, utilities for houses, and landscape planning and planting. Washington, Commerce Building, 1932. 227 pp., plans, illus.*

PRESIDENT'S ORGANIZATION ON UNEMPLOYMENT RELIEF.—*Spreading work—methods and plans in use, by William J. Barrett. Washington, Department of Commerce, 1932. 27 pp.*

VIRGINIA.—League of Virginia Municipalities and State Department of Public Welfare. *Plans of unemployment relief in Virginia cities and towns. Richmond, 1932. 20 pp.*

This pamphlet contains statistics as to unemployment in Virginia, outlines various relief plans being carried through, and shows copies of application blanks and diet lists that are used in the administration of relief.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION.—Committee on Vocational Guidance and Child Labor. *Report of the subcommittee on child labor. New York, Century Co., 1932. 592 pp.*

Reviewed in this issue.

—— —— *Report of the subcommittee on vocational guidance. New York, Century Co., 1932. 396 pp., illus.*

The recommendations of the vocational guidance committee were published in the January, 1932, issue of the Labor Review (pp. 80–89).

UNITED STATES.—Department of Commerce. Bureau of Mines. *List of publications, Bureau of Mines, complete from establishment of bureau, 1910 to June 30, 1931, with an index by subjects and authors. Washington, 1932. 241 pp.*

—— —— —— *Technical Paper 507: Explosions in Washington coal mines, by S. H. Ash. Washington, 1931. 52 pp., charts.*

Contains data on conditions bearing directly on the prevention of explosions, and discussion of mining conditions and practices relating to ventilation, gas, and dust at the coal mines in the State of Washington, where the number of explosions has been far higher than the average for the country.

—— —— —— *Technical Paper 508: Coke-oven accidents in the United States during the calendar year 1930, by W. W. Adams and L. Chenoweth. Washington, 1931. 33 pp.*

Reviewed in this issue.

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 560: Wages and hours of labor in the lumber industry in the United States, 1930. Washington, 1932. 86 pp.*

An advance summary of the data obtained in this survey was published in the Labor Review for April, 1931 (pp. 177–182).

—— —— —— *Bulletin No. 561: Public old-age pensions and insurance in the United States and in foreign countries. Washington, 1932. 367 pp.*

Part 1 reviews the history of old-age pension legislation in the United States, analyzes the various State laws (giving also their text), and gives data as to the actual operation of these laws up to the end of 1930. (Data as to the 1931 operation, supplementing this report, are given in this issue of the Labor Review.)

Part 2 gives a description and the latest available figures of operation of the old-age pension systems in each of 39 foreign countries.

—— —— —— *Bulletin No. 564: Proceedings of the eighteenth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Richmond, Va., October 5–8, 1931. Washington, 1932. 309 pp.*

A short account of the proceedings at this meeting was published in the Labor Review for November, 1931 (pp. 93–96).

—— —— Children's Bureau. *Family welfare: Summary of expenditures for relief, general family welfare and relief, mothers' aid, veterans' aid, by Glenn Steele. Washington, 1932. 62 pp., charts. (Separate from Publication No. 209, Social statistics in child welfare and related fields—annual report for the registration area for the year 1930.)*

—— —— Women's Bureau. *Bulletin No. 88: The employment of women in slaughtering and meat packing, by Mary Elizabeth Pidgeon. Washington, 1932. 208 pp., charts, illus.*

In addition to the employment data, information is given on earnings, working hours, and economic status of the families of the workers studied. The survey covered over 6,000 women in 34 plants.

—— Department of the Interior. Office of Education. *Pamphlet No. 24, November, 1931: Salaries in land-grant universities and colleges, by John H. McNeeley. Washington, 1932. 27 pp.*

The salaries reported upon are for the academic year 1927–28 and for teachers in selected fields of study.

UNITED STATES. Federal Farm Board. *Second annual report, for the year ending June 30, 1931. Washington, 1931. 95 pp. (H. Doc. No. 124, 72d Cong., 1st sess.)*

Report shows that up to June 30, 1931, the board made loans from the revolving fund to 150 cooperative associations with which were affiliated approximately 3,375 regional or local associations having 1,100,000 farmer members.

—— Federal Trade Commission. *Chain stores: Cooperative grocery chains. Washington, 1932. 199 pp. (S. Doc. No. 12, 72d Cong., 1st sess.)*

—— Interstate Commerce Commission. Bureau of Statistics. *Forty-fourth annual report on the statistics of railways in the United States, for the year ended December 31, 1930, including also selected data relating to other common carriers subject to the interstate commerce act for the year 1930. Washington, 1932. 152; 276 pp.*

Official—Foreign Countries

ALBERTA (CANADA).—Workmen's Compensation Board. *Fourteenth annual report, for the year ended December 31, 1931. Edmonton, 1932. 46 pp.*

Reviewed in this issue.

AUSTRALIA.—Bureau of Census and Statistics. *Labor report, 1930 (No. 21). Canberra, 1931. 180 pp.*

Includes data on wholesale and retail prices, rents, wages, employment, accidents, and workers' and employers' organizations.

—— —— *Production (Bulletin No. 24): Summary of Australian production statistics for the years 1919–20 to 1929–30. Canberra, [1931?]. 112 pp.*

Contains statistics on employment in mines, factories, and slaughtering establishments, wages in factories, and accidents in mines.

AUSTRIA.—Bundesamt für Statistik. *Gewerbliche Betriebszählung in der Republic Österreich vom 14. Juni 1930. Ergebnisse für Wien. Vienna, 1932. 56 pp.*

An industrial census was taken in Austria as of June 14, 1930. The publication noted above contains statistical data obtained in this census for the city of Vienna and includes information on employment of wage earners and salaried employees by industries and occupations, aside from agricultural pursuits, which are covered in separate reports. Similar reports will be published for the other districts of Austria.

—— —— *Landwirtschaftliche Betriebszählung in der Republic Österreich vom 14. Juni 1930. Ergebnisse für Niederösterreich. Vienna, 1932. 55 pp.*

Includes statistical data on employment of workers in agriculture in Lower Austria, collected in the industrial census of Austria on June 14, 1930. Similar reports will be published for the other districts of Austria.

BULGARIA.—Direction Générale de la Statistique. *Annuaire statistique du Royaume de Bulgarie, 1931. Sofia, 1931. 650 pp. (In Bulgarian and French.)*

Contains the results of an industrial census made at the end of 1926, showing number of employees, wages, strikes, industrial accidents, etc.; and data on prices, cost of living, family budgets, operations of Central Cooperative Bank of Bulgaria and other cooperative societies, retirement funds, and workmen's compensation.

CZECHOSLOVAKIA.—Institut Social. *Publication No. 55: Les assurances sociales en Tchécoslovaquie. Prague, 1931. 187 pp.*

Presents a number of articles by different authors on various phases of social insurance in Czechoslovakia, including old age and invalidity insurance, insurance against accidents and sickness, public insurance for salaried employees, financial difficulties of public insurance, and measures for prevention of accidents and sickness.

FINLAND.—[Sosialiministeriö. Sosialinen Tutkimus- ja Tilastotoimisto.] *Tapaturmatilastoa: Työssä sattuneet tapaturmat vuosina 1926 ja 1927, uusi sarja 1. Helsingfors, 1932. 85 pp. (Suomen Virallinen Tilasto XXVI, A.)*

Statistics of industrial accidents in Finland in 1926 and 1927. The report includes a table of contents in French.

—— Tilastollisessa Päätoimistossa. *Teollisuustilastoa vuonna 1930. Helsingfors, 1932. 135 pp. (Suomen Virallinen Tilasto XVIII, A 47.)*

Contains industrial statistics of Finland for the year 1930, including number of workers, value of product, industrial disputes, etc. The report includes table of contents, table heads, and résumé in French.

GREAT BRITAIN.—Home Office. *Safety Pamphlet No. 14: Safety organization in factories. London, 1931. 13 pp.*

Information relating to the essential features of a safety organization, the establishment and duties of safety committees, duties of the safety man, safety education for the workers, accident records, and personal or impersonal factors in the prevention of accidents.

—— Ministry of Labor. *Supplement to the analytical guide to decisions given by the umpire respecting claims for [unemployment] benefit: Chapter XI, Dependants' benefit; Chapter XII, Transitional conditions. London, 1932. 67 pp. (Supplement No. 1 to U. I. Code 7.)*

This supplement cancels and replaces Chapters XI and XII of the original prints of Unemployment Insurance Code 7.

—— Royal Commission on Labor in India. *Evidence. 11 volumes. London, 1931. [Various paging.]*

These volumes include data on wages and hours of labor, housing, health and sanitary conditions, industrial accidents and their prevention, labor legislation, industrial disputes, efficiency of workers, etc.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference, sixteenth session, Geneva, 1932. Report of the director [of the International Labor Office to the Conference]. Geneva, 1932. 111 pp. (World Peace Foundation, American agent.)*

—— —— *Summary of annual reports under article 408. Geneva, 1932. 402 pp. (World Peace Foundation, American agent.)*

NOVA SCOTIA (CANADA).—Department of Public Works and Mines. *Annual report on mines, 1931. Halifax, 1932. 296 pp., diagrams, illus.*

In the fiscal year under review, 4,745,005 tons of coal were produced from the mines of Nova Scotia—a decrease of 1,009,497 as compared with 1930.

—— Workmen's Compensation Board. *Report for 1931. Halifax, 1932. 32 pp.*

Reviewed in this issue.

SOUTH AUSTRALIA (AUSTRALIA).—Factories and Steam Boilers Department. *Annual report, for the year ending December 31, 1930. Adelaide, 1931. 20 pp.*

The report shows number of workers employed, by sex and age; average weekly wages; working hours per week fixed by industrial boards; and accidents, in various industries.

SOVIET UNION (U. S. S. R.).—Central Office of Accountancy. *People's economy of U. S. S. R.: Statistical handbook for 1932. Moscow, 1932. xlviii, 670 pp. (In Russian.)*

Gives statistical information in regard to the economic activities and developments in Soviet Russia, including data on workers, wages, hours of labor, social insurance, etc., up to and including 1930.

STOCKHOLM (SWEDEN).—Statistiska Kontor. *Statistisk årsbok för Stockholms stad, 1931. Stockholm, 1931. 290 pp., maps, charts. (In Swedish and French.)*

Contains data on housing and housing conditions (including dwellings constructed by cooperative housing societies), retail prices, cost of living and family budgets, mutual aid societies, cooperative societies, and wages in various industries and professions.

TURKEY.—Istatistik Umum Müdürlüğü. *Istatistik yilliği, 1930–31. Ankara, 1931. 433 pp., charts. (In Turkish and French.)*

This Turkish statistical yearbook for 1930 and 1931 includes reports covering the educational system of the country, hygiene, social assistance, number of industrial establishments and number of workers, and cost-of-living figures.

Unofficial

BUILDING TRADES EMPLOYERS' ASSOCIATION OF THE CITY OF NEW YORK. Committee on Accident Prevention. *Bulletin No. 13: Industrial accident facts, 1932 edition. New York, 2 Park Avenue, 1932. 12 pp.*

Reviewed in this issue.

BURGY, J. HERBERT. *The New England cotton textile industry: A study in industrial geography. Baltimore, Waverly Press (Inc.), 1932. 246 pp., maps, charts, illus.*

Traces the growth of the cotton-textile industry in New England, showing the influence of geographic factors on the development of the industry, temperature and humidity readings and average monthly rainfall in various localities over varying periods, consumption of raw materials and of power, number of workers, wages and hours of labor, housing of workers, source of labor, etc.

BURNS, ROBERT E. *I am a fugitive from a Georgia chain gang! New York, Vanguard Press, 1932. 257 pp.*

CARSON, WILLIAM J. *Savings and employee savings plans in Philadelphia. Philadelphia, University of Pennsylvania Press, 1932. 112 pp., charts. (Research Studies XVII, Industrial Research Department, Wharton School of Finance and Commerce.)*

This study of savings and thrift plans among wage earners in Philadelphia deals with the amount and growth of savings in recent years, the types of plans followed, and the channels through which the savings have been accumulated. The details of a large number of company plans are given and the seasonal and cyclical variations in receipts and payments of mutual savings societies are analyzed.

COHEN, PERCY. *The British system of social insurance. London, Philip Allan, 1932. 278 pp.*

This account of the British social-insurance system covers health insurance, widows', orphans', and old-age contributory pensions, noncontributory old-age pensions, workmen's compensation, industrial insurance, and unemployment insurance. The principal provisions of each type of insurance are given, including the coverage and the rights and obligations of the insured, as well as the history of the development of the different systems.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE. *Rapport présenté a l'assemblée générale ordinaire du 18 Mars 1932. Paris, 1932. 19 pp.*

The annual report of the Central Committee of Coal Operators in France for the year 1931. It contains statistics of production, wages, and the average output of workers in the different coal-mining sections.

COMMITTEE ON THE COSTS OF MEDICAL CARE. *Miscellaneous Contributions on the Costs of Medical Care, No. 11: The extent and adequacy of life insurance protection in the United States, by Mary Dublin. Washington, 910 Seventeenth Street NW., 1932. 14 pp.*

Reviewed in this issue.

DENNIS, LAWRENCE. *Is capitalism doomed? New York, Harper & Bros., 1932. 328 pp.*

DUNN, ROBERT W. *Spying on workers. New York, International Pamphlets (No. 17), 799 Broadway, 1932. 31 pp.*

GIRAUD, RENÉ. *Vers une internationale économique. Paris, Librairie Valois, 1931. 239 pp.*

A discussion of international economic problems. The first part deals with the search for a new economic balance as evidenced by the movement toward scientific labor organization, the Russian experiment, and the proposed United States of Europe. The second and third parts treat, respectively, of regulated production and the politics of to-morrow.

GORSELINE, DONALD EUGENE. *The effect of schooling upon income. Bloomington, Graduate Council of Indiana University, 1932. 284 pp.*

GRAHAM, FRANK D. *The abolition of unemployment. Baltimore, Williams & Wilkins Co., 1932. 16 pp.*

L'INSTITUT INTERNATIONAL DE STATISTIQUE. *Aperçu de la démographie des divers pays du monde 1931. The Hague, 1932. xxxvi, 469 pp. (In French.)*

Contains statistical data on the condition of the population and its movement in various countries of the world for the year 1931, including births and deaths, racial attachment, marriages, divorces, religion, education, etc.

—— *Bulletin, Tome XXV—2ème livraison. Tokio, 1931. 392; 282* pp.*

A collection of reports on Japan and China presented to the nineteenth session of the International Institute of Statistics, Tokyo, 1930. The Japanese family-budget inquiry of 1926–27, included in the section of this volume which deals with social statistics, was summarized in the May, 1931, issue of the Labor Review.

INTERNATIONAL INDUSTRIAL RELATIONS ASSOCIATION. *Employment and unemployment in pre-war and Soviet Russia. Report submitted to the World Social Economic Congress, Amsterdam, August 23–29, 1931, by Susan M. Kingsbury and Mildred Fairchild. The Hague, 1932. 132 pp., charts. (New York office, Room 600, 130 East Twenty-second Street.)*

—— *Social economic planning in the Union of Soviet Socialist Republics. Report of delegation from the U. S. S. R. to the World Social Economic Congress, Amsterdam, August 23–29, 1931. The Hague, [1932?]. 168 pp. (New York office, Room 600, 130 East Twenty-second Street.)*

INTERNATIONAL INDUSTRIAL RELATIONS INSTITUTE. *International unemployment: A study of fluctuations in employment and unemployment in several countries, 1910–1930. Contributed to the World Social Economic Congress, Amsterdam, August, 1931. The Hague, 1932. 496 pp., charts. (New York office, Room 600, 130 East Twenty-second Street.)*

Includes chapters on fluctuations in unemployment in Australia, employment and income of labor in Canada, industry and labor in China, unemployment in Germany, fluctuations in unemployment in France, fluctuations in unemployment in Great Britain, employment and income of labor in the United States, and employment and unemployment in pre-war and Soviet Russia. The International Industrial Relations Institute was formerly the International Industrial Relations Association, the name having been changed in March, 1932.

JANSON, FLORENCE EDITH. *The background of Swedish immigration, 1840–1930. Chicago, 1931. 517 pp., maps, charts. (University of Chicago Social Service Monographs No. 15.)*

Discusses the economic, social, religious, and political conditions in Sweden in the preceding century in connection with the exodus of the people of that country to the United States. The forces on this side of the Atlantic tending to stimulate Swedish immigration are also traced through United States diplomatic and consular reports and through advertisements and articles in the Swedish press.

LENNOX, JOHN S. *The cause and cure of unemployment. Pittsfield, Mass., Eagle Printing and Binding Co., 1932. 68 pp.*

The writer believes the cause of unemployment lies in the financial system which adheres to a fixed monetary standard, and that in place of a metallic standard of money a credit system should be substituted in which the value of money would remain "indefinitely constant in terms of the average price of all commodities."

METROPOLITAN LIFE INSURANCE CO. *Monograph 4, Social Insurance Series: Social insurance legislation. New York, 1932. 70 pp.*

This report presents the original and present provisions of the unemployment insurance, health insurance, and pension systems in Great Britain, Germany, Belgium, Denmark, Italy, and Switzerland.

—— *Monograph 5, Social Insurance Series: The administration of unemployment insurance. New York, 1932. 27 pp., chart.*

This report describes briefly the administrative organization and procedure of the unemployment-insurance systems in 11 European countries.

NATIONAL CONFERENCE ON CITY PLANNING. *Planning problems of town, city, and region. Papers and discussions at the Twenty-third National Conference on City Planning, held at Rochester, N. Y., June 22–24, 1931. Philadelphia, Wm. F. Fell Co., 1931. 228 pp., illus.*

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *The cost of living in the United States in 1931. New York, 247 Park Avenue, 1932. 52 pp., charts.*

O'ROCKIE, JOHN. *What means this unemployment? or What's wrong with the world? being an economic inquiry into the present social discontent. Melbourne, Australia, Fraser & Jenkinson Pty. (Ltd.), 1931. 587 pp.*

OUDEGEEST, J. *De geschiedenis der zelfstandige vakbeweging in Nederland. Vol. I, 1926, 504 pp.; Vol. II, 1932, 402 pp. Illus. Amsterdam. Uitgave van het N. V. V.*

Contains a history of the independent labor-union movement in the Netherlands, including information on cooperative organizations, social legislation, unemployment, trade agreements, insurance against unemployment, cost of living, industrial disputes, youth movement among wage earners, etc.

PACIFIC COAST MARINE SAFETY CODE COMMITTEE. *Pacific Coast marine safety code: Stevedoring operations on board ship. San Francisco, 1931. 47 pp. (Revised November 6, 1931.)*

Safety rules based on safe practices adopted by prominent operators and approved by shipowners, water-front employers, and longshoremen from the major ports on the Pacific Coast, superseding sectional safety rules issued in 1928 in San Francisco, Los Angeles, and Seattle.

PEFFER, NATHANIEL. *Educational experiments in industry. New York, Macmillan Co., 1932. 207 pp.*

The writer declares that industrial education under private auspices and vocational education under public administration are "both groping, sometimes blindly." He suggests that little progress will be made without more knowledge of the goal to be attained and more daring in the exploration for paths to that goal.

PEGRUM, D. F. *Rate theories and the California Railroad Commission. Berkeley, University of California Press, 1932. 165 pp. (University of California Publications in Economics, vol. 10.)*

PERMANENT INTERNATIONAL CONFERENCE OF PRIVATE ORGANIZATIONS FOR THE PROTECTION AND WELFARE OF MIGRANTS (C. P. P. M.). *Document No. 6: The international conference for the protection of migrants, its work and program. Geneva, 10, Rue de la Bourse, 1932. 7 pp.*

PRINCETON UNIVERSITY. [Department of Economics and Social Institutions.] Industrial Relations Section. *The use of building and loan associations in company programs for employee savings and investment. Princeton, 1932. 48 pp. (Mimeographed.)*

Reviewed in this issue.

RYAN, FREDERICK L. *A history of labor legislation in Oklahoma. Norman, University of Oklahoma Press, 1932. 144 pp.*

SCHWENNING, G. T. *Protection of employees against abrupt discharge. Reprinted from Michigan Law Review, Ann Arbor, March, 1932, pp. 666–698.*

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