UNITED STATES DEPARTMENT OF LABOR
FRANCES PERKINS, Secretary
BUREAU OF LABOR STATISTICS
ISADOR LUBIN, Commissioner

MONTHLY
LABOR REVIEW

VOLUME 37 NUMBER 5

Hugh S. Hanna, editor

NOVEMBER 1933

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1933

For sale by the Superintendent of Documents, Washington, D.C. - - - - - Price 20 cents a copy
Subscription price per year: United States, Canada, Mexico, $2.00; Other Countries, $3.25

CERTIFICATE

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

CONTENTS

Page

Special articles:

Occupational changes since 1850, as shown by census reports 1017

Significance of nonmechanical factors in labor productivity and displacement 1028

National Recovery Administration:

Summary of permanent codes adopted from October 1 to 23, 1933:

Motor vehicle retailing trade 1039

Boot and shoe manufacturing industry 1040

Builders' supplies trade industry 1042

Glass container industry 1043

Knitting, braiding, and wire-covering machine industry 1043

Lime industry 1044

Luggage and fancy leather goods industry 1045

Retail lumber, lumber products, building materials, and building specialties industry 1046

Saddlery manufacturing industry 1047

Women's belt industry 1048

Laundry and dry-cleaning machinery manufacturing industry 1049

Bankers' industry 1050

Boiler manufacturing industry 1051

Electric storage and wet primary battery industry 1052

Ice industry 1053

Optical manufacturing industry 1053

Silk textile industry 1054

Textile machinery manufacturing industry 1055

Throwing industry 1056

Umbrella industry 1057

Automatic sprinkler industry 1058

Handkerchief industry 1059

Compressed-air industry 1060

Heat-exchange industry 1061

Pump manufacturing industry 1062

Farm-equipment manufacturing industry 1062

Mutual savings banks 1063

Marking devices industry 1064

Plumbago crucible industry 1065

Retail trade 1066

Retail drug trade 1069

Cap and closure industry 1070

Industrial supplies and machinery distributors' trade 1071

Steel tubular and fire-box boiler industry 1072

Additions to and modifications of codes previously adopted:

Completed wage schedule for bituminous-coal industry 1073

Appalachian agreement of the bituminous-coal industry 1074

Modification of lumber- and timber-products code 1081

Modifications of Cotton Textile Industry Code 1081

National Recovery Administration—Continued
Modification of President's Reemployment Agreement:
Elimination of employment of factory workers in excess of 35 hours per week — Page 1082
Application of agreement in small establishments and small towns — 1082
Definition of terms under agreement — 1083
Clarification of section 7 (a) of National Industrial Recovery Act — 1083
Child welfare: Conference on child health and nutrition — 1084
Industrial and labor conditions:
United States Department of Labor at the Century of Progress Exposition, Chicago, 1933 — 1086
Meeting of Association of Governmental Officials in Industry, 1933 — 1088
Effect of the depression upon the consumption of commodities — 1090
Report on conditions in needle-trades industry in two counties of Pennsylvania — 1092
Insurance, pension, and benefit plans:
Effect of public old-age pensions on almshouse populations — 1095
Retirement and unemployment plan of Hill Bros. Co — 1096
Benefit payments by Photo-Engravers' Union — 1098
Industrial accidents:
Meeting of the International Association of Industrial Accident Boards and Commissions, 1933 — 1099
Meeting of National Safety Council, 1933 — 1100
Industrial accidents in Massachusetts, 1931–32 — 1101
Safety:
Status of industrial safety codes and regulations in the various States, by Charles E. Baldwin — 1103
Safety rules for window cleaning in New York — 1119
Labor organizations:
Convention of the American Federation of Labor, 1933 — 1120
Labor unions in China, 1932 — 1131
Reorganization of labor unions of miners in Germany — 1132
Labor laws and court decisions:
Relief denied employer violating spirit of labor laws — 1133
Courts holds National Recovery legislation constitutional — 1134
Egypt:
Legislation on employment of women in commerce and industry — 1136
Child labor regulation — 1137
Industrial disputes:
Strikes and lockouts in the United States in September 1933 — 1138
Conciliation work of the Department of Labor in September 1933 — 1141
Labor turn-over:
Labor turn-over in manufacturing establishments, third quarter of 1933 — 1150
Labor turn-over in the cotton manufacturing industry, 1931 and 1932 — 1152
Housing:
Building operations in principal cities of the United States, September 1933 — 1156
Wages and hours of labor:
Wages and hours of labor in the manufacture of silk and rayon goods, 1933 — 1171
Earnings and hours of labor in principal occupations in the iron and steel industry, 1931 and 1933: Part 2. Bar, rail, sheet, and tin-plate mills — 1182

Wages and hours of labor—Continued
Union scales of wages and hours of labor in 1933: Part 2. Average wage rates, by trades ... Page 1186
Employment and wages in retail stores ... 1193
Wage-rate changes in American industries ... 1199
Wage changes reported by trade unions and municipalities since July 1933 ... 1203
Rates of wages on public-road work, August 1933 ... 1204
Brazil—Monthly wages in Sao Paulo, first half of 1933 ... 1208
Denmark—Wages in industries, first quarter of 1933 ... 1208
Germany:
Earnings in the building trades, August 1932 ... 1209
Hours of labor in the tobacco industry, 1932 ... 1210
Queensland—Forty-four hour week ... 1211
Soviet Union—Yearly wages in 1932 ... 1211
Sumatra—Wages and labor cost on tobacco plantations ... 1211
Switzerland—Wages in 1932 ... 1214
Trend of employment:
Employment in selected manufacturing industries in September 1933 ... 1216
Employment in nonmanufacturing industries in September 1933 ... 1228
Average man-hours worked and average hourly earnings ... 1233
Employment in building construction in September 1933 ... 1235
Trend of employment in September 1933, by States ... 1237
Employment and pay rolls in September 1933 in cities of over 500,000 population ... 1245
Employment in the executive civil service of the United States, September 1933 ... 1245
Employment on class I steam railroads in the United States ... 1247
Unemployment in foreign countries ... 1248
Retail prices:
Retail prices of food in September 1933 ... 1253
Retail prices of coal on September 15, 1933 ... 1258
Wholesale prices:
Index numbers of wholesale prices, 1913 to September 1933 ... 1263
Publications relating to labor:
Official—United States ... 1270
Official—Foreign countries ... 1271
Unofficial ... 1272

This Issue in Brief

Great changes in the occupations of the people of the United States have occurred during the past several decades as a result of new methods of doing work, increased mechanization of industry, and changing consumption habits. An analysis of the Census Bureau's reports from 1850 to 1930 shows certain of the more striking changes—the decline or death of certain trades and professions, the birth and increase of others, etc. (p. 1017).

The significance of nonmechanical factors in labor productivity and displacement is discussed in an article beginning on page 1028. While the utilization of machinery and mechanical power has been the outstanding factor operating to increase labor productivity since the beginning of the machine age, there are other factors that have often been of equal and sometimes of even greater importance. Especially significant are such factors as the improvement of working conditions and the adjustment of working time; selection of personnel; synchronization of motion; improved cooperation; better arrangement of tools or machinery; the discovery and installation of improved processes; and the standardization of materials, processes, and finished products.

On October 1, 1933, the estimated membership of the American Federation of Labor was approximately 4,000,000, according to an announcement made by Mr. William Green, its president, just preceding the recent annual convention of that body. The sessions of this convention reflected from various angles the gains, aspirations, and also the dissatisfactions of organized labor under the National Industrial Recovery Act (p. 1120).

There were 149,094 persons employed on public roads during the month of August, according to data received from the Bureau of Public Roads of the United States Department of Agriculture. Of this number, over 91,000 were paid from the emergency public roads fund and the remaining 58,000 were employed under the regular State-aid plan of the Bureau. The common-labor rate on emergency construction averaged 36 cents per hour for the United States as a whole. The common-labor rate under the regular State-aid plan averaged 35 cents per hour. The rates differed materially in the different geographic divisions, ranging from 20 cents to 50 cents an hour. Skilled-labor rates ranged from 32 to 73 cents per hour (p. 1204).

The larger cotton manufacturing firms had higher turn-over rates in both 1931 and 1932 than the smaller firms, according to a tabulation by the Bureau of Labor Statistics of data from 172 identical firms from which reports were received for these years. The 84 firms having fewer than 300 employees showed a net turn-over rate for 1931 of 33.43 and for 1932 of 40.93. For the 88 larger firms, the net turnover rate for 1931 was 42.83 and for 1932 was 54.67 (p. 1152).

Decreases in union wage rates in 1933 as compared with 1932 were shown in 60 out of 69 separate time-work trades covered by the Bureau of Labor Statistics in its 1933 survey of union scales of wages and hours of labor. An article beginning on page 1186 shows wage rates and hours of labor on May 15, 1933, for chauffeurs and teamsters and drivers; laundry workers; linemen; and longshoremen; and for workers in the bakery, building, granite and stone, and printing trades. The range in wage rates for these groups was from 43.5 cents per hour for laundry workers to $1.234 in the granite and stone trades. Full-time working hours ranged from 40.4 in the building trades to 53 for chauffeurs and teamsters and drivers.

Earnings in the manufacture of silk and rayon goods averaged 26.9 cents per hour and $11.85 per week in 1933 as compared with 40.6 cents per hour and $18.47 per week in 1931, according to a survey by the Bureau of Labor Statistics. The hours actually worked in a week averaged 44 in 1933 as compared with 45.5 in 1931, while full-time hours would have averaged 50.9 in 1933 and 50.7 in 1931. The principal products of the mills covered by these investigations were broad goods, ribbons, dress goods, linings, shirtings, satins, georgettes, pongees, crepes, taffetas, chiffons, and tie goods made of silk and/or rayon (p. 1171).

A brief description of the exhibit which the Department of Labor and its various bureaus presented at the Century of Progress Exposition at Chicago, together with the outline used by the Department to show the changes and progress experienced by the workers through the century, will be found on page 1086.

MONTHLY

LABOR REVIEW

U.S. BUREAU OF LABOR STATISTICS

VOL. 37, NO. 5 WASHINGTON NOVEMBER 1933

Occupational Changes Since 1850, as Shown by Census Reports

THE twentieth century has brought a new industrial world, built up through continual changes in techniques, habits, and technology, with a consequent creation and shifting of occupations. Some of the skilled trades of 1850 either no longer exist or are fast disappearing; others, however, have expanded and new trades have arisen to take the place of those no longer needed. Also a large part of the machinery used today requires operators more skilled than were the hand employees replaced by machines.

The purpose of this study has been to assemble reasonably comparable data for selected significant occupations, both skilled and unskilled, and to present the figures in sufficient detail for further analysis. The basic information for the study was compiled from the decennial reports of the occupational census of all persons 10 years of age and over in the United States, published by the Bureau of the Census beginning with the year 1850, the first year in which the population was classified by occupations. While employees in most of the trades increased in actual numbers from one census period to another, many of them show relative decreases when compared with the change in population. The population increased from 23,191,876 in 1850 to 122,775,046 in 1930, and it is only by considering the changes in the occupations with relation to this increase in population that the real significance of such changes becomes apparent.

Before any discussion of the material presented, attention must be called to the fact that many of the trades or occupations of the present day are not strictly comparable with the same trades or occupations in 1850. New tools, new methods, different products, all tend to change the trade as well as the number of persons employed in it. For example, the carpenter of today uses many tools similar to those which were in use in 1850, but he no longer makes his own window frames, sashes, doors, etc., as these are now almost all made in factories. Also, unfortunately, occupations have not always been treated alike in the several decennial census reports. Different occupational terms and combinations thereof are used, and some occupations which were shown separately for a few years have drifted into "all others" in later years, rendering comparison impossible. Also it must be remembered that the statistics are gathered at 10-year intervals, and that the date for census taking has not always been the same. From 1850 to 1900 the census was taken as of June 1, but in 1910 April 15 was chosen; January 1 was used in

1920, and April 1 in 1930. These changes in date affect, to some extent, the comparisons in seasonal occupations. It may be pointed out also that a comparison of 1930 figures with those for 1920 is likely to be misleading, due to the abnormal conditions prevailing in 1920, a period closely following the war. Some occupations show expansion in 1920, which is out of line with the trend, and a compensating decline in 1930, while other occupations show the reverse.

As a result of all of these factors the figures presented below should be accepted only as representative of general trends and not as absolutely accurate measurements.

The occupations for which figures are presented have been arranged under seven groups: Agriculture, forestry, and fishing; extraction of minerals; manufacturing and mechanical industries; transportation; professional service; domestic and personal service; and clerical occupations. It was not possible to include all of the occupations reported by the census, as in many cases they are of no particular significance in any year and many of them could not be traced on a comparable basis through the various reports. The occupational terms used in the table are designed to cover the material for all years, although they may not be the exact terms used in any census report. Wherever necessary, combinations have been made in order to maintain the comparison from year to year. The figures cited show the number of employees per million of population.

The most conspicuous occupational change revealed by the figures in table 1 is that to which attention has been frequently called, the consistent shift during the entire period from agricultural to other pursuits. For 1930 the Bureau of the Census made certain changes in tabulation which make impossible a comparison of the subgroups of agricultural occupations with those shown in previous censuses. The total number of persons employed in agricultural pursuits in 1930 represents a 15 percent decrease from 1920 and shows that a smaller percentage of the population was engaged in agriculture in 1930 than at any time during the period studied. Slaves, who formed a large part of the farm labor in the South in 1850 and 1860, were not included in the censuses for those years; this accounts for the sharp increase in 1870. In the census of 1850 it is estimated that in that year there were 2,500,000 slaves, or approximately 108,000 per million of population, directly employed in agriculture, including both males and females of all ages.[1]

Motor tractive power, electricity, and improved implements and methods are making agricultural work less burdensome but more productive, and the very great decline in the number of persons employed in agricultural pursuits has in a large measure been due to these technological changes. Technical changes in other industries have also resulted in divorcing the farmer's occupation from a variety of processes formerly done on the farm, such as slaughtering, coopering, the making of certain implements, and the preparation of certain foods. Furthermore, industrial and commercial wage levels, and the attractions of city life have drawn many away from the farm to the city.

[1] U.S. Census Office. Statistical View of the United States—A Compendium of the Seventh Census, by J. D. B. DeBow. Washington, 1854, p. 94.

TABLE 1.—NUMBER OF EMPLOYEES PER MILLION OF POPULATION, BY OCCUPATION, AS SHOWN BY CENSUS OF OCCUPATIONS, 1850–1930

Occupation	1850	1860	1870	1880	1890	1900	1910	1920	1930
Agriculture, forestry, and fishing									
Agriculture [1]	103, 568	106, 129	153, 436	152, 585	133, 904	134, 579	134, 696	100, 896	85, 294
Agricultural laborers	-------	[2] 25, 305	74, 848	66, 271	47, 723	57, 449	65, 047	37, 544	------
Farmers and planters	[2] 103, 097	79, 809	77, 320	84, 318	83, 904	74, 606	64, 231	57, 550	------
Gardeners, nurserymen, florists, vine growers, etc.	366	697	872	1, 117	1, 153	1, 406	3, 015	2, 955	------
Stockraisers, drovers, herders, etc	105	318	396	879	1, 124	1, 118	1, 256	1, 271	------
Lumbermen, raftsmen, wood choppers, etc	491	614	651	865	1, 582	1, 422	1, 753	1, 826	1, 321
Fishermen and oystermen	486	844	703	825	956	907	742	500	597
Extraction of minerals									
Quarry operatives	83	131	352	302	598	455	879	427	532
Miners, coal and metalliferous	3, 338	4, 699	3, 945	4, 670	5, 554	6, 959	8, 758	8, 351	6, 064
Oil and gas well operatives	-------	-------	99	146	145	237	278	809	857
Manufacturing and mechanical industries									
Apprentices	80	1, 760	451	881	1, 310	1, 072	1, 294	1, 364	755
Bakers	615	604	718	823	956	1, 042	974	927	1, 147
Blacksmiths	[3] 4, 308	3, 587	3, 677	3, 444	3, 262	2, 869	2, 533	1, 847	1, 013
Boilermakers	68	105	180	255	339	410	487	701	407
Brick and stone masons	2, 733	2, 011	2, 327	2, 043	2, 525	1, 962	1, 842	1, 314	1, 518
Plasterers		417	612	440	620	465	518	362	571
Boot and shoe workers	5, 644	5, 348	4, 438	3, 870	3, 392	2, 741	2, 836	2, 879	2, 482
Cabinetmakers	1, 611	1, 131	1, 111	1, 010	571	469	456	431	472
Carpenters and joiners	8, 509	7, 992	8, 937	8, 440	9, 714	7, 693	8, 884	8, 394	7, 570
Coopers	1, 884	1, 387	1, 084	980	754	490	275	180	92
Electricians	-------	-------	-------	-------	-------	667	[4] 1, 307	2, 014	2, 283
Engravers	95	88	110	91	132	147	152	142	158
Glassworks operatives	140	111	247	358	545	658	892	784	588
Harness and saddle workers	982	814	851	797	691	528	246	189	62
Iron and steel workers, including blast-furnace, rolling-mill, foundry, etc., employees	528	800	1, 215	2, 284	3, 355	3, 919	8, 052	8, 006	6, 731
Machinists	1, 039	1, 394	1, 420	2, 016	2, 813	3, 508	5, 016	7, 586	5, 215
Marble and stone cutters	607	631	670	655	970	717	389	209	186
Millers and millworkers (grain, flour, and feed)	1, 199	1, 186	1, 078	1, 066	839	534	396	468	316
Painters, glaziers, and varnishers	1, 215	1, 659	2, 208	2, 563	3, 494	3, 632	3, 635	3, 017	4, 261
Paper and pulp mill operatives	128	146	323	427	442	478	737	1, 012	1, 094
Paper hangers	112	64	65	100	197	287	278	177	231
Upholsterers		102	149	208	408	406	220	280	419
Pattern and model makers	63	87	103	116	164	198	256	262	242
Plumbers, gas and steam fitters	81	191	289	387	899	1, 214	1, 613	1, 956	1, 937
Potters and pottery workers	179	110	131	144	237	212	277	277	281
Printers, compositors, pressmen, lithographers, bookbinders, etc	788	944	1, 285	1, 726	2, 260	2, 394	2, 552	2, 339	2, 551
Roofers and slaters	19	62	71	80	112	118	153	108	193
Rubber factory operatives	7	15	101	127	257	288	477	1, 302	896
Steam engineers and firemen (stationary)	510	[5]	888	1, 588	2, 220	2, 941	3, 722	3, 651	3, 123
Structural-iron workers, building	-------	-------	-------	-------	-------	-------	124	178	236
Tailors, tailoresses, seamstresses, dressmakers, milliners, etc	[6]	8, 045	6, 585	8, 357	10, 884	10, 652	10, 712	6, 662	4, 421
Tanners, curriers, and tannery workers	646	446	744	595	625	561	591	565	373
Textile workers [7]	1, 925	1, 686	4, 842	6, 015	5, 442	7, 087	8, 162	9, 097	7, 796
Tinsmiths and tinware workers and coppersmiths	582	615	847	920	935	925	848	[8] 1, 059	[8] 1, 034
Tobacco and cigar factory operatives	467	681	1, 044	1, 536	1, 773	1, 730	1, 826	1, 706	1, 012
Wagon and coach makers	673	618	1, 101	995	549	[5]	376	182	34
Wheelwrights	1, 323	1, 040	543	311	204	178	41	35	------

See footnotes at end of table.

TABLE 1.—NUMBER OF EMPLOYEES PER MILLION OF POPULATION, BY OCCUPATION, AS SHOWN BY CENSUS OF OCCUPATIONS, 1850–1930—Continued

Occupation	1850	1860	1870	1880	1890	1900	1910	1920	1930
Transportation									
Chauffeurs							498	2,697	7,920
Draymen, hackmen, teamsters, drivers, etc.	1,757	2,468	3,132	3,541	5,854	7,092	4,826	3,975	1,240
Conductors, brakemen, and other railroad employees (not clerks)	208	1,163	3,995	4,707	6,080	6,714	11,378	10,914	7,749
Locomotive engineers and firemen					1,104	1,409	1,877	1,904	1,371
Motormen, conductors, and other street railway employees (not clerks)			132	238	593	920	1,667	1,634	1,220
Sailors and deck hands	3,044	2,142	1,470	1,198	888	795	506	519	527
Professional service									
Architects	26	40	52	67	128	139	181	172	179
Chemists, assayers, and metallurgists	20	20	20	39	72	116	177	312	302
Clergymen	1,157	1,194	1,138	1,290	1,401	1,469	1,283	1,204	1,212
Photographers and daguerreotypists	40	100	196	199	318	355	346	324	322
Dentists	126	178	203	246	278	390	435	531	579
Lawyers, judges, and justices	1,032	1,081	1,057	1,279	1,424	1,506	1,247	1,159	1,308
Physicians and surgeons	1,757	1,751	1,618	1,708	1,665	1,737	1,643	1,372	1,253
Technical engineers					69	57	97	129	184
Domestic and personal service									
Barbers, hairdressers, and manicurists	259	354	621	894	1,350	1,725	2,123	2,045	3,049
Servants, housekeepers, stewards, stewardesses, etc.	(6)	[2] 18,696	25,337	21,492	23,111	22,579	20,113	16,285	21,577
Laundry operatives						29	122	114	196
Cleaning, dyeing, and pressing shop workers							16	20	72
Clerical occupations									
Clerks, stenographers, typewriters, bookkeepers, accountants, etc.	4,369	5,933	1,926	2,999	16,117	20,793	16,569	26,691	30,336
Clerks and salesmen and saleswomen in stores			6,139	7,691			13,748	14,565	19,469

[1] 1930 census classifications do not allow for detail of agricultural occupations as shown in previous years.
[2] Figures are not available for slaves who formed a considerable part of agricultural and domestic labor in 1850 and 1860.
[3] Includes a few whitesmiths.
[4] Estimated by Bureau of Census in 1920.
[5] Reported under another designation.
[6] Not shown, as males only were reported.
[7] Including spinners, weavers, warpers, loom fixers, scourers, bleachers, dyers, knitters, etc., of cotton, wool, worsted, silk, linen, and hosiery.
[8] Includes sheet-metal workers.

Fishermen and oystermen numbered only a few more per million of population in 1930 than in 1850 and considerably less than in any other year of the period studied. In the decade 1920 to 1930, however, there was an increase of almost 20 percent.

In recent years the use of minerals has become more and more indispensable and the technical progress of these industries has kept pace with their importance, resulting in a steady growth in production. The expansion of the coal and iron industries increased the number of miners employed from 3,338 per million of population in 1850 to 8,351 in 1920. Although mechanization has not been as rapid in coal mining as in certain other industries, recent technical improvements have led to a reduction in labor requirements which, combined with the development of other kinds of industrial power, resulted in a decrease in the number of miners per million of popula-

tion from 8,351 in 1920 to 6,064 in 1930. On the other hand, the growth of the oil and gas industries raised the number of employees of oil and gas wells from 99 per million of population in 1870, the first year for which separate returns were made, to 857 in 1930.

Greater productivity has made it possible for the relatively smaller increase in persons employed in manufacturing industries to provide for the more rapidly expanding industrial population. Manufacturing and mechanical occupations have thus suffered a relative shrinkage.

The building trades have experienced a considerable change since 1850. This is not surprising when consideration is given to the difference in buildings of today and those of 80 years ago. In the early days lumber was the easiest as well as the cheapest material with which to build, and most buildings were of wood. Today, however, almost all large buildings are constructed of brick, concrete, steel, or stone, while even the inside finish of wood is not so much used as formerly. These materials are also in common use among home builders, especially in the cities. Fabrication has transferred much of the hand work to the factory. The new technology of recent years has entered construction work and the amount of hand work has been reduced. As yet there has been but little inroad of machinery on the highly skilled crafts.

The use of steel for framing accounts for the new trade of structural-iron worker. This occupation was shown separately for the first time in 1910, when 124 workers per million of population were reported in this trade. By 1930 the ratio had almost doubled, workers having increased to 236 per million of population.

Carpenters and joiners and plasterers increased in almost the same ratio as the population during the 80-year period 1850 to 1930. Brick and stone masons decreased perceptibly after 1850, but showed an upward trend from 1920 to 1930. Marble and stone cutters, when compared with the population, decreased constantly after 1890 and in 1930 showed fewer workers per million of population than at any other time studied. Stone is now, to a large extent, cut and polished at the quarry by machinery, only the finer work being done by hand. The result of the introduction of these machines was first noticeable in the census returns for 1910.

The bathroom, a luxury enjoyed by few families in 1850, has now become almost a necessity. Only 81 plumbers per million of population were employed in 1850, as against 1,937 in 1930. There was a slight drop in the relative number employed in this trade in 1930 as compared with 1920.

Electric lights were unknown in 1850, while now practically all of the large buildings and an increasing percentage of homes are equipped with electricity for lighting, as well as for the numerous electrical appliances now on the market. As a result 2,283 electricians per million of population were reported in 1930 as compared with 667 in 1900, the first year for which a separate return was made for this trade.

Painters, glaziers, and varnishers increased steadily from 1,215 per million of population in 1850 to 3,635 in 1910, decreased to 3,017 in 1920, but increased again in 1930 to 4,261. During the period there has been an increase in factory painting and varnishing, and most of the glazing is now done at the factory.

Comparatively few families indulged in the luxury of wall paper in the early days and the occupation of paper hanger was not reported

separately in 1850, but this craft increased from 64 per million of population in 1860 to 231 in 1930. In 1920 there was a considerable decrease in the importance of this occupation, but during the last decade the relative number has increased approximately 30 percent.

Commercially upholstered furniture was probably included among the furnishings of but few homes in 1850. However, as home-made furniture began to be replaced by the new factory-made upholstered product, the trade of upholsterer became very important. After 1900 there was a decline in the ratio of upholsterers to the population, but by 1920 the turn of fashion made a sharp increase in the demand for this occupation and by 1930 there were 419 upholsterers per million of population.

The principal woodworking shop crafts have decreased amazingly in recent decades. Wagon and coach makers, important trades in 1850, diminished from 673 per million population in 1850 to 34 in 1930. These trades indeed are almost extinct, and wheelwrights are no longer separately enumerated in the census returns. The cooper's trade, a very necessary one in 1850, is also fast disappearing. In 1850 there were 1,884 coopers per million of population; in 1930 the census returns showed but 92. Steel drums, pails, sacks, and other containers have been substituted for the old wooden barrel.

The decrease of cabinetmakers from 1,611 per million of population in 1850 to 472 in 1930 is probably due more to the growth of the factory system of manufacturing then to the introduction of machinery. More desks, tables, chairs, etc., are made today than ever before, but most of them are now made in the factory. By 1890 the number of cabinetmakers per million of population had dropped to 571, and since 1900 the number has kept fairly even pace with the growth of population. Owing to the occupational classification used by the census, it is impossible to include factory operatives with the hand cabinetmakers. Thus, the decrease shown in this occupation represents the decrease of hand cabinetmakers and not the decrease in the trade generally.

In the metal-working trades, machinists increased to more than sevenfold in comparison with the growth in population from 1850 to 1920, about two fifths of the increase occurring between 1910 and 1920. After 1920 there was some decrease in the relative number.

Boiler makers increased steadily and rapidly, but during the decade 1920 to 1930, dropped from the high point reached in 1920 to the general level which the trade held relatively to the population for three decades prior to 1920.

Pattern and model makers have increased greatly since 1850, and have held a steady pace with population increases since 1910.

Stationary steam engineers and firemen grew from 510 per million of population in 1850 to 3,123 in 1920. After 1910, however, the ratio gradually declined.

The 982 harness and saddle workers per million of population in 1850 had been reduced to 62 in 1930. The advent of the automobile and motor truck has had, of course, a great deal to do with the decline in this trade.

Bakers have nearly doubled in number per million of population since 1850. At that time there were but 615, in comparison with 1,147 in 1930. This increase is due largely to the substitution of bakery foods for the home-made variety.

The effect of the introduction of machinery in our manufacturing establishments is clearly illustrated in the occupation of the boot and shoe worker. Boot and shoe production has grown by leaps and bounds since 1850, although the number of workers per million of population has decreased steadily. Back in the early days a shoemaker made the entire shoe. At present practically all the shoes are made in the factory by machine and one man seldom performs more than one operation on a pair of shoes.

Textile workers increased from 1,925 per million of population in 1850 to 7,796 in 1930, the decade 1920 to 1930, however, showing a decrease of over 1,000. Technology has played a large part in the relative reduction of employees in the textile trades and the operation of the modern loom is quite different from the old processes of 1850, but spinning and weaving continue to be the most important occupations in the textile industry.

The tremendous increase in the use of machinery, steel frames for buildings, steel rails, etc., is reflected to a large extent in the increase in iron and steel workers.

Years ago communities were self-sufficient to a large extent, but with the growth of the complex modern ways of living, need has arisen for wide and accessible markets and for ease of transportation, both of goods and passengers. Many changes have taken place in this field over the years studied. In 1930 there were fewer draymen, hackmen, teamsters, etc., than there were in 1850 or at any time since then. In 1900 the peak was reached in these trades, and since that time a constant relative decrease has been reported. From 1920 to 1930 the drop was great, there being over three times as many per million of population in 1920 as in 1930. The effect of the automobile and motor truck is apparent, the new occupation of chauffeur taking the place of a large number of teamsters and drivers. This occupation was reported separately for the first time in 1910 and increased from slightly less than 500 per million of population in that year to 7,920 in 1930. The relative number tripled in the 10 years from 1920 to 1930.

Steam railroad employment rose almost unchecked until 1910, when a relative decline set in which has continued. Locomotive engineers and firemen were shown separately for the first time in 1890 when 1,104 per million of population were employed. This number increased to 1,904 in 1920, but by 1930 it had dropped to 1,371, the lowest since 1890.

During the three decades following the introduction of electric cars, a rapidly increasing number of persons were required in the operation of street railways, but as in the case of steam railroads, the number needed fell off relatively between 1910 and 1920 and has gone down rapidly since that time.

Sailors and deck hands have grown fewer and fewer relatively with the decrease in American ships. Our shipping industry was quite important in 1850 and there were 3,044 sailors per million of population. By 1930 this number had shrunk to 527. Since 1910 the number has kept pace with the population and has shown a slight increase.

In the professional group of occupations there has been much growth during the last 80 years. Few professions have declined, and there has been a steady growth in many of the older professions and a rapid extension of some of the newer ones.

The profession of architect increased to sevenfold by 1910 and thereafter kept pace with the population.

Chemists increased to more than fifteenfold in relation to the population during the 80-year period from 1850 to 1930. The ratio in 1930 was relatively the same as in 1920.

The relation between clergymen and the population has remained fairly constant, as has also been the case with lawyers and judges. In 1930 the legal profession showed a slight relative gain over 1920 and 1910.

Photographers have multiplied relatively eight times since 1850, but kept a relatively constant growth with the population after 1890.

Dentists increased from 126 per million of population in 1850 to 579 in 1930, the increase being constant.

The number of physicians and surgeons was greater per million of population in 1850 than it has been at any time since, and was smaller in 1930 than at any other census year of the period covered.

The so-called machine age has had much to do with the creation of the occupation of technical engineer, which occupation, excluding electricians, has increased from 69 per million of population in 1890, the first year in which a separate report was made, to 184 in 1930, an increase of 166⅔ percent.

While domestic and personal service has probably shown a smaller degree of relative change than almost any other group of occupations over the period of 80 years, there has been a great deal of change in the occupations within the group. As was the case with agricultural laborers in 1850 and 1860, many of the domestic servants in those years were slaves and were not reported by the census. The census of 1850 estimated that "at least as many slaves will be employed as domestics as there are slave properties",[1] which would allow 347,525 domestic slaves or approximately 15,000 per million of population. In 1850 the domestic service was made up largely of household servants. Today domestic service consists of such occupations as janitors, elevator tenders, boarding and lodging house keepers, restaurant and lunchroom owners, laundry operatives, cleaners and dyers. There is still a demand for servants, but instead of keeping a few servants in his home, the American now goes outside and employs various servants, all specialists in their particular lines.

Domestic servants have fairly well kept pace with the population ever since 1860, fluctuating up or down a little at each census period. During the war large numbers of domestics left their employment for more congenial employment at better wages and the relative number employed in that year fell below even the 1860 figure. The 1930 census, however, shows the relative number back at the approximate figure which has obtained throughout the period studied.

Barbers, hairdressers, and manicurists have increased relatively to over tenfold during the period covered, in accordance with the change in custom and fashion of the people.

Laundry operatives, which were not returned separately in the census until 1900, increased from 29 per million of population in that year to 196 in 1930.

Cleaning, dyeing, and pressing shop workers, which did not appear in the census returns until 1910, increased relatively from 16 to 72 during the 20 years from 1910 to 1930, an increase of 350 percent.

[1] U.S. Census Office. Statistical View of the United States—A Compendium of the Seventh Census, by J. D. B. DeBow. Washington, 1854, p. 94.

Clerical service, which accounted for a very small proportion of the total gainfully occupied group in 1850, has increased at a consistently rapid rate over the entire period, and has probably experienced a greater percentage of increase than any other group. Technological changes have released a great number of workers from manual toil and made them available for clerical work. At the same time, the complex business structure which has been made possible by technological progress depends upon the efficient functioning of an administrative and distributive organization which has absorbed a great number of clerical workers.

It was not possible to separate clerical employees from clerks and salesmen in stores in all years, but wherever possible the separation has been made. The relative number of clerks in 1930 was over 10 times what it was in 1850. Up to 1920 office clerks increased a great deal faster than sales clerks, but during the decade 1920 to 1930 office clerks increased but 14 percent, whereas clerks in stores increased 34 percent.

Wage Earners, by Industries, as Reported in the Manufacturing Censuses

WHILE the occupation census reports from which the above figures were compiled afford the only measure of the proportion of the several occupations in the population, additional data bearing on the subject are available from the Census of Manufactures which contains, among other things, a report of the average number of wage earners employed in the various industries by the manufacturing establishments of the country. Occupations, however, are not considered. These reports are available by 10-year periods from 1850 to 1899, and by 5-year periods from that time to 1919. Since then reports have been issued bienially.

It should be noted that the manufacturing census is a census of factories, with more attention given to product and investment than to producers. These statistics are compiled primarily for the purpose of showing the absolute and relative magnitude of the various branches of industry covered, and their growth and decline. In addition, however, the number of wage earners is reported, and when the various industries are being studied without regard to occupations these figures are probably preferable to the occupational statistics. In the occupational census, for example, a carpenter is reported under the head of carpenter regardless of where he may be employed, while in the manufacturing census he would be included only as a wage earner under the industry in which he works.

In presenting the following data compiled from the Census of Manufactures, only four of the principal industries in the United States have been chosen. Three of them are industries having occupations that are included in the occupational table. In no case, however, are the figures in this table comparable with those in the other, as the method of collecting data is entirely different. The method of enumeration used in the occupational census is the house-to-house canvass, the occupation of each individual being reported regardless of whether or not he is actually employed at the time of the census taking. Every person 10 years of age or over engaged in productive labor is included in the occupational information. Reports prepared by manufacturing plants are used for the Census of Manufactures, and only those persons employed in manufacturing plants with annual products of a value of $500 or over are included in the data.

TABLE 2.—ACTUAL NUMBER OF WAGE EARNERS, AND NUMBER OF WAGE EARNERS PER MILLION OF POPULATION, EMPLOYED IN VARIOUS INDUSTRIES AS SHOWN BY THE CENSUS OF MANUFACTURES, 1850 TO 1931

Industry	1850	1860	1870	1879	1889	1899	1904	1909	1914	1919	1921	1923	1925	1927	1929	1931
Iron and steel																
Blast furnaces:																
Wage earners	20,448	15,927	27,554	[1] 30,000	33,415	39,241	35,078	38,429	29,356	41,660	18,698	36,712	29,188	27,958	24,960	13,570
Wage earners per million population	882	507	715	598	531	516	432	418	300	394	173	329	254	237	203	109
Steel works and rolling mills:																
Wage earners	39,837	49,034	91,651	110,798	137,766	183,249	207,562	240,076	248,716	375,088	235,515	388,201	370,726	361,312	395,880	264,561
Wage earners per million population	1,718	1,559	2,376	2,209	2,189	2,411	2,554	2,610	2,540	3,548	2,184	3,480	3,227	3,057	3,224	2,132
Textiles																
Cotton goods:																
Wage earners	92,286	122,028	135,369	172,544	218,876	302,861	315,874	378,882	393,404	446,852	425,835	495,197	468,352	489,036	447,051	348,148
Wage earners per million population	3,979	3,881	3,511	3,440	3,477	3,985	3,887	4,120	4,017	4,227	3,949	4,440	4,077	4,137	3,641	2,806
Woolen goods:																
Wage earners	45,438	50,419	105,071	132,676	154,271	159,108	179,976	202,029	195,285	196,404	190,948	237,454	206,110	194,827	187,150	148,413
Wage earners per million population	1,959	1,603	2,725	2,645	2,451	2,094	2,215	2,197	1,994	1,858	1,771	2,129	1,794	1,648	1,524	1,196
Silk goods:																
Wage earners	1,723	5,435	6,649	31,337	49,382	65,416	79,601	99,037	108,170	126,782	121,603	125,234	132,509	127,643	130,467	109,203
Wage earners per million population	74	173	172	625	784	861	980	1,077	1,105	1,199	1,128	1,123	1,154	1,080	1,063	880
Hosiery and knit goods:																
Wage earners	2,325	10,532	18,846	30,699	59,774	83,691	104,092	129,275	150,520	172,572	162,078	194,244	186,668	190,283	208,488	171,524
Wage earners per million population	100	335	489	612	950	1,101	1,281	1,406	1,537	1,632	1,503	1,742	1,625	1,610	1,698	1,382
Boots and shoes [2]																
Boots and shoes (including repairing):																
Wage earners	105,305	123,030	138,662	143,301												
Wage earners per million population	4,541	3,913	3,596	2,857												
Boots and shoes (not including repairing):																
Wage earners				115,972	142,116	151,231	160,294	198,297	206,088	229,705	196,586	241,119	223,574	221,671	225,515	203,400
Wage earners per million population				2,312	2,258	1,990	1,972	2,156	2,104	2,173	1,823	2,162	1,946	1,875	1,837	1,639
Motor vehicles [3]																
Wage earners						[4]	12,049	75,721	127,092	343,115	213,116	404,886	426,110	369,399	447,448	287,225
Wage earners per million population							148	823	1,298	3,246	1,976	3,630	3,710	3,125	3,644	2,315

[1] Not reported separately; this number is an estimate.
[2] Including cut stock and findings.
[3] Including bodies and parts.
[4] No data covering bodies and parts—2,241 wage earners for motor vehicles

The figures shown in table 2, while not comparable with those for the same industries in the occupational data, serve a distinct purpose and have been included in this article as supplemental information and not with the idea of comparison. In the case of boot and shoe workers, for example, in the occupation table the effort has been made to trace such workers from 1850 to 1930. Census designations have changed in the 80-year period and the shoemaker has given way to the shoe-factory operative. In the manufacturing census, boot and shoe wage earners, while mainly operatives engaged in the manufacture of shoes, include a few general occupations, such as carpenter, machinist, engineer, fireman, etc.

In date the enumeration of population does not coincide with the manufacturing census. For instance, in 1900 the population count was made as of June 1, while the manufacturing census covered the year 1899 and gave the average number of wage earners for that year. These two numbers are used together in computing the proportion per million of population, as in point of time they are near enough to the same date. The estimates of population which the Bureau of the Census made for the years 1904, 1914, 1921, 1923, 1925, 1927, and 1931 have been used, as the census of population is taken at 10-year periods only.

Significance of Nonmechanical Factors in Labor Productivity and Displacement

By William G. Roylance, United States Department of Labor

THE purpose of this article is to call attention to the importance of certain nonmechanical factors affecting the productivity of labor, and therefore the volume of employment. It is believed that a proper emphasis upon these factors, as compared with the factors of machinery and power, may aid in the development of a more rational point of view with regard to what is now widely known as technological labor displacement.

Main Characteristics of Modern Industrial Development

The period of modern industrial history beginning with the invention of Watt's steam engine, the spinning jenny, and the power loom, is universally designated as the machine age. The rapid developments which have been made in the discovery and utilization of new sources of power have led to the differentiation of the latter part of this period as the "age of power." There is ample justification for these appellations. Machinery and power have been the chief instrumentalities by which the modern world has been transformed from a welter of half-starved, disease-ridden communities to a place of at least potential abundance, health, and safety.

But the very magnitude of the accomplishments that have been due to the utilization of machinery and power has led to an overemphasis of both the evils and the benefits that have resulted from the growth of mechanized industry. While machinery and mechanical power have been from the beginning of the modern industrial era the more obvious, and especially the more dramatic, factors making for industrial efficiency and progress, there are other factors that from the beginning, though not so obvious, nor so dramatic, have been possibly of equal importance. In fact, there is one important phase of modern industrial development that antedates the invention of the first power machines—that of the division of labor. This economic development, outlined by Adam Smith before the successful installation of the first power machinery, is the historical foundation of modern industrial rationalization. It has supplied the ground plan for the work of Taylor, Gannt, Emerson, and others in this country, as well as for the various rationalization schemes that have appeared in Europe, at least insofar as they apply directly to the work of the factory. While the organization of the working force, as exemplified in the modern factory, has been largely shaped by the requirements of machine production, it is nevertheless a factor that deserves separate treatment—a factor that might have been of very great importance even without the invention of machines and the utilization of mechanical power.

There has also been an important development in individual skill, which, though modified, and sometimes impeded, by the requirements of machine production, has contributed very largely to modern industrial efficiency. Many discoveries have been made and many processes invented and utilized which would have been of very great benefit even in the absence of elaborate machinery or mechanical power. Indeed, the contributions of the science of chemistry to industrial efficiency have been and still are in many respects more

important than the development and application of mechanical power as such. Moreover, machine production is largely dependent upon these discoveries and processes; while, on the other hand, many of the contributions of industrial chemistry are relatively independent of mechanical agencies. During recent years, these discoveries of the chemists, together with equally important discoveries of the physicists, have even tended greatly to reduce both the volume of machine equipment and the quantity of mechanical energy required per unit of output.

Nonmechanical Factors in Postwar Development

As EARLY as 1928 it was noted that the progress in industrial efficiency which had been achieved in this country during the postwar decade was due in very large part to factors other than the increase in machine equipment or in the number of power units utilized. Now that additional data have become available it is even more apparent that this is true. Recent investigations have indicated that the volume of machinery and equipment replacement in manufacturing industries during the decade 1919–29 was hardly, if at all, greater than normal.[2] This implies that a considerable part of the increased efficiency that marked the period must have been due to other than mechanical causes.

This conclusion is confirmed by other evidence. The increase in "value added by manufacture" in the manufacturing industries between 1919 and 1929, when expressed in dollars of constant wholesale purchasing power, was 83 percent, while the increase in the number of power units utilized was only 48 percent. The increase in power units per wage worker engaged was 47 percent, as compared with an increase in value output per worker of 92 percent.[3]

Classification of Nonmechanical Factors

IT APPEARS therefore, that there must have been causes other than machinery equipment and power contributing to the large increases in total output and in output per worker during recent years. Among the causes that appear to have contributed to these results are the following:

(1) A more adequate and a more even flow of raw materials to the manufacturing industries.

(2) More easily workable materials, better adaptation of materials to purposes of manufacture, and standardization of materials.

(3) A faster and more even flow of products from the mines, the farms, and the factories to markets, reducing inventories and obviating the congestion of goods in warehouses.

(4) Improved factory layout and machine assembly, and more efficient utilization of machinery and equipment.

(5) More economical distribution and application of power.

(6) Improved working conditions, and better adjustment of working time.

(7) Better organization of the working force, including personnel selection and distribution.

[2] The Business Week, Aug. 24, 1932, p. 14.

[3] Computed from data summarized in U.S. Bureau of the Census, Statistical Abstract of the United States, 1931, p. 816.

(8) More effective application of the energy and skill of workers (rationalization of movements, etc.).

(9) Direct increase in individual efficiency.

It is known that most of these factors were operative during the period under consideration, but in most cases it is impossible to determine their relative importance. There was, for the most part, an abundance of readily accessible raw materials, the quality and workability of which were being constantly improved. There was marked progress in the standardization, both of finished products and of the materials from which they were manufactured. Consumer demand was fairly well sustained, and the "hand-to-mouth" policy of wholesale buying contributed to a rapid flow of goods away from the factories. There was, in fact, a synchronization of the flow of products—from the mine, the forest, and the farm to the factories; from factories to jobbers and wholesalers; and onward through the retailers to final consumers—without parallel in industrial history.

These are among the remoter factors influencing industrial efficiency. Of the factors that operate more closely in connection with actual production in the several industries, those which may be distinguished as human factors are especially difficult of exact measurement. Take, for example, that of increased skill, energy, or diligence on the part of the worker. There can be no doubt of its existence. In a few instances, employers have definitely recognized its importance. Mr. J. H. Bloedell, of the Bloedell-Donovan Lumber Co., of Seattle, Wash., commenting on the fact that the output per man-day was greater after the change from the 12- to the 8-hour shift in the logging and lumbering regions of the Northwest, credits the whole of this increased efficiency to the workers themselves, independently of any increase in equipment or of power, or of improvement in management or methods. There had, indeed, been great improvements in these latter respects which, according to Mr. Bloedell, offset the increased cost of logging resulting from the receding of the timber supply from the mills, and the increased value that the lumber industry was compelled to put into its products, in order to meet the competition of the manufacturers of substitutes for lumber. Mr. Bloedell adds that most of the improvements in methods and devices were worked out by the men on the job.[4]

Among the human factors making directly for increased efficiency are the following: (1) Improved organization and management; (2) increased energy, skill, or diligence on the part of operatives; (3) selection of personnel and organization of the working force; (4) cooperation between management and operatives; (5) adaptability to and liking for the job; (6) incentives—wages, bonuses, profit sharing, etc.

Other important factors that are either relatively independent of the machine set-up, or that greatly add to its efficiency are conditions with regard to: (*a*) Safety; (*b*) light and sound; (*c*) ventilation and temperature (air conditioning); (*d*) fitness and accessibility of tools; (*e*) working conveniences—seating, work benches, tables, etc.; (*f*) routing of materials to and from machines, and from one worker to another; (*g*) machine set-up, assembly and control; (*h*) synchronization of operations and processes.

[4] Seattle Times, July 28, 1928.

The amount of saving in labor and other costs that has been accomplished by effective routing of materials, by scientific machine assembly, by timing of operations and synchronization of processes has been widely noted. Much attention has also been given to the rationalization of workers' motions, and related adjustments. But the possibilities of improved organization and management of labor, of adjustments of the working time, and of better working conditions have, until very recently, received far less attention. Proper lighting, ventilation, and heating were, until quite recently, regarded almost wholly from the humanitarian point of view. An employer made improvements out of consideration for his employees, or under compulsion of law or of public opinion, rather than from the belief that thereby he could reduce his labor costs. The same is true of the adjustment of the working time.

Examples of Increased Labor Productivity Due to the Operation of Nonmechanical Factors

ALTHOUGH the effects of nonmechanical factors upon labor productivity are, in most instances, especially difficult of computation, there have been a number of recent surveys the results of which afford a fairly good indication of the possibilities that lie in this field. The following examples are selected from a summary given in an article on "The Social Aspects of Rationalization", published in Studies and Reports of the International Labor Organization, Series B (Economic Conditions) No. 18, Geneva, 1931:

TABLE 1.—EXAMPLES OF INCREASE OF OUTPUT DUE TO NONMECHANICAL FACTORS

Method	Place, industry, or operation	Percent of increase of output per labor unit
Arrangement of premises and workplaces.	German chemical factory	60
Shape of benches	Swiss food factory	30–40
Improved lighting	United States, 25 cases showing following results:	
	13 cases	10–20
	3 cases	20–30
	1 case	35
	1 case	42
Systematic arrangement of tools	Gilbreth's examples (cited by F. W. Taylor, Principles of Industrial Management) bricklaying.	92
	Assembling parts of textile machinery	100
	Manufacture of tin boxes	50
	Shirt factory	50
Adjusting stand to stature of operative	Apple packing (United States)	25
Selection of workers	Pig charging (Bethlehem Steel Works)	170
	Inspection of ball bearings	130
	Miscellaneous	10–40
Training of workers	Swiss experiments	30
	Ohio State University studies, average	27
	Manufacture of tins	40
	Nailing machine	13
	Biscuit packing	31
	Baking operations	35
	Shelling almonds	23
	Addressing	10
Rationalization of movements	Ohio State University studies:	
	Folding cloth	270
	Dipping chocolate	50
	Packing chocolate	38
	Attaching labels	100
	Filing forks	100
	Assembling carburetors	600
	Rope pleating	60
	French experiments:	
	Typesetting	700
	Type correcting	800
	Rythmic motion (machine)	17.8

TABLE 1.—EXAMPLES OF INCREASE OF OUTPUT DUE TO NONMECHANICAL FACTORS—Continued

Method	Place, industry, or operation	Percent of increase of output per labor unit
Chain work	France:	
	Fitting brake levers	69
	Inspecting brake levers	70
	In bicycle factory	70
	Germany:	
	Fitting brakes	70
	Repairing locomotives	87.5
	Motor manufacture	70
	Manufacture of women's underwear	100–260
	Manufacture of electrical appliances	40
	Czechoslovakia: Packing webs	100
	Sweden: Manufacture of cooking utensils	30
Rest pauses	Manufacture of pressed cardboard	6.2–58
	Assembling bicycle chain	13
	Operating stamping machine	13.2
	Manufacture of sewing machines	69
	Krupp Factory (Austria)	50
Incentives	United States: Manufacture of tin tubs	50
	Germany: Manufacture of tin tubs	170
	Czechoslovakia: Bat'a boot factory	66
	France: Metal industries	10–80

The following gains in labor output from improvements in lighting and ventilation, and regulation of sound conditions, are noted in Bulletin No. 1 (v. 11–12), of the Society of Industrial Engineers (U.S.), 1930:

	Percent gain
Improved ventilation	12–14
Light and ventilation	11
Light	14
Light, ventilation, and sound	12

Adjustment of Working Time

IN MOST cases where the working shift has been shortened, there has been an increase in the per-hour performance of labor. This is naturally to be expected, since monotony, fatigue, and exhaustion through too greatly prolonged activity are apt, not only to slow up the performance of the operative, but to entail considerable losses in spoilage, breakage, and damage to tools or machinery. But it is not so easily understandable that not only the output per hour, but the output per day, week, or year may be and often has been increased by shortening the working time. Perhaps the most notable example of this is found in the experience of the iron and steel industries in changing from the 10- and 12-hour to the 8-hour shift.

In a study of productivity of labor in merchant blast furnaces made by the United States Bureau of Labor Statistics, the results of which are given in its Bulletin No. 474 (1928), it was found that where some of the plants studied made the change to the shorter workday in 1923, not only the output per man-hour, but the output per man-day, was increased. Quoting from the bulletin (p. 2):

> Another development in recent years which has had an important effect on the number of men required to operate a blast furnace is the substitution of the 8-hour for the 12-hour day. Although three crews were required where two had been used before, the labor force was so reorganized in a majority of plants that very few more men were employed, while the total man-hours was actually reduced. Shorter hours have lessened the strain on the workers, so that the men can keep more continuously at work. This has frequently led to the combination or elimination of operations formerly essential.

Again (pp. 46–47):

Another factor affecting labor (productivity) is (the) skill, willingness, and ability of the worker himself. The difficulty is that there is no satisfactory way of gaging the influence of this important factor * * *. However, there did occur during the period covered by this study one specific change which has had some influence on the efficiency of the worker himself, in the absence of any improvement in equipment or organization. This is the substitution of the 3-shift for the 2-shift system in 1923, the elimination of the 12-hour day, and the establishment of the 8-hour day for workers on continuous processes. Before this change took place it was confidently expected by many that there would be a considerable increase in the labor cost because of the increase in the number of men required to operate the furnace. It is therefore of particular interest to note the results of the change in the shift system in individual plants.

Theoretically, the substitution of the 8-hour for the 12-hour day would have no effect on productivity; that is, each position requiring two men at 12 hours each would require three men at 8 hours each, and the output per man-hour would remain the same. In actual practice, of course, it would be expected that the output per man-hour would be somewhat higher in the latter case, for it is evident that a man can work at higher speed for 8 hours than he can for 12 hours. But the actual results in the blast-furnace industry following 1923 far exceed anything that might have been expected. There are numerous cases of plants in which, within a year after the change was made, the total labor force was back again to the same number of men that had been employed under the 12-hour system.

On page 77 of this bulletin it is said:

In plant no. 12 the steady increase in productivity was accelerated by the introduction of the 8-hour day. The old system of 10 and 12 hours was abolished at the end of 1923, and a new universal 8-hour system was substituted. The total labor time expended per ton of product was 2.917 man-hours in 1923, and 2.227 man-hours in 1924. There was about a 10-percent increase in the output per stack-day, which accounts for a small part of the increased productivity, but even when this is allowed for, there still remains a substantial increase in productivity, or, to put it conversely, a reduction in labor time. Of course, this plant shows a steady increase in productivity in every year since 1919, but when the effect in the increase in stack-day output has been eliminated the rate of increase between 1923 and 1924 was greater than for any other 2 years.

Again (p. 85):

Another even better case is that of plant 32. Eliminating 1923, as the year of the transition from the 2-shift to the 3-shift system, a comparison can be drawn between 1922, with the 10-hour and 12-hour day, and 1924, with the universal 8-hour day. No mechanical improvements of any importance were made in this interval, the output per stack-day was nearly the same in the 2 years, and even the length of time operated was almost identical. In other words, the only important difference in the 2 years is in the hours per day. Yet in 1922 it required 3.270 man-hours of labor to produce a ton of pig iron, and in 1924 only 2.662 man-hours.

While the increased output per man-hour in this plant was not sufficient completely to offset the shortening of the working time, additional data are available which confirm the statement made elsewhere in this study, that in many plants no more men were employed after the change from the longer to the shorter shift than were employed before. In fact, according to the reports of manufacturers to the Bureau of the Census, there were only 24,960 wageworkers employed in the operation of blast furnaces in 1929, as compared with 36,712 in 1923, the last year before the change in the shift system.[5] At the same time there was an increase in the total output of all blast furnaces from 40,361,146 long tons in 1923 to 42,613,983 long tons in 1929.[6] The number of workers engaged, the total tons produced, and

[5] U.S. Bureau of the Census. Statistical Abstract of the United States, 1931, p. 831.
[6] Idem, p. 778.

tons produced per worker, for census years from 1923 to 1929, inclusive, are shown in table 2:

TABLE 2.—NUMBER OF WORKERS, TOTAL LONG TONS PRODUCED, AND LONG TONS PRODUCED PER WORKER IN BLAST FURNACES IN CENSUS YEARS, 1923–29

Census year	Number of workers	Total long tons produced	Long tons produced per worker
1923	36,712	40,361,146	1,100
1925	29,188	36,700,566	1,260
1927	27,958	36,565,645	1,300
1929	24,960	42,613,983	1,700

The increase in tons produced per wageworker engaged during this period was 55 percent; that is, the 1923 output could have been produced, with the 1929 efficiency, by 13,000 fewer workers than were engaged in 1923.

An analysis of the census data for the entire group of basic iron and steel industries will show that increases in output per man-year, notwithstanding the general tendency to a reduction of the working time, that pervaded all iron and steel industries during these years, was not confined to the blast furnaces alone.

The following table shows the "value added by manufacture", the average number of wageworkers engaged, and the value added per wageworker in basic iron and steel industries for the years 1923, 1924, 1927, and 1929.[5]

TABLE 3.—VALUE ADDED BY MANUFACTURE, AVERAGE NUMBER OF WORKERS AND VALUE ADDED PER WAGE EARNER IN IRON AND STEEL INDUSTRIES, CENSUS YEARS, 1923–29

[Values in 1926 wholesale all-commodity dollars]

Year	Value added by manufacture	Average number of wageworkers engaged	Value added per wageworker
1923	$1,277,000,000	424,913	$2,999
1925	1,232,000,000	399,914	3,080
1927	1,283,000,000	389,270	3,300
1929	1,672,000,000	419,533	4,000
	Index numbers		
1923	100	100	100
1925	96	94	103
1927	100	92	110
1929	126	99	133

It will be noted that there was an actual decline in the number of employees engaged during this period, and at the same time an increase in the total value output, notwithstanding the fact that there occurred a general change from the longer to the shorter shift.

While there has been no such general change from a longer to a shorter working time in any other large industrial group as in the iron and steel industries, nor sufficient data indicating such changes as have been made, information is available which tends strongly to indicate that in most cases the shortening of the work day or week

[5] U.S. Bureau of the Census. Statistical Abstract of the United States, 1931, p. 831.

results in an increased man-hour output. Not only is this true, but in many instances the output per man-day or man-year shows a substantial increase within a few years after the new system has been established. As noted elsewhere, most logging and lumber industries on the west coast changed from the 10 to 12 to the 8-hour day after 1914. While the change was not universal, taking the country as a whole, and while it appears that in the lumbering regions of the old South the 10-, 12-, or even 14-hour day was still in effect prior to the new lumber code under the N.R.A., in most regions the average working time did not exceed 10 hours. Thus, when all lumbering regions are included there must have been a considerable net decrease in the average working time from 1914 to 1929; yet the output per worker engaged in all lumber industries, when measured in dollars of constant purchasing power, was 63 percent greater in 1929 than in 1914, while the increase in board feet per worker in the basic lumber industries was 20 percent.[7]

The International Labor Office summary (see p. 1031), shows the following results of changes to a shorter working day:

In France, changes to the 8-hour shift resulted in the following changes in labor productivity—

Total number of samples	68
Decrease in daily output	3
Increase not sufficient to maintain former daily output	8
Increase sufficient to maintain former daily output	6
Increased daily output	51

In the United States changes were found as follows:

Total number of samples	127
No change in daily output	64
Increase	32
Slight decrease	24
Large decrease	7

Though it may not be possible to discover all of the factors making for an increased labor productivity where the working time is reduced, or to assign to each factor its proper importance, the fact that there is such a result is in many ways of the greatest significance. For one thing, insofar as there is an increase instead of a decrease in per-man output on account of a shortening of the working time, a considerable complication will be introduced into the problem of labor absorption and employment stabilization. Thus, it is obvious that if a situation exists where there is a surplus of products and of productive capacity, and in which the output per worker is so high, relative to the volume of goods that can be profitably marketed, that only a part of the labor force can be utilized, and if at the same time a shortening of the working time results in an increased output per worker engaged, then there will be more workers unemployed after the adjustment than before. It is strongly indicated that under such conditions it will be necessary to provide for a progressive adjustment of the working time.

Another important consideration, which also has a bearing upon the problem of employment stabilization, is that the gains indicated are likely to be net gains, at least in the instances where there is no increase in equipment costs, or a lesser increase in power utilization.

[7] U.S. Bureau of the Census. Statistical Abstract of the United States, 1931, pp. 755, 816.

Where, as in the cases of blast furnaces and of basic lumber industries, there has been a large increase in output per man-year and a much smaller increase in other than labor costs or in power utilization, it is obvious that the labor displaced will be only partly absorbed by industries manufacturing equipment or in supplying power. Such a development can mean nothing else than a progressively decreasing cost, whether of man-labor or of capital equipment, with a constant and cumulative increment of unemployment, unless some method is found whereby to absorb the labor dispensed with.

New Processes and Methods

In numerous instances the invention of new processes or methods has not only increased the output per unit of man-labor, but has eliminated entire processes or units of production. This does not mean merely that a more efficient or a less costly process has been substituted, but that in many cases the new development has rendered the old process or industry no longer necessary. Recent developments in agriculture afford many examples, a few of which have been selected for purposes of illustration.

For instance, in the growing of wheat in the semiarid regions it has been found that, under favorable conditions, plowing as a separate operation can be eliminated where modern methods of soil treatment are applied. Similarly, corn growers have learned that in many instances as good yields can be secured, and at the same time a considerable amount of humus put into the soil, by "laying by" the crop, after the plants have reached a certain stage of growth—that is, by ceasing to cultivate and letting the quack or cheat grass, or other weeds grow for the remainder of the season. Again, it has been found that in the growing of sugar beets on certain kinds of land, better results are secured when the land is plowed only once in 2 years than when it is plowed every year, and similarly for the familiar practice of seeding grain on corn stubble. Likewise, where land is fallowed every second year the average biennial yield may be retained, or even increased, with less work in plowing, seeding, and harvesting, less outlay for seed, and important saving in soil conservation.

There are numerous instances in which changes in processes or methods of manufacturing farm products have resulted in important saving of labor costs, with little if any addition to the mechanical equipment, and it often happens that these changes affect farm methods in such a way as greatly to reduce the labor requirement on the farms. This is equally true of lumber and of many other primary products. For example, good oak boards have been made from oak sawdust. Obviously, as good results could be obtained if the whole tree were utilized. In that case, everything from and including the sawmill upward would be eliminated, and a single synthetic process substituted. A similar example is afforded by a recent development in the utilization of cellulose.

A considerable quantity of cotton has recently been grown and sold for its cellulose content. Where this is done, the cotton may be sown broadcast, and the crop mown and baled the same as hay, thus eliminating the present laborious and costly processes of row planting and cultivating, and picking. There is also a considerable gain from the fact that the leaves and stems of the plant contain an appreciable quantity of celluose, as well as from the fact that the ravages of the

boll weevil are largely eliminated. It has even been suggested that this development, in conjunction with improved felting processes, might in the future eliminate also the processes of ginning, carding, spinning, and weaving in the manufacture of many kinds of cotton cloth, substituting therefor a single uncomplex synthetic operation, similar to that of making paper from wood pulp.

There have been numerous other developments in which, though there is no complete elimination of entire processes or operations, there have been considerable reductions in both machinery and power and in labor requirements, with little or no addition of new equipment. A familiar example is that of the increase in crop yields per unit of man-labor applied by the economical use of fertilizers. This is illustrated by the following table, which is taken from the United States Year Book of Agriculture for 1930 (p. 264):

TABLE 4.—INCREASE IN CROP YIELDS PER UNIT OF MAN-LABOR BY ECONOMICAL USE OF FERTILIZERS

Crop	State	Yield per acre		Average hours of man-labor per acre	Yield per hour of man-labor		Increased labor efficiency
		Unfertilized	Fertilized		Unfertilized	Fertilized	
		Bushels	*Bushels*		*Bushels*	*Bushels*	*Percent*
Wheat	Missouri	12.5	30.0	11.7	1.07	2.53	140
Do	Ohio	11.5	28.0	11.7	.98	2.39	143
Corn	do	27.2	46.6	19.0	1.43	2.45	71
Oats	do	31.9	51.2	13.0	2.45	3.94	61
		Pounds	*Pounds*	*Pounds*	*Pounds*	*Pounds*	
Cotton	Mississippi	691	1,096	128	5.4	8.56	59
Do	South Carolina	1,321	1,816	128	10.3	14.20	38

While in this instance the comparison is between fertilized and unfertilized plots, so that the cost of the fertilizer must be offset against the increased output per man-hour, similarly favorable results may be achieved by the right instead of the wrong use of fertilizers, by better adaptation of crops to soil and climatic conditions, by improved methods of cultivation, by improved seeds, and by better selection of animal breeds and elimination of unprofitable animals.

In another class of examples, gains are in the nature of byproducts, or often due to the utilization of pure accident. In agriculture, it has been found that the application of copper sulphate for the removal of aphides on tomato plants both increases the yield and improves the quality of the fruit. In other cases, additional cultivation for the control of pests has increased the yield more than sufficient to cover the cost of the extra work. The use of mulch paper, primarily for the purpose of conserving moisture, has in some instances greatly reduced the cost of cultivation, weeding, and hoeing and has at the same time increased the yield of certain crops. In examples cited by the Society of Industrial Engineering, increases due to the use of mulch paper were 30 percent in the growing of pineapples, 73 percent for potatoes, and 691 percent for sweet corn.

The manufacturing industries afford many examples in which materials formerly wasted have been converted into valuable byproducts, at less cost than the former cost of removing the waste. Operatives often discover more economical ways of doing things, with no

other motive than that of getting by with less expenditure of effort. Thus even laziness may be turned into an asset. Explorers, inventors, or scientists in search of one thing often discover something else of equal or even greater value.

Standardization

ANOTHER nonmechanical factor making for increased industrial efficiency is that of standardization. In general, standardization aims at uniformity of materials, products, or methods, or the simplification of processes, whenever output can be increased thereby, or waste eliminated. The term is applied to materials, products, tools, machines, processes, or methods. As applied to materials or products, it may have reference to quantity, quality, size, type of construction, or to use or purpose.

It is obvious that some degree of standardization is essential in mass production, and that the efficiency, especially of large-scale machine production must be largely limited by the possibilities of standardization. The exact measurement of the contribution of this factor in any particular case, however, is as difficult as for other technical factors not measureable in terms of power units. The International Labor Office cites a German instance in which a 300 percent increase in man-hour output was achieved in the manufacture of electric meters by standardizing the product. The total annual saving to American industry by standardization was estimated by Mr. Hoover a few years ago at $600,000,000. According to another estimate, the saving through standardization in the automobile industries alone amounts to $750,000,000 annually.

The Place of Power Machinery in Modern Industry

IT IS indicated by the foregoing analysis that machinery and mechanical power, instead of being the controlling factors in modern industrial progress, have been merely the principal instrumentalities by which progress has been achieved. Throughout the entire development in this country, and even back to the beginning of the modern industrial age in the Old World, the moving forces making for economic progress have been scientific research, invention, organization, management, and cooperation. These have throughout been motivated by a persistent striving for individual and social betterment, which, as achieved, has reacted to aid and accelerate economic progress, by raising standards of living, improving working conditions, increasing the energy and skill of workers, and facilitating cooperation between workers and employers.

NATIONAL RECOVERY ADMINISTRATION

Summary of Permanent Codes Adopted from October 1 to 23, 1933

IN this article codes approved under the National Industrial Recovery Act from October 1 to 23, inclusive, are summarized, thus bringing down to date the record of codes in effect carried in the August, September, and October issues of the Monthly Labor Review.

Motor Vehicle Retailing Trade

Coverage.—Dealers engaged in whole or in part in the business of motor vehicle retailing whether retailing new or used passenger cars, trucks, truck tractors, busses, taxicabs, hearses, ambulances, and other commercial vehicles for use on the highway and excluding motorcycles, fire apparatus, and tractors other than truck tractors.

Effective date.—October 3, 1933.

Hours.—Provision is made for a maximum working time of 44 hours in any 1 week, except for outside commission salesmen and watchmen. The hours as fixed refer to the availability of the employee in the shop or premises of the employer at the latter's request whether or not the employee is actively engaged in specific tasks throughout the prescribed hours. All places of business shall be kept open for not less than 52 hours a week, unless the regular hours were less than that number prior to July 1, 1933, in which case no reduction of hours is allowable. The hours here fixed do not apply to salaried employees in a managerial, executive, or supervisory capacity who receive $30 per week or more.

Wages.—Minimum wages are fixed for employees according to population (as determined in the 1930 Federal census) and also for certain occupational groups. The general minima are:

	Minimum weekly wage
In cities of over 500,000 population or immediate trade areas	$15.00
In cities of between 250,000 and 500,000 population or immediate trade areas	14.50
In cities of between 2,500 and 250,000 population or immediate trade areas	14.00
In towns of 2,500 or less population	13.00

In the towns of 2,500 or less one washer or greaser or porter or helper or aged or physically handicapped worker may be employed at less than $13, and where an establishment employs more than 19 employees, not to exceed 10 percent of the employees may receive less than $13. It is further provided that no employee shall receive less than $13 per week unless his wage was lower on August 1, 1933,

in which case his wage shall be increased by 20 percent, regardless of the fact that hours are shortened, with the limitation that after the raise in wages the total receivable shall not exceed $13 per week.

For full-time outside salesmen who are unrestricted as to hours and are paid on a commission basis a guaranteed drawing account is stipulated as follows:

	Minimum drawing account
In cities of over 500,000 population or immediate trade areas	$17. 50
In cities of between 250,000 and 500,000 population or immediate trade areas	15. 00
In cities of between 2,500 and 250,000 population or immediate trade areas	12. 50
In towns of less than 2,500 population	10. 00

Apprentice salesmen are not entitled to the guaranteed minimum for the first 3 months of employment, 2 months of which shall be with the last employer. These apprentices shall number no more than 1 out of 10 regular salesmen or fraction thereof.

No mechanic shall be paid less than 50 cents per hour unless he received less on July 15, 1929, in which case the rate of that date may be paid provided it does not fall below 40 cents. The general minimum rates fixed by population areas shall also apply to mechanics.

The minimums set by the code shall be observed whether a worker is paid on time or piece rates and compensation shall not be reduced notwithstanding the reduction in hours. On the contrary, wages shall be equitably adjusted.

Minors.—Minors under 16 are excluded from employment and where State laws specify a higher age such laws must be observed.

Administration.—To administer the code a State advisory committee of five members, one of whom shall be elected by the exclusive or used-car dealers, shall be established in each of the several States. The Emergency National Committee includes the chairman of each State committee and five additional members, who shall be members of some State Advisory Committee, elected at large by the exclusive or independent used-car dealers. Each local committee shall deal with local problems and the national committee shall act in matters affecting more than one State, its decisions being binding subject to the approval of the Administrator. For the purposes of the code the District of Columbia, Metropolitan New York, the rest of New York, Metropolitan Chicago, and the rest of Illinois are each considered as one State.

From the Emergency National Committee a National Control Committee of four members shall be chosen, one of whom shall be an exclusive used-car dealer. In addition, two nonvoting members may be appointed by the President. This committee shall have such authority as the larger body shall delegate.

Boot and Shoe Manufacturing Industry

Coverage.—Manufacture of boots, shoes, sandals, slippers, moccasins, leggings, overgaiters, and allied footwear chiefly of leather, and also footwear of canvas and other textile fabrics, together with such other products of the industry as may from time to time be included.

Effective date.—October 13, 1933.

Hours.—Maximum weekly hours are fixed at 40 per week except that, during 8 weeks of a 6-month period (the first period beginning on the effective date of the code), employees may work not more than 45 hours per week. Time and one third shall be paid for hours in excess of 8 per day. Excluded from the hours and overtime provisions are outside salesmen, watchmen, firemen, cleaners, or employees in a managerial or executive capacity who receive more than $35 per week. Neither do the hours apply to employees doing emergency, maintenance, and repair work, or work where restrictions of hours of workers on continuous processes would unavoidably reduce production or interrupt employment, but in any such cases at least time and one third shall be paid for work in excess of 8 hours per day or 45 hours per week.

Wages.—Wages are fixed on an hourly basis as follows:

	Minimum hourly rate
Cities of over 250,000 population:	
Males	$0. 37½
Females	. 32½
Cities of between 20,000 and 250,000 population:	
Males	. 36¼
Females	. 31¼
Cities or towns of less than 20,000 population:	
Males	. 35
Females	. 30

The minimum rates established for cities and towns under 20,000 population shall apply to all cities and towns, regardless of size, in the States of Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma, and Texas. Where men and women do the same work they shall receive equal pay. Apprentices during a 6-week period shall be paid at a rate not less than 80 percent of the minimum rate, and their number shall not exceed 5 percent of all employees in any establishment. No unskilled employee receiving in excess of the rates fixed shall be reduced. Equitable adjustments in all pay schedules of employees receiving more than the minimum are ordered within 30 days of the approval date of the code, unless such adjustments have already been made under the President's Reemployment Agreement. For infirm, partially disabled, or physically handicapped employees wage agreements mutually satisfactory to employers and employees may be made provided this group shall not constitute more than 5 percent of the total number of employees.

Minors.—No minor under 16 years of age shall be employed, but where State law fixes a higher age that law shall be observed.

Administration.—The National Boot and Shoe Manufacturers Association becomes the agency for administering the code. From its board of directors, elected by a fair method to be approved by the Administrator of the National Industrial Recovery Act, a planning and fair-practice committee shall be chosen, to which committee the President may appoint three nonvoting members. The president of the National Boot and Shoe Manufacturers Association shall preside at committee meetings and vote in case of tie, and the managing director of the association shall be a member of the planning and fair-practice committee without vote.

16487°—33——3

Builders' Supplies Trade Industry

Coverage.—The sale of builders' supplies to contractor or consumer.

Effective date.—October 13, 1933.

Hours.—According to the terms of the code, hours are fixed at a maximum of 40 in any 1 week with 4 exceptions. Executives employed in a managerial capacity paid $35 per week or more; outside salesmen; night and Sunday watchmen; and branch yard managers (each yard to have only one such manager). For employees of dealers employing not more than 2 persons in towns of less than 2,500 population, not part of a larger trading area, the maximum hours permitted are 48, provided that 66⅔ percent of the sales volume is to agriculturalists. Such employees may work more than 48 hours provided time and a half is paid for all such overtime. Yard foremen, truck drivers, and their helpers may work 44 hours per week with provision for pay at time and a half for hours in excess of this maximum. Three months from the effective date of the code hours shall be reviewed by the code authority to the end of shortening the hours if business conditions warrant.

Wages.—Minimum wages are fixed for geographical divisions:

	Minimum hourly rate
Alabama, Georgia, Florida, North Carolina, South Carolina, Kentucky, Louisiana, Mississippi, Tennessee, Texas, Virginia, West Virgina, Arkansas, New Mexico, and Arizona	$0. 35
Delaware, Maryland, District of Columbia, Colorado, Wyoming, Oklahoma, Utah, Montana, Idaho, Washington, Oregon, Nevada, and southern division of California	. 40
California (northern division), Illinois, Indiana, Pennsylvania, New Jersey, Nebraska, New York (except New York City), Vermont, New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Minnesota, North Dakota, South Dakota, Iowa, Ohio, Missouri, Kansas, Wisconsin, and Michigan	. 45
New York City	. 50

These rates shall be applied, except to night and Sunday watchmen, in cities of 500,000 population and over (based on 1930 census), decreased by 5 cents in cities of 75,000 and under 500,000 population, and decreased by 10 cents in cities under 75,000 population unless such cities fall in the trade areas of the larger divisions. Payments at these rates shall be made regardless of whether the employee is engaged on a time or piece rate basis. Office employees shall be placed under the same minimum scale, with the further provision that such employees coming under the 48-hour maximum provisions receive not less than $12 a week. The rates of wages for labor, used in handling delivery, receiving above the scale shall be fixed by dealers with the approval of the Administrator. The wages of those workers engaged under the 48-hour maximum provision shall not be increased by reason of the longer week, provided the pay for the excess hours is at the rate of time and a half (based on the minimum hourly wage of a 40-hour week).

Minors.—State law as to child-labor exemptions shall be observed but in no instance shall minors under 18 years of age be employed.

Administration.—The code authority shall be elected from the directors of the National Federation of Builders' Supply Associations and be made up of 7 members. Two additional members may be appointed by the Administrator, if he so elects, as well as 3 nonvoting members. Appropriate administrative agencies shall be appointed by the code authority.

Glass Container Industry

Coverage.—Production and selling of glass bottles, glass jars, and glass accessories for glass bottles and glass jars.

Effective date.—October 13, 1933.

Hours.—Factory workers' hours are established at 40 per week averaged over a 6-month period and not to exceed 48 hours in any 1 week. The balance of the year 1933 shall be considered the first period and subsequent periods shall begin January 1 and July 1, respectively. For office or branch employees the maximum is 40 hours per week averaged over a 1-month period and not to exceed 48 hours in any 1 week, with executives and supervisors, outside salesmen, technical and laboratory staffs, watchmen, and those employed in emergency maintenance and repair work excepted. If skilled workers are not available the code authority may approve longer hours for a period not to exceed 3 months. No employee may work for longer hours for two or more employers than those specified for a single employer.

Wages.—Minimum wages are set at 40 cents an hour unless the rate was lower on July 15, 1929, in which event they shall not be less than 30 cents an hour. The rates established shall apply to workers engaged on timework or piecework and females and males shall receive equal compensation for equal work. Apprentices and learners shall receive 80 percent of the minimum rates provided they do not exceed in number 5 percent of the employees of any 1 plant and that the apprenticeship period shall not exceed 3 months.

Existing differentials between the low and higher paid classes of employees up to $35 per week shall be maintained, provided that if inequities between plants result reasonable adjustments shall be made subject to supervision of the code authority. For employees earning over $35, other than executives and supervisors and including outside salesmen, time and a half the regular rate shall be paid for hours in excess of 40 hours per week, averaged over a 6-month period.

Minors.—No minor under 16 years of age shall be employed and in hazardous manufacturing processes no person under 18 years.

In States having higher requirements, as to age of employees, hours, wages, etc., than those established by the code the State laws shall be observed.

Administration.—A code authority of 5 members shall be established by the industry, and the Administrator may appoint 3 nonvoting members.

Knitting, Braiding, and Wire-Covering Machine Industry

Coverage.—Manufacture of such machines and parts used therein.

Effective date.—October 13, 1933.

Hours.—Hours of employees (except executives, supervisory staff, and outside salesmen) may not exceed 40 per week, provided, however, that in emergency or any period of concentrated demand an employee may work as long as 48 hours per week for not to exceed 8 weeks in any 6-month period, so long as the average for the 6-month period remains at 40 hours per week. If any employee works in excess of 8 hours in any 1 day, the overtime pay shall be at the rate of time and one half.

Wages.—Accounting, clerical, and office employees shall be paid at the rate of $14 per week and all other employees (except learners during their initial 90 days and apprentices, not to exceed more than 5 percent of the average yearly number of employees) shall receive a minimum of 40 cents an hour regardless of whether they are paid for timework or piecework performance. It is further stipulated that if State law specifies a higher minimum wage the requirements shall be met, and that employees expressly excepted shall receive not less than 80 percent of the minimum rates of pay. An equitable adjustment of wages above the minimum is prescribed.

Minors.—No minor under 16 years of age may be employed, and none under 18 shall be employed on hazardous metal-working machinery. If the State law in any instance sets higher exemptions the law shall be observed.

Administration.—A committee to act as a planning and fair-practice agency is established numbering 3 representatives, respectively, of the Knitting Machine Manufacturers' Association and the Braiding and Wire-Covering Machine Association, and 1 representative to be selected by the 2 groups jointly. The President may also appoint 3 members to serve without voting power.

Lime Industry

Coverage.—Manufacture of quicklime and such of its allied products as are natural affiliates.

Effective date.—October 13, 1933.

Hours.—Employees except outside salesmen are limited to working hours of 40 per week and 8 in any 1 day, provided, however, that in seasonal peak periods or if storage facilities are lacking, or in emergencies these limitations shall not apply. In no event may total working hours exceed an average of 40 over a 6-month period, and all overtime in excess of 8 hours per day shall be paid for at not less than one and one half times the hourly rate. Exempted from these provisions are foremen, superintendents, managers, officials, or others compensated on a regular salary basis in excess of $35 per week.

Wages.—Minimum wages of employees, exclusive of accounting, clerical, and office employees, are fixed as follows:

	Minimum hourly rate
Territory south of the northern boundary of Virginia, Tennessee, Arkansas (including the manufacturing section known as Southwestern Missouri), Oklahoma, New Mexico, and Arizona	$0. 30
All other territory	.37½

Compensation fixed prior to adoption of the code in excess of the minimum shall be equitably adjusted.

For accounting, clerical, or office employees compensation is ordered according to population on the basis of the 1930 Federal census as follows:

	Minimum weekly wage
In cities of over 500,000 population or immediate trade area	$15. 00
In cities of between 250,000 and 500,000 population or immediate trade area	14. 50
In cities of between 2,500 and 250,000 population or immediate trade areas	14. 00
In towns of less than 2,500 population	12. 00

Employees who by reason of old age or physical infirmities are incapable of normal productive effort shall be paid not less than 80 per-

cent of the foregoing minimum rates and may not number more than 5 percent of the total number employed.

Minors.—No person under 16 years of age shall be employed.

Administration.—The trade relations committee of the National Lime Association shall be the code authority and the Administrator may appoint not to exceed three nonvoting members to participate in its deliberations.

Luggage and Fancy Leather Goods Industry

Coverage.—The manufacture of brief cases, hand luggage, fancy and small leather goods, sample cases and sample trunks, and trunks, excluding such similar articles as may be covered by other specific codes.

Effective date.—October 13, 1933.

Hours.—The maximum working week provided is 40 hours, with a further restriction to 8 hours on any working day. Manufacturers, executives, and employers working in a strictly managerial or executive capacity, outside salesmen, watchmen, and emergency repair crews are excepted. Engineers, firemen, shipping force, and drivers may work not to exceed 48 hours per week, except in emergency when all hours worked in excess of 48 per week shall be regarded as overtime and paid for at the rate of not less than time and one third. Clerical and office force when required because of an emergency to work in excess of the 40 hours prescribed shall also be paid for overtime at the rate of time and one third the regular pay.

Wages.—Minimum wages are established for two geographical divisions:

	Minimum hourly rate
Maryland, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida, Arkansas, Louisiana, Oklahoma, Texas, New Mexico, and Arizona:	
Males	$0. 32½
Females	. 30
Elsewhere in United States:	
Males	. 35
Females	. 32½

Learners during a 6 weeks' period shall be paid at not less than 80 percent of the minimum wage and may not exceed 5 percent of the total number employed in a particular factory. Piecework rates shall be so fixed as to guarantee the worker wages no lower than the minimum, and all rates shall be so fixed that earning opportunities are equivalent to those obtaining under the longer hours previously established. There shall be no discrimination between sexes, equal pay being given for the same work.

Minors.—Employment of minors under 16 years of age is forbidden.

Administration.—Administration of the code shall devolve upon the Executive Code Committee, composed of directors of the National Luggage and Leather Goods Manufacturers Association; the president and vice president of the fancy and small leather goods division of the association; 3 members selected by the Luggage and Leather Goods Manufacturers Association of New York, Inc.; 2 members of the industry at large; and 3 nonvoting members appointed by the President.

Retail Lumber, Lumber Products, Building Materials, and Building Specialties Industry

Coverage.—All those products used in building and construction work with the following exceptions, which are known to the public and trade as builders' supplies and are included in the Code of Fair Competition for Dealers in Builders Supplies: Brick, mortars, casement and steel sash, cement and cement products, cement pipe, ceramic tile, clay roof tile, common brick, cut stone, dampers and fireplace accessories, drain tile, face brick, fire brick and clay, glazed structural tile, gypsum products (except gypsum wallboard), hollow tile, lime and lime products, mesh reenforcement, metal lath and kindred products, mineral aggregates, mortar and cement colors, molding plasters, roof and flooring slates, sewer pipe, flue lining and other clay products, structural terra cotta, and waterproofing compounds.

Effective date.—October 13, 1933.

Hours.—Maximum hours of labor are established as 40 per week except for executives earning $35 or more per week, outside salesmen and night and Sunday watchmen, and branch-yard managers (limited to one for each branch yard). Employees of dealers employing not more than 2 persons in towns of less than 2,500 population may work 48 hours per week, provided at least two thirds of their sales volume is to persons engaged in agriculture, and that such employees may work in excess of 48 hours per week if paid time and one half (based on the minimum rate for the 40-hour week) for the additional hours. Yard foremen are allowed to work up to 44 hours per week, with the same overtime rates for additional hours. Truck drivers and their helpers shall not work over 44 hours per week except where existing contracts specify longer hours, in which event the hours shall not exceed 48 in any 1 week and the hourly rate of pay shall be increased in the same proportion as the contract hours bear to 48 hours.

Three months from the effective date of the code, the maximum hours shall be reviewed and shortened if business conditions warrant a reduction.

Wages.—Weekly wages of employees who received above the minimum on the effective date of the code shall not be lowered notwithstanding any reduction in working hours. With the exception of night and Sunday watchmen and exceptions to be noted, the minimum hourly rates shall be fixed as follows:

Division	*Minimum hourly rate*
1. Alabama	$0.35
2. California (northern division)	.45
3. North and South Carolina	.35
4. Florida	.35
5. Georgia	.35
6. Illinois	.45
7. Indiana	.45
8. Kentucky	.35
9. Louisiana	.35
10. Lower peninsula of Michigan	.45
11. Eastern portion of Pennsylvania, and 7 southern counties of New Jersey	.45
Delaware, Maryland, and the District of Columbia	.40
12. Mississippi	.35
13. Colorado and Wyoming	.40
New Mexico	.35
14. Nebraska	.45
15. Fourteen northern counties of New Jersey	.45

Division	Minimum hourly rate
16. The city of New York	$0. 50
17. New York (except the city of New York), Vermont, New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, and McKean County, Pennsylvania	.45
18. Minnesota, North Dakota, South Dakota, Iowa	.45
19. Ohio	.45
20. Western portion of Pennsylvania	.45
21. Arkansas	.35
Missouri (except St. Louis and St. Louis County)	.45
Kansas	.45
Oklahoma	.40
22. Tennessee	.35
23. Texas	.35
24. Utah	.40
25. Virginia	.35
26. Montana, Idaho, Washington, Oregon, Nevada	.40
27. West Virginia	.35
28. Wisconsin and upper peninsula of Michigan	.45
29. Cook County, Illinois	.45
30. St. Louis and St. Louis County, Mo	.45
31. Arizona	.35
32. California (southern division)	.40

According as the population as established by the Federal census of 1930 varies, these rates shall be as established or lowered. In cities of 500,000 and over the rate shall be as fixed; in cities of 75,000 and under 500,000 population it shall be 5 cents below the rate set; and in cities of less than 75,000 population, 10 cents less.

In metropolitan or urban areas the rates for labor used in handling and delivery above the minimum fixed shall be not less than the rates agreed on by the majority of dealers, with the approval of the code authority and the Administrator.

Office workers under 19 years of age and with less than 6 months' experience and persons partially disabled may be paid not less than 75 percent of the minimum specified and may not exceed 10 percent of the total number of yard, office, and service employees.

The pay of employees in towns of under 2,500, where not more than 2 are in the employ of an employer, shall be not less than the minimum hourly rates for 40 hours and time and one half for the hours in excess of 48, provided no such employee shall receive less than $12 for 48 hours.

All rates established guarantee a minimum rate of pay regardless of whether the employee is engaged on a time- or piece- work basis.

Minors.—A minimum age of 16 is required for employment in the industry and no person under 18 may be employed in handling lumber and building materials or as an operator of or as an off bearer from any woodworking machinery.

Administration.—The code authority shall consist of one member from each of the constituent divisions of the National Retail Lumber Dealers Association, which is also empowered to elect two additional members at large, and three nonvoting members appointed by the Administrator.

Saddlery Manufacturing Industry

Coverage.—Manufacturing harness, harness parts, strap work, collars, and saddles, or any of them, and/or kindred lines whether made of leather or substitutes for leather, and selling, by manufacturers, of products of their own manufacture.

Effective date.—October 13, 1933.

Hours.—Hours may not exceed 40 per week, averaged over a 4-month period, nor 8 per day, except by payment for overtime at the rate of 1⅓ times the regular rate. The hours of the supervisory staff and executives, watchmen, bookkeepers, and outside salesmen are not subject to the limitation of hours; neither are machine repair men, factory engineers, and firemen, who may be employed in emergencies for a longer period (who shall, however, be paid the overtime rate for hours exceeding 40); nor office workers, inside salesmen, stock clerks, order clerks, shipping clerks, porters, warehousemen, packers, truckmen, and drivers who shall not work in excess of 40 hours average in any 26-week period. No employee shall work in excess of the prescribed hours for one or more employers. The maximum hours shall not apply to employees on emergency maintenance and repair work, who in such special cases shall be paid the overtime rate for the excess hours.

Wages.—The code classifies labor in the saddlery industry as consisting of skilled mechanics and unskilled labor. The skilled occupations include:

Cutters, sewing-machine operators, fitters, stampers, stuffers, hand collar facers, bucklers, thong stitchers, whether by hand or machine, operators of clicking machines, dieing-out machines, riveting machines, finishing machines, punching machines, or other similar machines.

Unskilled labor shall be paid as follows:

	Minimum hourly rate
Tennessee, Kentucky, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia, Texas, Oklahoma, Arkansas, Louisiana, New Mexico, and Arizona:	
General rate	$0. 32½
Women making pads, etc	. 30
Elsewhere in the United States:	
General rate	. 35
Women making pads, etc	. 32½

A differential of at least 15 cents shall be paid the lowest paid skilled mechanic. Beginners without previous experience shall receive not less than 80 percent of the minimum rate for not over 90 days and those with experience (skilled) when transferred shall receive not less than 80 percent of the applicable rate for not more than 90 days, the percentage of all beginners not to exceed 5 percent of the total number employed, except that any manufacturer may employ at least 2 beginners. Skilled mechanics having some physical or mental disability are exempt from the wage provisions of their class but such workers shall not exceed 5 percent of the total number employed except that any manufacturer may employ 2 such workers. If paid on piece rates they shall receive the regular rate and if on a time basis what they are worth but in no case less than 80 percent of the minimum rate for unskilled workers.

Minors.—In this industry no minor under 16 years of age may be employed or retained.

Administration.—A code authority is set up consisting of the Saddlery Industry National Committee, and three nonvoting members appointed by the President.

Women's Belt Industry

Coverage.—The manufacture and wholesale distribution of women's, misses', and children's separate belts made of leather, imitation leather, and/or other materials and fabrics.

Effective date.—October 13, 1933.

Hours.—Under the terms of the code a 40-hour work week and an 8-hour day in any 24 hours are established. The hours provisions do not apply to executives and outside salesmen. Subject to review of the Administrator the code authority may fix the beginning and closing hours. No overtime shall be permitted except with the approval of the Administrator. Employees may not work in excess of the established hours for one or more employers and no home work shall be permitted.

Wages.—Wages for 40 hours shall be not less than the following minimum rates and shall apply whether the worker is engaged on a time- or piece-rate basis.

	Minimum weekly wage
Cutters	$28. 00
Imitation leather strippers	25. 00
Operators	17. 00
Unskilled labor and office workers	14. 00
Outside errand boys	12. 00

Hourly rates of compensation in effect July 1, 1933, shall not be reduced. Where hours have been reduced and wages not increased equitable adjustments shall be made in order to maintain differentials.

Minors.—No person under 16 years of age shall be employed in the industry.

Administration.—Administration of the code shall be in the hands of the code authority, having seven members selected by the National Association of Women's Belt Manufacturers, Inc., and two nonvoting representatives appointed by the Administrator.

Laundry and Dry-Cleaning Machinery Manufacturing Industry

Coverage.—Manufacture for sale of all laundry and dry-cleaning apparatus, machinery, appliances, and parts thereof other than small machinery, apparatus, appliances, and parts thereof for use in the home.

Effective date.—October 14, 1933.

Hours.—Maximum hours are fixed at 36 per week for employees engaged in the production of products and labor operations directly incident thereto. Other employees, except executive, administrative, and supervisory employees and service staff and traveling sales staff, may not work in excess of 40 hours per week. However, where seasonal or peak demand exists employees may be allowed to work up to an aggregate of 72 hours in any calendar 6-months period in excess of the hours established; such limitations shall not, however, apply in cases of emergency. Furthermore, the average for any 6-month period shall not exceed the limitations above specified. Extra time shall be reported to the Administrator and all such work in excess of 8 hours in any day shall be compensated for at the rate of time and one half the regular rate.

Wages.—The minimum wages are established as follows: For labor directly incident to production, 40 cents per hour; for incidental labor and learners, not to exceed 5 percent of the total number employed in production, 80 percent of the minimum rate for direct labor and the regular rate after 3 months; for other employees, $14 per week, with office boys or girls, not to exceed 5 percent of the total number employed, paid 80 percent of the minimum rate.

It is further provided that where female labor is engaged for the same work and during the same hours as male labor the pay shall be the same. Not less than 90 days after the effective date of the code the adjustments made in wages shall be reported. Employers may not reclassify employees to defeat the purposes of the National Industrial Recovery Act. The wages fixed guarantee a minimum whether employees are engaged on a time- or piece-work basis.

Minors.—Minors under 16 are barred from employment and where State law fixes a higher exemption it must be observed.

Administration.—The Laundry and Dry Cleaners Machinery Manufacturers' Association shall promote the observance of the code and the supervisory agency, made up of six members connected with the industry and not more than three nonvoting members appointed by the President or Administrator, shall enforce its provisions.

Bankers' Industry

Coverage.—Any person employed by a bank in any capacity in connection with its banking functions and operations.

Effective date.—October 16, 1933.

Hours.—Under the code provisions the maximum working time is limited to 40 hours per week averaged over 13 consecutive weeks, except that in sections where the seasonal factor in commerce, agriculture, etc., imposes an unusual load on banking facilities the week may be extended to 48 hours for a period not to exceed 16 consecutive weeks in any calendar year, and any such increase shall be reported monthly to the banking code committee. Bank employees whose services are required in connection with periodic Federal or State examinations, over which the bank has no control, shall be exempt from the limitations as to hours, as shall be employees in banking institutions employing not more than 2 persons in addition to executive officers in towns of less than 2,500 population, not part of a larger trade area, and employees in a managerial or executive capacity or in any other capacity of distinction or sole responsibility (regardless of bank location) who receive more than $35 per week. The hours provisions shall not apply to night watchmen employed to safeguard the assets of the bank, who cannot with safety be shifted or changed during the night.

Wages.—Weekly wages are fixed according to population as follows:

	Minimum weekly wage
Cities of over 500,000 population, or immediate trade area	$15. 00
Cities of between 250,000 and 500,000, or immediate trade area	14. 50
Cities of between 2,500 and 250,000 population, or immediate trade area	14. 00

In towns of less than 2,500 population wages are to be increased not less than 20 percent, provided this does not increase wages to more than $12 per week.

For employees without previous banking experience or training an apprenticeship period of 6 months is provided with pay at the rate of 80 percent of the rates provided, this group not to exceed 1 in 20 employees. It is also stipulated that employers shall not reduce compensation for employment in excess of minimum wages provided, notwithstanding that hours may be reduced under the code.

Minors.—Employment of minors under 16 years of age is prohibited, and if a State law provides a higher minimum age such law shall be observed.

Administration.—A banking code committee is established as a planning and fair-practice agency, to consist of 15 representatives of the American Bankers Association; 1 representative selected by 51 percent (measured by total resources) of the nonmembers of the association, and 1 representative or more without vote appointed by the President.

Boiler Manufacturing Industry

Coverage.—Manufacturing all types of steel steam boilers for stationary and marine use (except boilers for locomotives and such boilers as may be specifically covered by other codes), stokers of 36 square feet of grate area and over, pulverized fuel equipment, superheaters, air preheaters, and economizers, and class 1 welded pressure vessels, and, with the approval of the Administrator, such other affiliated groups as may seek inclusion.

Effective date.—October 16, 1933.

Hours.—A 40-hour week worked on 5 consecutive days of 8 hours each is the maximum provided. Where it is necessary to work shorter hours the work may be divided by agreement between employer and employees to a lesser number of days per week, with a limit of 9 hours on any 1 day. In emergency, production, repair, or erection work that cannot be taken care of through the addition of workers may be done by the regular force, but excess time shall be paid for at the rate of time and one half the hourly rate for shop work and double the hourly rate for repair, renewal, and construction and/or erection work. Otherwise, executives, administrative, and supervisory employees, and traveling and commission sales people are the only employees exempt from the 40-hour maximum work week. No employee shall work in excess of the prescribed hours per week in the aggregate for one or more employers, but if he does so without the connivance of any one of such employers, said employee shall not be held to have violated the code.

No new apprentices shall be employed unless the Administrator grants the power because of absorption of the existing labor surplus in reasonably steady employment.

Wages.—For labor directly incident to the manufacture of boilers the minimum rate of pay is fixed at 34 cents per hour in the South and 40 cents in the North. The South is designated as south of the States of Maryland, West Virginia, and Kentucky, and east of the Mississippi River. Excepted from the minimum wages are old or partially disabled employees and watchmen, who shall in no case be paid less than 80 percent of the fixed rates and may not exceed 2 percent of the total number employed; where less than 100 persons are employed 2 employees of this class may be engaged. For employees other than those engaged in labor operations the rate of pay shall be $15 per week, except for commission sales people; provided, however, that office boys and girls, not to exceed 5 percent of the total number employed, may be paid not less than 80 percent of that minimum, and provided also that where a State law fixes a higher minimum wage no person shall be paid a lower wage than that so fixed.

Any system of contract work by which an employee undertakes to do work at a set price and engages other employees to work for him

is prohibited, nor may any employer contract for the fabrication and/or erection of any product of the industry unless the person taking the contract agrees to comply with the labor provisions of the code.

Wage differentials for all operations shall be equitably readjusted and may not be decreased in any instance.

Minors.—No member of the industry may employ any person under 16 years of age, and if State law provides a higher exemption such law shall be observed.

Administration.—To administer the code the American Boiler Manufacturers Association committee of industrial recovery is designated as a planning and fair-practice agency. The Administrator is privileged to appoint one or more representatives without vote to serve in an advisory capacity.

Electric Storage and Wet Primary Battery Industry

Coverage.—The manufacture of electric storage and wet primary batteries, parts, and accessories therefor.

Effective date.—October 16, 1933.

Hours.—Under the terms established no factory employees engaged in processing and incident labor, excluding supervisors receiving $35 and over per week, shall work in excess of an average of 40 hours per week in any calendar week, nor in excess of 48 hours in any week or 8 hours in any 1 day. When it is necessary in order to avoid economic waste, employees (not to exceed 10 percent of the total number) may be permitted a 10 percent tolerance in maximum hours per day, provided the maximum weekly hours are not raised for the calendar week, nor the average hours per week in any calendar year. No other employee, except managerial and executive staffs and technical engineers and outside salesmen, receiving not less than $35 per week, may work in excess of an average of 40 hours per week in any calendar year. These provisions, however, do not apply to employees on emergency maintenance and repair work, but for such work time and one third the regular rate shall be paid for hours worked in excess of those specified. No worker shall work, whether for one or more employers, beyond the fixed number of hours per week.

Wages.—Factory employees shall receive a minimum rate of 40 cents an hour in processing and labor incident thereto, unless the hourly rate for the same class of work was less on July 15, 1929, in which case the rate on that date shall apply, provided it is not less than 90 percent of the minimum set in the code. Learners may be paid not less than 80 percent of the established rate and may not number over 3 percent of the total number of factory employees. For other employees the minimum established is $15 per week, with a provision for payment of office boys and girls (not to exceed 3 percent of the total number employed) at not less than 80 percent of the minimum rate. Equitable adjustments of pay schedules above the minimum on or before the effective date of the code are ordered. Persons employed in the industry are entitled to claim the benefit of the occupational classifications of June 16, 1933. There shall be no discrimination in wages by reason of sex.

Minors.—No person under 16 years of age may be employed in the industry and no person under 18 in factory work. No female shall be employed where exposure to an appreciable lead hazard exists.

Administration.—The code authority shall have five members fairly representative of the industry.

Ice Industry

Coverage.—The production, manufacture, harvesting, selling, or distributing and/or merchandising of ice at wholesale or retail.

Effective date.—October 16, 1933.

Hours.—The code establishes a 40-hour week and 8-hour day for office and clerical employees and for those other than the groups mentioned and those exercising executive or supervisory functions a 48-hour week averaged over a 12-month period, provided that such employees shall not work in excess of 56 hours in any 1 week. This may not be construed as permitting the employment of individual workers for continuous 56-hour periods one after the other, and it is the intent of this clause not to allow the operation of one shift on any one job exceeding 56 hours in any 1 week and averaging over 48 hours for any 12-month period, with a further limitation that where the weekly hours on July 15, 1933, were less than the maximum they shall not be increased. The supervisory groups excepted from the hours provisions are so excepted provided they have continuous employment and are paid not less than $30 in the North and $25 in the South, regardless of the off season, and provided also that they do not exceed 1 for every 7 employees or fraction thereof in operations employing at least 4 persons. Where an owner, partner, etc., performs any of the functions of labor the hours of which are restricted under this code, and to the extent that a nonmanufacturing distributor or person selling solely on commission performs the function of labor in distribution and service to the public, he shall be bound by the hours regulations under the code. No employee may work for one or more employers in excess of the prescribed number of hours.

Wages.—The minimum rates of pay are:

	Minimum hourly rate
South: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia	$0.23
Other sections	.32½

In the South, drivers' helpers, the number of which shall not be in excess of the number under regular employment July 15, 1933, shall be paid not less than 80 percent of the minimum rate, provided that if the rate was higher on that date it shall not be reduced. The rates established cover time- and piece-rate employees except that persons selling solely on commission basis are exempt. Equitable adjustment in all pay schedules is ordered on or before the effective date of the code.

Minors.—Minors under 16 years of age may not be employed, and where State law specifies a higher minimum it shall supersede that in the code.

Administration.—The code authority for the ice industry shall consist of eight members, of whom three without vote shall be appointed by the Administrator and five shall be selected by the National Association of Ice Industries and approved by the Administrator.

Optical Manufacturing Industry

Coverage.—The manufacture of spectacles, oxfords, lorgnettes, and other ophthalmic frames, mountings, and accessories; all ophthalmic lenses in quantity, eye-glass and spectacle cases, parts, sun-glasses, industrial goggles, and eye protectors, and, as adapted to this industry,

instruments, equipment, tools, machinery, and furniture for use in examining eyes and in making, fitting, repairing, and otherwise servicing eye-wear and ophthalmic products; provided, however, that said term "optical manufacturing industry" shall not include the wholesale or retail operations with respect to the products manufactured.

Effective date.—October 16, 1933.

Hours.—The code establishes a 40-hour week with the privilege of 8 hours a week of overtime during a period not to exceed 16 consecutive weeks in divisions where peak demand makes this necessary. No employee may work in excess of 2,080 hours in any 1 year. Exemptions under the hours regulations are allowed for the supervisory staff, outside salesmen, and emergency crews. All such workers paid on an hourly basis shall, however, be paid at the rate of one and one third times the regular hourly rate for hours in excess of 40.

Wages.—Minimum wages are fixed as follows:

	Minimum hourly rate
Not less than 75 percent of the total number employed by any employer	$0.40
Not less than 20 percent of the total number employed by any employer	.32½
Not less than 5 percent of the total number employed by any employer	.25

The class paid 25 cents an hour shall include only learners for a period not to exceed 6 weeks and errand boys and girls. The total number employed shall mean the total engaged in the manufacture of each single-line product whether or not the employer produces more than one line.

Minors.—No employer shall employ or have in his employ any person under 16 years of age, with a higher minimum where required by State law.

Administration.—The Optical Manufacturers' Code Committee shall be composed of seven members chosen by a fair method and approved by the Administrator.

Silk Textile Industry

Coverage.—The manufacture of silk and/or rayon and/or acetate yarn (or any combination thereof) woven fabrics or any of the processes of such manufacturing except throwing, but it shall not include such manufacturing of rayon and/or acetate yarn fabrics as are governed by the provisions of the Cotton-Textile Code. The term shall include also the converting of the woven fabrics enumerated above, the manufacture of silk, rayon, and/or acetate yarn sewing threads, spun silk, woven labels, and shall include such other related branches whether engaged in merchandising or manufacturing as may from time to time be brought within the provisions of this code.

Effective date.—October 16, 1933.

Hours.—By the terms of this code maximum working hours of productive employees are set at 40 per week and machinery may not be operated for more than two shifts of 40 hours per week. No other employees may work more than 480 hours in any 12 weeks, or an average of 40 hours per week with work in no 1 week exceeding 48 hours. From this restriction the following are excluded: Repair-shop crews, engineers, electricians, firemen, supervising staff, shipping,

watching, and outside crews. The hours of repair-shop crews, engineers, and electricians, except in case of emergency, shall be 40 with a tolerance of 10 percent. Emergency time must be reported monthly to the general planning committee and overtime above 40 hours shall be paid for at one and one third times the regular hourly rate. A schedule of maximum hours for outside crews must be submitted to the Administrator for approval not later than January 1, 1934. The hours established provide the maximum allowable for each employee and in no event may workers work in excess of these hours for one or more employers. Where the maximum provided is greater than that permitted by State law the law shall take precedence.

Wages.—Weekly wages are set at a minimum for employees, excluding learners, of $12 in the southern and $13 in the northern section of the country. The southern section embraces the States of Virginia, North Carolina, South Carolina, Georgia, Tennessee, Alabama, Mississippi, Louisiana, Texas, and Florida, and the northern section the remainder of the United States. A learner is one who has served an apprenticeship of less than 6 weeks, and shall be paid not less than 80 percent of the minimum rate. The total number of learners must not exceed 5 percent of the total number of employees in any plant. Differentials between wages of workers in the upper brackets up to $30 per week as of July 1, 1933, shall be maintained, but no employer need make an increase that will bring his scale above those of other employers who have made the required revisions. Incapacitated persons may waive their right to the minimum wages but shall be paid the standard piece rates and not less than $8 per week for timework. Employers having 100 or less workers may employ 1 worker of this category while employers with more than 100 employees shall include within such category not more than 1 percent of his employees.

Minors.—Minors under age 16 are barred from employment unless State law specifies a higher exemption which, if existing, must be observed.

Administration.—A general planning committee is provided as a planning and fair-practice agency. Its membership shall consist of 11 representatives of the industry and 3 nonvoting members appointed by the Administrator.

Textile Machinery Manufacturing Industry

Coverage.—The manufacture for sale of complete machines and parts thereof and accessories therefor used in textile establishments for the actual manufacture of yarn and/or woven fabrics or for finishing or dyeing, whether as a final process or as part of a larger and further process.

Effective date.—October 16, 1933.

Hours.—With the exception of executives, supervisory staff, receiving more than $35 per week and outside salesmen, the hours of labor are limited to 40 per week, provided that in periods of concentrated demand upon any division of the industry an employee of such division may be permitted to work not more than 48 hours per week in not more than 8 weeks of any 6-month period as long as the average working week in such period does not exceed 40 hours. Any employee not expressly excepted shall be paid time and one half the regular rate for any hours exceeding 8 per day. Repair and main-

tenance crews, engineers, and electricians may work a tolerance of 10 percent in excess of the maximum hours, provided they receive the regular overtime pay therefor. No employee shall work regularly more than six days in a 7-day period.

Wages.—Minimum wages under the code are established as $14 per week for accounting, clerical, and office employees; for all other employees (except outside helpers and shippers south of the Potomac River, learners during their initial 90 days, apprentices, and watchmen) the hourly wage rate shall be 35 cents regardless of whether payment is made on a time- or piece-rate basis. Wages above the minimum shall be equitably adjusted to the end that the differentials between rates paid skilled and unskilled workers existing prior to adoption of the code be maintained. Outside helpers and shippers south of the Potomac, learners during their initial 90 days, apprentices, and watchmen shall receive not less than the hourly rate prevailing for the same class of labor on July 15, 1929, and in no event less than 30 cents per hour. All of these provisions are subject to change in States where the law establishes higher rates.

Minors.—Minors under 16 may not be employed and no persons under 18 may work in connection with any metal- or wood-working or other moving machinery, or on heat process, or in any other hazardous occupations. These provisions are again subject to revision according to State law.

Administration.—A code authority is formed as a planning and fair-practice agency, consisting of 9 representatives of the industry and 3 nonvoting representatives appointed by the President.

Throwing Industry

Coverage.—All plants of throwing machinery within the United States whether owned and/or operated by commission throwsters or by those throwing material for sale or for their own use and made of silk, rayon, or acetate yarns.

Effective date.—October 16, 1933.

Hours.—No productive employee shall work or be employed for more than 40 hours per week. Operation of productive machinery shall be restricted to the hours between 6 a.m. on Monday and 7 a.m. of the following Saturday. Full working shifts shall be limited to 2 of 40 hours each, except that a reduced force of male operatives over 18 years of age, not to exceed 35 percent of the total number working in all throwing processes on the larger of the two full shifts, may be employed as and when necessary during the time when neither of the full shifts is working. The restriction on use of throwing machinery between certain fixed hours shall not hold where such machinery is in weaving plants operating under the cotton-textile industry code and throwing yarn (rayon or other synthetic threads) for their own use only in their own plants; operation of this equipment, however, may not exceed 121 hours each week unless the code for the throwing industry is amended to allow operation for more than 121 hours per week.

Nonproductive employees, other than supervising staff, may work not more than 40 hours in any 1 week, with the option of extension to 44 hours when necessary and in emergency beyond that time, provided such emergency work is duly reported monthly to the Code Administration Committee and provided that one and one third times the regular rate shall be paid for hours in excess of 44.

Wages.—Productive and nonproductive employees (with certain exceptions) are to be paid at the rate of 30 cents per hour in the southern section of the industry (Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, Tennessee, North Carolina, Kentucky, Virginia, West Virginia, and Maryland) and 32½ cents in the northern section (i.e., all other parts of the country). No employee shall be paid less for 40 hours of labor per week than he received as of April 1, 1933, for a period not exceeding 50 hours per week. The classes of labor excluded from these minimum rates are: (1) Bobbin and skein carriers and bobbin cleaners, who may not exceed 10 percent of the total number of employees of the shift and must be paid not less than 80 percent of the minimum rate; (2) learners (who have worked less than 12 weeks in the throwing industry), who shall be started at the rate of 20 cents per hour, increased to 26 cents at the expiration of the first 6 weeks and to the established minimum at the expiration of the next 6 weeks; and (3) the special force of male operatives over 18 years of age, mentioned above, who are allowed to work extra hours and who are to be paid at the rate of 40 cents per hour in the southern section and 43.3 cents in the northern section of the country.

For clarification of the status of the learner and in order that he may at all times be properly accredited with time served, it is provided that at the end of the first 6 weeks of the learning period the learner shall be given a card showing the time served, etc., which is to be replaced by a second card upon expiration of the full learning period. The form of these cards is to be prescribed by the code authority.

Provisions as to wages shall be subject to correction in conformity with State law where higher rates are prescribed.

Minors.—No minor under 16 years of age may be employed, except that if a higher minimum age is prescribed by State law the latter shall be complied with.

Administration.—A Code Administration Committee is set up having 12 members in addition to the president of the Throwsters Research Institute, Inc., who shall be chairman, and not to exceed 3 representatives without vote appointed by the Administrator. The secretary of the Throwsters Research Institute, Inc., shall be the secretary of the Code Administration Committee. At least one committee member shall be chosen, respectively, from the commission throwsters of weaving yarns, commission throwsters of knitting yarns, rayon and/or cotton weavers, knitters, yarn dealers, and silk weavers. Members shall be chosen by vote of signers of the code on the basis of one vote for each 5,000 spindles or fraction thereof operated by the owner and registered with the Throwsters Research Institute, Inc.

Umbrella Industry

Coverage.—The manufacture of umbrellas, parasols, and covers thereof.

Effective date.—October 16, 1933.

Hours.—Working time under the code is restricted to a total of 5 days and 40 hours per week and 8 hours per day. Salesmen, officers, and directors of manufacturing corporations, partners in, or individual owners of, manufacturing plants, when such persons are engaged in

actual manufacture of products are subject to these provisions. Employees in a managerial or executive capacity who received more than $35 at the time the code was approved and outside salesmen who devote their entire time to selling are not restricted to such hours. Neither do the hours apply to employees engaged in emergency repair work, who may not work more than 16 hours in 2 successive days and shall receive one and one third times the regular pay for hours exceeding 8 on any 1 day. Watchmen may not exceed a total of 84 working hours in any 2-week period, to consist of three 12-hour shifts in 1 week and 4 the next. It is also provided that only one shift operation be allowed employers on the basis of the hours stipulated and that in case it becomes necessary to work more than one shift a petition may be made to the Administrator for a ruling on the point in question.

Wages.—Wages are established at the following minimum rates:

	Minimum hourly rate
New York City (50 miles of Times Square):	
Cutters	$0. 65
Operators	. 42½
Tippers	. 40
Examiners, finishers, mounters, steamers, and shippers	. 35
Others	[1] 14. 00
Outside of metropolitan New York:	
Cutters	. 60
Operators	. 40
Tippers	. 37½
Examiners, finishers, mounters, steamers, and shippers	. 32½
Others	[1] 13. 00

Learners having less than 6 weeks' experience in the industry shall be paid at not less than 80 percent of the specified rates, and may not number more than 5 percent of the total employed. Workers suffering from the infirmities of old age who cannot be employed on a piecework basis at the established rate shall receive not less than $8 per week and shall not exceed 5 percent of the total number of regularly employed workers. For such infirm workers as were employed on or before July 15, 1933, a record of earnings, sex, hours, etc., shall be furnished to the planning and fair-practice agency by their respective employers.

The established wages shall apply whether persons are employed on a piece- or time-rate basis. For workers in wage brackets above the minimum the existing wages shall not be reduced notwithstanding the reduction in hours.

Home work is prohibited.

Minors.—Minors under 16 may not be employed and where State law establishes a higher exemption it shall be observed.

Administration.—A planning and fair practice agency is provided, made up of the executive committee of the National Association of Umbrella Manufacturers, Inc. With the approval of the Administrator this body may appoint such committees as are necessary.

Automatic Sprinkler Industry

Coverage.—Without limitation, a person, partnership, or corporation engaged in the business of manufacturing automatic sprinklers and devices, and fabrication and installation of such equipment.

Effective date.—October 19, 1933.

[1] Weekly rate.

Hours.—A 40-hour week is provided for construction employees and also for manufacturing workers, except watchmen who may work not to exceed 56 hours per week. Otherwise, only outside salesmen and employees in managerial or executive capacities receiving more than $35 per week are excluded from the 40-hour-week provision.

Wages.—Minimum wages are established as follows:

	Minimum hourly rate
Construction labor:	
Louisiana, Florida, Georgia, North Carolina, South Carolina, Alabama, Mississippi, southern half of Arkansas, and southern half of Virginia	$0. 37½
Elsewhere in the United States	. 43¾
Common labor (not to exceed 8 percent of total skilled and semi-skilled), 80 percent of rates of construction labor.	
Manufacturing labor:	
Workers other than watchmen	. 40
Watchmen, 70 percent of rate of other manufacturing labor.	
	Minimum weekly wage
Accounting, clerical, office, service, and sales employees, excluding office boys:	
In cities of over 500,000 population	$15. 00
In cities of between 250,000 and 500,000 population	14. 50
In cities of between 2,500 and 250,000 population	14. 00
Office boys, 80 percent of rates of accounting, clerical etc., workers	

These rates establish a guaranteed minimum rate whether workers are engaged on a time- or piece-rate basis. No employee may be classified in one of the excepted classes unless he performs work identical with that falling in such class on June 16, 1933. Wages of persons receiving in excess of the minimum rates at the time the code went into effect are ordered equitably adjusted.

Minors.—The employment of minors under 16 years of age is prohibited with the further stipulation that where State law fixes a higher exemption the law shall be observed.

Administration.—Administration of the code is delegated to the code authority, having as members 3 representatives of manufacturing companies and not more than 3 members without vote appointed by the President or his delegated authority under the National Industrial Recovery Act.

Handkerchief Industry

Coverage.—The manufacture, embellishment, and finishing by hand or machine of handkerchiefs, except that embellishment by Schiffli embroidery machines, so-called "hand-loom" machines and "hand-embroidery machines" is not included.

Effective date.—October 19, 1933.

Hours.—Hours under the code are fixed at 8 in any 24-hour period and 40 per week. Machine operation is limited to one shift of 40 hours except during emergency periods and then only for a limited time and with the express approval of the Administrator. The hours as established apply to members of shipping crews except for a maximum of 16 weeks in any calendar year when 48 may be allowed at the regular hourly rate for hours above 40 per week. Repair-shop crews, machinists, electricians, and drivers are allowed a maximum of 45 hours per week, with longer hours in case of emergency, again with overtime pay at the regular hourly rate. No employee may exceed the fixed hours whether working for one or more employers. These provisions refer neither to members of outside sales force nor watchmen, executives, or persons in administrative capacities or engineers

or firemen, provided such employees receive not less than $25 per week. It is also stated in the code that the provisions do not apply outside the continental portion of the United States.

Wages.—Minimum wages are established as follows:

	Minimum weekly wage
Southern section:	
Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia	$12.00
Other sections of the United States	13.00

These differentials are subject to change by the Administrator if unfair disadvantages result therefrom. No learner engaged in actual manufacture shall receive less than $9 per week and may not be deemed a learner for more than 8 weeks, regardless of where he may work. The learners in any shop may not exceed 10 percent of the employees. Differentials of other than those at the minimum shall be maintained as of July 1, 1933, subject to review of the code authority and the Administrator, and no weekly wages shall be reduced, notwithstanding the lowering of hours worked, without such review. The rates as established apply whether persons are compensated on a time- or piece-rate basis. Physically handicapped and aged workers, not to exceed 6 percent of the total number of employees, may receive not less than 80 percent of minimum rates and their names must be filed with the agency that shall be prescribed.

Home manufacture of handkerchiefs is prohibited after January 1, 1934, except where the handkerchief is wholly hand-made.

Manufacture and processing of handkerchiefs of which 60 percent or more of the cost is for labor, with a wholesale price of not less than $3.50 per dozen, are not subject to the hours, learners, physically handicapped, and home-work restrictions. A study of the geographical distribution of this type of manufacture is ordered with a view to confining the privilege within certain geographical range or ranges.

Minors.—Employment of minors under 16 is prohibited in the industry.

Administration.—The code authority designated as an administrative agency will consist of nine members or such number as may be approved from time to time by the Administrator and, according to his discretion, the Administrator may appoint representatives.

Compressed-Air Industry

Coverage.—The manufacture for sale of air and gas compressors (requiring more than 10 horsepower), reciprocating vacuum pumps, and pneumatic machinery and/or parts thereof other than refrigerator equipment.

Effective date.—October 22, 1933.

Hours.—Maximum weekly hours are established at 40 per week, except for executives, administrative, supervisory, and technical employees and their respective staffs, who are paid at the rate of $35 or more per week, traveling, sales and service employees, watchmen, and firemen. The limitation of hours does not apply under conditions of seasonal or peak demand, creating unusual conditions in either production or installation, when hours not to exceed 48 per week for any 6 weeks in any 6-month calendar period may be worked, nor does it apply to workers in emergency, maintenance, or repair work or to very special cases where restriction of hours of highly skilled

workers would unavoidably reduce or delay production. If any worker, other than salaried employees, whose hours of work are specified in the code, is required to work in excess of 8 hours per day he shall be paid at the rate of time and one third for such additional time.

Wages.—It is provided that the minimum hourly wage of employees engaged in production or labor operations directly incident thereto is fixed at 40 cents unless the rate was lower on July 15, 1929, in which case the rate paid on that date shall be effective, except that in no case shall the rate be less than 35 cents an hour. Learners, not to exceed 5 percent of the total number of production employees, may be paid not less than 80 percent of the minimum rate and at the end of 3 months shall be paid the established minimum. Employees other than those engaged in production and labor incident thereto shall be paid $15 per week, whether pay is calculated on an hourly, weekly, monthly, or piecework basis; and office boys or girls, not to exceed 5 percent of the total engaged in work other than production, may be paid at the rate of not less than 80 percent of the minimum rate. Nothing in these provisions may affect a bona-fide apprentice employed under a training system directed toward his becoming a skilled mechanic. Not less than 90 days after the effective date of the code employers must report to the Administrator action taken to adjust hourly wage rates for employees receiving more than the minimum rates established but less than $35 per week or regular work period.

Minors.—Persons under 16 years of age may not be employed and where State law provides a higher minimum the law shall take precedence.

Administration.—The Compressed Air Institute is designated to promote observance of the code provisions, and the code is to be administered by a committee of five, known as the Supervisory Agency, with three appointees, without vote, added by the President or the Administrator. Employer members shall be elected at a meeting of employers, as follows: One by majority vote of employers; and four members by a 51 percent vote of members on the basis of one vote for each $50,000 of sales in the calendar year 1932 as reported to the secretary of the Compressed Air Institute, but with each member entitled to at least one vote.

Heat-Exchange Industry

Coverage.—Manufacture for sale, of steam and vapor condensers, tubular heat exchangers, storage heaters, direct contact heaters, de-aerators, cooling towers, and kindred and allied apparatus and/or parts thereof.

Effective date.—October 22, 1933.

Hours.—Provisions same as for compressed-air industry. (See p. 1060.)

Wages.—Provisions same as for compressed-air industry. (See above.)

Minors.—Provisions same as for compressed-air industry. (See above.)

Administration.—The Heat Exchange Institute is designated as the agency for promoting the performance of the code provisions. To administer and supervise the enforcement of the code, the Supervisory

Agency shall be established comprising 5 members representative of employers and 3 without vote appointed by the President or the Administrator. A meeting shall be called for the election of employer members of the Supervising Agency and members shall be elected, 1 by majority vote and the remaining 4 by a 51 percent vote on the basis of 1 vote for each $50,000 of sales in 1932 as reported to the secretary of the Heat Exchange Institute, but with each employer having at least 1 vote.

Pump Manufacturing Industry

Coverage.—Manufacture for sale of pumps, pumping equipment, and/or parts thereof except as manufactured and sold solely as an original or as a replacement part of the product of another industry as now or hereafter organized, and except that there shall not be included therein the manufacture for sale of hand pumps, windmills, and domestic water-supply systems, and parts and accessories thereof.

Effective date.—October 22, 1933.

Hours.—Provisions same as for compressed-air industry. (See p. 1060.)

Wages.—Provisions same as for compressed-air industry. (See p. 1061.)

Minors.—Provisions same as for compressed-air industry. (See p. 1061.)

Administration.—The Hydraulic Institute is designated to promote the performance of the provisions of the code and the administrative and supervisory body established shall be the Supervisory Agency. This agency shall have five members representing employers and three without vote appointed by the President or the Administrator. The employer members shall be elected at a specially called meeting, one by a majority vote and the remaining four by a 51 percent vote on the basis of one vote for each $50,000 of sales in the year 1932, as reported to the secretary of the Hydraulic Institute, but with each employer having at least one vote.

Farm-Equipment Manufacturing Industry

Coverage.—Manufacture and/or assembly and/or sale (other than at retail) of all equipment used in farm operations (except automobiles, motor trucks, household utilities, barn and barnyard equipment, poultry equipment, and farm hardware such as hand rakes, shovels, spades, and hoes), and repair parts therefor whether manufactured by the maker of such equipment or others.

Effective date.—October 23, 1933.

Hours.—Factory employees shall not work in excess of 40 hours in any 1 week with a tolerance of 10 percent for those engaged in preparation, care, maintenance of plant, machinery, and production facilities, and in case of emergency work the schedule of hours shall not apply. A similar 10 percent tolerance shall be allowed to take care of seasonal peaks or special demands. In all cases the hours shall average not more than 40 over a 6-month period, the 6 months chosen to be the period most appropriate for any employer. Accounting, clerical, service, sales, express, or delivery employees may not be employed in excess of 48 hours in any 1 week, nor for an average of

over 40 hours per week averaged over a 6-month period. The hours provisions apply neither to supervisory employees receiving $35 per week nor to outside salesmen, collectors, field-service men, and service-parts foremen.

Wages.—Minimum wages for factory workers are:

	Minimum hourly rate
Zone A.—Cities of over 1,000,000 population and industrial cities, towns, and villages in the same immediate trade area	$0. 40
Zone B.—Territory other than zones A and C	. 35
Zone C.—States of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Kentucky, Arkansas, Louisiana, Texas, and points east of the Mississippi River, south of Louisville, Ky., and communities elsewhere in the United States of less than 15,000 population where a majority of the adult male population is not engaged in manufacturing	. 30

Female workers doing the same work as men shall receive the same pay, and where females and youths perform different and light work the minimum wage rate may be 5 cents an hour lower than the specified rates. For all factory workers paid at rates higher than the minimum and lower than $30 per week, wages shall not be less than 85 percent of those obtaining on July 15, 1929, either in the business of the employer or his predecessor, provided that no employer be required to pay a higher rate than other employers for the same class of work in the immediate area.

Minimum rates for accounting, clerical, service, sales, express, or delivery employees are:

	Minimum weekly wage
In cities of over 500,000 population or immediate trade area	$15. 00
In cities of between 250,000 and 500,000 population or immediate trade area	14. 50
In cities of between 2,500 and 250,000 population or immediate trade area	14. 00
In towns of less than 2,500 population, 20 percent increase but not over	12. 00

No employee shall have his compensation reduced on account of any reduction in weekly hours.

Learners for a period up to 10 weeks, messengers and office boys, who shall receive not less than 80 percent of the minimum, and old and disabled employees are excepted from the minimum rates of pay, but the total number of excepted employees may not exceed 5 percent of the total number employed by any employer. The foregoing wage rates apply regardless of whether workers are paid on a time- or piece-rate basis. These provisions do not cover apprentices or learners working part time in conjunction with any public education system.

Minors.—No person under the age of 16 years shall be employed.

Administration.—The administration of the code shall be under the direction of the executive committee of the National Association of Farm Equipment Manufacturers. The Administration may appoint a representative or representatives to meet with this committee.

Mutual Savings Banks

Coverage.—Savings banks operating under a State law, without capital stock or stockholders and solely in the interests of depositors.

Effective date.—October 23, 1933.

Hours.—Hours are established at a maximum of 40 per week averaged over a period of 13 consecutive weeks. These requirements are subject to exception in peak seasons when employees may work

48 hours per week during a consecutive 12-week period. Such time shall be reported to the banking code committee. Employees shall also be exempt when needed in connection with bank examinations. For workers in institutions employing not more than 2 persons in addition to executive officers, in towns of less than 2,500 population, not part of a larger trading area, for employees in managerial or executive capacities or in other capacities of distinction or sole responsibility (regardless of the location of the bank) who receive more than $35 per week, and for night watchmen, the foregoing requirements as to hours do not apply.

Wages.—Wages are fixed according to population as shown in the Federal census of 1930.

	Minimum weekly wage
In cities of over 500,000 population or immediate trade area	$15. 00
In cities of between 250,000 and 500,000 population or immediate trade area	14. 50
In cities of between 2,500 and 250,000 population or immediate trade area	14. 00
In towns of less than 2;500 population, 20 percent increase and not over	12. 00

For those without banking experience during a 6-month period remuneration shall be at the rate of 80 percent of the prescribed minimum and such workers may not exceed 1 for every 20 employees or fraction thereof.

No reduction may be made in the compensation of those receiving above the minimum notwithstanding the reduction in hours.

Minors.—No person under 16 may be employed and if the State requires a higher minimum it shall be complied with.

Administration.—A mutual savings banks code committee is set up, comprising 15 representatives of the National Association of Mutual Savings Banks, 1 representative selected by 51 percent (measured by total resources) of nonmembers of the association, and 1 or more representatives appointed by the President, without vote.

Marking Devices Industry

Coverage.—The manufacture and sale by the manufacturer of any or all of the general classes of articles or any part or parts of any one or more articles, such as rubber stamps, printing dies, brass stamps, checks, badges, pressed metal signs, seals, and stencils.

Effective date.—October 30, 1933.

Hours.—No employee shall work in excess of 520 hours in any 13-week period (average, 40 hours per week), nor more than 48 hours in any 1 week, provided that one and one third times the hourly rate shall be paid for all hours exceeding 8 in any 1 day. Watchmen must be employed in pairs and may not work in excess of 36 hours in 1 week and 48 the next, averaging 42 hours per week. Excluded from the hours provisions are: (1) Emergency repair crews and outside sales force; (2) engineers, electricians, firemen, designers, draftsmen, shipping crews, and truck or delivery-wagon employees, who are limited to 48 hours in 1 week and shall be paid at time and one third the hourly rate for hours exceeding 8 on any 1 day; (3) executives and supervisory staff receiving more than $35 per week, except when engaged in productive or mechanical work, provided these limitations shall apply to all proprietors, executives, partners, supervisors, and foremen when they undertake productive or mechanical work.

The hours as fixed apply whether a worker is employed by one or more employers.

Wages.—The minimum hourly wage rate shall be 32½ cents. Learners without previous experience in the industry shall, during the first year's apprenticeship, be paid not less than 80 percent of the established minimum and during the second year not less than 90 percent. Thereafter they shall be paid not less than the full minimum rate as established. Each plant is entitled to employ at least 1 learner but not to exceed 1 learner for each 6 employees. Bicycle or foot messengers engaged exclusively to call for and/or deliver orders shall be paid not less than 80 percent of the minimum rate, but may not engage in productive or mechanical work unless paid at a rate not less than the minimum fixed. These provisions establish a minimum for all workers whether paid on a time- or piece-work basis.

The code states that it is the policy of the industry to refrain from reducing compensation which was in excess of the minimum before June 16, 1933, notwithstanding the reduction in hours. All members of the industry are charged with endeavoring to increase the wages of those receiving more than the minimum by an equitable adjustment of all pay schedules proportionate to the increase in compensation fixed by the code.

Minors.—Minors under 16 may not be employed and no one under 18 may engage in operations or occupations hazardous in nature or detrimental to health. The code authority shall submit to the Administrator a list of hazardous occupations within a reasonable time. An employer shall be deemed to have observed this provision if he accepts evidence as to age admissible in the courts of the State where employment takes place.

Administration.—The code authority established shall have 11 members, chosen by a fair method, and not more than 3 members without vote to be appointed at the discretion of the Administrator. The industry is divided into nine divisions for the purpose of administering the code.

Plumbago Crucible Industry

Coverage.—The manufacture for sale of crucibles, retorts, saggers, covers, stoppers, lids, stirring rods, brazing boxes, and similar refractory products, all of which contain flake plumbago or graphite, irrespective of the amount of these products contained therein.

Effective date.—October 30, 1933.

Hours.—No employee shall work to exceed 40 hours in any 1 week except: (1) Kiln burners, who shall be permitted to work not to exceed 48 hours in any 1 week; (2) employees engaged in the care and maintenance of plant and machinery, and stock and shipping clerks, who shall be allowed a tolerance of 10 percent over the maximum of 40 hours; and (3) employees generally, during periods of concentrated demand when unusual and temporary burdens are placed on production facilities, at which times employees may be permitted to work not more than 48 hours per week in not more than 1 week of any 1-month period, provided extra work exceeding 8 hours in the day is compensated for at one and one half times the regular hourly rates.

The hour provisions shall not apply to persons employed in a supervisory capacity who are paid more than $35 per week, nor to outside salesmen, field-service men, and watchmen. Watchmen shall, however, have 1 day of rest in 7. Neither shall the hours apply to employees engaged on emergency maintenance and repair work

nor to very special cases where restrictions of hours of the highly skilled would unavoidably reduce or delay production. Time and one half the hourly rate shall be paid such skilled workers for hours in excess of 8 per day and 40 per week, and it is provided that not more than 7½ percent of the total pay roll for skilled employees in any 1 week shall be employed in excess of 40 hours on such special cases.

Wages.—The minimum hourly wage rate established is 40 cents, and those who are paid piece rates that yield less than the minimum fixed shall have their rates adjusted to this level. Physically handicapped persons are exempted from these provisions, but may not exceed 5 percent of the total number of workers employed by a member of the industry. Each employer shall report to the Administrator on action taken in adjusting the hourly wage rates of workers receiving more than the minimum rate established, except that this shall not apply to employees earning over $35 per week. In determining the classification of any employee, he is entitled to claim the benefit of the classification existing on June 16, 1933.

All accounting, clerical, sales, and service employees shall be paid not less than $15 per week, except that office boys or girls may be paid 80 percent of the established minimum, provided the total amount paid this class of labor shall not exceed 7½ percent of the total amount paid by any employer to all employees of the accounting, clerical, etc., class.

Minors.—No minor under 18 years of age shall be employed on manufacturing processes and no person under 16 years of age as a messenger or in office or other work.

Administration.—A supervising agency is set up to cooperate with the Administrator in administering the code. Membership shall consist of five (or such number as may be approved from time to time) representatives of industry and not more than three members without vote appointed by the Administrator.

Retail Trade

Coverage.—Selling of merchandise to the consumer and not for purposes of resale in any form, in the continental United States, excluding the Panama Canal Zone. The term does not, however, include the selling at retail of milk and its products, tobacco and its products, and foods and foodstuffs, or the dispensing of drugs, medicines, and medical supplies by a physician, dentist, surgeon, or veterinarian in the legitimate practice of his profession; nor does it include any division of retail selling which is now or may hereafter be governed by a separate code of fair competition approved by the President of the United States. By Executive order establishments employing not more than five persons, located in towns of less than 2,500 population (not in immediate trade area of a larger city) are exempted.

Effective date.—October 30, 1933.

Hours.—Establishments may elect to operate on one of three schedules of store hours and labor hours, as follows:

Group A. Any establishment may remain open for business 52 and under 56 hours per week unless its store hours were less than 52 prior to June 1, 1933, in which case such establishment shall not reduce

its store hours. Employee hours, where store hours are 52 and less than 56, shall be 40 per week; not more than 8 hours per day, and not more than 6 days per week.

Group B. Any establishment may remain open for business 56 and under 63 hours per week, in which case the employees' working time shall not exceed 44 hours per week nor 9 hours per day nor 6 days per week.

Group C. Any establishment may remain open for business 63 hours or more per week but no employee in such establishment shall work more than 48 hours per week nor more than 10 hours per day nor more than 6 days per week.

No employee shall work for two or more establishments a greater number of hours than the total he would be permitted to work for one of such establishments which operates upon the lowest schedule of working hours.

No employee not specifically covered in the foregoing paragraphs relative to hours and not exempted in the following paragraphs shall work for more than 40 hours per week, 8 hours per day, or 6 days per week.

Those excepted from the maximum periods of labor are: (1) Professional persons, outside salesmen, outside collectors, watchmen, guards, and store detectives; (2) maintenance and outside service employees but these employees shall not work more than 6 hours per week above the fixed maximum unless they are paid at the rate of time and one third for all hours over such additional 6 hours; (3) executives receiving $35 or more per week in cities of over 500,000 population, or $30 or over in cities of 100,000 to 500,000, or $27.50 or more in cities of 25,000 to 100,000, or $25 or more in places with less than 25,000 population (executives in the South, who are paid not less than 10 percent below the wages just specified, also excluded). In peak periods, i.e., at Christmas, inventory, and other peak times, for a period not to exceed 2 weeks in the first 6 months and 3 weeks in the second 6 months of the calendar year, workers whose basic working time is 40 hours per week may work not more than 48 hours per week and 9 hours per day, those whose basic working week is 44 hours may work not more than 52 hours per week and 9½ hours per day, and those whose working week is 48 hours may work not more than 56 hours per week and 10 hours per day, in all cases without payment of overtime.

The total number of persons (whether executives, proprietors, partners, etc.) who shall be permitted to work unrestricted hours (excluding professional persons, outside salesmen, outside collectors, watchmen, guards, and store detectives) shall not exceed 1 for every 5 workers or fraction thereof in stores with 20 workers or less, and 1 for every 5 of the first 20 workers and 1 for every 8 additional workers above 20 in stores having more than 20 workers.

The daily working hours of any employee shall be consecutive except that 1 hour may be allowed for each regular meal period and such time not counted as a part of the working time. Rest periods are not deductible from working time.

Employees may work 1 extra hour on 1 day each week but this additional time shall be included in the maximum hours permitted each week.

Where the provisions as established by State law conflict with the provisions herein established, in that shorter hours are provided for, the State law must be complied with.

No establishment may change from the group in which it has elected to operate except upon December 31 of every year; any establishment may, however, at any time increase its store hours, provided it maintains the basic employee work week of the group in which it originally elected to operate; and for a period not to exceed 3 months during the summer any establishment may temporarily reduce its store hours, provided weekly wages of employees are maintained.

Wages.—Regardless of whether calculated on an hourly, weekly, monthly, commission, or other basis, wages shall be paid as follows:

TABLE 1.—MINIMUM WEEKLY WAGES IN RETAIL TRADE (EXCEPT DRUG STORES)

Hours per week	Minimum weekly wage, in cities with population of—		
	Over 500,000 [1]	100,000 to 500,000 [1]	25,000 to 100,000 [2]
40 hours	$14.00	$13.00	$12.00
44 hours	14.50	13.50	12.50
48 hours	15.00	14.00	13.00

[1] Differential of $1 less for the South.

[2] In localities of under 25,000 population rates existing on June 1, 1933, to be increased not less than 20 percent, provided that this shall not require an increase to more than $11 per week and that no employee shall be paid less than $10 per week in cities of 2,500 to 25,000 and not more than $10 in towns under 2,500; a differential of $1 less for the South is provided.

Minimum wages paid to professional persons, outside salesmen, outside collectors, watchmen, guards, store detectives, and maintenance and outside-service employees shall be fixed on the basis of the basic employee work week under which the employing establishment is operating. Employees not specifically provided for shall be paid on the basis of a 40-hour week.

Juniors and apprentices may be paid at the rate of $1 less per week than the applicable minimum, provided that no employee shall be classed both as a junior and an apprentice and that both groups combined shall not exceed a ratio of 1 such employee to every 5 employees or fraction thereof up to 20 and 1 for every 10 employees above 20.

Part-time employees shall be paid at rates proportionate to those prescribed. Weekly wages of employees receiving more than the minimum wages here prescribed shall not be reduced from the rates existing as of July 15, 1933, regardless of any reduction in hours.

Where the State law prescribes higher minimum wages, that law shall take precedence over the code.

Minors.—Minors under 16 years of age may not be employed, except that persons 14 and 15 may be employed either for a period not to exceed 3 hours per day on 6 days per week or for 1 day per week, such day not to exceed 8 hours. In either case, the working hours shall be between 7 a.m. and 7 p.m. and shall not conflict with the employees' day-school hours. No employee under 16 may, however, be engaged in delivering merchandise from motor vehicles. Where the State law establishes higher age requirements, they shall be observed.

Administration.—The Retail Trade Authority shall be made up of the Administrator or his deputy and three members appointed by the President. The members of this group shall be members, without vote, of the National Retail Trade Council; the latter is to consist of 1 and not more than 3 representatives from each major division of retail trade, elected by a fair method, and with general powers necessary to assist in enforcing the code. Regardless of the number of such representatives of each group, there shall be only one vote for each group. Additional administrative bodies shall be (1) a Regional Advisory Committee with one representative appointed for each major geographical section (as established by the Federal Reserve Districts) and (2) the National Retail Trade Economics Board, consisting of five members appointed by the President or Administrator.

Retail Drug Trade [1]

Coverage.—All retailing to the consumer and not for the purpose of resale in any form of drugs, medicines, cosmetics, toilet preparations, drug sundries, and/or allied items, in the continental United States, excluding the Panama Canal Zone.

Effective date.—October 30, 1933.

Hours.—Drug stores are given the option (in place of any of the schedules set for other retail establishments, pp. 1066, 1067) of remaining open for business 7 days per week for a total of 84 hours per week, but not less than 8 hours on any 1 day. No employee may work for more than 56 hours per week nor more than 10 hours per day, nor more than 13 days in any 2 consecutive weeks. Excepted are registered pharmacists, assistant pharmacists, and apprentice pharmacists, employed and working as such, who may work 10 percent above the maximum hours as fixed and longer in cases of emergency.

Wages.—A special wage scale per 56-hour week is established for retail drug establishments (except for juniors and apprentices and the provision for a southern differential) as follows:

Cities with population of—	*Minimum weekly rate*
Over 500,000	$16
100,000 to 500,000	15
25,000 to 100,000	14
2,500 to 25,000	(2)
Under 2,500	(3)

The wages established shall not apply to curb boys or girls employed by retail drug establishments paid on a commission basis.

Minors.—Provisions same as for retail trade. (See p. 1068.)

Administration.—The retail drug trade shall have administrative machinery consisting of a Retail Drug Trade Authority, and with the Administrator or his deputy and three appointees of the President as members. The members of the authority shall also be members, without vote, of the National Retail Drug Trade Council, whose other members shall be 1 representative of the American Pharmaceutical Association, 2 representatives from the National Association of Retail Druggists, and such others the Administrator approves.

[1] As included in retail trade code, subsequently given separate code.

[2] Rates existing on June 1, 1933, to be increased not less than 20 percent, provided that this shall not require an increase to more than $11 per week and that no employee shall be paid less than $10 per week.

[3] Rates existing on June 1, 1933, to be increased not less than 20 per cent, provided that this shall not require an increase to more than $10 per week.

Cap and Closure Industry

Coverage.—The business of producing in the United States and selling caps or closures and liners therefor.

Effective date.—October 31, 1933.

Hours.—Working hours are fixed at a maximum of 40 per week averaged over a 6-month period, and not to exceed 48 hours in any 1 week. From the effective date to December 31, 1933, shall be the first period. Subsequent periods shall be January 1 to June 30, July 1 to December 31, etc. Office or branch employees shall not average over 40 hours per week in any 1-month period, and not over 48 hours in any 1 week, provided that these hours shall not apply to executives and supervisors, outside salesmen, technical and laboratory staffs, watchmen, and those employed in emergency maintenance and emergency repair work.

Employees may not be reclassified as to duties or occupations to defeat the purposes of the National Industrial Recovery Act. No employee may work longer than the prescribed hours for one or more employers.

Wages.—Minimum wage rates are established as follows:

Accounting, clerical, office, service, or sales employees, except outside salesmen:	*Per week*
In cities of over 500,000 population	$15.00
In cities of between 250,000 and 500,000 population	14.50
In cities of 250,000 population or less	14.00
	Per hour
Factory or mechanical workers	[1] $0.40

The rates given guarantee a minimum regardless of whether the employee is compensated on a time- or piece-work basis. Female workers doing the same work as males shall receive equal compensation.

Apprentices and learners without previous experience in the industry shall not exceed 5 percent of the total number of employees subject to the code provisions, and shall be paid not less than 80 percent of the minimum rate during the apprenticeship period, which shall not exceed 1 month.

Existing differentials between wages in the higher-paid brackets up to $35 per week and amounts paid to lower-paid classes of workers, shall be maintained. However, if such action results in inequities as between plants for the same kind of work, adjustments shall be made in a reasonable manner, subject to supervision of the code authority.

Any person exempted from the hours provisions, other than executives and supervisors who receive more than $35 per week, watchmen, and outside salesmen, shall be paid at the rate of time and one half for all hours exceeding 40 per week averaged over a 6-month period.

Minors.—No employer shall employ any person under 16 years of age, and no person under 18 shall be employed or allowed to work in connection with hazardous manufacturing processes.

Administration.—The code authority shall have five representatives of the industry and up to three nonvoting representatives of the Administrator. All persons engaged in the industry as defined in the code are entitled to participate in election of members.

[1] If the rate for a particular class of work was lower on July 15, 1929, not less than the rate of the earlier date shall be paid and in no case less than 30 cents an hour.

Industrial Supplies and Machinery Distributors' Trade

Coverage.—Warehousing, selling, distributing, and/or servicing in conjunction therewith of tools, equipment, and supplies for railroads, ships, boats, mines, mills, factories, and/or other industrial users.

Effective date.—November 2, 1933.

Hours.—Except as specified hereafter no employee may work in excess of 40 hours per week, 6 days per week, or 8 hours per day. This shall not apply during inventory and other peak periods when employees may work not more than 48 hours in 1 week for not more than 3 weeks in any 6-month period, providing that the average shall be 40 hours per week in any 6-month period. These provisions shall not apply to persons in managerial, executive, or supervisory capacities who receive over $35 per week, or to watchmen and outside salesmen.

Those engaged in outside delivery service, plant maintenance, outside repair, and/or installation service, and those engaged in stock receiving and shipping service shall be permitted to work not more than 48 hours in any 1 week, provided they are paid time and one third for all hours in excess of 40. The total hours to be worked shall not exceed the prescribed number per week whether a worker is employed by one or more employers.

Wages.—Minimum wages are established as follows:

	Weekly wage rate
In cities of over 500,000 population	$15.00
In cities between 250,000 and 500,000 population	14.50
In cities between 2,500 and 250,000 population	14.00
In towns of less than 2,500 population, increase of 20 percent, but not to exceed	12.00

No part-time or casual employee shall be paid an hourly rate lower than prescribed in the above scale on the basis of a 40-hour week. Learners (for not over 6 months) may be paid $2 less per week than the prescribed minimum rates, but not less than $12 per week. Junior employees (16 to 18 years of age, inclusive) with less than 6-month experience in the trade may be paid $2 less than the minimum weekly rates but in no case less than $10 per week. Learners and juniors shall not exceed 5 percent of the total number of employees of any employer, provided that each employer may have at least one learner or junior employee.

Employees receiving compensation at a higher rate than that provided at the time the code became effective shall not have their compensation reduced on account of any reduction in weekly working hours. All employees receiving more than the minimum rate or salary shall have their hourly wage rate or salary adjusted equitably, if not already adjusted. Males and females doing the same class of work shall receive the same pay. No person shall be included in an excepted classification unless the functions are identical with those performed on June 16, 1933. The minimum rates as fixed establish a guaranteed rate of pay per hour or week regardless of whether the worker is paid on an hourly, a weekly, or a monthly basis.

Minors.—No person under 16 years of age shall be employed and no person under 18 in hazardous occupations.

Administration.—A code authority is set up consisting of eight members of the trade, no two of whom shall represent the same member, and one or more appointees of the Administrator, if he so desires.

Steel Tubular and Fire-Box Boiler Industry

Coverage.—All manufacture of steel heating boilers as described in the boiler code of the American Society of Mechanical Engineers; also, for all working pressures, Scotch type boilers for stationary use, vertical fire-tube boilers, horizontal fire-box type boilers, tubeless boilers, oil country boilers, and miniature boilers.

Effective date.—November 6, 1933.

Hours.—Hours per week shall be a maximum of 40 for labor operations during 5 consecutive days and 8 consecutive hours per day, exclusive of meal period. Where it is necessary to work a lesser number of days per week the hours may be divided by agreement, but in no case shall hours per day exceed 9. Watchmen are exempted from these provisions. In cases of emergency production, repair or erection work that cannot be met by employment of additional men and/or it becomes necessary, in order to protect life or property, to exceed the hours as scheduled, workers shall be paid at one and one half times the regular hourly rate for shop work. For outside repair, renewal, construction, and/or erection work the overtime rate is fixed at double the regular hourly rate.

New apprentices shall not be employed except as approved by the Administrator and subject to absorption in reasonably steady employment of the existing surplus of unemployed local labor. This is not a prohibition against instruction of mechanics already employed in the industry.

For all employees other than those engaged in labor operations and executives, their secretaries, administrative and supervisory employees and traveling salesmen, the maximum hours shall be 40 per week.

No employee shall be permitted to work in excess of the established hours for one or more employers; provided, however, that if he does exceed the allotted number of hours in such employment without the connivance of one of such employers, the employer shall not be held to have violated this provision.

Wages.—Wages are fixed by geographical areas.

	Minimum hourly rate
Southern territory (south of the States of Maryland, West Virginia and Kentucky and east of the Mississippi River)	$0. 34
Elsewhere in the United States	. 40

Old or partially disabled employees unable to perform their usual duties shall be paid not less than 80 percent of the minimum rates and may not exceed 5 percent of the total number employed by any employer. Where less than 40 workers are employed 2 persons of this class may be engaged.

Employees, other than those provided for above and commission salespeople, shall be paid not less than $15 per week. Office boys and girls may be paid not less than 80 percent of this minimum and may not exceed in any calendar month 5 percent of the total number of all employees covered by this paragraph. Where State law provides a higher minimum the law shall take precedence over the code provisions.

No employee may be placed in one of the exempted classes described unless he performs functions substantially the same as those performed by employees thus classified on June 16, 1933.

Contracting by which an employee undertakes to do a piece of work for a fixed price and engages other workers on the job is prohibited. Contracting for fabrication and/or erection of any products of this industry by any employer or employee is allowed only if the person taking the contract agrees to comply with code provisions as to labor during the performance of the contract.

Wage differentials for all operations shall be equitably readjusted and in no case reduced. No unfair advantage shall be taken of any employee in making the code effective. Each member of the industry must report adjustments made within 30 days after the effective date of the code.

Minors.—No minor under 16 years of age shall be employed, and where State law fixes a higher exemption the law must be observed.

Administration.—The executive committee of the Steel Heating Boiler Institute, to which the President may appoint one nonvoting member, shall administer the code.

Additions to and Modifications of Codes Previously Adopted

Completed Wage Schedule for Bituminous-Coal Industry

IN APPROVING the code for the bituminous coal industry the President reserved the right to determine later minimum wage rates for a number of districts. Accordingly the completed schedule was made part of an Executive order of September 29, 1933, which also made minor changes in the administrative features of the code. The complete wage schedule follows and with the summary of the code appearing in the Monthly Labor Review of October 1933 (p. 820) completes the summarization of the code as approved for the bituminous-coal industry.

BASIC MINIMUM RATES ESTABLISHED IN THE BITUMINOUS-COAL INDUSTRY

District and State	Skilled labor, inside		Common labor, outside	
	Per day	Per hour	Per day	Per hour
District A:				
Pennsylvania	$4.60	$0.57½	$3.60	$0.45
Ohio	4.60	.57½	3.60	.45
Lower peninsula of Michigan	4.60	.57½	3.60	.45
Panhandle District of West Virginia [1]	4.60	.57½	3.60	.45
District B:				
Northern West Virginia [2]	4.36	.54½	3.36	.42
District C:				
Southern West Virginia [3]	4.20	.52½	3.20	.40
Eastern Kentucky [4]	4.20	.52½	3.20	.40
Upper Potomac District of West Virginia [5]	4.20	.52½	3.20	.40
Maryland	4.20	.52½	3.20	.40
Virginia	4.20	.52½	3.20	.40
Northern Tennessee [6]	4.20	.52½	3.20	.40
District D:				
Indiana	4.57½	.57⅛	4.20	.52½
District E:				
Illinois	5.00	.62½	4.00	.50
District F:				
Iowa	4.70	.58¾	4.00	.50
Wayne and Appanoose Counties, Iowa [7]	4.56	.57	3.86	.48¼
District G:				
Missouri, Kansas, Arkansas, and Oklahoma	3.75	.46⅞	3.28	.41
District H:				
Western Kentucky [8]	4.00	.50	3.00	.37½
District J:				
Alabama	3.40	.42½	2.40	.30
Georgia	3.40	.42½	2.40	.30
Hamilton and Rhea Counties, Tenn	3.40	.42½	2.40	.30

See footnotes at end of table.

BASIC MINIMUM RATES ESTABLISHED IN THE BITUMINOUS-COAL INDUSTRY—Con.

District and State	Skilled labor, inside		Common labor, outside	
	Per day	Per hour	Per day	Per hour
District J-1:				
Marion, Grundy, Sequatchie, White, Van Buren, Warren, and Dedsoe Counties, Tenn	$3.84	$0.48	$2.84	$0.35½
District K:				
New Mexico	4.48	.56	3.75	.46⅞
Southern Colorado [9]	4.44	.55½	3.75	.46⅞
District L:				
Northern Colorado [10]	5.00	.62½	3.75	.46⅞
District M:				
Utah	5.44	.68	4.48	.56
District N:				
Southern Wyoming	5.42	.67¾	4.44	.55½
Northern Wyoming	5.42	.67¾	4.54	.56¾
District O:				
Montana	5.63	.70⅜	4.82	.60¼
District P:				
Washington	5.40	.67½	4.00	.50
District Q:				
North Dakota	4.00	.50	3.20	.40
South Dakota	4.00	.50	3.20	.40

[1] Includes Hancock, Brooke, Ohio, and Marshall Counties.
[2] Includes Monongalia, Preston, Marion, Harrison, Taylor, Lewis, Barbour, Gilmer, Upshur, Randolph, Braxton, and Webster Counties and those mines in Nicholas County served by the Baltimore & Ohio Railroad.
[3] Includes all mines in counties of West Virginia not named under districts A and B and under the Upper Potomac district.
[4] Includes all mines in Kentucky located east of a north and south line drawn along the western boundary of the city of Louisville.
[5] Includes Grant, Mineral, and Tucker Counties.
[6] Includes all counties in Tennessee not named in districts J and J-1.
[7] Excludes Wayne and Appanoose Counties.
[8] Includes all mines in Kentucky west of a north and south line drawn along the western boundary of the city of Louisville.
[9] Includes all counties in Colorado not named under district L.
[10] Includes Jackson, Larimer, Weld, Boulder, Adams, Arapahoe, El Paso, Douglas, Elbert, and Jefferson Counties.

NOTE.—Differences between districts in the foregoing minimum rates are not to be considered as fixing permanent wage differentials or establishing precedents for future wage scales.

Appalachian Agreement of the Bituminous-Coal Industry

In the following pages the Appalachian agreement of the bituminous coal industry, between the Northern Coal Control Association and the Smokeless and Appalachian Coal Association, and the United Mine Workers of America, is reproduced in full. This agreement, signed September 21, 1933, becomes a part of the approved code for the industry, which will be found in the Monthly Labor Review of October 1933 (p. 820). This is one of a number of agreements to be established in this industry under section 7 (b) of the National Industrial Recovery Act.

This agreement is made and entered into pursuant to the provisions of section 7 (b) of the National Industrial Recovery Act, and shall become effective upon approval by the President of the United States as provided therein.

This agreement, made the 21st day of September, 1933, between the Northern Coal Control Association, a voluntary association on behalf of each member thereof, and the Smokeless and Appalachian Coal Association, a voluntary association on behalf of each member thereof, hereinafter referred to as the operators, parties of the first part; and the International Union United Mine Workers of America and districts 2, 3, 4, 5, 6, 17, 19, 30, and 31, hereinafter referred to as mine workers, and on behalf of each member thereof, party of the second part. (New districts of the United Mine Workers of America may be established in this territory.)

Witnesseth: It is agreed that this contract is for the exclusive joint use and benefit of the contracting parties, as heretofore defined and set forth in this agreement; and it shall be construed as binding upon and effective in determining

only the relations with each other of those represented by the parties signatory hereto. It is the intent and purpose of the parties hereto that this agreement will promote an improved industrial and economic relationship in the bituminous coal industry, and to set forth herein the basic agreements covering rates of pay, hours of work, and conditions of employment to be observed between the parties in the following districts constituting the Appalachian territory:

Northern Coal Control Association territory: Pennsylvania, Ohio, together with Ohio, Brook, and Marshall Counties, of West Virginia, and Northern West Virginia, including Counties of Monongalia, Marion, Harrison, Preston, Taylor, Barbour, Randolph, Upshur, Lewis, Gilmer, Braxton, Webster, and that portion of Nicholas County containing coal or coal mines along the line of the Baltimore & Ohio Railroad.

Smokeless and Appalachian territory: The State of Virginia, Northern Tennessee, that part of Kentucky lying east of a line drawn north and south through the city of Louisville, and that part of West Virginia not included in Northern Coal Control Association territory, as set out above, and except Grant, Mineral, and Tucker Counties of West Virginia.

Maximum hours and working time

Eight hours of labor shall constitute a day's work. The 8-hour day means 8 hours' work in the mines at the usual working places for all classes of labor, exclusive of the lunch period, whether they be paid by the day or be paid on the tonnage basis; except in cases of accident which temporarily necessitates longer hours for those mine workers required on account thereof; and also excepting that number of mine workers in each mine whose daily work includes the handling of man-trips and those who are required to remain on duty while men are entering and leaving the mine.

The 8-hour day, 5-day week (40 hours per week), as provided in this agreement, shall prevail.

The following classes of mine workers are excepted from the foregoing provisions as to the maximum hours of work:

All mine workers engaged in the transportation of men and coal shall work the additional time necessary to handle man-trips and all coal in transit, and shall be paid the regular hourly rate.

When daymen go into the mine in the morning, they shall be entitled to 2 hours' pay whether or not the mine works the full 2 hours, but, after the first 2 hours the men shall be paid for every hour thereafter by the hour, for each hour's work or fractional part thereof. If for any reason the regular routine work cannot be furnished inside daymen, the employer may furnish other than the regular work.

Drivers shall take their mules to and from stables, and the time required in so doing shall not include any part of the day's labor, their work beginning when they reach the change at which they receive empty cars, but in no case shall the driver's time be docked while he is waiting for such cars at the point named. The method at present existing covering the harnessing and unharnessing of mules shall be continued throughout the life of this agreement.

Motormen and trip riders shall be at the passway where they receive the cars at starting time. The time required to take motors to the passway at starting time and departing from the same at quitting time shall not be regarded as a part of the day's labor, their time beginning when they reach the change or parting at which they receive cars, but in no case shall their time be docked while waiting for cars at the point named.

Holidays to be recognized are referred to the various district conferences for settlement.

Basic tonnage rate

Pick mining is the removal by the miner of coal that has not been undercut or overcut by a machine. The basic rate for pick mining and hand loading of coal shall include the work required to drill, shoot and clean and load the coal properly, timber the working place, and all other work and customs incidental thereto.

In the districts represented by Northern Coal Control Association a shortwall machine differential of 10 cents per net ton between pick and machine mining rates shall be maintained.

Any change in mining methods or installation of equipment that relieves the mine worker of any of the above duties and increases his productive capacity shall be recognized and a piecework rate agreed to therefor properly related to the basic rate.

The standard for basic tonnage rates shall be 2,000 pounds per ton; where the gross ton of 2,240 pounds is the measure the equivalent rate shall be paid.

The basic tonnage, hourly and day wage rates for the various producing districts represented in this conference are shown in the attached schedules A, B, and C, which are parts hereof.

Yardage and deadwork rates in all districts shall be increased 20 percent.

Checkweighmen

The mine workers shall have the right to a checkweighman, of their own choosing, to inspect the weighing of coal; provided that where mines are not now equipped to weigh coal a reasonable time may be allowed to so equip such mines; and provided that in any case where on account of physical conditions and mutual agreement wages are based on measure or other method than on actual weights, the mine workers shall have the right to check the accuracy and fairness of such method, by a representative of their own choosing.

Cars shall be tared at reasonable intervals and without inconvenience to the operation of the mine. Tare shall be taken of the cars in their usual running condition.

At mines not employing a sufficient number of men to maintain a checkweighman the weight credited to the mine workers shall be checked against the billing weights furnished by railroads to the operators, and on coal trucked from such mines a practical method to check the weights shall be agreed upon. Such weights shall be checked once a month.

The wages of checkweighmen will be collected through the pay office semimonthly, upon a statement of time made by the checkweighman, and approved by the mine committee. The amount so collected shall be deducted on a percentage basis, agreed upon by the checkweighman and clerk, from the earnings of the mine workers engaged in mining coal and shall be sufficient only to pay the wages and legitimate expenses incident to the office, except where the method of payment is otherwise provided by State law.

If a suitable person to act as checkweighman is not available among the mine workers at the mine, a man not employed at the mine may be selected upon mutual agreement.

The checkweighman, or checkmeasurer, as the case may require, shall be permitted at all times to be present at the weighing or measuring of coal, also have power to checkweigh or checkmeasure the same, and during the regular working hours to have the privilege to balance and examine the scales or measure the cars, providing that all such balancing and examination of scales shall only be done in such way and at such time as in no way to interfere with the regular working of the mine. It shall be the further duty of checkweighman or checkmeasurer to credit each mine worker with all merchantable coal mined by him on a proper sheet or book kept by him for that purpose. Checkweighmen or checkmeasurers shall in no way interfere with the operation of the mine.

Boys

No person under 17 years of age shall be employed inside any mine nor in hazardous occupations outside any mine, provided, however, that where a State law provides a higher minimum age, the State law shall govern.

Exemptions under this contract

The term "mine worker" as used in this agreement shall not include mine foremen, assistant mine foremen, fire bosses, or bosses in charge of any classes of labor inside or outside of the mine, or coal inspectors or weighbosses, watchmen, clerks, or members of the executive, supervisory, and technical forces of the operators.

Management of mines

The management of the mine, the direction of the working force, and the right to hire and discharge are vested exclusively in the operator, and the United Mine Workers of America shall not abridge these rights. It is not the intention of this provision to encourage the discharge of mine workers, or the refusal of employment to applicants because of personal prejudice or activity in matters affecting the United Mine Workers of America.

Mine committee

A committee of three mine workers shall be elected at each mine. The duties of the mine committee shall be confined to the adjustment of disputes that the mine management and mine worker, or mine workers, have failed to adjust. The mine committee shall have no other authority or exercise any other control, nor in any way interfere with the operation of the mine; for violation of this clause the committee or any member thereof may be removed from the committee.

Settlement of disputes

Should differences arise between the mine workers and the operator as to the meaning and application of the provisions of this agreement, or should differences arise about matters not specifically mentioned in this agreement, or should any local trouble of any kind arise at any mine, there shall be no suspension of work on account of such differences, but an earnest effort shall be made to settle such differences immediately:

First, between the aggrieved party and the mine management;

Second, through the management of the mine and the mine committee:

Third, by a board consisting of 4 members, 2 of whom shall be designated by the mine workers and 2 by the operators.

Should the board fail to agree, the matter shall be referred to an umpire to be selected by said board. Should the board be unable to agree on the selection of an umpire, he shall be designated by the Administrator of the National Industrial Recovery Act. The decision of the umpire in any event shall be final.

District conferences may establish an intermediate board consisting of 2 commissioners, 1 representing the operators and 1 representing the mine workers with such powers as said conference may delegate.

Pending the hearing of disputes the mine workers shall not cease work because of any dispute; and a decision reached at any stage of the proceedings shall be binding on both parties thereto, and shall not be subject to reopening by any other party or branch of either association except by mutual agreement.

Expense and salary incident to the services of an umpire shall be paid jointly by the operators and mine workers in each district.

Discharge cases

When a mine worker has been discharged from his employment and he believes he has been unjustly dealt with, it shall be a case arising under the method of settling disputes herein provided. In all discharge cases should it be decided under the rules of this agreement that an injustice has been dealt the mine worker, the operator shall reinstate and compensate him at the rate based on the earning of said mine worker prior to such discharge. Provided, however, that such case shall be taken up and disposed of within five days from the date of discharge.

Illegal suspension of work

A strike or stoppage of work on the part of the mine workers shall be a violation of this agreement. Under no circumstances shall the operator discuss the matter under dispute with the mine committee or any representative of the United Mine Workers of America during suspension of work in violation of this agreement.

Irregular work

When any mine worker absents himself from his work for a period of 2 days without the consent of the operator, other than because of proven sickness, he may be discharged.

Preparation of coal and mining practice

Each district agreement shall provide for the preparation and proper cleaning of coal. Proper disciplinary rules and penalties shall also be incorporated in such agreements.

Safety practice

Reasonable rules and regulations of the operator for the protection of the persons of the mine workers and the preservation of property shall be complied with.

Engineers and pumpers' duties

When required by the management, engineers, pumpers, firemen, power plant and substation attendants shall under no conditions suspend work but shall at all times protect all the company's property under their care, and operate fans and pumps and lower and hoist men or supplies as may be required to protect the company's coal plant.

Shifts

The operator shall have the right during the entire period of this agreement to work all the mines, or any one or more of them, extra shifts with different crews.

When the mine works only one shift it shall be in the daytime, but this shall not prevent cutting and loading coal at night in addition to the day shift cutting and loading.

Pay day

Pay shall be made semimonthly and at least twice each month.

Coke and cleaning plants

Proper rules may be negotiated in district conferences to provide for continuous operation of coking and cleaning plants.

Miscellaneous provisions

Matters affecting cost of explosives, blacksmithing, electric cap lamps, and house coal are referred to the district conferences.

To the extent it has been the custom in each district, all bottom coal shall be taken up and loaded by the mine worker.

The cutter shall cut the coal as directed by the operator.

District conferences

District agreements shall be made dealing with local or district conditions, and it is agreed that such district agreements shall embody the basic rates of pay, hours of work, and conditions of employment herein set forth, and all specific rights and obligations of operators and mine workers herein recognized.

This agreement shall supersede all existing and previous contracts; and all local rules, regulations and customs heretofore established in conflict with this agreement are hereby abolished. Prior practice and custom not in conflict with this agreement may be continued.

All internal differences are hereby referred to the various districts for settlement, with the understanding that only by mutual consent shall anything be done in district conferences that will increase the cost of production or decrease the earning capacity of the men: Provided, however, all yardage and deadwork rates not specified in this contract shall be properly adjusted.

Joint wage conference

A joint conference of representatives of Northern Coal Control Association and Smokeless and Appalachian Coal Association, and of the International Union United Mine Workers of America, shall be held in accordance with the following provisions of the Code of Fair Competition for the Bituminous-Coal Industry:

"On January 5, 1934, there shall be held a conference between representatives of employers and employees operating under this code, together with representatives of the National Recovery Administration, for the purpose of determining what, if any, revisions may be desirable at that time of the wages, hours and differentials, or any other requirements of this code, on the basis of conditions then existing and the report of representatives of the National Recovery Administration made as hereinbefore provided.

"Unless revised by mutual agreement, as the result of said conference beginning January 5, 1934, the hours of work, minimum rates of pay and wage differentials as set forth in this code shall continue in effect until April 1, 1934."

This agreement shall become effective after approval by the President and on the same day that the bituminous-coal code applicable to the territory embraced herein shall become effective, following its approval by the President; and it shall continue in effect until the first day of April 1934.

In witness whereof each of the parties hereto, pursuant to proper authority, has caused this agreement to be signed by its proper officers.

UNITED MINE WORKERS OF AMERICA,
By JOHN L. LEWIS, *President.*
PHILIP MURRAY, *Vice-President.*
THOMAS KENNEDY, *Secretary.*

NORTHERN COAL CONTROL ASSOCIATION,
By J. D. A. MORROW, *President.*
WALTER A. JONES, *Secretary.*

SMOKELESS AND APPALACHIAN COAL ASSOCIATION,
By E. C. MAHAN, *President.*
H. R. HAWTHORNE, *Secretary.*

Joint scale committee

For the mine workers: Van A. Bittner, P. T. Fagan, Sam Caddy, Percy Tetlow, James Mark, Frank Miley, William Turnblazer, Frank Hughes, William Feeney.

For the operators: J. D. A. Morrow, R. E. Jamison, W. L. Robison, R. L. Ireland, Jr., William Emery, Jr., E. C. Mahan, D. C. Kennedy, H. C. Faust, W. A. Richards, D. A. Reed, Charles O'Neill, Heath S. Clark, W. A. Bishop, J. D. Francis, S. C. Higgins, R. E. Taggart, S. D. Brady, Jr.

SCHEDULE A.—BASIC RATES ESTABLISHED IN THE FOLLOWING NAMED DISTRICTS

	Tonnage rate per 2,000 pounds run of mine coal		Tonnage rate per 2,000 pounds run of mine coal
Western Pennsylvania:		Westmoreland-Greensburg Pennsylvania:	
Pick mining, thin vein	$0.70	Pick mining	$0.65
Pick mining, thick vein	.65	Machine loading	.48
Machine loading, thin vein	.52	Cutting, shortwall machine	.07
Machine loading, thick vein	.48	Thick vein Freeport, Pennsylvania:	
Cutting, shortwall machine, thin vein	.08	Pick mining	.65
Cutting, shortwall machine, thick vein	.07	Machine loading	.48
Central Pennsylvania:		Cutting, shortwall machine	.07
Pick mining	.70	Ohio and the Panhandle District of Northern West Virginia:	
Machine loading	.52	Pick mining	.70
Cutting, shortwall machine	.08	Machine loading	.52
Connellsville, Pennsylvania:		Cutting, shortwall machine	.08
Pick mining	.56		
Machine loading	.40		
Cutting, shortwall machine	.06		

The following hourly and day wage rates shall be paid in all mines in Pennsylvania, Ohio, and the Panhandle District of Northern West Virginia for the classification of occupations shown herein:

Classification of occupations	Hourly rate	Day rate
Inside:		
Motormen, rock driller	$0.595	$4.76
Drivers, brakemen, spraggers, snappers, coal drillers, trackmen, wiremen, bonders, timbermen, bottom cagers	.575	4.60
Pumpers, trackmen helpers, wiremen helpers, timbermen helpers, and other inside labor not classified	.545	4.36
Greasers, trappers, flaggers, switch throwers	.375	3.00
Outside:		
Bit sharpener, car dropper, trimmer, car repairmen, dumpers	.48	3.84
Sand dryers, car cleaners, other able-bodied labor	.45	3.60
Slate pickers	.375	3.00

Skilled labor not classified to be paid in accordance with the custom at the mine.

SCHEDULE B.—BASIC RATES ESTABLISHED IN THE NORTHERN WEST VIRGINIA DISTRICT

	Tonnage rates per 2,000 pounds run of mine coal
Pick mining	$0.56
Machine loading	.40
Cutting, shortwall machine	.06

The following hourly and day wage rates shall be paid in all mines in the northern West Virginia district for the classification of occupations shown herein:

Classification of occupations	Hourly rate	Day rate
Inside:		
Motormen, rock driller	$0.565	$4.52
Drivers, brakemen, spraggers, snappers, coal drillers, trackmen, wiremen, bonders, timbermen, bottom cagers	.545	4.36
Pumpers, trackmen helpers, wiremen helpers, timbermen helpers, and other inside labor not classified	.515	4.12
Greasers, trappers, flaggers, switch throwers	.345	2.76
Outside:		
Bit sharpener, car dropper, trimmer, car repairmen, dumpers	.45	3.60
Sand dryers, car cleaners, other able-bodied labor	.42	3.36
Slate pickers	.345	2.76

Skilled labor not classified to be paid in accordance with the custom at the mine.

SCHEDULE C.—BASIC RATES ESTABLISHED IN THE FOLLOWING NAMED DISTRICTS

	Tonnage rate per 2,000 pounds run of mine coal		Tonnage rate per 2,000 pounds run of mine coal
New River:		Williamson:	
Machine loading	$0.442	Machine loading	$0.358
Cutting, shortwall machine	.075	Cutting, shortwall machine	.056
Winding Gulf:		Big Sandy-Elkhorn:	
Machine loading	.384	Machine loading	.465
Cutting, shortwall machine	.07	Cutting, shortwall machine	.08
Greenbrier:		Hazard:	
Machine loading	.392	Machine loading	.402
Cutting, shortwall machine	.055	Cutting, shortwall machine	.08
Pocahontas:		Harlan:	
Machine loading	.357	Machine loading	.41
Cutting, shortwall machine	.045	Cutting, shortwall machine	.07
Tug River:		Southern Appalachian:	
Machine loading	.357	Machine loading	.43
Cutting, shortwall machine	.045	Cutting, shortwall machine	.08
Kanawha:		Virginia:	
Machine loading	.422	Machine loading	.408
Cutting, shortwall machine	.07	Cutting, shortwall machine	.067
Logan:			
Machine loading	.332		
Cutting, shortwall machine	.052		

The following hourly and day wage rates shall be paid in all mines in the New River, Winding Gulf, Greenbrier, Pocahontas, Tug River, Kanawha, Logan, Williamson, Big Sandy-Elkhorn, Hazard, Harlan, Southern Appalachian, and Virginia districts for the classification of occupations shown herein:

Classifications of occupations	Hourly rate	Day rate
Inside:		
Motormen, rock driller	$0.545	$4.36
Drivers, brakemen, spraggers, snappers, coal drillers, trackmen, wiremen, bonders, timbermen, bottom cagers	.525	4.20
Pumpers, trackmen helpers, wiremen helpers, timbermen helpers, and other inside labor not classified	.495	3.96
Greasers, trappers, flaggers, switch throwers	.325	2.60
Outside:		
Bit sharpener, car dropper, trimmer, car repairmen, dumpers	.43	3.44
Sand dryers, car cleaners, other able-bodied labor	.40	3.20
Slate pickers	.325	2.60

Skilled labor not classified to be paid in accordance with the custom at the mine.

Modification of Lumber- and Timber-Products Code

An amendment to the lumber- and timber-products industry code has been approved whereby a new division in the industry is created with special provisions for wages and hours.

The new division consists of producers, manufacturers, importers, and distributors of commercial and face veneers and furniture, cabinet and interior finish plywood. This division will have three separate administrative subdivisions dealing with problems related to plywood, commercial veneer, and face veneer.

The minimum rates of pay for a 40-hour week are established as follows:

	Minimum hourly rate
Commercial veneer and plywood:	
South	$0.23
North	.30
New York and Chicago (metropolitan areas)	.42½
Face veneer:	
Northern cities	.35
Northern rural	.30
Southern cities	.30
Southern rural	.25
New York and Chicago (metropolitan areas)	.42½

Modifications of Cotton Textile Industry Code

Limitation of machinery.—Upon recommendation of the Cotton Textile Industry Committee, restriction upon machinery installation is provided for, if the necessity is indicated. Such limitation was approved by the Administrator of the National Industrial Recovery Act on October 18, 1933.

The recommendations of the Cotton Textile Industry Committee are that:

(1) Persons engaged in the cotton textile industry register their productive machinery;

(2) Prior to the installation of additional productive machinery by persons engaged or engaging in the cotton textile industry, except for the replacement of a similar number of units of productive equipment or to bring the operation of existing productive machinery into balance, such persons shall secure certificates from the Administrator that such installation will be consistent with effectuating the policy of the National Recovery Act during the period of the emergency; and

(3) A certain procedure shall be followed in applying for such certificates and the making of recommendations by the Cotton Textile Industry Committee as to the granting or withholding of such certificates by the Administrator.

Method of fixing wage differentials.—By Executive order of October 21, 1933, a new paragraph has been substituted for the one originally written into schedule A of the Cotton Textile Industry Code wherein a method for fixing differentials in wages as between classes of labor is provided. The paragraph has been rewritten as the result of a complaint by the cordage and twine industry, temporarily coming under the Cotton Textile Industry Code, that the paragraph as originally phrased worked a hardship on manufacturers of cordage and twine.

The new paragraph reads:

Every employer in the industry shall increase the rate of pay of all employees paid either by the hour or piece (if not already increased) and shall increase the rate of pay of all employees paid by the day, week, or month now receiving less than $35 per week (if not already increased) to not less than 90 percent of the rates paid by said employer or his predecessor in business for the same class of work at the same place of business in June 1929; provided, that no employee shall be paid less than the minimum fixed in this code. In the event any place of business did not have a rate for a particular class of work in June 1929, the prevailing rate for the same class of work in the competitive district in which the present place of business is located shall govern the application of this provision.

Modification of President's Reemployment Agreement

Elimination of Employment of Factory Workers in Excess of 35 Hours Per Week

THE President's Reemployment Agreement was modified on October 1, 1933, by Executive order so as to eliminate the employment of factory workers or mechanical workers for any period in excess of 35 hours in any 1 week. In the agreement as previously applied workers could be employed for a maximum of 40 hours during 6 weeks prior to the close of the year 1933. It having appeared to the President that the hours provisions as set forth in paragraph (3) should be modified it was revised to read as follows:

(3) Not to employ any factory or mechanical worker or artisan more than a maximum week of 35 hours until December 31, 1933; and not to employ any worker more than 8 hours in any 1 day.

Application of Agreement in Small Establishments and Small Towns

IN THE President's order of October 23, 1933, application of the President's Reemployment Agreement in small establishments and small towns was changed in the following particulars:

The provisions of the President's Reemployment Agreement, issued July 27, 1933, shall not be held to apply to employers engaged only locally in retail trade, or in local service industries (and not in a business in or affecting interstate commerce) who do not employ more than 5 persons and who are located in towns of less than 2,500 population (according to the 1930 Federal census) which are not in the immediate trade area of a city of larger population, except so far as such employers who have signed the President's Reemployment Agreement desire to continue to comply with the terms of said agreement after the date of this order; and this release of such employers who have heretofore signed the President's Reemployment Agreement shall be further extended so as to release to the same extent all such employers of obligations not voluntarily assumed under the provisions of a code of fair competition approved by the President. This exemption is intended to relieve small business enterprises in small towns from fixed obligations which might impose exceptional hardship, but it is expected that all such enterprises will conform to the fullest extent possible with the requirements which would be otherwise obligatory upon them.

Definitions of Terms under Agreement

Executives.—To prevent evasions and the giving of meaningless titles to minor employees in order to exempt them from the hours provisions under the President's Reemployment Agreement and modifications thereof, General Johnson has made the following statement defining "manager" and "executive":

In the President's Reemployment Agreement it is provided that the maximum hours shall not apply "to employees in a managerial or executive capacity who now receive more than $35 per week."

There are provisions in various codes excepting from the limitation upon hours of those described as "managers" or "executives" and complaint has been received that in many instances employees are classified as "managers" or "executives" either for the purpose, or with the result, of exempting them from limitations upon hours. It has not been the intention of the Administration in approving such exceptions to provide for the exemption of any persons other than those who exercise real managerial or executive authority, which persons are invested with responsibilities entirely different from those of the wage earner and come within the class of the higher salaried employees.

It will be presumed that no employee receiving less than $35 per week will be classified as a "manager" or "executive" so as to be exempt from any provision of any code regulating the maximum hours of work permitted in a trade or industry. Violations of the requirements of any code, as here interpreted, should be reported to the National Recovery Administration.

Substandard workers.—The National Recovery Administration also makes it clear what employees may be considered mentally substandard and therefore paid at less than the minimum wages established:

A person whose earning power is limited because of physical or mental defect, age, or other infirmity, may be employed on light duty below the minimum wage set by the President's agreement, if the employer obtains from the State authority designated by the United States Department of Labor a certificate authorizing his employment at such wages and for such hours as shall be stated in the certificate. State authorities will be guided by the instructions of the United States Department of Labor in issuing certificates to such persons.

Clarification of Section 7 (a) of National Industrial Recovery Act

ON OCTOBER 19, 1933, in a letter to General Hugh S. Johnson, the President clarified section 7 (a) of the National Industrial Recovery Act as follows:

Following our recent discussion of various misunderstandings and misinterpretations of section 7 (a) of the National Industrial Recovery Act, I wish to advise you of my position.

Because it is evident that the insertion of any interpretation of section 7 (a) in a code of fair competition leads only to further controversy and confusion, no such interpretation should be incorporated in any code. While there is nothing in the provisions of section 7 (a) to interfere with the bona fide exercise of the right of an employer to select, retain, or advance employees on the basis of individual merit, section 7 (a) does clearly prohibit the pretended exercise of this right by an employer simply as a device for compelling employees to refrain from exercising the rights of self-organization, designation of representatives and collective bargaining, which are guaranteed to all employees in said section 7 (a).

CHILD WELFARE

Conference on Child Health and Nutrition

ON OCTOBER 6 a conference was held in Washington at the instance of the United States Children's Bureau to consider the general subject of malnutrition among children and measures for combating it. As a preliminary, an executive committee had been formed representing the various agencies concerned with the question to outline some plan for dealing with the problem, which should be discussed and modified, if desirable, by the conference as a whole. Miss Perkins, Secretary of Labor, opened the conference, and Mrs. Roosevelt attended and spoke. Delegates, for the most part authorities on their respective subjects, and representing organizations having over 50,000 members, were present from all parts of the Union. In the main, they represented four groups: Medical and health workers, educationalists, nutritionists and home economists, and relief, social service, and labor organizations.

The report of the executive committee stressed the seriousness of the problem and the impossibility of dealing with it satisfactorily except through the united efforts of all the different groups concerned with the health, education, and training of children. It presented two objectives for such an effort: First, the location of undernourished children by physical examinations; and second, the initiation and development of plans to overcome existing malnutrition and prevent its further progress, through dietary measures and corrective medical procedure. For both of these objectives it would be desirable to have State-wide organizations of the various interests and agencies concerned—State health authorities, the medical and dental professions, child welfare bodies, nutritionists and home economists, pediatricians, relief agencies and auxiliary organizations—linked up by a national committee to aid in securing uniform standards and making the experience of each available to all. A few States already have such organizations, and some of these were described by delegates, who also gave some account of the work they are doing.

Discussion of these plans showed that there seemed to be general agreement on two points: (1) That a considerable amount of what is generally called malnutrition existed among the children of the country before the depression began. At the time of the last President's conference on child welfare, it was estimated that there were millions of children in the United States suffering from malnutrition. Consequently, any effort simply to annul the effects of the depression would be inadequate; the campaign must be to improve conditions over the situation existing before the depression was even anticipated. (2) That malnutrition and undernourishment are not necessarily nor solely due to poverty. Children suffering from defects of nutrition are found in families whose income is amply sufficient to provide all

the elements needed for healthful growth and development. Consequently, an educational campaign is as necessary as a campaign for relief.

On the question of how extensive malnutrition is, and to what extent it has been increased by the depression, there was difference of opinion, as there was concerning the value of physical examinations of school children to discover it. Dr. Haven Emerson, of New York, and some others, held that there is no evidence that children throughout the Union generally are suffering from malnutrition, and that on the whole, such evidence as can be obtained shows that health in general has improved since 1929. "All available scientific medical indices, such as the death rate, the infant mortality rate, the tuberculosis rate, and the communicable disease rate had never been lower than in the past 4 years." Furthermore, they maintained that as there is no recognized standard of malnutrition, widespread school examinations to discover undernourished children would be of little value, since there would be no uniformity of observation, and the data would be noncomparable. Such examinations might, on the other hand, rouse unjustified apprehension, leading to an unfounded belief that the child population as a whole is in a dangerous condition. They admitted, however, that serious malnutrition does exist in various unfortunate regions and among certain unfavored groups, where it has been in existence for years past.

On the other hand, reports from various States showed a prevailing opinion that malnutrition has increased, that the schools present the most obvious point at which to discover its incidence, and that whether or not it is greater now than it was 4 years ago, the fact, admitted by everybody, that we have numbers of undernourished children, demands immediate and effective remedial action. Dr. Noble, of the Pennsylvania Health Department, cited the school health examinations in that State as having been of much value and having led to definite remedial action. Dr. Cooper, of the North Carolina State Health Board, said that they had recently made a health survey of their State, and that while they did not find malnutrition general among the children of the State as a whole, they did find some very bad spots which called for action. Especially, they needed to increase the milk supply and to teach mothers to prepare food properly. As to the milk supply, he pointed out that the Government had loaned money to 6,000 tenant farmers to buy feed and seed; why should it not lend enough to buy a milch cow for every family? Dr. Earle G. Browne, the State health officer of Kansas, reported that the examination of 38,000 school children in that State had shown that 25 percent were suffering from malnutrition, and that 70 percent of those in agricultural districts were not drinking milk. From other regions came reports similarly stressing the need of united action along both relief, preventive, and educational lines to improve present conditions and to prevent further deterioration.

The objectives presented by the executive committee were approved, with the suggestion that there might be possible modifications to suit the special conditions of the different States.

INDUSTRIAL AND LABOR CONDITIONS

United States Department of Labor at the Century of Progress Exposition, Chicago, 1933

WHAT the hundred year span, 1833–1933, has meant to the worker was dramatically presented by the United States Department of Labor at the Century of Progress Exposition in a symbolic portrayal of the long, laborious climb of the worker and his family through the century. Using a pyramid of frosted glass to represent time, the symbolism was developed by the upward movement across the pyramid of a group of figures representing the workingman, his wife, and his children, toward the goals and ideals which always lay ahead. The historical significance of the hundred years of industrial changes, progress and recessions, was treated in text which gave succinctly the outstanding characteristics of the epochs through which the worker had passed.

These epochs, represented by receding tiers of the glass pyramid, have no definite historical boundaries, but cover, broadly, periods of 15 to 20 years, up to 1930. The textual treatment of the industrial shifts of the hundred years follows:

1833–50: Out of the hardships and the simple life of pioneer days, the workingman and his family, the working woman, and the child, emerge into the beginning of the machine age. Slowly and painfully, with many reverses, they climb up the path toward freedom, security, and greater opportunity. Industry moves from the home to the factory. Wages are low and hours are from sunrise to sunset, even for little children. Yet off to the West, free land helps to check exploitation and the products of the machine bring added comforts and luxuries.

1850–65: The era of railroad transportation begins and the tide of immigration increases. Pushing ever farther westward, the pioneers carry with them ideals of independent labor, sound family life, and the education of children. Small industries become large industries. Labor unions are organized to protect and advance the interests of workers. Unorganized woman workers and children are exploited, yet industry brings opportunity for economic freedom for women. Lack of sanitation and child hygiene take their toll of infant lives.

1865–85: The machine hastens the growth of cities. Juvenile delinquency and disease flourish in the slums and alleys. Child labor is still taken for granted yet school laws raise the age of child workers. Organized labor gains shorter hours and higher wages. Panics sweep away these gains, yet new inventions and industries bring new prosperity. The slaves are now free but more little children are absorbed into industry.

1885–1900: State and Federal bureaus of labor are established. The public school and compulsory education spread. Immigration increases and machine production expands rapidly. Wage cuts and strikes occur frequently. The Federal Government takes a hand in arbitrating labor disputes. Union craftsmen gain an 8-hour day and higher wages, but most workers are still unorganized.

1900–15: State legislation helps protect woman and child workers. Workmen's compensation laws are passed and working conditions are improved. Immigration is restricted. The United States Children's Bureau is created and the United States Department of Labor is established.

1915–30: The World War speeds up industry and brings further opportunities for woman workers. The United States Women's Bureau is established. Conciliation and collective agreements take the place of strikes. Social legislation makes rapid strides. Wages and living costs reach their highest levels.

1930–33: The mechanization of industry displaces workers. Labor's purchasing power decreases. Production drops. Wage reductions follow and millions are unemployed. Standards of working and living conditions are lowered. Suffering and privation are nation-wide.

The mounting figures stopped about two thirds of the way to the top of the pyramid, and through the device of colored lights the symbolism continued by showing the worker and his family looking ahead toward the still unattained goals of earnings adequate for living, saving, and leisure; a share in formulating labor policies; economic security through steady employment; improved conditions of health, education, and home life.

A more literal presentation of the labor history of the century was given in a series of 40 pictures showing changes in working methods and working conditions. These pictures, with brief historical sketches dealing with the industrial development of the century, were reproduced in "Labor Through the Century—1833–1933", a booklet (Bul. No. 597) published by the United States Bureau of Labor Statistics for distribution at the Department of Labor exhibit.

Exhibits of the Bureaus

EACH of the established Bureaus of the Department of Labor produced its own exhibit in addition to the general departmental display. These individual exhibits dealt both with the historical development of the century in their respective fields and with the work of the exhibiting Bureau.

Immigration Bureau.—A series of pictures showed types of immigrants; the old immigration station at New York City (Castle Garden), and the more modern station at Ellis Island; the examination and selection of applicants for visas in consular offices abroad, a practice which, the picture pointed out, "prevents many a heartbreak at Ellis Island"; and the activities of the Immigration Service, such as the patrol of the northern border, picturing immigration inspectors going about their duties on snowshoes. Charts gave statistical data on immigration through the century.

Naturalization Bureau.—By means of cartoons, the Bureau of Naturalization achieved an instructive and popular presentation of a subject which would seem difficult to treat at an exhibit. Starting with the naturalization clause of the Constitution engrossed on a scroll, the Bureau developed the steps by which an alien becomes a citizen, and the outstanding changes in naturalization procedure since the Constitution was adopted, such as the granting of citizenship to Negroes. One effective cartoon showed the Cable Act of 1922 handing citizenship in her own right to a married woman standing on the steps of the United States Capitol. Another suggested early abuses of the naturalization laws and the means taken to stop them.

Children's Bureau.—The Children's Bureau, in a series of 12 three-dimensional dioramas, depicted the progress of child welfare over the century. Four phases of the welfare of children were presented—health, delinquency, dependency, and child labor—the status of each of which at the beginning, the middle, and the close of the century was pictured. The dependent children of 1833, for example, were shown in a grim, stark orphanage; a scene of a later era showed a trainload of dependent and orphan children at a railroad station in the West being bound out, practically by auction, to farmers and

merchants for "their board and keep"; while the third scene, that of the present, was a small dwelling with children playing about in a yard, to suggest the normal home life made possible by State aid to mothers. Prison cells containing delinquent children wearing stripes in the 1833 era gave way to the juvenile courts of the present day. A booklet entitled "Children's Progress, 1833–1933", covering the same fields of child welfare and using contemporary pictures of each era, was published by the Children's Bureau for distribution in connection with its exhibit.

Women's Bureau.—Women's work through the century, its shift from the home to the factory, and working conditions in factory and sweatshop, were vividly shown by the Women's Bureau in a series of realistic three-dimensional sets. A typical family group of women—grandmother, mother, and daughters—churning, baking, spinning, weaving, and making garments, dramatized the introductory statement that "women have always worked and shared in family support." From the home the scene shifted to the early textile mill, the sweatshop, the tenement workroom, and the munitions factory of the World War period.

Women's part in the early labor movement was depicted by a reproduction of a contemporary picture of the march through the streets of Boston in 1869 of the striking Daughters of St. Crispin, the organized shoe workers who formed the first national trade union for women. The historic incident of a working woman, Sarah Bagley, addressing the Massachusetts Legislature in 1845 in support of the proposed 10-hour law for women and children, was also reproduced. The publication, "Women at Work", which the Women's Bureau published as part of its exhibit, is the story of "a century of industrial change" in the work and the economic status of women.

Bureau of Labor Statistics.—Combining statistical charts and pictured characters suggestive of the nature of the statistical data treated, the Bureau of Labor Statistics made a graphic presentation of productivity of labor, accident and cost of living statistics, and other data which it collects and disseminates. These graphic charts, together with text pointing out the value and the practical application of the Bureau's statistical material, have been published by the Bureau of Labor Statistics in a booklet entitled "What Are Labor Statistics For?" (Bul. No. 599).

Meeting of Association of Governmental Officials in Industry 1933

THE nineteenth annual convention of the Association of Governmental Officials in Industry of the United States and Canada was held in Chicago, Ill., on September 14 and 15, 1933.

The convention was opened by Dr. E. B. Patton, director of the bureau of statistics and information, Department of Labor, New York. Reports on new legislation were made by representatives from the several States and Provinces, and the progress made in the field of foreign labor legislation was outlined by Mr. Leifur Magnusson of the International Labor Office, Washington, D.C.

On the first day of the meeting a joint session was held of this organization and the International Association of Industrial Accident Boards and Commissions. The opening address of the joint meeting

was delivered by Dr. E. B. Patton of New York. Mr. Charles E. Baldwin, Assistant Commissioner of the United States Bureau of Labor Statistics, reported the status of industrial safety codes and [illegible]ns in the various States. The progress of national safety codes was [illegible]own by Mr. P. G. Agnew, secretary of the industrial division, Nat[illegible] Safety Council. The afternoon session of the first day was also a joi[illegible] meeting of the two organizations. A paper was read by C. B. Boulet, safety director of the Wisconsin Public Service Corporation, on Cause Analysis of Accidents Causing Injury and Near Injury. An interesting paper in regard to Standardization of Codes and Mechanical Guarding at Point of Manufacture, prepared by Mr. R. McA. Keown, engineer of the Wisconsin Industrial Commission, was read by Mr. Wise. A spirited discussion followed the delivery of all of the papers, under the chairman of the meeting, Thomas P. Kearns, superintendent of the division of safety and hygiene, Department of Industrial Relations, Ohio.

On the second and last day of the meeting a report was presented on minimum wage. The report was prepared by the chairman of the committee on minimum wage, Mr. E. S. Smith, commissioner of the Department of Labor and Industries of Massachusetts, and read by Mrs. Mabel E. Kinney, chief of the Division of Industrial Welfare, California. Mr. John B. Andrews, secretary of the American Association for Labor Legislation, delivered an address on Administrative Regulations in American Labor Law.

Mr. Paul Raushenbush, consultant on unemployment compensation, Industrial Commission of Wisconsin, gave an outline of the Wisconsin Reserve Plan.

In the afternoon session reports of various committees were continued, including State laws on hours of employment of women by Miss Mary Anderson, Director of the Women's Bureau, United States Department of Labor, and child labor by Mrs. Clara M. Beyer, Director of the Industrial Division, Children's Bureau, United States Department of Labor. A round-table discussion followed the reading of the reports of the several committees.

Following the reports of the various committees and the election of officers, the meeting adjourned until 1934, the date of the 1934 meeting to be determined by the executive committee.

The following officers were elected for the coming year: President, T. E. Whitaker, Department of Industrial Relations, Georgia; first vice president, A. W. Crawford, Deputy Minister of Department of Labor, Ontario, Canada; second vice president, Edward F. Seiller, chief labor inspector, Kentucky; third vice president, Gerard Tremblay, deputy minister of department of labor, Quebec; fourth vice president, Joseph M. Tone, commissioner of department of labor and factory inspection, Connecticut; fifth vice president, Mrs. Mabel E. Kinney, chief of division of industrial welfare, department of industrial relations, California; secretary-treasurer, Isador Lubin, Commissioner of the United States Bureau of Labor Statistics.

16487°—33——6

Effect of the Depression Upon the Consumption of Commodities

TWO recently published surveys,[1] one for the Nation as a whole made at Harvard University, and the other for the State of Minnesota made at the University of Minnesota, throw light on the relative force of the depression in curtailing use of production and consumption goods. Both of these studies showed that consumption goods (food, clothing, etc.) suffer a lesser reduction in sales than do producers' goods (lumber, iron and steel, etc.) and that not only is the demand for producers' goods reduced more sharply than that for consumers' goods in periods of business recession but the effects of the recession are reflected earlier in the demand for such goods than is true of consumers' goods.

According to the findings in the Harvard study consumption by the mass of the people has held up remarkably well considering the severity of the depression and only the severe conditions of 1932 brought about a substantial decline in consumption. Even then the reduction was not in proportion to the fall in business as a whole. Figures are cited to show that the monthly average consumption of wheat flour, for example, did not decline at all in the 1920–21 depression but fell about 6 percent from 1930 to 1931 and 4 percent from 1931 to 1932. For meat there has been little change although there has been a shift in kinds of meat bought. In the 1921 depression there was a slight fall but the total consumption in both 1930 and 1932 was somewhat higher than in 1925 (1,029 million pounds as compared with 1,024 million pounds in 1925 and 1,058 million pounds at the peak in 1929). In 1932 the consumption of beef, veal, and pork was lower than in 1929 and that of lamb and mutton higher.

Department-store dollar sales, using 1923–25 as a base or 100, rose from an index of 108 in 1928 to 111 in 1929, falling to 91 in 1931 and 70 in 1932. Taking into account the lower prices the author of the study under consideration believes that the consumption of women's clothing in the aggregate was certainly no lower and was in all probability higher in 1932 than in 1928 and that of men's clothing not markedly lower.

The University of Minnesota found current consumption in the State fairly well maintained, with the food industry showing no reduction in dollar sales until 1931 when a 14-percent decline occurred. For clothing and textiles the decline came a year earlier, in 1930, the decline being 24 percent. Here again the figures are on the basis of dollar values and no correction is made to show what part of the decline may be attributed to lowered price without affecting the volume of consumption.

As regards the loss in markets for production goods the Harvard University study states that a high rate of activity in these industries producing such goods characterized the years 1925 to 1929 but this was followed by inactivity in 1930, lasting through 1932. On the basis of the indexes of production compiled by the Federal Reserve Board, percentage changes have been worked out for a number of fields of production as between June 1929 and July 1932 as follows:

[1] Harvard University, Graduate School of Business Administration, Bureau of Business Research, The behavior of consumption in business depression, by Arthur R. Tebbutt; and University of Minnesota, Employment Stabilization Research Institute, Impact of the depression on business activity and real income in Minnesota, edited by Roland S. Vaile.

TABLE 1.—INDEXES OF PRODUCTION COMPILED BY FEDERAL RESERVE BOARD

[Adjusted for seasonal variation, 1923–25=100]

Field of production	June 1929	July 1932	Percent of decrease
Industrial production	125	58	54
Manufactures	127	57	55
Iron and steel	148	25	83
Textiles	120	69	42
Food products	96	81	16
Paper and printing	127	85	33
Lumber	94	27	71
Automobiles	153	33	78
Leather and its products	108	77	29
Petroleum refining	170	141	17
Rubber tires and tubes	146	[1] 68	53
Tobacco products	138	114	17
Minerals	114	64	44
Coal:			
Bituminous	102	46	55
Anthracite	84	55	35
Petroleum	135	104	23
Iron-ore shipments	128	8	94
Copper (mined)	124		
Zinc	120	34	72
Lead	110	31	72
Silver	95	40	58

[1] August.

Thus it is shown that in a period when the reduction in food production was 16 percent, in tobacco 17 percent, and in leather and its products 29 percent, iron-ore shipments, showing the greatest decline, fell 94 percent.

The University of Minnesota, using the year when particular industries first felt the depression in their sales, pay rolls, and profits, found that the sharpest declines in sales were shown by wood (a producers' goods industry) and clothing and textiles (a consumers' goods industry), in pay roll by the wood industry, and in profits by the machinery and metals industry. Last to feel the combined effects of lowered sales and pay rolls was the food industry, although a reduction in profits was experienced in 1930.

TABLE 2.—YEAR IN WHICH SPECIFIED INDUSTRIES FIRST FELT THE DEPRESSION

Industry	Year of decline	Percent of decline	Industry	Year of decline	Percent of decline
Wood:			Miscellaneous:		
Sales	1930	22	Sales	1930	13
Pay roll	1930	20	Pay roll	1931	10
Profits	1930	101	Profits	1930	52
Machinery and metals:			Paper and printing:		
Sales	1930	15	Sales	1930	16
Pay roll	1930	14	Pay roll	1931	17
Profits	1930	155	Profits	1931	96
Clothing and textiles:			Food:		
Sales	1930	24	Sales	1931	14
Pay roll	1930	14	Pay roll	1932	11
Profits	1930	63	Profits	1930	29

In conclusion the Harvard University study brings out the fact that, actual consumption having been maintained during the depression, the resumption of production of producers' goods and durable consumption goods (i.e., houses, automobiles) must take place in order for an improvement in general business conditions to come about. Such activity is essential, according to the author, if balanced recovery

is to take place, and to meet this end he states that the investment of new capital will be necessary, an investment that will only be made with the return of confidence that recovery is sound and permanent.

Report on Conditions in Needle-Trades Industry in Two Counties of Pennsylvania

LABOR and Industry, the official publication of the Pennsylvania Department of Labor and Industry, contains in its issue for August 1933 the report of the commission appointed by Governor Pinchot to investigate conditions in the needle trades of Lehigh and Northampton Counties. The commission consisted of Rev. Willis D. Mathias, of the Emanuel Reformed Church, and Clarence J. Moser, secretary Central Trades and Labor Council, both of Allentown; H. Morley Holton, plant manager Phoenix Manufacturing Co., and Dr. Harry L. Baker, physician, both of Catasauqua; A. F. Tidabock, president Northampton & Bath Railroad Co., and Dr. Charles A. Haff, of the Haff Hospital, both of Northampton; and Miss Charlotte E. Carr, secretary Pennsylvania Department of Labor and Industry. Hearings were held in Northampton, Allentown, and Bangor, opportunity being afforded for employers and employees to give testimony and for civic interests to submit material. The findings of the commission covered wages, working conditions, conditions as to employment of children, and general conditions, including morals.

Wages

THE evidence submitted indicated that the wage rates for many, many workers were so extremely low that it was not possible for them to maintain a decent standard of living, and in some cases not even a subsistence.

It was found also that there were violations of the legal requirement that employers should make payment of wages at least every 15 days, and that in some cases the employees lost their wages altogether. "In fact, certain companies * * * went out of business leaving wage claims due workers amounting to thousands of dollars, without any legal process available for making collection of same."

Working Conditions

THE commission found that in many instances where women and girls were employed there was no nurse or matron to whom they could report concerning working conditions or illness; that there was evidence of negligence on the part of employers in regard to keeping gas connections in good repair in the pressing departments of needle-trade factories, thus involving both health and fire hazards; that there were cases of violation of the sanitary code; and that there was negligence on the part of factory managements in not providing first-aid materials, rest rooms, and cots, as required by law. The testimony also showed the employment of women for more than the legal hours, and instances were cited in which girl workers under 16 years of age used pressing irons weighing 5 and 6 pounds during every working hour of the day. "Such employment is injurious to workers of a tender age."

Child Workers

THE hearings brought out the fact that the child labor laws were being violated in several different ways:

Evidence brought to the commission showed that children in industry under 16 years of age (*a*) worked more than the regulation number of hours per day, (*b*) were required to work more than specified number of hours per week, and (*c*) continued at work after the hour as posted on the labor schedule. The posting of such a list as referred to in (*c*) is required by the department of labor and industry. It was indicated by children workers that they were warned by "bosses" not to give information to inspectors and to tell falsehoods when questioned by inspectors of the department of labor and industry, so that violations of the employer would not be discovered.

Evidence also showed that when children under 16 had struck against conditions of employment, their working papers had been returned to the school authorities, "in an effort to force the children to return to work."

General

EVIDENCE was submitted which showed that in certain cases those in authority used their official position to take undue liberties with girls and women while at work, "and even to make advances which had immoral intent. Such conditions were reported as being mostly in evidence where there were men foremen and foreladies were not employed." Also, it was shown that where local chambers of commerce or other civic bodies had been instrumental in bringing needle-trades factories into a community, they had sometimes been rather negligent in ascertaining the standing of the company before giving it a free hand to operate in the community.

Recommendations

IN VIEW of the evidence presented, and the conditions found, the commission presented the following recommendations:

Wages

1. The enactment of a minimum wage law which will provide a decent wage for the lowest paid worker.
2. The passage of a law giving authority to the department of labor and industry to aid workers in the collection of unpaid wage claims, and other such legislation which will guarantee wages to workers.
3. The enactment of a law making provision for a system of unemployment insurance for the needle-trades industry to be supervised by the State.

Working Conditions

1. The amending of the present 54-hour law for women workers so as to reduce the same to a point of prohibiting more than 40 hours per week.
2. The enactment of legislation which will require that where 10 or more women workers are employed, and there is no forelady or matron, one of the women workers shall be designated as a matron to care for the needs of said workers. In larger establishments, such a matron to be in full-time service in that capacity.
3. The passage of legislation which will prevent male workers under 18, and female workers under 20 from working as pressers in the needle-trades industry.

Child Workers

1. The amendment of the present State child labor act to prevent the employment of children in industry under 16 years of age.
2. The ratification of the Federal child labor amendment by the Common wealth of Pennsylvania.

General

1. We recommend that since there are constant efforts in this industry to evade adherence to existing labor laws, that the bureau of inspection of the department of labor and industry be more vigorous in their inspections, and that they engage trained and efficient inspectors in order to compel compliance to the law.

2. Since there is great need for arbitration and mediation today in the realm of industry, we recommend the reestablishment of the bureau of industrial relations in the department of labor and industry at the earliest possible date.

INSURANCE, PENSION, AND BENEFIT PLANS

Effect of Public Old-Age Pensions on Almshouse Populations

THE results of an inquiry by the American Association for Social Security on the effect of State old-age pension laws on the almshouse population are given in the September-October 1933 issue of Social Security. Data were obtained from 9 States, 4 of which have old-age pension laws.

The following table, compiled from the article above mentioned, shows the increase in almshouse population in specified years.

INCREASE IN ALMSHOUSE POPULATION IN 9 STATES IN SPECIFIED PERIODS

State, and year of enactment of pension law	Percent of increase in almshouse population in—		
	Period 1924–29	1930 as compared with 1929	1931–32 as compared with 1930
Pension States:			
California (1929)	48	7.8	10.9
Massachusetts (1930)	----------	----------	15.8
New York (1930)	20	13.0	14.9
Wisconsin (1925)	40	----------	----------
Nonpension States:			
Connecticut	32	16.0	32.2
Indiana	26	14.0	23.5
Michigan	----------	----------	31.4
Ohio	----------	----------	24.3
Pennsylvania	----------	16.0	----------

The report points out that in the 5 years prior to the depression "the poorhouse population had been increasing steadily," an increase which was "tremendously accelerated," in most of the States reporting, during 1930. The one exception to this occurred in California where the increase was only 7.8 percent, as compared with increases ranging up to 16 percent in the other reporting States.

A great discrepancy is shown in the rates of increase between the pension and nonpension States in 1931 and 1932, which the report attributes to the effect of the pension laws. Concerning the situation in New York State the report makes the following statement:

> The New York figures, available now for a series of years up to 1932, cover 56 out of the 62 institutions in the State, sheltering nearly 90 percent of all inmates. In 1929, the year just preceding the enactment of the State's old-age security system for persons 70 years and over, the number of inmates over 70 increased by 567, or 15 percent. Following the first 2 years of the operation of the law, the number of inmates over 70 years of age actually dropped by 332, a decrease of 7.5 percent. Significantly, the number of inmates under 70, and therefore ineligible for pension grants, increased during the same period by 1,837 or 29 percent.
>
> An examination of the records for the various counties in New York State shows strikingly the effect the State's old-age security act has had in reducing the number

of older inmates. In Albany, the number of inmates 70 years and over fell from 184 in 1930 to 96 at the end of 1932, a decrease of nearly 50 percent. While this decrease occurred in the oldest and most dependent group, the number of inmates below the pensionable age increased by 280. In Green County the number of inmates over 70 decreased by 37 in the 2 years, while the younger group increased by 45. Livingston County showed 24 less in the older group. In Niagara County, those under 70 increased from 119 to 240, but the older inmates decreased from 78 to 46. In Oswego County the number of older inmates fell from 42 to 15, while the number of younger inmates increased by 23. Rensselaer County and the city of Kingston showed decreases of 54 and 29 in the older groups, and increases of 73 and 43 in the younger groups. These figures are representative of conditions throughout the Commonwealth.

The report draws the following conclusions from the study:

The above study is conclusive. Despite the fact that most of the pension laws were launched under the most unfavorable conditions during a period of unprecedented economic difficulties, the alarming increase of older inmates in poorhouses was not only stopped, but a definite trend in the opposite direction set in. Old-age security laws are not only stopping the influx of new inmates but are gradually reducing the older poorhouse population. The extension and liberalization of the present legislation to cover wider groups is the surest means for the gradual abolition of the onerous, antiquated, and brutal system of poorhouses and the substitution of a few well-equipped and humane hospitals for the chronically ill.

Retirement and Unemployment Plan of Hill Bros. Co.[1]

A SYSTEM of reserves for the payment of unemployment benefits has been established by Hill Bros. Co., shoe manufacturers of Hudson, Mass. The benefit plan consists of three reserve funds, the first fund providing for payment of benefits for seasonal unemployment, the second for unemployment of a more permanent nature, and the third for retirement of long-service employees because of disability, old age, or technological changes. The company believes that these three types of unemployment should be handled separately as far as possible, although they are coordinated under a general plan.

The reserve fund for seasonal unemployment, which was established in June 1931, consists of individual savings set aside by the employees who are subject to seasonal fluctuation of employment, during their periods of steady employment. Executives, foremen, office employees, and salesmen on commission are not eligible, therefore, for membership in the fund. Participation in the plan is optional, but participation in reserve fund no. 2 is dependent upon membership in the savings fund covering seasonal unemployment.

This company, which manufactures men's dress shoes, has two slack periods, one occurring in May and the other in November. These periods have been equivalent to 4 weeks of full shutdown or a total of 8 weeks in the year. The attempt has been made, however, to level off the production as much as possible, so that at least half-time work may be furnished during the slack period. In establishing the amount of the individual payments into the fund, the employee is asked to estimate his weekly requirements in case of a total shutdown for the main necessities of life; that is, heat, food, and rent. He is then asked to establish a fund equivalent to eight times this amount. A member is allowed to withdraw from the fund, subject to the approval of the committee controlling disbursements, any amount which is considered reasonable, but he is requested to withdraw during half-time, only one half of his estimated weekly requirements. He is, however,

[1] Associated Industries of Massachusetts. Industry, Boston, Sept. 9, 1933.

allowed to draw against this fund for emergencies, or, in the event of establishing a fund in excess of his estimated requirements for 8 weeks, he may draw the balance above this amount at any time.

A statement of the operation of the fund furnished by the company shows that from June 1931 to January 1, 1933, the total deposits amounted to $11,570.50, or an average of about $60 per employee. At that time 140 of the 185 eligible employees were depositors in the fund. Withdrawals from the fund during 1932 amounted to $3,171.72, leaving a balance in the fund at the beginning of 1933 of more than $8,000.

All employees who are contributors to the seasonal unemployment fund, as well as foremen and office employees who have had at least 6 months' service, are eligible for membership in reserve fund no. 2, and new employees become eligible for participation at the end of the 6 months' probationary period. This fund is accumulated through a weekly pay-roll deduction of an amount equal to 2 percent of the average salary or wages of the participating member, while the employer contributions are equal to those of the individual members. If the employer contribution credited to the individual-member accounts is less than 2 percent of the total pay roll for eligible employees, an annual adjustment will be made by the employer, who will contribute to reserve fund no. 3 an amount equal to such a deficit. Under the terms governing the operation of this fund a member of 1 year's standing or over who is laid off or discharged through no fault of his own shall first be paid the amount of his credit in reserve fund no. 1. No benefits will be paid from fund no. 2 during the first 4 weeks of continuous unemployment, but thereafter such an unemployed member shall receive one third of his average weekly salary or wages until the combined member-employer deposit plus the guaranteed interest is exhausted. If one third of the member's average weekly wage is less than $7, the weekly benefit may be increased but not to exceed $7. The maximum weekly benefit which any member may receive is $16.67. Members of less than 1 year's standing who leave voluntarily or are laid off or discharged receive the amount of their own deposits without interest. A member who leaves the employment of the company and secures employment with a concern operating a similar plan or one satisfactory to the advisory committee may transfer his fund, including the company share, to the new company's plan after a waiting period of 6 months. Provision is made, in the event of the death of a member, for payment of his contributions plus interest to his named beneficiary or to surviving dependents.

Reserve fund no. 3, from which annuities are paid to long-service employees who are retired because of old-age disability or as a result of technological changes, is maintained by contributions by the employer, consisting of refunds of the employer's contribution to fund no. 2 plus any excess arising from the employer's contribution to reserve fund no. 2. Disbursements from this fund are made at the discretion of the employer with the assistance of the advisory committee.

The advisory committee consists of 5 members, 2 elected by the members, 2 named by the employer, and 1 chosen by the 4 thus chosen who is called upon to act in case the other members are unable to reach a decision. The committee has charge of general administrative details and controls disbursements.

Benefit Payments by Photo-Engravers' Union

THE American Photo-Engraver for September 1933 gives figures showing the benefits paid by the International Photo-Engravers' Union and its locals for the year ending May 31, 1933. Although this is an organization of fewer than 9,000 members, the benefits paid by it during that year aggregated nearly 2½ million dollars.

The table below shows the amounts disbursed for each type of benefit during 1931–32 and 1932–33.

BENEFITS PAID BY LOCAL AND INTERNATIONAL PHOTO-ENGRAVERS' UNIONS, YEARS ENDED MAY 31, 1932 AND 1933

Type of benefit	Benefits paid by—				Total	
	International union		Local unions		1931–32	1932–33
	1931–32	1932–33	1931–32	1932–33		
Strike and lockout	$249,836	$181,410			$249,836	$181,410
Group life insurance	72,000	90,274			72,000	90,274
Death	12,800	15,000	$29,988	$29,943	42,788	44,943
Tuberculosis	33,419	32,370			33,419	32,370
Unemployment			1,665,827	1,959,618	1,665,827	1,959,618
Sickness			21,528	19,834	21,528	19,834
Total	368,055	319,054	1,717,343	2,009,395	2,085,398	2,328,449

INDUSTRIAL ACCIDENTS

Meeting of International Association of Industrial Accident Boards and Commissions, 1933

THE twentieth annual meeting of the International Association of Industrial Accident Boards and Commissions was held at Chicago, Ill., September 11 to 14, with delegates present from the various States, the District of Columbia, Puerto Rico, and the Canadian Provinces.

A review of the developments during the past year in the workmen's compensation field was presented in the opening address by R. A. Wenzel, chairman of the Workmen's Compensation Bureau of North Dakota and president of the association. This was followed by several sessions devoted to workmen's compensation problems, with the question of uniform legislation as the keynote throughout. It was pointed out that uniform practices in the several administrations would not only benefit the injured workers and simplify proceedings for the commissioners, but would also prove a boon to the many employers and large insurance companies that operate in several States. The idea was also advanced that commissioners handling compensation claims should not be subject to politics but should have longer terms of office and should be paid reasonable salaries.

The third day of the convention, which was devoted to the medical phases of administration, developed an interesting and novel program through the arrangement of the chairman for the day, Dr. Samuel S. Graves, former medical director of the Industrial Commission of Illinois, in dealing exclusively with one important specific subject—back injuries and their relation to workmen's compensation.

On September 14 a joint session was held with the Association of Governmental Officials in Industry of the United States and Canada, for the discussion of industrial accident prevention and safety codes.

The convention authorized a study of the methods used in the various States for determining the average weekly wage which is used as a basis for compensation payments. A recommendation was approved for the establishment of a universal second-injury fund in States which do not provide for such funds; and a resolution was passed urging the members to do everything in their power to adopt the uniform blanks for the reporting of accidents, now adopted by 12 States, for use in their respective jurisdictions.

Joseph A. Parks, chairman of the Department of Industrial Accidents of Massachusetts, was elected president for the ensuing year; G. Clay Baker, chairman of the Commission of Labor and Industry of Kansas, was elected vice president; and Chas. E. Baldwin, assistant commissioner of United States Bureau of Labor Statistics, was continued as secretary-treasurer. Other members selected for the execu-

tive committee were: Matt H. Allen, North Carolina; Peter J. Angsten, Illinois; Fred W. Armstrong, Nova Scotia; Parke P. Deans, Virginia; Thomas M. Gregory, Ohio; and R. E. Wenzel, North Dakota. The next annual meeting will be held in Boston, Mass., beginning September 10, 1934.

At the joint meeting of the association with the Association of Governmental Officials in Industry, held September 14, 1933, the following resolution was adopted:

Resolved by the I.A.I.A.B.C. and the A.G.O.I. in joint convention, That it be recommended to the National Recovery Administration that some such clause as the following be included in each of the industrial codes:

"Every employer coming under the jurisdiction of this code shall comply with all safety and health laws and regulations of the State in which the workplace is located. In all occupations in which workmen are not protected by such State laws or regulations, the employer shall comply with provisions of any standard safety code approved by the American Standards Association, which provides protection against any hazard encountered in such occupations."

Resolved, That a copy of this resolution be transmitted to General Hugh S. Johnson, Administrator of National Industrial Recovery Act.

Meeting of National Safety Council, 1933

THE Twenty-second Congress of the National Safety Council, held at Chicago, October 2 to 6, was opened in the usual manner by a general session, during which the accomplishments of the past year were reviewed by James I. Banash, retiring president of the council. Reference was made to the effect of the Industrial Recovery Act on the safety movement and the recognition through it of safe and health ful working conditions as a fundamental of fair competition. Industry was, however, warned that existing measures are not sufficient and that the safety movement must be extended even more vigorously to overcome the results of drastic economy during the past few years, together with the serious menace of the present moment of a decided increase in accidents through increased industrial activity.

The program scheduled 100 sectional meetings, including a widely extended list of subject sessions, with about 350 speakers.

A message from President Roosevelt praised the work of the National Safety Council and asked a continued fight on accidents and the economic waste resulting from that source. The resolutions adopted by the congress included a pledge of unceasing efforts, and also a pledge of "allegiance to President Roosevelt for his able leadership and his unswerving determination to bring the American people out of economic chaos into rightful prosperity."

The following officers were elected for the ensuing year: President, John E. Long, Delaware and Hudson Railroad Corporation, Albany, N.Y.; managing director, W. H. Cameron, Chicago, Ill.; treasurer, W. E. Worth, International Harvester Co., Chicago, Ill.; vice president for finance, G. T. Hellmuth, Chicago North Shore & Milwaukee Railroad Co., Chicago, Ill.; vice president for public safety, Robert I. Catlin, Aetna Life Insurance Co., Hartford, Conn.; vice president for engineering, J. E. Culliney, Bethlehem Steel Co., Bethlehem, Pa.; vice president for membership, R. T. Solensten, The Elliott Service Co., New York City; vice president for business administration, C. W. Smith, Standard Oil Co. (Ind.), Chicago, Ill.; vice president for the division of safety councils, Lew R. Palmer, Equitable Life Assurance

Society, New York City; vice president for industrial safety, George H. Warfel, Union Pacific Railroad Co., Omaha, Nebr.; vice president for health, Dr. C. H. Watson, American Telephone & Telegraph Co., New York City; vice president for education, A. W. Whitney, National Bureau of Casualty and Surety Underwriters, New York City.

Industrial Accidents in Massachusetts, 1931–32

ACCORDING to the report of the Department of Industrial Accidents of Massachusetts for the year ending June 30, 1932, reports were received during the year of 123,517 industrial injuries, or 20,616 less than for the year ending June 30, 1931. There was a corresponding decrease in the number of tabulatable injuries (injuries causing the loss of at least 1 day or shift) from 50,006 in 1930–31 to 42,067 in 1931–32.

The tabulatable injuries included 222 fatalities (60 cases less than in the previous year), 7 injuries resulting in permanent total disability, and 864 cases resulting in permanent partial disability.

Of the total tabulatable injuries 96.3 percent, or 40,514 cases, were under the provisions of the Workmen's Compensation Act, while 3.7 percent, or 1,553 cases, were not insured. This compares with 96 and 4 percent respectively for 1931–32.

The report shows the average compensation cost of fatal cases as $3,378.42 and of nonfatal cases as $169.72, while the average medical cost for all cases where incurred is given as $27.65. In 13,651 cases, or 33.3 percent, of the temporary total disabilities, the employee was not incapacitated for a period of more than 7 days (the waiting period in Massachusetts), and would consequently not be entitled to compensation benefits, but would receive medical benefits if the employer was insured.

Handling of objects caused 12,842 injuries, falls of persons 7,368, machinery 4,885, and hand tools 3,800, making these four causes responsible for 68.6 percent of all injuries against 31.4 percent due to all other causes. The largest number of workers injured occurred in the age groups of 20 to 24, 25 to 29, 30 to 34, and 35 to 39 years, to which are charged 56.9 percent of all injuries.

The experience under the Workmen's Compensation Act is given in detail in a number of statistical tables in the report. The table on page 1102 gives a summary distribution of the tabulatable injuries reported during the year by industry groups and by extent of disability.

Road transportation shows the greatest number of fatalities, 55; trade is second, with 33; service and the building trades follow, with 17 and 15, respectively; and iron and steel is fifth, with 11. Seven injuries resulted in permanent total disability; two of these occurred in the building trades and two in the iron and steel industry. Permanent partial disabilities were distributed as follows: Iron and steel was highest, with 119 cases; road transportation second, with 91; textiles third, with 83; trade fourth, with 78; and building trades fifth, with 67.

TABULATABLE INJURIES IN MASSACHUSETTS, YEAR ENDED JUNE 30, 1932, BY INDUSTRY GROUPS AND EXTENT OF DISABILITY

Industry group	Number of injuries reported				
	Fatal	Permanent total disabilities	Permanent partial disabilities	Temporary total disabilities	Total
Agriculture	7		9	619	635
Building trades	15	2	67	4,827	4,911
Chemicals	3		5	317	325
Clay, glass, stone	2	1	17	417	437
Clothing			5	500	505
Domestic and personal service	17		40	2,612	2,669
Express	1		2	313	316
Food	7		40	1,871	1,918
Iron and steel	11	2	119	3,176	3,308
Leather	6		60	2,443	2,509
Liquors			3	131	134
Lumber	5		55	1,055	1,115
Metals	1		16	408	425
Minerals	4		8	161	173
Paper	6		44	1,032	1,082
Printing			12	600	612
Professional	7		13	759	779
Telephone, telegraph	4			123	127
Textiles	7		83	2,736	2,826
Trade	33		78	8,063	8,174
Transportation:					
Air			1	5	6
Road	55	1	91	5,776	5,923
Water			3	357	360
Miscellaneous	3		3	131	137
Miscellaneous	28	1	90	2,542	2,661
Total	222	7	864	40,974	42,067

SAFETY

Status of Industrial Safety Codes and Regulations in the Various States [1]

By CHARLES E. BALDWIN, *United States Assistant Commissioner of Labor Statistics*

DURING the period of domestic and handicraft employment, before the application of steam and electric power, workers were exposed to few hazards, and the question of safety in industrial life was principally a matter of individual caution. Introduction of machinery changed conditions completely. Accident hazards were multiplied, and the safety of the worker depended not only on his own judgment and caution, but also on the judgment and caution of his fellow workers, as well as on the amount of protection afforded by the employer or by the manufacturers of the mechanical devices against the hazards incident to machine operation.

It did, however, take considerable time before it was realized that an accident to a worker is evidence that something has gone wrong, and that a repetition of a particular kind of accident is evidence that something is habitually wrong and should be corrected. The mounting toll of industrial accidents causing physical and mental suffering as well as financial loss to the workers, and the increased cost of production to the employers, finally resulted in enactment of State regulations to safeguard workers from preventable accidents.

Massachusetts took the lead in 1877 with the first American law requiring factory safeguards, providing that all transmission machinery and all machinery having movable parts in factories and workshops, or mechanical and mercantile establishments, should be securely guarded as far as practicable, if so placed as to be dangerous to employees while engaged in their ordinary duties. Factory inspectors were appointed 10 years earlier, and a permanent bureau for the investigation of labor conditions was established in 1869.

The example of Massachusetts was followed by New York, Wisconsin, and other States, many of which adopted blanket codes or regulations of similar character. It was, however, found that under blanket provisions the standard was very indefinite and vague, and that the constant changes in industries and methods required specific and detailed regulations. As a result, a number of special safety codes, rules, or regulations for industrial activities covering either specific important industries, certain mechanical processes, or special hazards have been developed in the leading industrial States and in others that have considered accident prevention important.

[1] Read before the Twentieth Annual Convention of the International Association of Industrial Accident Boards and Commissions, Chicago, Ill., Sept. 11–15, 1933.

Safety codes or regulations are adopted and enforced for the purpose of preventing accidents. The enactment of workmen's compensation laws and the compilation of accident statistics have played very prominent parts in the accident-prevention movement and have pointed out the necessity for safety regulations. Industry was forced, through workmen's conpensation acts, to pay the bills for all accidents. Through such payments the employers began to realize the frightful toll of indifference and, sometimes, criminal negligence. Statistics disclosed that it was cheaper to prevent accidents than to pay for them, and investigation showed that a large majority of accidents could be prevented. The experience of some large firms, which had applied rules of their own, proved both points.

Safety regulations in some States are still statutory, with certain agencies designated for enforcement. In other States it has been found advisable to authorize the enforcing agency (industrial commission, department of labor, utilities commission, etc.) to formulate reasonable rules, regulations, or orders for the prevention of industrial injuries. In such case the rules are sometimes promulgated by the enforcing agency itself, but the principal industrial States have adopted the method of forming advisory committees for assistance in the drafting of safety codes or orders. Such advisory committees are composed of the various groups interested: Employers; employees; and insurance, medical, legal, or technical experts with special knowledge of the particular problems involved. In some States public hearings are also held before the codes become effective.

Since the previous report to this association an inquiry has been made, through the United States Bureau of Labor Statistics, concerning the specific safety regulations in effect at the present time in the individual States and the District of Columbia. Information has been received from practically all, and is shown in the appendix, by States. Previous information, supplemented by data obtained through careful research, is given for the States from which definite information was not obtained.

In some instances the safety regulations shown in the appendix are authorized specifically by statute, while in others they are promulgated under authority of the industrial commission, the department of labor, or other regulatory agency to carry out the general provisions of law which authorize safety measures, without definite specifications. Safety provisions covering mines and mining operations are indicated under a general classification "Mines", and are not given in detail, as that subject is ordinarily covered by the United States Bureau of Mines.

Two of the States, Alabama and New Mexico, have no safety regulations of any kind, and Florida has only regulations covering employment of children under 16. Other States show considerable variation. Some of them have safety provisions covering all dangerous practices, while others have regulations for a few specific subjects only.

Some revisions and changes were made during the past year in the existing regulations in several States and some new safety codes were adopted. Notable among the latter were the laws and regulations for the use of nonshatterable glass in motor vehicles, adopted

by California, Massachusetts, Michigan, Nebraska, and New York. Bills on this subject have also been introduced in the legislatures of Illinois, New Jersey, and Ohio, and in the United States Congress.

In California a new code was adopted for work in compressed air. In Maryland the existing list of approved safety codes was enlarged by the adoption of codes on compressed-air work; floor and wall openings, railings and toeboards; and protection against lightning; making a total of 32 separate safety codes approved by that State. In North Carolina regulations were issued covering spray painting and quarries.

In Ohio a new code has been adopted, covering pressure piping and mechanical-refrigeration systems and equipment, while two of the previous codes have been completely revised, bringing regulations up to date for elevators and for fabricating machinery.

Appendix A.—Safety Regulations for Industrial Workers, by States, 1933

SAFETY codes, rules, or regulations for the protection of industrial workers have been adopted by all of the States except Alabama and New Mexico, and by the District of Columbia. Considerable difference exists, however, in the number of subjects covered in the various jurisdictions, partly due to differences in industrial development.

A compilation is here presented of the specific subjects covered in each of the States, either by statutory enactment or by orders of the enforcing governmental agency authorized through the laws to develop and issue regulations, according to information received by September 1, 1933, from the various States and from research of reports and laws.

The classification may not be complete, as some States have blanket regulations covering health and safety of industrial workers in all industries located in the jurisdiction, but it is assumed that all subjects are listed that are covered by specific rules and practically all that are covered by the general rules. Brief explanatory notes are included.

Alabama.—No industrial safety laws have been adopted, and no governmental agency has authority to formulate rules or regulations. Suggestions furnished to industrial establishments, when requested, are usually based on regulations advocated by the various engineering societies or the National Safety Council.

Alaska.—Statutory regulations cover health and safety of workers in mines, and sanitary conditions in factories, canneries, or other establishments where labor is employed, but failure of securing appropriation for necessary expenses has prevented enforcement of the sanitary provisions for nearly a decade.

Arizona.—Safety measures are provided to a certain extent through the industrial commission by variation in the cost of insurance in the State compensation fund. Statutory provisions cover the following subjects: Abrasive wheels, construction work, electrical installation, and power-transmission apparatus.

Arkansas.—Statutory provisions cover boilers, mines, public-safety corporations, and industrial sanitation for female employees, and prohibit employment of children under 16 in dangerous occupations. Some proprietors of laundries, woodworking plants, printing plants, etc., provide safety appliances in conformity with recommendations of companies manufacturing such appliances, but such measures are voluntary.

California.—Safety orders of the industrial accident commission apply to all places of employment in the State, and the commission has power to require that all unsafe conditions be removed, whether that condition is or is not covered by a special order. The safety orders cover the following subjects:

16487°—33——7

Abrasive wheels
Aeronautics
Air-pressure tanks
Amusement parks
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Brewing and bottling
Canneries
Ceramics
Chemicals
Colors for traffic signals
Compressed-air machinery (in part)
Compressed-air work
Construction work
Conveyors and conveying machinery (in part)
Cranes, derricks, and hoists
Dredges
Drycleaning and dyeing
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Engines
Exhaust systems
Explosives
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Gas installations
Grandstands
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Machine tools
Metal working
Milling industry
Mines
Motorboats
Oil drilling
Painting
Paper and pulp mills
Plant railways
Plate- and sheet-metal working
Plumbing
Potteries
Power control, electrical
Power control, mechanical
Power-transmission apparatus
Printing
Protection from fire and panic
Quarries
Refrigeration, mechanical
Rubber machinery
Safety glass
Sanitation, industrial
Scaffolds and staging
Shipbuilding
Steam shovels
Steel mills
Stevedoring operations
Sugar factories
Tanneries
Textiles
Tunnels
Ventilation
Walkway surfaces (in part)
Welding
Window washing
Woodworking plants

Colorado.—Safety regulations, based on broad statutory provisions, are now enforced by the inspection department of the industrial commission, with the exception of mining regulations which come under the coal-mine inspection department or the State bureau of mines, respectively. The following subjects are covered:

Abrasive wheels
Boilers
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Drycleaning and dyeing
Dust explosions, prevention of
Elevators and escalators
Exits, building
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Machine tools
Mines
Paper and pulp mills
Plate- and sheet-metal working
Power presses, and foot and hand presses
Rubber machinery
Sanitation, industrial
Scaffolds and staging
Spray painting
Sugar factories
Ventilation
Walkway surfaces
Woodworking plants

Connecticut.—Statutory provisions cover the following subjects:

Automobile brakes and brake testing
Automobile headlighting
Boilers
Construction work
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Laundry machinery and operation
Lighting factories, mills, etc.
Power-transmission apparatus
Sanitation, industrial
Scaffolds and staging
Ventilation

Delaware.—Statutory provisions cover the following subjects: Aeronautics; automobile brakes and brake testing; automobile headlighting; boilers; canneries; exits, building; and explosives. Local safety provisions for the city of Wilmington cover drycleaning and dyeing, gas installations, plumbing, and protection from fire and panic.

District of Columbia.—Safety regulations, adopted by the Commissioners of the District under authority enacted by Congress of the United States, cover the following subjects:

Air-pressure tanks
Automobile brakes and brake testing
Automobile headlighting
Boilers
Compressed-air machinery
Drycleaning and dyeing
Electrical installations
Elevators and escalators
Engines
Exits, building
Grandstands
Plumbing
Power control, electrical
Power-transmission apparatus
Pressure piping
Pressure vessels
Protection from fire and panic
Refrigeration, mechanical
Sanitation, industrial
Steam shovels

Florida.—The only safety regulations in the State are the statutory provisions of the child-labor law, which include safety and sanitary provisions for children under 16.

Georgia.—Statutory provisions cover building exits and child labor only. None of the governmental agencies are authorized to promulgate safety codes.

Hawaii.—Statutory provisions cover aeronautics, and explosives (under supervision of the Territorial superintendent of public works), while sanitary regulations are promulgated and enforced by the Territorial board of health.

The workmen's compensation law has no provision for safety regulations, but the industrial accident boards cooperate with local insurance carriers and employers to minimize industrial accidents, and ordinances of the city and county of Honolulu regulate several industrial conditions. Including the items mentioned previously, the subjects covered by the various regulations are:

Aeronautics
Automobile brakes and brake testing
Automobile headlighting
Construction work
Electrical installations
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Grandstands
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Lightning, protection against
Plumbing
Protection from fire and panic
Safety glass
Sanitation, industrial
Scaffolds and staging

Idaho.—Safety regulations issued by the industrial accident board, which is empowered by statute to protect workers, cover the following subjects:

Elevators and escalators
Exits, building
Laundry machinery and operation
Power-transmission apparatus
Printing
Protection from fire and panic
Woodworking plants

Illinois.—Statutory provisions, administered by the department of labor through the division of factory inspection, cover the following subjects:

Abrasive wheels
Construction work (structural iron)
Cranes, derricks, and hoists (limited)
Electrical installations
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Gas installations
Ladders (in part)
Laundry machinery and operation
Lighting factories, mills, etc.
Power control, electrical
Power control, mechanical
Power-transmission apparatus
Sanitation, industrial
Scaffolds and staging
Spray painting
Ventilation
Woodworking plants

Indiana.—Statutory provisions of the factory act, the boiler inspection act, and items under the State safety department, cover the following subjects:

Abrasive wheels
Aeronautics
Air-pressure tanks
Amusement parks
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Brewing and bottling
Canneries
Ceramics
Chemicals
Compressed-air machinery
Compressed-air work
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Dredges
Drycleaning and dyeing
Dust explosions, prevention of
Elevators and escalators
Exhaust systems
Exits, building
Explosives
Felt-hatting industry
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Grandstands
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Logging and sawmill machinery
Machine tools
Metal working
Milling industry
Mines
Paper and pulp mills
Plate- and sheet-metal working
Plumbing
Potteries
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Quarries
Refrigeration, mechanical
Sanitation, industrial
Scaffolds and staging
Shipbuilding
Spray painting
Steam shovels
Steel mills
Sugar factories
Tanneries
Textiles
Ventilation
Welding
Woodworking plants

Iowa.—Blanket regulations, covering specified health and safety conditions in all workshops or other industrial establishments, except mines or in agricultural work, authorize orders by the State bureau of labor for proper observance of the law. Regulations for mine safety are under the jurisdiction of the State bureau of mines. Special industrial subjects covered include the following:

Abrasive wheels
Boilers
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Forging and hot-metal stamping
Foundries, protection of workers in
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Mines
Paper and pulp mills
Plumbing
Power presses, and foot and hand presses
Power-transmission apparatus
Printing
Rubber machinery
Sanitation, industrial
Woodworking plants

Kansas.—No specific codes for special subjects, but statutory blanket regulations for all industrial establishments authorize orders from inspectors for necessary changes according to individual judgment. In a general way the following subjects are covered:

Abrasive wheels
Aeronautics (in part)
Amusement parks
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers (in part)
Canneries
Colors for traffic signals
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Gas installations
Gas-mask canisters, colors for
Heads and eyes, protection of (in part)
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Machine tools
Milling industry
Mines
Oil drilling
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Printing
Protection from fire and panic
Quarries
Refrigeration, mechanical (in part)
Sanitation, industrial
Scaffolds and staging
Sugar factories
Ventilation
Walkway surfaces
Woodworking plants

Kentucky.—Statutory regulations cover only industrial sanitation (under the State board of health), fire prevention (under the State department of fire prevention and rates), coal mines (under the State department of mines), safety provisions for miners and dust removal for polishing or grinding machinery (under the department of agriculture, labor, and statistics). The latter is authorized to inspect industrial establishments and suggest corrections of hazards. Some safety codes have been adopted by the department for the guidance of inspectors in making recommendations.

Louisiana.—Some statutory regulations exist, but the only inspection is in the parish of Orleans by an inspector specifically provided by the law to enforce the child labor act. The following subjects are covered:

Construction work
Elevators and escalators
Exhaust systems
Exits, building
Ladders
Printing
Protection from fire and panic
Sanitation, industrial
Scaffolds and staging

Maine.—No codes have been adopted. The department of labor and industry is permitted by law to order changes in ways, works, and machinery, where same are deemed necessary. Safety provisions cover the following subjects:

Automobile headlighting
Boilers (in part)
Compressed-air work
Exits, building
Plumbing
Power-transmission apparatus
Sanitation, industrial
Tunnels

Maryland.—American Standard safety codes have been adopted by the State industrial accident commission as minimum specific requirements for safety and have the force of law. The following subjects are covered:

Abrasive wheels
Compressed-air machinery
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Exits, building
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Gas installations
Gas-mask canisters, colors for
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lightning, protection against
Logging and sawmill machinery
Mines
Paper and pulp mills
Power presses, and foot and hand presses
Power-transmission apparatus
Refrigeration, mechanical
Rubber machinery
Textiles
Woodworking plants

Massachusetts.—Under authority conferred by statute the State departments of labor and industries, of public safety, and of public works have adopted a number of health and safety codes covering the following subjects:

Abrasive wheels
Aeronautics
Air-pressure tanks
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Brewing and bottling
Canneries
Ceramics
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Explosives
Felt-hatting industry
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Gas installations
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Lightning, protection against
Logging and sawmill machinery
Metal working
Painting
Paper and pulp mills
Plate- and sheet-metal working
Potteries
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Protection from fire and panic
Quarries
Refrigeration, mechanical
Rubber machinery
Safety glass
Sanitation, industrial
Scaffolds and staging
Spray painting
Steel mills
Sugar factories
Tanneries
Textiles
Ventilation
Woodworking plants

Michigan.—In addition to statutory legislation, the department of labor and industry has adopted rules and regulations for safety in industrial establishments, some of them as a result of conferences with those interested. The laws and regulations cover the following subjects:

Abrasive wheels
Automobile brakes and brake testing
Automobile headlighting
Boilers
Canneries
Colors for traffic signals
Construction work
Conveyors and conveying machinery
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Gas installations
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Paper and pulp mills
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Rubber machinery
Sanitation, industrial
Spray painting
Textiles
Ventilation
Welding
Woodworking plants

Minnesota.—The statutes relating to industrial safety are very general in their application and authorize the industrial commission to promulgate specific rules and regulations. With the exception of regulations for plumbing, which are under the jurisdiction of the health department, these cover the following subjects:

Abrasive wheels
Automobile brakes and brake testing
Boilers
Brewing and bottling
Canneries
Construction work
Conveyors and conveying machinery
Drycleaning and dyeing
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Heads and eyes, protection of
Laundry machinery and operation
Logging and sawmill machinery
Paper and pulp mills
Plumbing
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Quarries
Refrigeration, mechanical
Sanitation, industrial
Scaffolds and staging
Ventilation
Window washing
Woodworking plants

Mississippi.—No special safety codes have been adopted, but statutory provisions cover the following subjects:

Exits, building
Floor and wall openings, railings, and toeboards
Guarding of all machinery
Lighting factories, mills, etc.
Lighting of school buildings
Power-transmission apparatus
Sanitation, industrial
Ventilation

Missouri.—The labor laws of the State contain general provisions for the protection of industrial workers, with specific reference to several subjects but details left to the judgment of the State department of labor and industrial inspection, and the only specific rules formulated by the department pertain to boilers. Including this code, and the regulations for mines which are under the jurisdiction of the State bureau of mines, the following subjects are covered:

Abrasive wheels
Automobile headlighting
Bakeries
Boilers
Colors for traffic signals
Construction work
Dust explosions, prevention of
Elevators and escalators
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in (in part)
Gas installations
Heads and eyes, protection of
Mines
Plant railways
Power control, mechanical
Protection from fire and panic
Sanitation, industrial
Scaffolds and staging
Ventilation
Woodworking plants

Montana.—Statutory provisions cover boilers and steam machinery, electrical installations, and mines.

Nebraska.—The safety codes approved by the American Standards Association have been adopted as minimum requirements for safety. The following subjects are covered:

Abrasive wheels
Air-pressure tanks
Bakeries
Boilers
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Metal working
Paper and pulp mills
Power control, electrical
Power control, mechanical
Power-transmission apparatus
Pressure vessels
Rubber machinery
Safety glass
Sanitation, industrial
Scaffolds and staging
Ventilation
Window washing
Woodworking plants

Nevada.—Statutory provisions cover the following subjects:

- Abrasive wheels
- Electrical installations
- Exits, building
- Floor and wall openings, railings, and toeboards
- Ladders
- Mines
- Power-transmission apparatus
- Tunnels

New Hampshire.—The factory-inspection law permits the bureau of labor to issue orders covering any condition that is dangerous to the life and limb of workers. Regulations issued cover the following subjects:

- Abrasive wheels
- Automobile brakes and brake testing
- Automobile headlighting
- Boilers
- Compressed-air machinery
- Elevators and escalators
- Exhaust systems
- Exits, building (in part)
- Floor and wall openings, railings, and toeboards (in part)
- Foundries, protection of workers in
- Heads and eyes, protection of
- Ladders
- Laundry machinery and operation
- Lighting factories, mills, etc.
- Logging and sawmill machinery
- Machine tools
- Paper and pulp mills
- Power presses, and foot and hand presses
- Power-transmission apparatus
- Refrigeration, mechanical
- Sanitation, industrial
- Tanneries
- Textiles
- Ventilation
- Walkway surfaces
- Woodworking plants

New Jersey.—Statutory provisions and safety regulations cover the following subjects:

- Abrasive wheels
- Boilers
- Ceramics
- Chemicals
- Construction work
- Cranes, derricks, and hoists
- Dust explosions, prevention of
- Electrical installations
- Elevators and escalators
- Exhaust systems
- Exits, building
- Explosives
- Felt-hatting industry
- Floor and wall openings, railings, and toeboards
- Forging and hot-metal stamping
- Foundries, protection of workers in
- Heads and eyes, protection of
- Ladders
- Laundry machinery and operation
- Lighting factories, mills, etc.
- Potteries
- Power control, electrical
- Power control, mechanical
- Power presses, and foot and hand presses
- Printing
- Refrigeration, mechanical
- Rubber machinery
- Sanitation, industrial
- Scaffolds and staging
- Ventilation
- Window washing
- Woodworking plants

New Mexico.—No safety regulations exist. Some safety practices have been applied in coal mines through cooperation of inspectors and employers, but strictly voluntary as there are no State laws for enforcement.

New York.—The State department of labor is authorized to formulate and adopt codes or rules which have the same force and effect as statutes enacted by the legislature. Such codes are supplementary to the labor law, which in some sections is specific, but in others broad and general. They are developed with the aid of an advisory committee and public hearings are mandatory before final adoption. The existing codes cover the following subjects:

Abrasive wheels
Bakeries
Boilers
Brewing and bottling
Canneries
Compressed-air work
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Dust explosions, prevention of (in part)
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Hand tools
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Machine tools
Metal working
Milling industry
Mines
Paper and pulp mills
Plate- and sheet-metal working
Plumbing
Potteries
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Printing
Protection from fire and panic
Quarries
Rubber machinery
Sanitation, industrial
Scaffolds and staging
Tanneries
Textiles
Tunnels
Ventilation
Walkway surfaces
Welding
Window washing
Woodworking plants

North Carolina.—Rules and suggestions promulgated by the State department of labor covering the following subjects:

Abrasive wheels
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Chemicals
Colors for traffic signals
Cranes, derricks, and hoists
Electrical installations
Elevators and escalators
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Hand tools
Heads and eyes, protection of
Ladders
Lighting, factories, mills, etc.
Lighting of school buildings
Lightning, protection against
Mines
Painting
Plant railways
Plumbing
Power control, electrical
Power-transmission apparatus
Protection from fire and panic
Quarries
Sanitation, industrial
Spray painting
Textiles
Ventilation
Woodworking plants

North Dakota.—Safety regulations of the State department of agriculture and labor cover the following subjects:

Boilers
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Electrical installations
Engines
Exits, building
Mines
Scaffolds and staging

Ohio.—Safety codes prepared under statutory authorization by the industrial commission, with the assistance of representatives of employers and employees, have the force and effect of statutory regulations. The following subjects are covered:

Abrasive wheels
Air-pressure tanks
Bakeries
Boilers
Ceramics
Compressed-air work
Construction work
Cranes, derricks, and hoists
Drycleaning and dyeing
Elevators and escalators
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Hand tools
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Machine tools
Metal working
Painting
Plate- and sheet-metal working
Plumbing
Potteries
Power presses, and foot and hand presses
Power-transmission apparatus
Pressure piping
Pressure vessels
Protection from fire and panic
Quarries
Refrigeration, mechanical
Rubber machinery
Scaffolds and staging
Spray painting
Steel mills
Tunnels
Ventilation
Welding
Window washing
Woodworking plants

Oklahoma.—Statutory regulations, or safety provisions issued by the State department of labor to give effect to the laws, cover the following subjects:

Abrasive wheels
Bakeries
Boilers
Brewing and bottling
Canneries
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Dust explosions, prevention of
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives (in part)
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Heads and eyes, protection of
Ladders (in part)
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Machine tools
Metal working
Milling industry
Oil drilling
Plate- and sheet-metal working
Potteries
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Pressure vessels
Printing
Safety glass
Sanitation, industrial
Scaffolds and staging
Steam shovels
Steel mills
Tanneries
Textiles
Ventilation
Walkway surfaces
Woodworking plants

Oregon.—Statutory provisions, or safety standards, promulgated by the industrial accident commission and having the effect of legislative action, cover the following subjects:

Abrasive wheels
Air-pressure tanks
Boilers
Canneries
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Electrical installations
Elevators and escalators
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards (limited)
Foundries, protection of workers in
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Paper and pulp mills
Plumbing
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Pressure piping
Pressure vessels
Printing
Sanitation, industrial
Scaffolds and staging
Walkway surfaces
Window washing
Woodworking plants

Pennsylvania.—Safety codes, developed under statutory authorization by the State department of labor and industry, assisted by employer and employee representatives of the respective industries, and submitted to public hearings before adoption, cover the following subjects:

Abrasive wheels
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Brewing and bottling
Canneries
Chemicals
Compressed-air machinery
Compressed-air work
Construction work
Drycleaning and dyeing
Electrical installations
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Gas installations
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Logging and sawmill machinery
Machine tools
Milling industry
Mines
Paper and pulp mills
Plant railways
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Printing
Protection from fire and panic
Quarries
Safety glass
Sanitation, industrial
Scaffolds and staging
Spray painting
Tanneries (in part)
Textiles
Tunnels
Window washing
Woodworking plants

Rhode Island.—Statutory provisions of the factory-inspection law and the boiler-inspection law cover the following subjects:

Abrasive wheels
Aeronautics
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Colors for traffic signals
Construction work (cities)
Explosives
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Laundry machinery and operation
Lighting factories, mills, etc.
Sanitation, industrial
Scaffolds and staging
Textiles
Ventilation

South Carolina.—Statutory regulations pertaining to industrial establishments prohibit children under 14 from cleaning machinery while in motion and require seats for female employees in mercantile establishments and sanitary drinking receptacles, the only industrial safety regulations in the State.

South Dakota.—Statutory regulations cover automobile brakes and brake testing, automobile headlighting, boilers, lighting of school buildings, and indus-

trial sanitation where women or children are employed. They also cover building exits (under the jurisdiction of the State fire marshal), as well as mines, quarries, and the removal of gases, fumes, or dust in smelters or reduction works (all under the jurisdiction of the State mine inspector).

Tennessee.—Safety standards adopted by the factory-inspection division of the State department of labor and published for the use of inspectors or the industries cover the following subjects:

Abrasive wheels
Amusement parks
Compressed-air machinery
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Elevators and escalators
Engines
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Gas-mask canisters, colors for
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Machine tools
Metal working
Paper and pulp mills
Plate- and sheet-metal working
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Printing
Protection from fire and panic
Quarries
Refrigeration, mechanical
Sanitation, industrial
Spray painting
Tanneries
Textiles
Ventilation
Walkway surfaces
Woodworking plants

Texas.—The health, comfort, and safety law, the law for female employees, and the child-labor law permit a broad field for safety rules in factories, mills, workshops, and mercantile establishments. Specific requirements include exits, handrailings, and industrial sanitation, but the State bureau of labor statistics includes the following subjects as covered:

Amusement parks
Automobile brakes and brake testing
Automobile headlighting
Colors for traffic signals
Construction work
Dust explosions, prevention of
Electrical installations (local)
Elevators and escalators
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards (in part)
Gas installations
Hand tools
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Logging and sawmill machinery
Milling industry
Mines
Plant railways
Plumbing
Power presses, and foot and hand presses
Power-transmission apparatus
Printing
Protection from fire and panic
Quarries
Sanitation, industrial
Scaffolds and staging
Stevedoring operations
Sugar factories
Textiles
Tunnels
Ventilation
Woodworking plants

Utah.—The industrial commission is authorized to promulgate and adopt safety codes, rules, and regulations. A number of standards have been adopted as a result of conferences with employers and employees. The following subjects are covered:

Abrasive wheels
Air-pressure tanks
Amusement parks
Automobile brakes and brake testing (in part)
Automobile headlighting (in part)
Bakeries
Boilers
Brewing and bottling
Canneries
Ceramics
Chemicals
Colors for traffic signals
Compressed-air machinery
Compressed-air work
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Drycleaning and dyeing
Dust explosions, prevention of
Electrical installations
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in (in part)
Gas-mask canisters, colors for
Grandstands
Hand tools
Heads and eyes, protection of (in part)
Ladders (in part)
Laundry machinery and operation
Lighting factories, mills, etc. (in part)
Lighting of school buildings
Logging and sawmill machinery (in part)
Machine tools
Metal working
Milling industry
Mines
Oil drilling
Painting
Plant railways
Plate- and sheet-metal working
Plumbing
Potteries
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses (in part)
Power-transmission apparatus
Pressure piping
Pressure vessels
Printing
Quarries
Refrigeration, mechanical
Safety glass
Sanitation, industrial
Scaffolds and staging
Spray painting
Steam shovels
Steel mills
Sugar factories
Tanneries
Textiles
Tunnels
Ventilation
Walkway surfaces
Welding
Window washing
Woodworking plants

Vermont.—No specific safety codes have been adopted. The statutes are indefinite but broad so far as the jurisdiction of the State commissioner of industries is concerned and the activities of that office cover the following subjects:

Abrasive wheels
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Elevators and escalators
Exits, building
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Heads and eyes, protection of
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Paper and pulp mills
Power-transmission apparatus
Quarrries
Sanitation, industrial
Scaffolds and staging
Tanneries
Textiles
Ventilation
Walkway surfaces
Woodworking plants

Virginia.—Statutory regulations give the State department of labor discretionary powers in the regulation of safety appliances and sanitary conditions in industrial establishments, but does not provide for the establishment of safety codes. In 1930 the legislature appointed a committee to study the advisability of adopting a safety code for employers and employees. A report of this committee has been submitted to the legislature, recommending promulgation of safety codes by the industrial commission, with enforcement in the department of labor and industry. Specific statutory provisions cover the following subjects:

Abrasive wheels
Elevators
Exits, building
Explosives
Mines
Power-transmission apparatus
Quarries

Washington.—Under statutory regulations the State department of labor and industries has promulgated general safety standards, adopted after conferences with employers and employees and holding of public hearings. These standards have the status of legislative action, and carry penalties for noncompliance. Much of the safety work is covered by city ordinances, such as building exits, elevator operation, etc., and motor-vehicle subjects are under the jurisdiction of the highway patrol. The following subjects are covered:

Abrasive wheels
Amusement parks
Automobile brakes and brake testing
Automobile headlighting
Boilers
Brewing and bottling
Canneries
Chemicals
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Dredges
Drycleaning and dyeing
Electrical installations
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives
Floor and wall openings, railings, and toeboards
Foundries, protection of workers in
Hand tools
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Metal working
Milling industry
Mines
Oil drilling
Painting
Paper and pulp mills
Plant railways
Plate- and sheet-metal working
Plumbing
Potteries
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Pressure vessels
Printing
Quarries
Refrigeration, mechanical
Sanitation, industrial
Scaffolds and staging
Shipbuilding
Steam shovels
Steel mills
Textiles
Tunnels
Ventilation
Walkway surfaces
Welding
Window washing
Woodworking plants

West Virginia.—No special rules have been issued, but statutory provisions cover the folowing subjects:

Abrasive wheels
Boilers
Elevators and escalators
Exits, building
Laundry machinery and operation
Mines
Power control, electrical
Power control, mechanical
Power-transmission apparatus
Sanitation, industrial
Ventilation
Woodworking plants

Wisconsin.—The industrial commission is charged with the duty of fixing standards of safety in all places of public employment, and has promulgated a number of safety codes or general orders, with the assistance of advisory committees, and public hearings. Including the provisions for plumbing, which are under the jurisdiction of the State board of health, the following subjects are covered:

Abrasive wheels
Aeronautics
Automobile brakes and brake testing
Automobile headlighting
Bakeries
Boilers
Colors for traffic signals
Compressed-air work
Construction work
Cranes, derricks, and hoists
Dredges
Drycleaning and dyeing
Electrical installations
Elevators and escalators
Engines
Exhaust systems
Exits, building
Explosives

Floor and wall openings, railings, and toeboards (in part)
Forging and hot-metal stamping
Foundries, protection of workers in
Flammable liquids
Heads and eyes, protection of
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Lighting of school buildings
Logging and sawmill machinery (in part)
Machine tools
Mines
Paper and pulp mills
Plumbing
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Pressure vessels
Printing
Quarries
Refrigeration, mechanical
Rubber machinery (in part)
Sanitation, industrial
Scaffolds and staging
Spray painting
Tanneries (in part)
Textiles
Tunnels
Ventilation
Window washing
Woodworking plants

Wyoming.—Under the authority of the act creating the State department of labor and statistics, the commissioner issues safety orders for industrial establishments, while under statutory mining regulations the safety orders for mining are issued by the coal-mine inspection department. The following subjects are covered:

Abrasive wheels
Aeronautics
Automobile brakes and brake testing
Automobile headlighting
Colors for traffic signals
Compressed-air machinery
Construction work
Conveyors and conveying machinery
Cranes, derricks, and hoists
Dust explosions, prevention of
Elevators and escalators
Exhaust systems
Exits, building
Floor and wall openings, railings, and toeboards
Forging and hot-metal stamping
Foundries, protection of workers in
Ladders
Laundry machinery and operation
Lighting factories, mills, etc.
Logging and sawmill machinery
Machine tools
Mines
Paper and pulp mills
Plate- and sheet-metal working
Power control, electrical
Power control, mechanical
Power presses, and foot and hand presses
Power-transmission apparatus
Refrigeration, mechanical
Rubber machinery
Sanitation, industrial
Tanneries
Textiles
Ventilation
Walkway surfaces
Window washing
Woodworking plants

Safety Rules for Window Cleaning in New York

A SAFETY code for window cleaners in the State of New York [1] became effective April 1, 1933. The regulations, which amplify previously existing rules on the subject, enable both employers and workers to obtain safety as far as regulations will permit. Owners, tenants, or persons in charge of public buildings are prohibited from requiring or permitting cleaning of windows from the outside unless proper means for safety are provided, and workers are required to make use of such safety devices.

The code contains definitions of terms, general rules, specifications for the various safety devices (ladders, scaffolds, boatswains chairs, belts, belt terminals and anchors, and anchor installations according to building material), and penalties for violations.

[1] New York. Department of Labor. Industrial Code Bulletin No. 21: Rules (as amended) relating to window cleaning.

LABOR ORGANIZATIONS

Convention of the American Federation of Labor, 1933

THE representatives of the American Federation of Labor at the fifty-third annual convention of that organization, which met in Washington, October 2–13, 1933, were confronted by new problems and new responsibilities in a changed and swiftly changing economic order. There were 596 delegates in attendance.

After the invocation and addresses of welcome by various local officials, Mr. William Green, the president of the federation, voiced some of the aspirations and dissatisfactions of labor under the "new deal." A few of his remarks are given below:

From March to August of this year 2,800,000 persons were placed back at work in all industries. Of that number 150,000 found new work in the agricultural industry. But in spite of this there are still 11,000,000 persons out of work. We hope that when the figures for September are compiled they will show as substantial an advance in overcoming unemployment as was shown during the month of August.

The return of these workers has increased the total buying power about 25 percent since March 1, but because living costs have increased rapidly, the total amount of this buying power cannot be manifested in the consumption of manufactured products. When the rise in living costs is accounted for, the total increase in buying power will approximate 17 percent.

All this increase in buying power is due to reemployment, not to the increase in buying power of the individual worker, for the average monthly income of the individual worker was increased only 6.9 percent since March, while the cost of living has increased 7.1 percent. This is according to the figures of the National Industrial Conference Board.

These figures on buying power are based on reports covering 15 industries from the Department of Labor and other Government agencies. They cover wage earners in mines, factories, railroads, trade, utilities, and certain service industries. Buying power in all industries has increased by about $310,000,000 a month, or $3,720,000,000 a year.

In Mr. Green's judgment the 11,000,000 unemployed will not get back to work until the 6-hour day and the 5-day week are established in the industrial codes of fair practice. He also emphasized the necessity of raising the rates of pay.

So that there is involved in this question a revision of the hours of labor and a revision of the rates of pay. I believe those who are administering the act are sincerely and earnestly desirous of accomplishing that purpose, but in all big undertakings such as this, and in the midst of confusion when we embark upon a great adventure, we must realize that mistakes will be made and that we must all exercise that patience that is so characteristic of the working men and women of the Nation. We must have faith—faith in the "new deal", faith in the principles of this act, faith in those who are honestly and liberally administering it, and most important of all, faith in that great, fearless leader—the President of the United States.

Mr. Green also spoke of the augmenting interest of the workers in organization—an interest such as even tried veterans in the labor movement had never before witnessed.

In his address at the unveiling of the Gompers Memorial on October 7, President Franklin D. Roosevelt referred to the following words in which President Woodrow Wilson in 1917 "summed up the splendid national services of Samuel Gompers and at the same time preached a sermon that applied to capital and labor alike":

> If I may be permitted to do so, I want to express my admiration of his patriotic courage, his large vision, and his statesmanlike sense of what has to be done. I like to lay my mind alongside of a mind that knows how to pull in harness. The horses that kick over the traces will have to be put in a corral.

That sermon President Roosevelt declared is "just as good today as it was in 1917. We are engaged in another war, and I believe from the bottom of my heart that organized labor is doing its share to win this war. The whole of the country has a common enemy; industry, agriculture, capital, labor are all engaged in fighting it. Just as in 1917, we are seeking to pull in harness; just as in 1917, horses that kick over the traces will have to be put in a corral."

Among other speakers at various sessions of the convention were: Hon. Frances Perkins, United States Secretary of Labor; Hon. James A. Farley, Postmaster General; Gen. Hugh S. Johnson, Administrator, National Recovery Administration; Miss Elizabeth Christman, fraternal delegate, National Women's Trade Union League of America; Mr. James Rowan and Mr. Joseph A. Hale, fraternal delegates, British Trades Union Congress; Mr. Fred J. White, fraternal delegate, Trades and Labor Congress of Canada; Rev. Francis J. Haas, member of Labor Advisory Board, National Recovery Administration; Spencer Miller, Jr., secretary, Workers' Education Bureau of America; Hon. Robert F. Wagner, United States Senator; and Hon. James J. Davis, United States Senator.

In reviewing the rapid advances made in the interest of the wage earners since March 1933, when an advisory labor committee drew up for the United States Department of Labor a program of accomplishment which it might desire to see under way in the next 4 years, the Secretary of Labor reported that the abolition of child labor and the drastic limitation of present and future hours of labor, which were included in that program, were already "well under way."

She also reported progress in connection with various other provisions of that program, among them unemployment relief by the Federal Government with State cooperation, with labor upon the boards administering the relief; the registration with the Federal Administration of a warning "to take care that relief was not used to supplement sweatshop wages"; and the raising of minimum-wage levels. Another recommendation of that advisory committee, the recognition of this right of the workers to organize and to bargain collectively through representatives of their own choosing, the Secretary stated, was now "established in the law and in the custom of the land."

She also said:

> I think that for the only time in my memory the people of the United States are united in the acceptance of one common idea, and that is the idea that upon the prosperity of the wage earners of America depends the prosperity of the whole United States. Since we all see that, if we can all be but patient and have the character necessary to carry through this responsibility, I think we shall win through.

In closing her address the Secretary asked the delegates to regard the Department of Labor as their Department, "a Department

16487°—33——8

developed by the United States Government for labor and for the service and help and information of labor." She asked their "positive, whole-hearted, constructive cooperation", and declared that she felt she could most surely count upon it.

The realization of the tremendous significance of the National Industrial Recovery Act was strongly reflected in the convention speeches.

According to Miss Elizabeth Christman, fraternal delegate National Women's Trade Union League of America, a new approach to old problems and a real understanding of newer policies were imperative. She also said:

> I would like to strike another dominant note which I believe is in harmony with the changing times. I believe that we shall have to make some structural change in our present trade-union set-up. While I fully recognize the value of craft unions, I am in sympathy with the idea now being advanced here and there of a great need for the functional union in such many-sided industries as the rubber, textile, automobile, meat packing, for example. I urge, therefore, a functional organization of unions in industries which comprise a great diversity of occupations. Looking toward such a development I have in mind the formation of something that we might call a strategy board. Such an agency could map out general plans and policies for strengthening the united action of the regular craft unions and at the same time extending organization into those industries in which the present form of organization has obviously not been successful.

It was the belief of Mr. James Rowan, fraternal delegate British Trades Union Congress, that the United States had "initiated a departure in the economic life of nations and that other countries will be compelled to follow" such lead in matters of fundamental policy. Mr. Joseph A. Hall, fraternal delegate British Trades Union Congress, advised the delegates to grasp their present opportunity. "If ever a nation had an opportunity democratically it is this continent of America." In the judgment of Mr. Fred J. White, fraternal delegate Trades and Labor Congress of Canada, the Canadian trade unions have not the present outlook for improved conditions that organized workers in the United States under the National Recovery Act have.

Prudence in recognizing the need of trying new methods to solve new problems was stressed by Rev. Francis J. Haas, Ph.D. He said:

> Specifically, I have in mind the necessity of wiping out narrow jurisdictional lines when those lines stand in the way of the larger interests of all, and of adjusting the legitimate weapon of the strike to the arbitration machinery, national and local, which the Government has set up and on which organized labor is to have representation equal with employers.

Later on in his address he stated that if the National Recovery Administration fails "something else with just another name will succeed it. That something else, barring the thought of bloodshed and revolution and dictatorship, will have to start from the same premises from which the N.R.A. has started, because these premises are basically sound."

The Postmaster General pointed out the great contribution organized labor can make to the success of the President's recovery program "by continuing to exhibit not only upon the part of its leaders, as has been eminently the case, but also upon the part of the rank and file, a recognition of the patriotic cooperation which the great majority of the employers of labor have rendered" to such program.

Under the recovery program, labor is confronted with "the responsibility of developing a continuous program of study of the conditions

not only of a particular shop but of a whole industry. In the development of the codes of fair competition and in their revision there is no room for guesswork", Mr. Spencer Miller, Jr., secretary of the Workers' Education Bureau of America, told the delegates.

> Labor must understand the facts, must be able to present the facts, must be able to know how to secure additional facts. Here again, the workers' education movement through its courses on economic subjects, on public speaking, on labor negotiations, can do a great deal to assist in the preparation of labor for these new tasks. It is clear that labor cannot rise above the source of its own authentic information about these questions. It must encourage a systematic program of education among its members in study groups, in institutes, and summer schools to prepare the members for these new and important responsibilities.

A strong appeal for industrial peace was made by Hon. Robert F. Wagner, United States Senator. "Labor," he said, "has been given a new charter under the 'new deal,' and there must be recognition on the part of labor of the responsibilities involved in this new freedom."

> The strike as a first resort is not prohibited by law; it is banned by common sense. If any individual rights remain, none is clearer than that of workmen simply to refrain from working, and at times this may be the only protest against intolerable wrongs. But the crucial point is that the strike is never more than a protest. It has no constructive force. It creates hundreds of new problems, but cannot solve a single one. It should be used only as the very last resort.

Farther on, Senator Wagner stated that: "Any group which indulges in strikes or lockouts without first invoking the intervention of the National Labor Board violates every dictate of good policy and exhibits a complete oversight of the magnificent possibilities of our whole recovery philosophy and program."

At a night session on October 10, Gen. Hugh S. Johnson reviewed the economic conditions which necessitated the passage of the National Industrial Recovery Act, explained its effects, defined the rights of the wage earners under section 7 of the law, and sounded the following warning:

> I am speaking to leaders of organized labor. I have no words strong enough to implore you to acquit yourselves like men and American leaders in this great crisis. * * * If you act as Americans have usually acted when these great responsibilities impended, you can assure the future of organized labor. If you fail you will destroy it, and with it the one greatest hope of despairing humanity in this country. We cannot stand another vast collapse. You are the principal props against collapse. You cannot escape your responsibility.

He assured all honest employers who have displayed the N.R.A. emblem that they would be protected to the limit. "The whole power of Government is behind the Blue Eagle. It is the symbol of the cooperation of a whole people."

Adopted Resolutions and Recommendations

THE action of the convention on various resolutions and recommendations is summarized below:

Organization.—The decision of the executive council to grant a charter to the Amalgamated Clothing Workers of America was approved. After protracted discussion the delegates approved the decision of the committee on adjustment, expressing full concurrence with executive council's recommendation on the jurisdictional dispute of the brewery workers, teamsters, engineers, and firemen. Appreciation was expressed concerning the work of the president of the federation, in cooperation with affiliated national and international

unions, in purging the labor movement of racketeers and antiunion agitators. A report of the resolutions committee, which read in part as follows, was referred to the executive council:

> However, recent developments in our industrial and political life (the N.I.R.A.) with the great development of mass production plants have presented new problems which must be recognized and dealt with so that the rights and interests of affiliated national and international unions may be fully safeguarded and also that there be provided an immediate basis for the tentative organizing of these wage earners.
>
> Your committee is of the opinion that the issuance of Federal labor-union charters may well serve this necessary temporary purpose, that is the organizing of workers in mass production plants when the affiliated national and international unions give consent to the granting of such Federal labor-union charters, and in plants in small communities where it may prove difficult for affiliated national and international unions to give the question of organizing their immediate attention.
>
> It is the opinion and mature judgment of your committee that this declaration of policy be approved in lieu of all resolutions presented dealing with the subject and with the additional recommendation that in carrying out this policy that organizers of the American Federation of Labor be instructed to cooperate instead of compete with the representatives of the national and international unions affiliated, and that these organizers be instructed whenever there is a sufficient number of craft mechanics to maintain their organizations in the plant or to form a local union of their trade that such workmen shall be placed in the membership of the international organizations having jurisdiction.

A minority report of a delegate from the International Typographical Union on the subject of changes in organization was also referred to the executive council.

Among the resolutions that were not concurred in by the convention was a proposal for an amendment to the federation's constitution, which would increase the membership of the executive council from 8 to 25.

Government administrations and agencies.—Approval was given the executive council's statement: "If the declared purpose of the Recovery Act is to be achieved, it is obvious that such [thus far approved] codes must be reopened for reconstruction." Regulations to protect wage standards on the public works construction program of the National Recovery Act were demanded. Protest was made to the Administration against the policy tending to cut wages below a decent living standard and to prolong hours in a way which would result in effecting no considerable absorption of the unemployed. Executive officers and affiliated bodies of the federation were instructed to endeavor to obtain an interpretation that section 7 of the National Industrial Recovery Act is applicable to all municipal, county, and State employees.

Support was extended to unionized and chartered locals of office workers in securing a hearing on the National Recovery Administration codes relating to the wages and conditions of employment of such workers. All State federations of labor and city central labor bodies were urged to give prompt and continued attention to the matter of proper and adequate labor representation on all State and local National Recovery Administration committees and boards. The convention insisted upon the equal representation of labor and industry upon local boards to be established by the National Labor Board.

The executive council was requested to introduce into Congress a measure providing for the establishment, under the appropriate Federal department, of a technological research and statistical division.

The council was also instructed "to have a measure or measures introduced into the Congress which will provide the necessary appropriations to bring the Federal cost-of-living index up to date, and for the adequate and more comprehensive collection of statistics covering the volume of unemployment [sic], the hours of labor, the man-hours worked, and the weekly, monthly, and yearly amount of wages paid in the manufacturing and nonmanufacturing industries and also covering all civilian employees of the Federal Government, the several States, and all other political subdivisions."

The continuation of the United States Compensation Commission as an independent governmental agency was strongly favored. The federation's officers were urged to endeavor to have an act passed creating a resident commissioner for the Canal Zone. Recommendation was made for continued efforts to set up the principle that the Government shall, when possible, purchase only such raw materials and manufactured articles as are produced in the United States and that the use of these domestic products be provided for in Government contracts.

Federal employees.—The enactment of a law providing a 30-hour week law for Federal employees was favored, such law to stipulate that there be no reduction in the weekly pay received prior to the passage of the "Economy Acts." The American Federation of Labor's position in favor of the immediate restoration of just working conditions of Federal employees was reaffirmed, as was also its position in favor of a 30-year optional retirement law for such employees. The organization again went on record as being opposed to using a cost-of-living standard for determining wages or salaries of Government workers and also (so long as a cost-of-living standard is in effect) to the existing inequitable method of determining the cost of living. The position of the Federation in favor of higher standards of Government employment was reaffirmed and the executive council was instructed to continue to cooperate with affiliated organizations of Federal employees for remedial legislation. Officers of the federation were further instructed to make every effort to induce the President of the United States to cancel the 15-percent pay reduction at the earliest opportunity, and to induce Congress to pass legislation resulting in the application of the National Industrial Recovery Act principles to all Federal employees. An amendment to the Economy Act of March 20, 1933, to allow administrative and automatic promotions in the United States civil service was recommended.

Older workers.—Prompt provision for Federal and State compulsory old-age pensions was favored. The delegates also urged the adoption of provisions to assure every producing worker, after the production years are over, an adequate income at least equal to his earned income at the time of retirement. The executive council was directed to make a thorough inquiry into the discrimination against older workers with a view to developing legislation to remedy this evil.

Education and research.—The delegates renewed the federation's pledge to endeavor as far as possible to protect education, from the kindergarten to the university, and the president of the federation and available members of the executive council were asked to present the convention's petition to the President of the United States to "use his good offices during this emergency to help save our schools." The federation's officers were also instructed to submit to the director

of the Citizens' Conservation Camps a request to formulate an educational program for such camps. Referring to labor's increasing need to back its proposals by factual information, the action of the officers of the federation in enlarging the organization's research group was commended. Approval was given the report of the committee on education recording the executive council's announcement of the striking success of the program of the Workers' Education Bureau, particularly during the preceding 6 months.

Puerto Rico.—The delegates approved the aspirations and demands of the Puerto Rican Federation of Labor, directed the attention of the legislative committee of the American Federation of Labor to the demands of the Puerto Rican Federation of Labor for the extension of progressive legislation, through interpretation, to Puerto Rico, and advocated that the island should have proper protection in the drafting of National Recovery Administration codes.

Foreign relations.—The delegates urged that labor be represented at the forthcoming Pan American Congress of governmental representatives to be held in Uruguay. In view of the financial condition of the Pan American Federation of Labor and its constituents, the opinion was voiced that that body was not prepared to hold a convention. The welfare, protection, and advancement of wage earners in all Pan American countries were declared to call for strong, compact trade unions and their affiliation to the Pan American Federation of Labor. The hope was expressed that the people of Cuba might establish a true trade-union movement to act in unison with the trade-union movement of the other nations on the Western Hemisphere, in cooperation with and through the Pan American Federation of Labor. The delegates endorsed the executive council's recommendation that the American Federation of Labor boycott "German-made goods and German service, this boycott to continue until the German Government recognizes the right of the working people of Germany to organize into bona fide, independent trade unions of their own choosing, and until Germany ceases its repressive policy of persecution of Jewish people." The Government was commended for sending official representatives to the seventeenth session of the International Labor Conference and was urged to send official delegates to future conferences of the International Labor Organization.

Immigration.—The immediate and effective restriction of the immigration of Filipino laborers was demanded. The federation's policy of upholding immigration quotas was reaffirmed and Congress urged to resist any efforts to liberalize the same. The United States Department of Labor Immigration Service was called upon for a more vigorous enforcement of the immigration laws at all ports.

Financial.—The federation was requested to ask the President of the United States to establish with the aid of "the present financial machinery of the United States interim facilities of consumer credit." The nationalization of banks was also favored, and the executive council was instructed to have introduced into Congress a Federal license bill with reference to individual firms and corporations engaged in interstate business. Instructions were also given the council to continue its efforts to have legislation enacted which will eliminate every opportunity for the "mulcting of the public through the brazen manipulation of securities." The convention also declared in favor of President Green's attitude against currency inflation as set forth

in his opening speech to the convention, in which he said "It is my judgment that labor will stand unflinchingly against inflation."

I do not mean that we will not favor credit expansion, the development of a wise financial policy that will tend to increase the volume of money in circulation, so that business can be carried on in a proper and businesslike way. But, my friends, when the worker earns a dollar he wants to be sure that that dollar is a real dollar and that it does not represent to him a reduction in buying power.

In addition the convention unanimously adopted a recommendation of the committee on resolutions that "the executive council be directed to resort to every possible and practicable means at its command to prevent currency inflation as herein defined and reported upon."

Officers Reelected

MR. WILLIAM GREEN was reelected president of the federation and Mr. Martin F. Ryan and Mr. Frank Morrison will again serve, respectively, as treasurer and secretary.

San Francisco, Calif., was decided upon as the 1934 convention city.

Report of the Executive Council

THE report of the executive council, which covers the fiscal year ended August 31, 1933, shows an average total membership of 2,126,796 in the unions affiliated with the American Federation in that year—a decline of 405,465 as compared with the membership for the preceding 12 months. In a press release, however, of October 2, 1933, from the federation's Official Information and Publicity Service, Mr. William Green stated that this average total membership means that during the bottom of the depression in 1932 and early in 1933 the membership was much lower, while at the time the council's report was prepared in August the number of members was much greater. According to the release at least 400,000 should be added to show the "present worth" of the above reported average tax-paying membership. The recapitulation, after such addition, is given as follows:

Reported as paying taxes	2, 526, 796
Exempt from dues	100, 000
In new Federal unions	300, 000
In new international union locals	500, 000
Recruits in old international union locals	450, 000
Recruits in old Federal unions	50, 000
Total present membership	3, 926, 796

In the same press release Mr. Green said:

True figures, if they could be had, would, I have no hesitation in saying, bring that total to more than 4,000,000, a tremendous growth since July 1, which would be shown in our bookkeeping report if our fiscal year had closed 1 month later.

We cannot omit from any true calculation of our union strength those bona fide unions, such as the railroad brotherhoods, which are not in affiliation and yet which are as stanch and true as labor men can be. In the various units of this type there are approximately 1 million members, including those who are paying dues and those who remain union men and women but are exempted from dues for various reasons. The trade-union strength of America today is 5 million in membership.

The following figures on the federation's membership, 1913 to 1933, are taken from the executive council's report:

TABLE 1.—MEMBERSHIP OF THE AMERICAN FEDERATION OF LABOR, 1913 TO 1933, BY YEAR

Year	Membership	Year	Membership
1913	1,996,004	1924	2,865,799
1914	2,020,671	1925	2,877,297
1915	1,946,347	1926	2,803,966
1916	2,072,702	1927	2,812,526
1917	2,371,434	1928	2,896,063
1918	2,726,478	1929	2,933,545
1919	3,260,068	1930	2,961,096
1920	4,078,740	1931	2,889,550
1921	3,906,528	1932	2,532,261
1922	3,195,635	1933	[1] 2,126,796
1923	2,926,468	1933 (Oct. 2)	[2] 3,926,796

[1] Average for year ended Aug. 31, 1933.
[2] American Federation of Labor, Official Information and Publicity Service, Oct. 2, 1933.

In July and August 1933 the federation issued 340 charters to local trade and Federal labor unions. These new local unions did not begin paying the per capita tax until September 1933. Furthermore, during the fiscal year ended August 31, 1933, the national and international unions issued 2,953 local charters. The membership, however, of the local unions chartered by the 108 national and international unions in July and August of this year is not included in the council's report to the 1933 convention.[1] The 29,315 local unions of the national and international bodies and the 673 local trade and Federal labor unions make a total of 29,988, an increase, as compared with 26,669 (including 307 local trade and Federal unions) for the preceding year, of 3,319 charters.

The balance on hand for the year ended August 31, 1932 ($366,-444.97), and the total balance and income for the 12 months ended August 31, 1933, amounted to $824,368.87. The balance on hand August 31, 1933, was $402,132.80.

Problems Discussed

The major part of the report of the executive council is devoted to the National Recovery Act. Among other subjects taken up are: Unemployment, relief, discrimination against the older worker, trade-union benefits, national legislation, convict labor, child labor amendment, repeal of the eighteenth amendment, old-age security, non-partisan political policy, jurisdictional troubles, developments for railroad workers, the shorter work day and work week, Pan American Federation of Labor, Puerto Rico, the German labor movement, the public schools, and the Workers' Education Bureau.

Unemployment

The following table gives the federation's estimate of the total number out of work in the United States at various dates:

[1] According to a press report of Oct. 2, 1933, the total estimated membership of the federation is approximately 4 000,000, including an increase of 1,300,000 since the enactment of the National Industrial Recovery Act.

TABLE 2.—AMERICAN FEDERATION OF LABOR'S ESTIMATE OF TOTAL NUMBER OUT OF WORK IN THE UNITED STATES, 1930 TO 1933, BY MONTHS

Month	1930	1931	1932	1933
January	3,216,000	7,160,000	10,197,000	13,100,000
February	3,565,000	7,345,000	10,486,000	13,294,000
March	3,543,000	7,098,000	10,739,000	13,689,000
April	3,188,000	6,739,000	10,990,000	13,256,000
May	3,090,000	6,750,000	11,470,000	12,896,000
June	3,250,000	6,841,000	11,853,000	12,204,000
July	3,714,000	7,198,000	12,300,000	[1] 11,781,000
August	4,101,000	7,357,000	12,344,000	----------
September	4,150,000	7,303,000	11,767,000	----------
October	4,639,000	7,778,000	11,586,000	----------
November	5,364,000	8,699,000	12,008,000	----------
December	5,541,000	8,908,000	12,124,000	----------

[1] Preliminary. Since the preparation of the report of the executive council the federation has issued the following estimates on unemployment for three months in 1933: July, 11,793,000; August, 10,960,000; September (preliminary), 10,089,000.

Explanatory note on unemployment estimate.—Our estimate of unemployment covers all workers in the United States including farmers, farm laborers, management, professional workers, public service and the industrial groups. The figures are based on the census brought up to date by employment indexes furnished monthly by the Labor Department and other monthly figures from the Government: Roads—Bureau of Public Roads: railroads—Interstate Commerce Commission; Federal employees—Civil Service Commission; hired workers on farms—Department of Agriculture; armed forces—Army, Navy, etc.; local and State government—Government reports from the localities.

A group of some 7,851,800 workers (in April 1930) were not covered by any index and employment in this group is considered to vary correspondingly with employment in all other groups combined. This group includes domestic servants; automobile service; restaurants; clerical workers in banking, insurance, and real estate; semiprofessionals and others.

In addition to these workers who have already been employed, there are constantly being added to our population new recruits seeking jobs. Our estimate counts these as part of the total number seeking employment. The increase in this group from April 1930 to July 1933 is over 1,350,000.

Some groups cannot be accounted for in the estimate because no reports exist to show their conditions. Of these groups the following are counted as unemployed: 1. Those unemployed who have gone to the country to occupy deserted shacks and raise their food. 2. Those who are given food and shelter on farms but no wage payment in return for their work. 3. Those in forestry camps and on relief work are not counted as employed since they are not in permanent earning positions. 4. Many unemployed are of course able to find temporary work bringing in intermittently a small income. This work cannot be accounted for and these workers are considered unemployed.

Offsetting these groups are three groups counted as employed because, lacking data on which estimates for their unemployment may be based, they automatically fall into the employed groups: 1. Teachers who are teaching school but not being paid. 2. Those unemployed who have gone to the country to live with relatives on farms and are provided with at least food and shelter. 3. Those who were living on income from investments and are now forced to seek work; we have no way of estimating them.

In general our estimate aims to count as employed only those who actually have earning positions in normal industrial or service work.

The following table presents the federation's statistics on trade-union unemployment:

TABLE 3.—TRADE-UNION UNEMPLOYMENT AND PART-TIME WORK

Month	Percent [1] of members out of work						Percent [1] of members on part time		
	1928	1929	1930	1931	1932	1933	1931	1932	1933
January	12.1	11.3	12.5	19.8	23.1	25.8	18	19	20
February	11.9	10.6	14.0	19.0	23.0	26.0	19	20	20
March	11.8	8.5	13.6	18.1	22.5	26.6	18	20	22
April	10.5	7.9	13.3	17.6	22.8	26.1	18	21	21
May	9.1	6.7	13.3	17.1	22.8	25.8	19	22	20
June	8.1	6.6	14.3	18.2	23.6	24.5	19	21	21
July	8.4	6.9	15.7	18.8	25.4	24.1	19	21	21
August	6.8	6.7	16.0	19.2	25.1	[2] 23.7	19	21	20
September	7.0	6.6	14.6	19.4	24.8	.....	18	22	.....
October	7.2	7.3	14.1	19.5	23.9	.....	19	22	.....
November	7.6	8.7	15.9	20.1	24.2	.....	19	23	.....
December	10.0	10.3	16.6	21.8	24.9	.....	19	22	.....
Average for year	9.2	8.2	14.5	19.1	23.8	25.3	19	21	21

[1] Weighted figures.
[2] Preliminary. Since the preparation of the executive council's report the federation has made a preliminary estimate that the percent of members out of work in September 1933 (weighted figure) was 22.6. The estimate of members on part time for that month is 20 percent.

Relief

Because of the immense need confronting the unemployed this winter the executive council recommended:

1. That the American Federation of Labor insist on adequate relief appropriations from Federal funds by Congress immediately after its reconvening in January, so that funds may be available by February when it is expected the present appropriations will be exhausted.
2. That we insist that the surplus agricultural product be made available for distribution to the unemployed.
3. That the American Federation of Labor and all State and local federations of labor do all in their power to educate public opinion to the immensity of the relief need this winter. There is danger that taxation and appropriations for relief may not have the necessary public support, since there is widespread belief that the reemployment of millions has greatly reduced relief needs, and that relief needs are therefore less than last winter.
4. That special consideration be given to the character of taxation which is being passed by State governments in order to raise funds for relief. Higher incomes and surplus profits should be made to bear their fair share of the burden.

Benefit Services of National and International Unions

The following figures on the benefits paid by national and international unions in 1932, submitted to the 1933 convention, are contrasted with the statistics on the same subject for 1931, taken from the report of the council to the preceding convention.

TABLE 4.—BENEFITS PAID BY NATIONAL AND INTERNATIONAL UNIONS IN 1931 AND 1932

Type of benefit	1931	1932
Sickness	$2,220,974.64	$2,308,040.08
Death	17,132,023.07	17,674,383.64
Unemployment	9,146,724.35	19,970,556.86
Old age	6,090,742.90	6,148,302.12
Disability	3,671,380.30	4,006,890.68
Miscellaneous	1,700,027.88	1,340,175.35
Total	39,961,873.14	51,448,348.73

In concluding its report the council made the following statement:

This convention meeting at a crucial period in the history of this country has the opportunity and the responsibility for shaping policies of momentous importance. We are at least attempting to work out the principles of a new deal which our Government has legislated. As unions, we have no choice but to obey the law and to serve as the agencies for putting it into effect. Our immediate problem is to function so as best to advance justice and economic progress for all those concerned in carrying on the industry and all those served by the industry.

As unions, we have the immediate task of: (*a*) Increasing union membership so as to represent the workers in industries fully; (*b*) to develop unions for workers in mass production industries; (*c*) to survey union activities so as to make our machinery and methods increasingly effective.

Labor Unions in China, 1932

THE following data on labor organizations in China are from a recent report [1] of the Chinese National Government.

TABLE 1.—LABOR UNIONS IN SPECIFIED CHINESE PROVINCES, 1932

Province	Labor unions		Membership	
	Number	Percent	Number [1]	Percent
Anhwei	46	7.67	19,265	4.70
Chekiang	149	24.83	41,453	10.11
Fukien	4	.67	995	.24
Honan	30	5.00	16,187	3.95
Hopei	67	11.17	71,020	17.32
Hunan	83	13.83	59,328	14.47
Hupeh	49	8.16	93,346	22.76
Kiangsi	36	6.00	17,702	4.32
Kiangsu	36	6.00	52,618	12.83
Kweichow	12	2.00		
Shansi	17	2.83	5,162	1.26
Shantung	37	6.17	28,998	7.07
Suiyuan	3	.50	806	.19
Szechwan	31	5.17	3,187	.78
Total	600	100.00	410,067	100.00

[1] The numbers of members of labor unions in the following localities are not available: Chinkiang, Sutsien Taihing, Hwaion, Paihsien, Icheng, Woohsien, Fenghsien in Kiangsu; Taishun in Chekiang; Tsingtao in Shantung; Tientsin in Hopei; Keeshih, Pishan in Szechwan; Pichich in Kweichow.

TABLE 2.—LABOR UNIONS IN SPECIFIED INDUSTRIES IN CHINA, 1932

Industry or profession	Labor unions		Members	
	Number	Percent	Number	Percent
Architecture	66	11.00	38,346	9.35
Artistry	6	1.00	350	.09
Chemical	35	5.83	21,177	5.16
Clothing	51	8.50	27,827	6.79
Communication	93	15.50	60,100	14.66
Education	23	3.83	4,689	1.14
Food	96	16.00	34,820	8.49
Furniture	56	9.34	10,358	2.53
Machinery	6	1.00	1,446	.35
Public utilities	25	4.17	6,066	1.48
Sundries	29	4.83	50,972	12.43
Textile	54	9.00	126,261	30.79
Other	60	10.00	27,655	6.74
Total	600	100.00	410,067	100.00

[1] China. National Government. Ministry of Industries. Bureau of Statistics. Industrial Statistics, vol. 1, no. 1. Nanking, February 1933.

Reorganization of Labor Unions of Miners in Germany[1]

ON August 1, 1933, the Federal Government decided on the dissolution of all former mining labor unions in Germany and to replace them with German labor unions of miners. The new unions will be under national socialistic control, which claims that this will reduce labor trouble to a minimum. It was first intended to replace the existing employers' unions by a similar system, but some difficulties prevailed and this plan was postponed.

The new organization of miners consists of 1,612 local unions, which are under the inspection of 136 administration district offices. The supervising staff consists of a chairman, his substitute, the finance committee, the organization committee, the branch committee, the management committee, and the press committee. On the branch committees are representatives from the coal mining, lignite mining, potash mining, ore mining, slate mining, and raw oil industry. The head office of the organization is in Bochum, Westphalia.

All members of the dissolved unions, with the exception of the Communists and the persons of non-Aryan race, are compelled to join the new unions, and all unorganized German laborers are forced to enter. A pamphlet was recently issued containing an appeal to the workers to join the new union. It ends as follows:

> The doors are still widely open to all those who now for the first time become aware of their moral obligations and for those who wish to join the German labor front. Who cannot now make up his mind must know that the doors will be closed for him permanently and as a proscribed person will be excluded from the fellowship with the working class, he can have no part in the national community and its cultural and material possessions.
>
> Decide before it is too late.

[1] Report of William W. Heard, United States consul at Breslau, Germany, Sept. 14, 1933.

LABOR LAWS AND COURT DECISIONS

Relief Denied Employer Violating Spirit of Labor Laws

UNFAIR wages, unreasonable working hours, and unhealthful working conditions were directly connected with the subject matter of a suit to enjoin acts of employees on strike, and the employer if guilty of such inequitable conduct was deemed to have come into court with unclean hands and injunctive relief denied, according to the recent decision of Judge Harry M. Fisher, in the case of *La Mode Garment Co., Inc.*, v. *International Ladies' Garment Workers' Union*, decided in the circuit court of Cook County, Ill.[1]

The dispute dates back to July 15, 1933, when a strike was called by the employees of La Mode Garment Co., Inc., to secure the recognition of their union and to improve working conditions and secure a higher wage. The employer petitioned for an injunction to restrain the employees on strike from picketing the plant and committing alleged acts of violence. The case came up to be heard upon a motion for a preliminary injunction and, during the course of the trial, evidence was offered which in substance showed—

> * * * That the female employees of the complainant were working from 55 to 60 hours a week, earning from $3 to $5.50 per week; that in many instances the girls were required to punch cards which indicated that they concluded their day's work at 5 o'clock p.m., and then continued to work until 10 or 11 o'clock at night; that the conditions under which these women worked were what has become commonly known as the "sweatshop" system.

The members of the union further showed that the agreement made by the employer not to interfere with members joining the union was violated, as several who did join were immediately discharged, and that an arbitration proposed by the union was refused by the employer. The union insisted that only peaceful means were used in conducting the picketing complained of by the employer.

In determining whether an injunction should be issued, the court held it was necessary to determine whether the complainant comes into court with clean hands, as the court found no distinction between a labor suit in equity and all other cases in an equity court in which the parties "must come into court with clean hands."

Pointing to the fact that "the jurisdiction of the court to issue such injunctions rests solely on the ground that its purpose is not the restraint of the evildoer, but the protection of property and business" the court said:

> Clearly, then, if one deals so inequitably in respect to the very business he seeks to protect as to naturally and directly cause the trouble he complains of, how can he be heard to say that his wrongdoing is not connected with the subject matter of his suit?
>
> True, the inequitable conduct of an employer which causes a lawful strike does not justify lawlessness on the part of the strikers, but for such lawlessness cor-

[1] Printed opinion and decree of case No. B272112.

rectives are to be found in the criminal laws of the State and in civil suits for damages. But in equity the complainant's own hands must be clean if he is to prevail against those who injure him.

In holding that the conduct of the employer was of such a nature and so closely connected with the subject matter of the suit as to prevent him from coming into court with clean hands, the court based its decision upon three major reasons:

(1) The prevailing employment conditions in La Mode Garment Co. violated the spirit of the National Recovery Act. The court commented on the fact that "the country is struggling heroically to emerge from an unprecedented economic depression" and that the President in carrying out the powers granted him by Congress had prescribed codes for industry which prescribe maximum hours of labor and minimum wages, as "the primary effort toward economic recovery." Continuing, the court said:

> The provisions of the codes already adopted, as well as the provisions of the general agreement suggested by the President, prove conclusively that the hours of labor of the employees in complainant's industry and the wages received by them are violative of the purpose and spirit of the National Recovery Act and tend to prolong the depression. In determining whether the conduct of the complainant in respect to the business it seeks to protect is equitable, the violation of this act cannot be ignored.

(2) The wages paid in the complainant's industry violated the letter and spirit of the minimum fair wage law recently adopted by the State of Illinois. This act, the court said, is a clear and concise statement of the public policy of the State of Illinois in respect to fair wages. The employer defended the low-wage scale on the ground that keen competition in the industry compelled it, but the court said, "Granting that to be true, a court of chancery will not lend its aid to protect a business that can survive only by its proprietors oppressing its workers, by violating the law, and by conduct contrary to equity and good conscience."

(3) If the injunction were issued, the court held it would "directly aid the continuance of an indefensible condition in the industry in question." In concluding the opinion, the court said:

> * * * Whatever might have been the accepted thought on the subject in days prior to the economic breakdown, today, no employer can insist that it is his right to bargain with each of his employees separately for the longest possible hours of labor, at the lowest possible wage and then turn to the courts for aid when such insistence brings labor troubles upon him. The welfare of the Nation forbids it.

The injunction was therefore denied, and the strike ordered to be terminated, the court fixing the minimum rate of wages and the maximum hours of labor pending the adoption of a code under the National Industrial Recovery Act.

Court Holds National Recovery Legislation Constitutional

THE National Recovery Act and the Agricultural Adjustment Act, two of the major laws adopted in laying the foundation for the recovery program, have successfully passed the first tests of constitutionality.

The National Recovery Act was upheld in an opinion delivered by Mr. Justice Cox rendered August 15, 1933, in the case of *Southport Pe-*

troleum Co. v. *Harold L. Ickes, Secretary of the Interior* (33 Wash. Law Rep. 577). In this case the Petroleum Co. sought to secure an injunction restraining the Secretary of the Interior from prohibiting the interstate shipment of oil which had been produced in violation of State regulations. Orders to that effect had been issued by the Secretary of the Interior under the powers conferred upon him in the section of the National Recovery Act covering the oil industry.

The opinion of the court in this case was based primarily upon jurisdictional questions but the court also passed formally upon the constitutionality of the Recovery Act, and was in favor of its validity. In regard to the question of jurisdiction, the court said:

> Injunctive relief involves in most cases an element of discretion on the part of the court. One of the principal points of attack of the bill is that the Secretary, acting for the President, is giving effect to an invalid regulation of the Texas Railroad Commission, by excluding from interstate commerce oil produced in violation of the rules of the commission. This court is asked to pass on the validity of this regulation. On that point, the plaintiff seems to have a remedy in the State courts of Texas, or in the three-judge Federal court of that State. Either of those courts would be in a better position, in the first instance, to pass on the validity of the regulation than a court in the District of Columbia. So I am disposed, so far as I have any discretion in the matter, to leave the validity of the regulation to the courts in Texas. If the regulation be held invalid in Texas, I take it that the Secretary's order, here complained of, would automatically cease to be applied against the plaintiffs.

The court also pointed to the fact that "the executive power of the President may not be controlled by injunction" and authorities were cited establishing that principle. This was considered by the court to be a definite obstacle standing in the way of the petition for an injunction.

The remainder of the opinion was devoted entirely to upholding the constitutionality of the National Recovery Act, and is quoted in full as follows:

> Congress has declared the existence of a great national emergency, and has given the President great powers to meet that emergency. The rationale of the doctrine of the self-protection is that the necessity for it is inherent in the nature of every organism. Necessity confers many rights and privileges, which otherwise would not exist. In the case of an individual, necessity may be a complete justification for the commission of acts which would otherwise be serious trespasses or heinous crimes. For example, if a highway is blocked, a man may from necessity properly tear down a neighbor's fence and proceed through his field, or in self-defense he may be justified even in taking the life of another. The idea back of this law is sometimes expressed as "necessity knows no law", or as "Self-preservation is the first law of nature." This principle, at least to some degree, also extends to governments. In time of war, which is the best known emergency, the most extraordinary powers are exercised, and sacred rights are sometimes ignored. The conception is expressed in the old maxim, "When arms speak, the laws are silent." The same concept also extends to other emergencies. It may happen that other emergencies prove more perilous to national life than war itself. War may tend to unify a nation. There are emergencies that tend to disorganize and to destroy. Another maxim is "The safety of the people is the supreme law." This conception must have its place in our laws dealing with emergencies that threaten national safety or stability. While the courts hold that the Constitution is not suspended or set aside by war or national emergency, it is thought that the Constitution and all other laws must be read in the light of and, to some extent, subject to, the primal and fundamental concept of the necessity for self-preservation.
>
> Here we are facing a national emergency declared to exist by the legislative department, which has invested the President with power and authority to meet it. Every presumption is in favor of the validity of the authority so granted to the President. The argument on behalf of the plaintiffs has failed to show that the authority conferred under section 9 (*c*) of the National Recovery Act, the exercise of which is here complained of, is not appropriate or adapted to the

purpose for which it is granted, or beyond the powers arising under the Constitution. The court will not lightly exercise its power in any way to complicate the problem of the legislative and executive departments in the present emergency.

The request for preliminary injunction was therefore denied.

The Agricultural Adjustment Act was declared valid and the regulations and licenses promulgated thereunder were held to be reasonable in an oral opinion rendered by Mr. Justice O'Donoghue of the Supreme Court of the District of Columbia in the case of *Economy Dairy Co., Inc.*, v. *Henry A. Wallace, Secretary of Agriculture* (35 Wash. Law Rep. 633).

The question presented for determination was the constitutionality of the Adjustment Act and the opinion by the court in this case was based solely upon the constitutional issue. The case involves the section of the Agriculture Adjustment Act which clothes the Secretary of Agriculture with the power to issue permits or licenses to persons engaged in the sale of agricultural commodities and also gives him the power to suspend or revoke these licenses after a satisfactory cause is established upon a hearing. The Economy Dairy Co. challenged the price-fixing provision established under the licensing power by the Secretary of Agriculture as being confiscatory. The retail price fixed in the license was 10 cents a quart and approximately 3½ cents of this was to be paid the dairyman. The dairy company contended that the ruling was confiscatory because it fixed the same price for milk delivered to the customer as it did for milk sold over the counter, in the manner that company sold milk. It was contended that consumers would not purchase milk over the counter when they could get it delivered to them at the same price by another company. In declaring the act constitutional and the regulations and licenses promulgated thereunder reasonable and valid the court found "that a national emergency exists and that the welfare of the people and the very existence of the Government itself is in peril. The day has passed when absolute vested rights in contract or property are to be regarded as sacrosanct or above the law. Neither the necessities of life nor commodities affected with a public interest can any longer be left to ruthless competition or selfish greed for their production or distribution."

The court therefore refused to grant the injunction and dismissed the bill.

Egyptian Legislation on Employment of Women in Commerce and Industry

IN ITS issue for September 25, 1933, Industrial and Labor Information states that a new law governing the employment of women in industry and commerce in Egypt was passed July 10, 1933, to become effective 6 months after publication. Under its terms women may not be employed in industrial or commercial undertakings for more than 9 hours a day, exclusive of rest periods. The rest periods must amount to at least 1 hour a day in all, and must be so arranged that women do not work consecutively for more than 5 hours.

Women may not be employed at night, with the following exceptions: Women employed in hotels, restaurants, boarding houses, cafes, refreshment rooms, theaters, cinemas, music halls, and similar establishments, and women employed in such seasonal industries

concerned with perishable goods as may be scheduled by order issued by the Minister of the Interior after consultation with the Labor Office.

The night, for the purpose of the act, means an uninterrupted period of 11 hours including the period between 9 p.m. and 5 a.m.

Women employed in managerial or confidential positions, and woman commercial travelers, so far as they work outside the establishment, are exempted from the provisions as to hours, rest periods, and night work. Any of these provisions may be set aside in case of emergency "as an exceptional and temporary measure", provided the Labor Office is informed within 24 hours, and the prohibition of night work may be temporarily suspended, by official action, during certain great national and religious festivals, and for other public occasions.

Every employed woman must have a weekly rest of at least 24 consecutive hours. Women may not be employed in certain industries and occupations, and provision is made for a rest of a month before and a fortnight after childbirth. For the fortnight following confinement, the woman is entitled to wages at half her usual rate. A woman nursing her child must be given two rest periods daily of half an hour each for this purpose, in addition to the rest periods prescribed for woman employees in general.

Provision is made for inspection of premises to see that the law is being obeyed, and penalties are provided for its infraction.

Child Labor Regulation in Egypt

THE September 4, 1933, issue of Industrial and Labor Information states that a bill to regulate the employment of children and young persons in industry passed the Egyptian Parliament, was promulgated as law No. 48 of 1933, and will come into operation 6 months from the date of publication, which was June 26. Its terms are thus summarized:

The act applies generally to industrial undertakings as defined in the international labor conventions. As amended, it prohibits the employment of children under 12 years of age in industrial undertakings, instead of children under 9 years of age, as provided in the original bill, although an exception permitting the employment of children between 9 and 12 years in certain occupations is maintained. Special provisions regulate the employment of young persons in dangerous or unhealthy processes. In fixing the hours of work of children between the ages of 9 and 12 years at 7 in the day and those of young persons under 15 years of age at 9 in the day, the act has abandoned the notion of "hours of effective work" contained in the original bill. Night work is prohibited for young persons under 15 years of age, for whom a weekly rest is also provided. The act also makes provision for measures of supervision by the administrative authorities.

16487°—33——9

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in September 1933

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

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

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

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	734		349,434		37,799,394
1928	629		357,145		31,556,947
1929	903		230,463		9,975,213
1930	653		158,114		2,730,368
1931	894		279,299		6,386,183
1932	808		242,826		6,462,973
1932					
January	87	37	12,091	4,993	132,873
February	56	34	33,713	31,103	460,701
March	64	30	33,087	13,937	736,782
April	89	44	19,187	21,513	620,866
May	87	52	44,357	49,777	1,251,455
June	69	46	15,858	24,138	943,338
July	66	40	20,890	33,216	740,785
August	85	38	28,492	27,717	754,423
September	85	33	17,824	7,456	566,045
October	47	23	10,442	2,324	147,059
November	38	21	3,460	1,896	68,154
December	35	12	3,425	997	40,492
1933					
January	67	29	19,616	8,790	240,912
February	63	32	10,909	6,706	109,860
March	91	41	39,913	12,794	445,771
April	72	46	23,077	19,867	535,039
May	133	49	41,652	16,584	603,723
June	131	45	40,903	24,593	504,362
July	219	68	108,350	49,058	1,404,850
August [1]	183	102	159,287	63,420	1,730,634
September [1]	143	133	220,756	171,288	3,826,835

[1] Preliminary figures subject to change.

Occurrence of Disputes

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

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN JULY, AUGUST, AND SEPTEMBER 1933

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	July	August	September	July	August	September
Auto, carriage, and wagon workers		1	2		100	3,800
Bakers	5	6	5	163	1,416	925
Barbers	1			270		
Brick and tile workers	1		1	18		45
Broom and brush workers			1			46
Building trades	14	10	7	1,585	705	2,353
Chauffeurs and teamsters	2	1	5	33	600	13,068
Clothing workers	65	45	32	56,772	86,633	67,025
Coopers	1		1	18		20
Electric and gas appliance workers	1	2	1	400	560	2,791
Farm labor	1	4	7	100	3,150	3,695
Fishermen			1			60
Food workers	3	3	2	214	1,050	3,000
Furniture workers	3	8	5	1,313	3,538	1,663
Glass workers	2		1	1,390		300
Hotel and restaurant workers	1		1	34		300
Iron and steel workers	2		3	530		1,700
Jewelry workers		1	1		5,000	30
Laundry workers		2	2		130	68
Leather workers	2	4	4	347	1,467	985
Longshoremen	2	1		530	100	
Lumber, timber, and mill work	3	2		594	350	
Metal trades	6	12	13	1,212	2,789	3,788
Miners	7	16	6	11,320	22,806	82,150
Motion-picture operators, actors, and theatrical workers	5			755		
Oil and chemical workers		1	1		150	50
Paper and paper-goods workers	3		1	667		4,000
Printing and publishing	1			250		
Rubber workers	6	2		1,183	416	
Steamboatmen		1			14	
Stone workers	1	1	2	60	150	47
Municipal workers	3	2		1,200	2,019	
Teachers			1			117
Textile workers	63	41	18	26,456	13,266	22,162
Tobacco workers	4	8		222	8,878	
Other occupations	11	9	19	714	4,000	6,568
Total	219	183	143	108,350	159,287	220,756

Size and Duration of Disputes

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

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

Industrial group	Number of disputes beginning in September 1933 involving—						
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 and under 10,000 workers	10,000 workers and over
Auto, carriage, and wagon workers					2		
Bakers	1	2	1	1			
Brick and tile workers		1					
Broom and brush workers		1					
Building trades		3	2	1	1		
Chauffeurs and teamsters		2			1	2	
Clothing workers		6	12	5	5	2	2
Coopers		1					
Electric and gas appliance workers					1		
Farm labor		2	3		2		
Fishermen		1					
Food workers					2		
Furniture workers		4			1		
Glass workers			1				
Hotel and restaurant workers			1				
Iron and steel workers			2		1		
Jewelry workers		1					
Laundry workers	1	1					
Leather workers		2	1	1			
Metal trades	1	4	5	2	1		
Miners			1	1	3		1
Oil and chemical workers		1					
Paper and paper-goods workers					1		
Stone workers	1	1					
Teachers			1				
Textile workers		2	7	4	3	2	
Other occupations	2	4	11	1	1		
Total	6	39	48	16	25	6	3

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

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

Industrial group	Classified duration of strikes ending in September 1933				
	½ month or less	Over ½ and less than 1 month	1 month and less than 2 months	2 and less than 3 months	4 and less than 5 months
Bakers	2				
Brick and tile workers	1				
Building trades	5	1	1		
Chauffeurs and teamsters	5				
Clothing workers	22	1	4	2	
Coopers	1				
Farm labor	4				
Fishermen	1				
Food workers	4		1		
Furniture workers	3	1	1		
Glass workers	1				
Jewelry workers			1		
Laundry workers	1				
Leather workers	2	1			
Metal trades	6	2	1		
Miners	1	1			1
Oil and chemical workers	1				
Paper and paper-goods workers	1				
Stone workers	2				
Teachers	1				
Textile workers	10	3	4		
Tobacco workers			1		
Other occupations	8	3			
Total	82	13	14	2	1

Conciliation Work of the Department of Labor in September 1933

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 176 labor disputes during September 1933. These disputes affected a known total of 111,626 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 8 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER 1933

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
Shrimp fisheries, Biloxi, Miss.	Strike	Fishermen	Prices and working conditions	Unable to adjust. Out of 22 canneries, 5 are working under agreement with fishermen.	Aug. 31	Sept. 12	3,400	
Textile workers, Willimantic, Conn.	do	Silk workers	Asked increase	Adjusted. Agreement to recognize workers' union.	Sept. 1	Sept. 21	900	
Tommelson Coal Co., St. Charles, Va.	Controversy	Miners	Working conditions	Adjusted. Agreement concluded	do	Sept. 15	75	
American Zinc & Chemical Co., Langeloth, Pa.	do	Zinc and chemical workers.	Wages, conditions, and violations of blanket code.	Adjusted. Satisfactory agreement concluded.	Aug. 25	Sept. 1	500	750
General Outdoor Advertising Agency, Akron, Ohio.	Strike	Bill posters	Wage increase	Adjusted. Increase of 15 percent allowed; returned.	Aug. 30	do	50	
Tile & Clay Products, Clearfield, Pa.	do	Tile and clay workers.	Wages and discrimination	Adjusted. Amicable settlement; work resumed.	Aug. 25	Sept. 5	180	250
Hillsdale Work Clothing Co., Hillsdale, Mich.	do	Clothing workers	Wages	Adjusted. Increase of 33⅓ percent	Aug. 20	Sept. 1	500	
Vogue Wright Co., Chicago, Ill.	Threatened strike.	do	do	Adjusted. Satisfactory settlement under existing agreement.	Sept. 5	Sept. 15	20	
Winona Machine Foundry Co., Winona, Minn.	Strike	Foundry workers	Wages cut 5 cents per hour	Pending	Aug. 3		35	
Stone Silk Co., Carbondale, Pa.	do	Silk and rayon workers.	Asked wage increase	do	Sept. 5		(1)	
Chantrell Tool Works, Reading, Pa.	do	Toolmakers	Wages	Unclassified. Returned before commissioner's arrival.	Sept. 4	Sept. 5	100	
Geo. F. Lee Coal Co., Plymouth, Pa.	do	Miners	Working conditions	Adjusted. Miners returned; grievances to go through proper channels.	Sept. 5	Sept. 9	250	
Dresner Shop, Chicago, Ill.	do	Leather workers	Refusal to recognize union or to confer with workers.	Pending	Sept. 6		200	
Muskin Shoe Co., Chesapeake Shoe Co., and Merriam Shoe Co., Baltimore, Md.	Lockout	Shoe workers	Union recognition and work conditions.	Adjusted. Satisfactory settlement.	Aug. 28	Oct. 2	543	70
Ponemah Mills, Taftsville, Conn.	Strike	Cotton-textile workers.	Stretch-out system	do	Sept. 1	Oct. 3	1,000	
Hayes-Custer Stove Co., Bloomington, Ill.	do	Molders	Wages	Adjusted. Allowed 20 percent increase.	do	Sept. 5	36	
Benedict Coal Mining Corporation, St. Charles, Va.	do	Miners	Working conditions; checkweighman.	Adjusted. Satisfactory settlement	Aug. 15	Sept. 1	800	
Virginia Iron, Coal & Coke Co., St. Charles, Va.	Controversy	do	Discrimination and recognition	Adjusted. No discrimination; checkweighman allowed.	Aug. 22	Sept. 14	400	

Virginia Lee Mine and Dominion Mine, St. Charles, Va.	do	do	Organization, collective bargaining, and protest discharges.	Adjusted. Reinstated those discharged.	Aug. 21	Sept. 13	200	
Blumenthal Bros., Philadelphia, Pa.	Strike	Confectionery workers.	Excessive wage cuts when hours reduced.	Adjusted. Company agreed to deal with union committees and adjust all complaints.	Aug. 18	Aug. 22	300	160
Elekles Cigar Box Co., Quakertown, Pa.	do	Cigar-box makers	Discharges; asked increase	Unable to adjust. Unable to secure compliance terms from company.	Sept. 9	Oct. 3	125	
Kerr Glass Co., Huntington, W. Va.	do	Glass workers	Working conditions	Pending	do		(1)	
College Weavers, North Hampton, Mass.	do	Textile workers	do	Adjusted. Arbitration to be determined by Industrial Recovery Committee.	Sept. 6	Sept. 20	475	75
Bobby Hat Co., Modern Hat Co., Elizabeth, N.J.	do	Hat makers	Wages and recognition of I.M.W.U.	Adjusted. Will abide by blanket code.	Aug. 19	Sept. 5	150	
Drake Baking Co., Irvington, N.J.	do	Salesmen	Wages	Adjusted. Increase of from $22 to $25 plus percentage.	Aug. 30	Sept. 5	31	
Morris Holkower, New York City	Controversy	Retail fruit clerks	Violation of private agreement	Pending	Sept. 8		3	
Coal City Cooperage Co., Pell City, Ala.	Strike	Coopers	Wages, hours, and conditions	do	Sept. 7		(1)	
Matthiessen Hegler Zinc Co., La Salle, Ill.	do	Zinc workers	Working conditions	Adjusted. Adjustment of working conditions and union recognition.	Aug. 7	Sept. 28	550	150
National Lock Co., Rockford, Ill.	do	Lock workers	Asked that strikers be allowed to return without discrimination.	Unable to adjust. Others employed throughout plant.	Sept. 1	Sept. 17	1,000	
Alabama Braid Mill, Gadsden, Ala.	Controversy	Braid makers	Discrimination and stretch-out system.	Pending	Sept. 7		(1)	
Huntington Stove & Foundry Co., Huntington, W.Va.	Strike	Foundry workers	(1)	do	Sept. 8		(1)	
Delta Finishing Co., Philadelphia, Pa.	do	Photographers	Asked increase and recognition	do	Aug. 23		110	
Relief workers, Tri-Cities, Illinois and Iowa.	do	Relief workers	Dissatisfaction with handling of moneys.	do	Aug. 28		(1)	
McClintoc-Marshall Co. New York City.	Controversy	Ironworkers' helpers and engineers.	Prevailing wage not paid on fabrication of steel.	do	Sept. 7		(1)	
Concordia Gallia Corporation, Philadelphia, Pa.	Strike	Silk workers	Wage increase and recognition	Adjusted. Increase of from 20 to 30 percent and recognition.	Aug. 31	Sept. 8	470	
Leviton Co., Long Island, N.Y.	do	Electrical workers	do	Unclassified	Sept. 12	Sept. 20	670	236
Hart Hat Co. and Cleveland Hat Co., Cleveland, Ohio	do	Hat workers	Working conditions alleged inimical to spirit of N.R.A.	Adjusted Increase of 25 percent; recognition; and collective bargaining.	Sept. 8	Sept. 22	360	
Star Hat & Frame Co., Cleveland, Ohio.	do	do	Recognition and collective bargaining.	Adjusted. Increase of approximately 25 percent; recognition and collective bargaining.	Aug. 16	do	40	
Miners, Gordon Creek and Spring Canyon, Utah.	do	Miners	Working conditions	Pending	Aug. 1		800	
F. P. Woll & Co., Philadelphia, Pa.	do	Hair spinners	Excessive wage cuts by introduction of 40-hour week.	Adjusted Increase of 20 percent in piecework rates; other differences adjusted.	Sept. 1	Sept. 11	20	
Kimball Co., Chicago, Ill.	do	Piano workers	Wages and working conditions	Adjusted. Increase of 10 percent; returned to work.	Aug. 17	Sept. 4	350	

[1] Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
R. H. Bogg Market Garden, West Springfield, Mass.	Controversy	Garden and market workers.	Low wages and conditions	Unclassified. Commissioner not engaged.	Sept. 11	Sept. 13	12	
Merrill Hosiery Co., Hornell, N.Y.	do	Hosiery workers	Working conditions	Pending	do		(1)	
Yellow Cab Co., Akron, Ohio	Strike	Cab drivers	Asked $14.50 for 48-hour week	Unable to adjust. Strike continued.	do		53	
Goldblatt's Department Store, Chicago, Ill.	do	Bakery workers	Low wages and discharge of foreman.	Adjusted. Returned; negotiations continued.	Sept. 19	Sept. 23	12	
McBride Glass Co., Salem, W.Va.	Controversy	Glass workers	Wages	Pending	Sept. 14		(1)	
Garment workers, Huntington, W.Va.	Strike	Garment workers	Working conditions	do	Sept. 12		(1)	
Bluejay Co., Huntington, W.Va.	do	Employees	Discharges for union activity	Adjusted. Settlement concluded	Sept. 16	Sept. 21	(1)	
Corrugated box factories, Parkersburg, W.Va.	Threatened strike.	Box makers	Alleged violations of N.R.A. code	Adjusted. Will comply with all provisions of code.	Sept. 13	Sept. 26	(1)	
Ames-Baldwin Wyoming Shovel Co., Parkersburg, W.Va.	do	Employees	do	Pending	do		750	
J. T. & A. Hamilton Co., Pittsburgh, Pa.	Strike	Glass-bottle blowers	Wages and working conditions	Adjusted. Allowed 33⅓ percent increase and recognition.	Sept. 18	Sept. 25	300	500
Semler Co., Jennette, Pa.	Threatened strike.	Employees	do	Pending	Sept. 5		(1)	
A. Calamari Co., Chicago, Ill.	Strike	Nut shellers	Union difficulty; plants closed	Adjusted. Settlement concluded and plants reopened.	Sept. 13	Sept. 19	1,000	
Linton's chain restaurants, Philadelphia, Pa.	do	Hotel and restaurant workers.	Working conditions	Pending	Sept. 19		100	
Valley Mould & Iron Co., Sharpsville, Pa.	Controversy	Ironworkers	Alleged discharges for union affiliation.	Unclassified. Referred to N.R.A. officials.	Sept. 17	Sept. 25	90	210
Bradford Cotton Mills, Montgomery and Prattsville, Ala.	do	Cotton-textile workers.	Stretch-out system	Adjusted. Referred to Industrial Relations Board.	Sept. 11	Oct. 2	835	
Shoe workers, Milford, Mass.	Strike	Shoe workers	Working conditions	Pending	Sept. 19		300	
Faultless Castor Co., Evansville, Ind.	do	Tool and die makers	Discharges for union activity	Adjusted. Union recognition	do	Oct. 2	200	125
Paper hangers, Philadelphia, Pa.	do	Paper hangers	Asked 40 percent increase	Adjusted. Increase of 25 percent; closed shop.	Sept. 11	Sept. 19	600	
Standard Forgings, Indiana Harbor, Ind.	do	Steel workers	Working conditions	Unclassified. Mediation not desired.	Sept. 19	Oct. 2	475	
Crystal Pocketbook Co., Union City, N.J.	do	Pocketbook makers	Minimum wage	Pending	Sept. 18		35	
Motion-picture theaters, Indianapolis, Ind.	Threatened strike.	Operators	Working conditions	do	Sept. 19		200	

Western Gas Co., Bechtel-Kaiser Co., Ltd., and Henry J. Kaiser Co., Douglas to Phoenix, Ariz.	do	Laborers on pipe line.	Wages	Adjusted. Allowed 50 cents per hour.	Sept. 20	Sept. 26	750	
Logan Porter Mirror Co., High Point, N.C.	Strike	Glass workers	Objection to change in system of computing wages.	Adjusted. Returned to work; wages to be computed as before strike.	Sept. 21	Sept. 25	52	
Rayon manufacturers, Woonsocket, R.I.	do	Rayon workers	Discharges	Unclassified. Places filled by others.	Sept. 19	Oct. 1	48	292
Cleaners, Bridgeport, Conn	do	Cleaners	Working conditions	Pending	Sept. 21		(1)	
Bernstein Co., Easton, Pa	do	Pocketbook makers	Refusal to recognize union	do	Sept. 13		107	
Gordon Nick Linen Supply Co., Philadelphia, Pa.	Lockout	Linen-supply handlers.	Wage increase and right to organize.	Adjusted. Increase of 10 percent; 40-hour week.	Sept. 11	Sept. 15	32	
Consolidated Cleaners et al., Seattle, Wash.	Strike	Drivers and inside workers.	do	Adjusted. Agreed to arbitrate differences.	Aug. 29	Sept. 27	120	750
Ideal Specialty Co., Royersford, Pa.	do	Molders	do	Pending	Sept. 21		40	
Corset workers, Glen Lyon, Pa	do	Corset makers	Working conditions	Adjusted. Reinstatement of those discharged.	do	Sept. 23	3	63
Nafziger Baking Co., Springfield, Mo.	do	Bakers	Discharges for union affiliation	Adjusted. Plant unionized and conditions satisfactory.	Sept. 5	Sept. 21	60	
C. O. Vactor Co., Cleveland, Ohio.	do	Clothing workers	Working conditions	Unable to adjust. Factory closed indefinitely.	Sept. 18	Sept. 29	90	
P. W. Minor & Son Shoe Mfgrs., Batavia, N.Y.	Lockout	Shoe cutters	Union recognition refused	Adjusted. Recognition; collective bargaining; workers reinstated.	Sept. 19	Oct. 7	35	365
Buster Brown Shoe Co., Vincennes, Ind.	do	Shoe workers	Union recognition	Adjusted. Resumed work; settlement reached.	Sept. 20	Sept. 25	670	10
Standard Steel Spring Co., Coraopolis, Pa.	Threatened strike.	Steel workers	Discharges for union activity	Pending	Sept. 21		(1)	
Hotels and restaurants, Portland, Oreg.	Strike	Restaurant and hotel workers.	Wages, hours, and conditions	do	Sept. 21		18	12
Electro-Platers' Association and Lamp Manufacturers' Association, Philadelphia, Pa.	Controversy	Polishers, platers, and buffers.	Asked increase and 36-hour week	Adjusted. Increase of 25 percent and 36-hour week.	Sept. 18	Sept. 22	500	
Woodruff Edwards Co., Elgin, Ill.	Strike	Molders	Discharges for union activity	Pending	Sept. 11		(1)	
Hudson Motor Co., Detroit, Mich.	do	Pattern makers	Asked 7½-hour day and 5-day week.	do	Sept. 18		45	
Solid Steel Scissors Co., Fort Smith, Ark.	do	Scissors makers	Wage cuts and conditions	Unable to adjust	Sept. 25	Oct. 1	118	125
Pacific Woodenware Plant, Marysville, Wash.	Lockout	Woodenware workers.	Agreement offered by workers refused.	Pending	Sept. 21		15	
Mission Knit Hosiery Mills, Los Angeles, Calif.	Strike	Hosiery workers	Wages and working conditions	Adjusted. Agreement concluded	Sept. 15	Oct. 10	600	
Stark Brick Co., East Canton, Ohio.	do	Clay and brick workers.	Discharges for union activity	Adjusted. Recognition and collective bargaining allowed; will reemploy.	Sept. 25	Sept. 29	150	30
Elsberry Mfgr. Co., Elsberry, Mo.	do	Glove workers	Wages and working conditions	Adjusted. Satisfactory wage agreement.	Sept. 26	Sept. 27	300	
S. L. Allen Co., Philadelphia, Pa.	do	Farm and garden implement makers.	do	Adjusted. Increase 22 percent; recognition and no piecework.	Sept. 16	Oct. 3	105	
Beulah Race Track, Grove City, Ohio.	Controversy	Clerks, waiters, and laborers.	Wages	Adjusted. Will abide by blanket code.	Aug. 15	Sept. 22	15	45

[1] Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
Bloomington Crushed Stone Co., Bloomington, Ind.	Controversy	Crushed-stone workers.	Low wages and conditions	Pending	Sept. 25		(1)	
Reick McJunkin Milk Co., Pittsburgh, Pa.	Threatened strike.	Dairy workers	Discharges	do	do		(1)	250
Chevrolet Motor Co., Flint, Mich.	do	Pattern makers	Hours per day	Adjusted. Three shifts of 7½ hours each.	Sept. 4	Sept. 5	26	2,974
Mannheim Laundry Co., Philadelphia, Pa.	Strike	Laundry workers	Discharges for union activity	Pending	Sept. 21		13	
Acme Laundry Co., Philadelphia, Pa.	Threatened strike.	do	do	do	do		5	
White Luggage Shop, Philadelphia, Pa.	Strike	Leather workers	Asked union recognition	do	Sept. 6		50	
D. & H. Coal Co., Jermyn, Pa.	Strike	Miners	Equalization of work; employment of local men.	Adjusted. Reinstated without discrimination; further negotiations.	Aug. 22	Sept. 11	700	
Printers and dyers, Paterson, N.J.	do	Printers and dyers	Wage increase and collective bargaining.	Adjusted. Settlement concluded	Sept. 6	Oct. 13	25,000	
Jersey City Dairy, Jersey City, N.J.	Threatened strike.	Dairy workers	Asked increase and collective bargaining.	Adjusted. Increase of from 12½ to 15 percent.	Sept. 2	Sept. 7	23	7
Carlstadt Dairy Co., Carlstadt, N.J.	Controversy	do	do	do	Aug. 31	do	65	
Bachman Bros., Inc., Philadelphia, Pa.	Strike	Optical workers	Asked increase in wages	Adjusted. Increase of 20 percent	Sept. 6	Sept. 25	200	
Shurig Bros. Electric Co., Cincinnati, Ohio.	Controversy	Electrical workers	Dispute between contractors and unions.	Pending	Sept. 3		2	200
Multnomah Laundry and Portland Laundry, Portland, Oreg.	do	Laundry workers	Working conditions	Adjusted. Will abide by terms of N.R.A. code.	Sept. 11	Sept. 15	100	50
Fort Wayne Tailoring Co., Fort Wayne, Ind.	Strike	Garment workers	do	Adjusted. Union contract concluded.	Sept. 5	Sept. 18	330	
Filipino farm workers, San Joaquin Valley, Calif.	Controversy	Farm workers	Wages and working conditions	Pending	Aug. 16		10,000	
Mason Parker Co., W. D. Cass Co., and Gardner Doll Carriage Co., Winchendon, Athol, South Royalston and other towns, Mass.	Strike	Woodworkers	Refusal to recognize union	Adjusted. Code adopted; arbitration for all grievances not fixed by code.	Sept. 13	Sept. 21	5,000	
O'Brien Bros. Overall Mfgrs., Nashville, Tenn.	do	Garment makers	Stretch-out system and other grievances.	Unable to adjust	Sept. 7	Sept. 16	340	
Blue Diamond Coal Co., St. Charles, Va.	do	Anthracite miners	Working conditions	Adjusted. Resumed operations under agreement.	Sept. 1	Sept. 13	750	
Penn Anthracite Coal Co., Scranton, Pa.	do	do	Asked reinstatement of men discharged.	Adjusted. Resumed operations and conditions normal.	Sept. 2	Sept. 12	3,000	
M. R. Regenberg, New York City	do	Cigarmakers	Asked 25 percent increase for all workers.	Pending	Sept. 8		155	

M. Ulmer & Wm. Freidberger, New York City.	do	do	do	Adjusted. Increase 12 percent; 40-hour week; $12 per week minimum.	Aug. 21	Sept. 13	30	20
Staten Island Dairy Co., Port Richmond, N.Y.	Threatened strike.	Drivers and plant men.	Wages	Adjusted. Increase 12½ percent; collective bargaining.	Sept. 2	Sept. 7	51	9
H. Sommer Cigar Co., Quakertown, Pa.	Controversy	Cigarmakers	Working conditions; refusal to use "bunching machines."	Adjusted. Company abandoned use of protested machines; other conditions corrected.	Sept. 1	Sept. 10	108	-------
Sexton Can Co., Everett, Mass	Strike	Employees	Working conditions	Unable to adjust	Aug. 29	Sept. 28	90	-------
Security Hat Corporation, New York City.	do	Hat workers	Union difficulties	Pending	July 15	----------	(1)	-------
Omaha Hat Co., New York City	do	Millinery workers	do	do	do	----------	(1)	-------
Carter Shoe Co., Nashville, Tenn	do	Shoe workers	Working conditions	do	Sept. 1	----------	(1)	-------
Ingber & Co., Philadelphia, Pa	do	Pocketbook makers	do	do	Sept. 7	----------	(1)	-------
International Leather Goods Co., Philadelphia, Pa.	do	do	do	do	do	----------	(1)	-------
Howard, Inc., Pittsburgh, Pa	Controversy	Cleaners and dyers	do	Adjusted. Closed-shop agreement concluded.	Sept. 13	Oct. 2	1,500	2,000
Griffin Mfgr. Co., Erie, Pa	Strike	Fabricated steel workers.	Asked wage increase and shorter hours.	Adjusted. Increase of from 10 to 50 percent; no discrimination.	Sept. 11	Sept. 16	415	35
Imperial Glass Corporation, Bellaire, Ohio.	Controversy	Glass workers	Working conditions	Pending	Sept. 12	----------	(1)	-------
Belcher Lumber Co., Bessemer, Ala.	Lockout	Lumber workers	do	do	Sept. 5	----------	(1)	-------
Fur workers, Boston, Mass	Threatened strike.	Fur workers	do	do	Sept. 10	----------	(1)	-------
National Fireproofing Corporation, Perth Amboy, N.J.	Strike	Hollow tile workers	Wages and hours	Adjusted. Allowed 40 cents per hour.	Sept. 7	Sept. 16	100	90
Cleaners and dyers, New Haven, Conn.	do	Cleaners and dyers	do	Adjusted. Increase of 20 percent and closed shop.	Sept. 10	do	400	-------
Cleaners and dyers, Seattle, Wash	Controversy	do	do	Adjusted. Returned pending final settlement under terms of code.	do	Sept. 15	1,500	-------
Willimantic Silk Mills, Willimantic, Conn.	Strike	Silk workers	Asked $1.85 per thousand picks	Adjusted. Allowed $1.90 per 1,000 picks.	Aug. 25	do	900	-------
Dock workers, East Chicago, Ind	do	Dock workers	Wages, sanitary conditions, and recognition of committee.	Adjusted. Increase allowed and recognition of committee.	Sept. 10	Sept. 14	200	125
Standard Steel Casting Co., East Chicago, Ind.	do	Welders	Wages and working conditions	Pending	do	----------	(1)	-------
Lansky Brothers Clothing Mfg. Co., Buffalo, N.Y.	do	Clothing workers	do	Adjusted. Signed agreement	Sept. 1	Sept. 15	50	-------
Globe Union Battery Co., Philadelphia, Pa.	do	Battery workers	Wages	Adjusted. Increase of 11 percent	Sept. 15	Oct. 6	160	-------
Curtiss Aeroplane & Motor Co. and Consolidated Aircraft Co., Buffalo, N.Y.	Threatened strike.	Aeronautical workers.	Wages and working conditions	Adjusted. Strike averted	Sept. 16	Sept. 19	1,600	-------
Pennsylvania Station, Philadelphia, Pa.	Strike	Building crafts	Working conditions	Pending	Sept. 15	----------	300	-------
Fur workers, Danbury, Conn	Threatened strike.	Fur workers	Asked 100 percent increase and closed shop.	do	Sept. 16	----------	(1)	-------
Mobile Cotton Mill, Mobile, Ala	Strike	Textile workers	Working conditions	do	Sept. 13	----------	(1)	-------
Bowler Roller Co., Detroit, Mich	do	Employees	do	Adjusted. Men reinstated	Sept. 15	Sept. 19	300	300

[1] Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF SEPTEMBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
Jobst & Sons, Pekin, Ill	Controversy	Building	Wage scale not satisfactory	Adjusted. Resumed work and negotiations continued.	Sept. 11	Sept. 29	25	150
Metal polishers, Philadelphia, Pa	Strike	Metal polishers	Working conditions	Pending	Sept. 16		350	
Chatillon Co., Rome, Ga	Threatened strike.	Textile workers	do	Adjusted	Sept. 15			
Strauss Cigar Co., Chicago, Ill	Strike	Cigarmakers	Wages and working conditions	Pending	Sept. 25		29	
M. & M. Transportation Co., Springfield, Mass.	do	Truck drivers	do	Adjusted. Agreed to arbitrate; settled by N.R.A.	Sept. 26	Sept. 28	100	
Illinois Glass Bottle Co., Clairton, Pa.	do	Glass workers	Wages	Adjusted. Increase of 10 percent; returned to work.	Sept. 25	do	200	
Can workers, Chelsea, Mass	do	Can workers	do	Pending	Sept. 26		(1)	
Kaufman Plush Co., Philadelphia, Pa.	Controversy	Plush workers	do	do	Sept. 27		(1)	
Chrysler Co., Philadelphia, Pa	Strike	Metal polishers and buffers.	Discharge of workers, working conditions, and increase in wages.	Adjusted. Increase of 25 percent and 36-hour week.	Sept. 26	Sept. 28	16	
Granite cutters, Atlanta, Ga	Controversy	Granite cutters	Working conditions	Pending	Sept. 25		(1)	
Niagara Apparel Shop, Buffalo, N.Y.	Strike	Clothing workers	do	Adjusted. Agreed to abide by popular vote, supervised by commissioner.	Sept. 27	Sept. 28	150	
Philco Radio Co., Philadelphia, Pa.	Threatened strike.	Radio workers	Wages and working conditions	Adjusted. (Report not yet received.)	do	Oct. 3	1,600	6,400
U. S. Gauge Co., Sellersboro, Pa	Strike	Employees	Working conditions	Pending	do		350	
Pennsylvania Sugar Refinery, Philadelphia, Pa.	do	Refinery workers	Wage increase and reinstatement of discharged workers.	Adjusted. Increase from $3 to $4 per week; 700 returned without discrimination.	Sept. 23	Sept. 29	900	
Chamberlain Weatherstrip Co., Boston, Mass.	do	Employees	Working conditions and violations of N.R.A. code.	Adjusted. Returned pending further consideration of issues.	Sept. 25	Sept. 30	15	
Weirton Steel Works, Weirton, W.Va., and Steubenville, Ohio.	do	Steel workers	do	Pending	Sept. 28		5,000	
Louisville Street Railways, Louisville, Ky.	Controversy	Traction workers	Violations of N.R.A.	do	do		(1)	
Carpenters and joiners, Salem, Mass.	Threatened strike.	Building	Working conditions	do	Sept. 25		180	
Julius Kauser Co., including Sterling Silk Glove Co., Bangor, Pa.	do	Hosiery and glove workers.	do	Adjusted. Company agreed to remedy differences.	Sept. 28	Oct. 5	1,600	
King Colonial Radio Corporation, Buffalo, N.Y.	do	Radio workers	do	Adjusted. Satisfactory agreement concluded.	do	Oct. 10	700	
California Fancy Leather Goods Co., Los Angeles, Calif.	Strike	Leather workers	Asked N.R.A. code be put into effect, minimum of 40 cents per hour, and 25 cents per hour increase on all rates above.	Adjusted. Increase of 25 percent	Sept. 20	Oct. 4	22	

United Suit & Bag Co., Los Angeles, Calif.	do	do	Piecework rates; protest furnishing their own glue brushes.	Adjusted. Increase of 20 percent; 5 percent additional on November 1.	Sept. 18	Oct. 5	20	20
Husch Bros. Department Store, Louisville, Ky.	do	Painters and paper hangers.	Objection to nonunion men on job.	Adjusted. Agreed to finish job with union men at union scale of 90 cents per hour.	Sept. 21	Sept. 27	17	-------
Juvenile Shoe Corporation, Aurora, Mo.	do	Shoe workers	Working conditions; organization.	Adjusted. Satisfactory settlement.	Sept. 6	Sept. 26	225	91
O. E. Kearns & Sons Knitting Mill, High Point, N.C.	do	Knitters	Wages	Adjusted. Returned with understanding that prices would be revised.	Sept. 22	Sept. 25	18	200
Consumers Grocery and Baking Co., Chicago, Ill.	do	Bakery and grocery workers.	Recognition refused	Pending	Sept. 29		30	-------
Birmingham Electric Co., Birmingham, Ala.	Threatened strike.	Traction workers	Wages, working conditions and hours.	Adjusted. Same pay for shorter work week.	Sept. 30	Oct. 10	603	-------
Belcher Lumber Co., Greenpond, Ala.	Controversy	Lumber workers	Wages, hours and discharges	Pending	Sept. 28		(1)	-------
Street railways, East St. Louis, Ill.	Threatened strike.	Street railways	Working conditions	do	Sept. 26		(1)	-------
Shoe repair shops, Buffalo, N.Y.	Strike	Shoe and repair workers.	Wages and conditions	Adjusted. Minimum pay $25 week for benchmen, $15 for apprentices; 48-hour week.	Sept. 25	Sept. 29	100	-------
Embroidery workers, New York City.	do	Embroidery workers	Low wages and working conditions.	Adjusted. Home work to be abolished.	Sept. 15	do	1,000	-------
Cotton pickers, Arizona	do	Cotton pickers	Wages	Adjusted. Allowed $1 per 100 for long staple, 60 cents for short staple; increases in future.	do	do	3,000	-------
Owners of cleaning and pressing shops, Seattle, Wash.	Controversy	Retail shop workers	Wages, hours and affiliation	Adjusted. Agreement formulated and recommended for adoption.	Aug. 29	Oct. 6	1,000	-------
GOVERNMENT CONSTRUCTION								
Post offices:								
Middleburg, Vt	do	Bricklayers	Prevailing wage	Adjusted. Wages fixed in conference.	Aug. 25	Aug. 25	10	-------
Pittsburgh, Pa	do	Ironworkers	do	Pending	Aug. 15		(1)	-------
Oberlin, Ohio	do	Rod setters	do	do	Sept. 8		(1)	-------
Philadelphia, Pa	do	Structural-iron workers.	do	do	Aug. 31		(1)	-------
Elwood City Pa	do	Hod carriers, stone masons, bricklayers, and laborers.	do	Adjusted. Back wages paid in full.	Sept. 27	Sept. 29	10	25
Columbus, Ohio	Strike	Building trades mechanics.	Substitution of common laborers at 40 cents per hour for mechanics' work at 60 cents.	Adjusted. Mason tending to be done by members of that craft.	Sept. 15	Sept. 28	30	130
Dubuque, Iowa	Controversy	Marble setters	Prevailing wage not paid	Pending	Sept. 27		(1)	-------
Plumbers and steam fitters, Muskegon, Mich.	do	Plumbers and steam fitters.	Prevailing wage	Adjusted. Allowed 90 cents per hour retroactive to Sept. 9.	Sept. 29	Oct. 1	16	60
Conservation Corps Barracks, Andover, Mass.	do	Mechanics	Prevailing wage not being paid	Adjusted. Mechanics allowed $1.10 per hour.	Sept. 26	Oct. 2	15	-------
Total							94,272	17,354

[1] Not reported.

LABOR TURN-OVER

Labor Turn-Over in Manufacturing Establishments, Third Quarter of 1933

THE Bureau of Labor Statistics receives reports as to labor turn-over from representative manufacturing establishments in 148 census industry classifications. The reports received for the third quarter of 1933 show that their accession rate was 22.88. This hiring rate was nearly double the rate for the third quarter of 1932, and slightly exceeded the rate for the second quarter of 1933.

The lay-off rate for the third quarter of 1933 was slightly higher than for the second quarter of this year, but much lower than the lay-off rate during the third quarter of 1932.

The third quarter quit rate was higher than for any quarter in 1932 or 1933. Many strikes occurred in a number of leading industries; over 20 percent of the quits were caused by these industrial disputes. The greatest number of disturbances occurred in the silk and boot and shoe industries.

The rates shown herein represent the number of changes, per 100 employees, that took place during the 3 months ending September 30, 1933. The average used by the Bureau of Labor Statistics for compiling turn-over rates is the arithmetic mean. The rates shown in table 1 covering manufacturing as a whole were compiled from reports made to the Bureau by establishments employing approximately 1,000,000 people. In the industries for which separate indexes are presented, reports were received from representative plants employing at least 25 percent of the workers in each industry as shown by the Census of Manufactures of 1927.

In addition to the separation rates and the accession rate, the net turn-over rate is also shown. Net turn-over means the rate of replacement, that is, the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force, the net turn-over rate is the same as the separation rate, because while more people are hired than are separated from their jobs, the number hired above those leaving is due to expansion and cannot justly be charged to turn-over. On the other hand, in a plant that is reducing its number of employees, the net turn-over rate is the same as the accession rate, because while more people are separated from the pay roll than are hired, the excess of separations over accessions is due to a reduction in force and therefore cannot be logically charged as a turn-over expense.

Table 1 shows for manufacturing as a whole the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession rate and the net turn-over rate for the four quarters of 1932, and the first, second, and third quarters of 1933.

TABLE 1.—QUARTERLY TURN-OVER RATES IN REPRESENTATIVE FACTORIES IN 148 INDUSTRIES

Period	Separation rates								Accession rate		Net turn-over rate	
	Quit		Discharge		Lay-off		Total separation rate					
	1932	1933	1932	1933	1932	1933	1932	1933	1932	1933	1932	1933
First quarter	2.28	1.56	0.58	0.38	8.18	10.14	11.04	12.08	9.65	8.50	9.65	8.50
Second quarter	2.15	2.23	.49	.52	12.92	4.46	15.56	7.21	7.80	20.86	7.80	7.21
Third quarter	2.10	4.16	.45	.78	10.78	6.31	13.33	11.25	12.55	22.88	12.55	11.25
Fourth quarter	1.77	------	.43	------	8.75	------	10.95	------	10.50	------	10.50	------

Table 2 shows the quit, discharge, lay-off, accession, and net turn-over rates for the 10 industries for which the Bureau's sample covers a sufficiently large number of firms to justify the publishing of separate industry figures.

Among these industries, cotton manufacturing had the highest quit rate during the third quarter of 1933. The lowest quit rate was shown by the furniture industry. Automobiles had the highest discharge rate and iron and steel the lowest. The highest lay-off rate occurred in brick manufacturing and the lowest in the iron and steel industry. The highest accession rate occurred in the slaughtering and meat-packing industry and the lowest in the men's clothing industry. The manufacture of brick showed the highest net turn-over rate and the iron and steel industry the lowest.

TABLE 2.—QUARTERLY TURN-OVER RATES IN SPECIFIED INDUSTRIES

Class of rates	Automobiles			Boots and shoes			Brick		
	Third quarter 1932	Second quarter 1933	Third quarter 1933	Third quarter 1932	Second quarter 1933	Third quarter 1933	Third quarter 1932	Second quarter 1933	Third quarter 1933
Quit	1.29	2.49	4.82	3.01	2.50	5.35	0.93	1.13	2.58
Discharge	.35	.97	1.74	.77	.54	1.16	.39	.59	.73
Lay-off	40.61	5.57	12.05	4.77	4.19	4.27	27.44	13.17	22.05
Total separation	42.25	9.03	18.61	8.55	7.23	10.78	28.76	14.89	25.36
Accession	7.90	29.52	28.76	16.43	12.15	15.20	22.27	46.30	29.32
Net turn-over	7.90	9.03	18.61	8.55	7.23	10.78	22.27	14.89	25.36

Class of rates	Cotton manufacturing			Foundries and machine shops			Furniture		
Quit	3.46	6.10	5.53	0.75	1.31	2.42	1.11	3.49	2.23
Discharge	.80	1.11	1.25	.25	.47	.72	.24	.33	1.09
Lay-off	5.62	2.14	9.68	10.23	5.70	5.84	9.48	7.74	5.56
Total separation	9.88	9.35	16.46	11.23	7.48	8.98	10.83	11.56	8.88
Accession	31.05	32.23	21.30	7.32	19.08	27.14	20.88	30.71	36.56
Net turn-over	9.88	9.35	16.46	7.32	7.48	8.98	10.83	11.56	8.88

Class of rates	Iron and steel			Men's clothing			Sawmills		
Quit	1.22	1.72	2.51	3.14	2.53	3.10	3.49	3.48	3.00
Discharge	.14	.22	.33	.16	.40	.58	.75	.75	1.26
Lay-off	5.32	1.59	2.33	2.73	2.94	6.85	15.77	9.26	10.38
Total separation	6.68	3.53	5.17	6.03	5.87	10.53	20.01	13.49	14.64
Accession	3.98	22.03	22.70	22.54	16.26	13.26	17.94	42.47	27.05
Net turn-over	3.98	3.53	5.17	6.03	5.87	10.53	17.94	13.49	14.64

TABLE 2.—QUARTERLY TURN-OVER RATES IN SPECIFIED INDUSTRIES—Continued

Class of rates	Slaughtering and meat packing		
	Third quarter 1932	Second quarter 1933	Third quarter 1933
Quit	2.57	2.64	4.21
Discharge	1.11	.96	1.11
Lay-off	14.77	8.12	13.96
Total separation	18.45	11.72	19.28
Accession	20.24	23.04	36.99
Net turn-over	18.45	11.72	19.28

Labor Turn-Over in the Cotton Manufacturing Industry, 1931 and 1932

THE present article (the third of a series dealing with labor turn-over in individual industries [1]) covers 172 identical firms in the cotton manufacturing industry for the years 1931 and 1932. These firms had on their pay rolls an average of 89,918 workers in 1931 and an average of 83,814 workers in 1932.

The net turn-over rate for the cotton manufacturing industry was 47.25 for the year 1931; for the year 1932, 38.89. The net turn-over rate for manufacturing as a whole during 1931 was 35.72 and during 1932, 40.50. It will be noted that cotton manufacturing, while having a higher turn-over rate than manufacturing as a whole in 1931, had a lower rate than manufacturing as a whole during 1932.

Table 1 shows the number of firms, the number of employees, and the number of quits, discharges, lay-offs, and accessions in 172 identical cotton manufacturing plants, by rate groups, for the years 1931 and 1932.

TABLE 1.—CHANGES IN PERSONNEL IN 172 IDENTICAL FIRMS IN THE COTTON MANUFACTURING INDUSTRY, 1931 AND 1932, BY RATE GROUPS

Quits

Rate group	Number of firms		Number of employees		Number of quits	
	1931	1932	1931	1932	1931	1932
Under 2.5 percent	37	57	15,291	22,096	73	153
2.5 and under 5 percent	20	22	7,643	10,986	291	420
5 and under 7.5 percent	17	29	10,104	13,335	590	824
7.5 and under 10 percent	18	9	8,895	3,941	757	334
10 and under 15 percent	29	24	13,935	13,192	1,722	1,568
15 and under 20 percent	21	17	12,479	6,943	2,221	1,171
20 and under 25 percent	9	4	5,642	1,523	1,255	349
25 and under 30 percent	7	2	5,957	1,160	1,715	298
30 and under 35 percent	1	2	402	1,924	140	661
35 percent and over	13	6	9,570	8,214	6,478	4,805
Total	172	172	89,918	83,314	15,242	10,583

[1] The first dealt with the automobile industry (Monthly Labor Review, June 1933, p. 1316) and the second with the boot and shoe industry (Monthly Labor Review, October 1933, p. 893).

TABLE 1.—CHANGE IN PERSONNEL IN 172 IDENTICAL FIRMS IN THE COTTON MANUFACTURING INDUSTRY, 1931 AND 1932, BY RATE GROUPS—Continued

Discharges

Rate group	Number of firms		Number of employees		Number of discharges	
	1931	1932	1931	1932	1931	1932
Under 0.5 percent	48	62	17,040	27,508	13	11
0.5 and under 1 percent	15	22	9,832	10,284	73	71
1 and under 2 percent	31	21	16,962	14,834	211	187
2 and under 3 percent	14	19	8,155	6,620	208	166
3 and under 4 percent	15	14	12,450	6,985	403	237
4 and under 5 percent	9	8	5,071	3,979	219	166
5 and under 7 percent	16	8	9,784	2,562	556	147
7 and under 9 percent	6	7	2,041	4,276	152	342
9 and under 11 percent	4	3	1,534	1,152	157	120
11 percent and over	14	8	7,049	5,114	1,007	712
Total	172	172	89,918	83,314	2,999	2,159

Lay-offs

Rate group	Number of firms		Number of employees		Number of lay-offs	
	1931	1932	1931	1932	1931	1932
Under 5 percent	53	47	23,510	21,397	422	299
5 and under 10 percent	12	11	3,860	5,877	292	482
10 and under 20 percent	31	22	23,081	13,135	3,324	1,962
20 and under 30 percent	18	16	9,804	6,136	2,402	1,484
30 and under 40 percent	16	10	4,253	4,991	1,425	1,685
40 and under 60 percent	17	13	11,880	8,964	5,877	4,243
60 and under 90 percent	13	17	7,377	6,134	6,035	4,671
90 and under 120 percent	7	22	2,936	9,287	2,982	9,810
120 and under 150 percent	1	4	295	2,114	428	2,656
150 percent and over	4	10	2,922	5,279	4,659	10,057
Total	172	172	89,918	83,314	27,846	37,349

Total separations

Rate group	Number of firms		Number of employees		Total separations	
	1931	1932	1931	1932	1931	1932
Under 10 percent	20	30	7,014	11,677	350	688
10 and under 20 percent	23	27	12,675	13,695	1,973	2,035
20 and under 30 percent	34	18	14,351	11,536	3,547	2,873
30 and under 40 percent	25	12	14,781	3,087	5,135	1,055
40 and under 60 percent	28	23	17,429	11,988	9,158	5,606
60 and under 90 percent	22	18	10,733	8,246	8,281	6,517
90 and under 120 percent	10	22	4,660	10,235	4,879	10,722
120 and under 150 percent	5	10	4,334	6,324	6,052	8,207
150 and under 180 percent	2	6	2,940	3,691	4,669	5,992
180 percent and over	3	6	1,001	2,835	2,043	6,396
Total	172	172	89,918	83,314	46,087	50,091

16487°—33——10

TABLE 1.—CHANGE IN PERSONNEL IN 172 IDENTICAL FIRMS IN THE COTTON MANUFACTURING INDUSTRY, 1931 AND 1932, BY RATE GROUPS—Continued

Accessions

Rate group	Number of firms		Number of employees		Number of accessions	
	1931	1932	1931	1932	1931	1932
Under 5 percent	14	17	5,326	5,822	143	178
5 and under 10 percent	16	19	5,620	8,935	421	657
10 and under 20 percent	32	27	16,760	8,345	2,581	1,195
20 and under 30 percent	25	17	8,748	10,663	2,239	2,446
30 and under 40 percent	16	7	5,759	3,838	1,925	1,386
40 and under 50 percent	15	11	14,669	4,348	6,416	1,998
50 and under 70 percent	26	16	17,075	9,789	9,618	5,722
70 and under 110 percent	15	28	7,936	11,677	7,255	9,748
110 and under 150 percent	8	18	4,893	12,436	6,516	16,229
150 percent and over	5	12	3,132	7,461	5,261	13,237
Total	172	172	89,918	83,314	42,375	52,796

Net turn-over

Rate group	Number of firms		Number of employees		Net turn-over	
	1931	1932	1931	1932	1931	1932
Under 10 percent	33	42	12,956	16,861	615	872
10 and under 20 percent	34	31	17,726	14,119	2,713	2,119
20 and under 30 percent	28	15	9,899	7,496	2,448	1,782
30 and under 40 percent	20	9	12,800	3,476	4,403	1,204
40 and under 50 percent	12	15	8,462	9,578	3,700	4,299
50 and under 60 percent	20	8	13,671	2,545	7,538	1,369
60 and under 70 percent	1	4	402	2,114	260	1,368
70 and under 100 percent	16	22	7,316	11,492	6,252	9,663
100 and under 130 percent	4	14	2,333	7,786	2,755	9,078
130 percent and over	4	12	4,353	7,847	6,465	11,963
Total	172	172	89,918	83,314	37,149	43,717

The quit rate for cotton manufacturing was 16.26 during 1931, and 12.78 during 1932. Many firms, however, had a remarkably low quit rate in each of the 2 years. In 1931, 37 firms having 15,291 employees had an annual quit rate of less than 2.5 percent. In 1932 the record was even better, as 57 firms having 22,096 employees on their pay rolls had a quit rate of less than 2.5 percent. In contrast, 13 firms in 1931 and 6 firms in 1932 had an annual quit rate of 35 percent or over.

Many firms had remarkably low lay-off rates also. The lay-off rate for the cotton manufacturing industry as a whole during 1931 was 32.60, and during 1932, 42.53. Yet, 53 firms in 1931 and 47 firms in 1932 had lay-off rates of less than 5 percent. At the other end of the scale, however, 4 firms in 1931 and 10 firms in 1932 had lay-off rates of 150 percent or over.

The annual accession rate for the industry in 1931 was 47.93 percent and for 1932, 63.75 percent. During 1931, however, the hiring rate for 14 firms was less than 5 percent and during 1932, 17 firms had a hiring rate of less than 5 percent. As opposed to these firms with low hiring rates, 5 firms in 1931 and 12 firms in 1932 had hiring rates of 150 percent or over.

Of the 172 firms included in the table, 33 employing 12,956 persons had a net turn-over rate of less than 10 percent in 1931, while in 1932, 42 firms having a total employment roll of 16,861 had a net turn-over rate of less than 10 percent. In contrast, the net turn-over rate of 4 firms during 1931 and 12 firms in 1932 was 130 percent or over.

Table 2 shows the comparative turn-over rates in 172 identical firms in the cotton manufacturing industry for the years 1931 and 1932, by size of establishments.

TABLE 2.—COMPARATIVE LABOR TURN-OVER RATES, 1931 AND 1932, IN COTTON MANUFACTURING FIRMS HAVING FEWER THAN 300 EMPLOYEES AND IN THOSE HAVING 300 OR MORE EMPLOYEES

Item	Firms having—		Firms having—	
	Under 300 employees, 1931	300 or more employees, 1931	Under 300 employees, 1932	300 or more employees, 1932
Quits	11.14	18.07	6.91	13.80
Discharges	2.67	3.46	2.04	2.70
Lay-offs	30.05	31.14	41.36	45.49
Total separations	43.86	52.67	50.31	61.99
Accessions	38.96	47.72	46.33	66.61
Net turn-over	33.43	42.83	40.93	54.67

Of the 172 identical firms from which reports were received for both the years 1931 and 1932, 84 had fewer than 300 employees per establishment, while 88 firms had 300 or more employees.

The 84 firms in the first group had a total force of 14,477 in 1931 and 13,309 in 1932, while the 88 establishments in the second group had a total force of 75,441 in 1931 and 70,005 in 1932.

The smaller cotton manufacturing firms had a better turn-over record than the larger ones, their net turn-over rate for 1931 being 33.43 and for 1932, 40.93. In the 88 larger firms, the net turn-over rate for 1931 was 42.83 and for 1932, 54.67. The smaller firms also had lower quit, discharge, lay-off, and accession rates than the larger firms during each of the 2 years.

The above showing is in direct contrast to that of the boot and shoe industry, where the larger firms had much better turn-over records than the smaller plants.

HOUSING

Building Operations in Principal Cities of the United States September 1933

THERE was an increase of 9.7 percent in indicated expenditures for total building operations in September 1933, as compared with August 1933, according to reports received by the Bureau of Labor Statistics from 764 identical cities in the United States having a population of 10,000 or over. The number of buildings for which these permits were issued decreased 3.7 percent.

The cost figures shown in the following tables are 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. This excludes considerable building in the suburbs of some cities.

Comparisons, August and September 1933

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 764 identical cities in the United States having a population of 10,000 or over, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 764 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN AUGUST AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	August 1933	September 1933	Percent of change	August 1933	September 1933	Percent of change
New England	$2,112,230	$1,521,926	−27.9	$1,078,618	$2,228,678	+106.6
Middle Atlantic	2,696,568	7,510,398	+178.5	2,879,864	7,152,880	+148.4
East North Central	1,519,796	1,130,848	−25.6	2,299,796	2,844,265	+23.7
West North Central	925,900	641,205	−30.7	3,736,088	698,273	−81.3
South Atlantic	921,548	824,999	−10.5	886,902	1,004,487	+13.3
South Central	744,059	494,609	−33.5	874,583	741,597	−15.2
Mountain and Pacific	2,432,415	1,584,643	−34.9	1,461,440	1,611,607	+10.3
Total	11,352,516	13,708,628	+20.8	13,217,291	16,281,787	+23.2

Geographic division	Additions, alterations, and repairs (estimated cost)			Tota lconstruction (estimated cost)			Number of cities
	August 1933	September 1933	Percent of change	August 1933	September 1933	Percent of change	
New England	$1,446,494	$1,131,207	−21.8	$4,637,342	$4,881,811	+5.3	105
Middle Atlantic	5,310,712	3,989,661	−24.9	10,887,144	18,652,939	+71.3	172
East North Central	1,491,339	2,237,194	+50.0	5,310,931	6,212,307	+17.0	177
West North Central	828,240	651,644	−21.3	5,490,228	1,991,122	−63.7	74
South Atlantic	1,054,096	1,117,708	+6.0	2,862,546	2,947,194	+3.0	76
South Central	922,757	737,435	−20.1	2,541,399	1,973,641	−22.3	79
Mountain and Pacific	2,129,938	1,562,067	−26.7	6,023,793	4,758,317	−21.0	81
Total	13,183,576	11,426,916	−13.3	37,753,383	41,417,331	+9.7	764

There was an increase of 20.8 percent in indicated expenditures for new residential buildings comparing September permits with August permits. This increase, however, was entirely limited to the Middle Atlantic division. The other six divisions registered decreases.

New nonresidential buildings increased 23.2 percent in indicated expenditures. Five of the seven geographic divisions showed increases in this type of structure.

Additions, alterations, and repairs decreased 13.3 percent in indicated expenditures, only two geographic divisions showing increases.

Indicated expenditures for total building operations increased in four divisions and decreased in three, the highest increase being 71.3 percent in the Middle Atlantic States.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 764 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 764 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN AUGUST AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933
New England	402	289	849	845	2,713	2,536	3,964	3,670
Middle Atlantic	469	419	1,280	1,372	5,996	6,181	7,745	7,972
East North Central	301	235	1,451	1,453	3,461	3,002	5,213	4,690
West North Central	260	206	768	741	1,410	1,460	2,438	2,407
South Atlantic	270	201	529	481	2,691	2,919	3,490	3,601
South Central	279	159	434	512	2,115	2,054	2,828	2,725
Mountain and Pacific	586	423	1,151	1,096	4,674	4,306	6,411	5,825
Total	2,567	1,932	6,462	6,500	23,060	22,458	32,089	30,890
Percent of change		−24.7		+0.6		−2.6		−3.7

The number of new residential buildings, of additions, alterations, and repairs, and of total building operations showed decreases, comparing September with August. The number of new nonresidential buildings, however, showed a slight increase comparing these 2 months.

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 764 identical cities during August and September.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 764 IDENTICAL CITIES IN AUGUST AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933
New England	$1,822,830	$1,413,626	366	274	$184,400	$74,300	61	20
Middle Atlantic	2,108,468	1,816,748	410	384	385,100	153,350	99	44
East North Central	1,427,296	1,094,548	283	230	92,500	36,300	32	9
West North Central	898,400	622,205	256	202	27,500	19,000	8	8
South Atlantic	875,848	794,099	253	193	45,700	22,900	30	13
South Central	550,759	462,809	243	151	158,650	24,300	57	12
Mountain and Pacific	2,078,070	1,443,453	545	404	169,345	95,390	66	39
Total	9,761,671	7,647,488	2,356	1,838	1,063,195	425,540	353	145
Percent of change		−21.7		−22.0		−60.0		−58.9

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933
New England	$31,000	$34,000	15	15	$2,038,230	$1,521,926	442	309
Middle Atlantic	203,000	5,540,300	72	1,802	2,696,568	7,510,398	581	2,230
East North Central	0	0	0	0	1,519,796	1,130,848	315	239
West North Central	0	0	0	0	925,900	641,205	264	210
South Atlantic	0	8,000	0	4	921,548	824,999	283	210
South Central	34,650	7,500	24	4	744,059	494,609	324	167
Mountain and Pacific	185,000	45,800	64	18	2,432,415	1,584,643	675	461
Total	453,650	5,635,600	175	1,843	11,278,516	13,708,628	2,884	3,826
Percent of change		+1,142.1		+953.1		+21.5		+32.7

There was a decrease in the estimated cost and in the number of families provided for by both 1-family and 2-family dwellings. Indicated expenditures for apartment houses were more than 10 times as great during September as during August. The number of family-dwelling units provided in the multifamily structures was approximately 10 times greater during September than during August. Indicated expenditures for all kinds of housekeeping dwellings increased more than 20 percent, while the number of family-dwelling units provided in all types of structures was nearly one third greater in September than in August.

Table 4 shows 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

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building construction
1929					
September	70.2	63.7	81.3	95.0	73.7
1930					
August	48.7	43.4	67.2	58.6	54.4
September	51.3	44.4	73.8	64.2	58.2
1931					
August	36.6	33.5	63.9	48.3	47.3
September	30.1	24.8	41.8	41.0	33.5
1932					
August	9.7	6.8	15.7	24.9	12.6
September	10.8	7.5	11.4	21.7	10.7
1933					
August	8.9	7.1	10.4	29.4	11.9
September	11.8	8.6	12.8	25.5	13.1

The index number of families provided for and the index numbers of new residential buildings, of new nonresidential buildings, and of total building construction were all higher during September 1933 than during September 1932 or August 1933. The September 1933 index number for additions, alterations, and repairs, while higher than for September 1932, was lower than for August 1933.

Construction from Public Funds

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

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

Geographic division	Federal			State		
	September 1932	August 1933	September 1933 [1]	September 1932	August 1933	September 1933 [1]
New England	$605,735	$2,875	$118,925	$51,341	$44,070	$306,250
Middle Atlantic	829,842	72,099	4,184,561	1,656,398	1,708,679	366,542
East North Central	2,396,660	9,005	56,386	425,471	267,637	187,126
West North Central	163,349	17,481	42,890	86,050	85,601	61,420
South Atlantic	349,396	106,941	408,870	690,317	291,767	131,638
South Central	322,974	34,093	340,802	533,421	806,649	502,734
Mountain and Pacific	829,166	22,738	55,461	224,433	647,807	626,093
Total	5,497,122	265,232	5,207,895	3,667,431	3,852,210	2,181,803

[1] Subject to revision.

The value of contracts awarded for Federal building construction during September 1933, while slightly lower than for September 1932, was nearly 20 times as great as during August 1933. In contrast, the

value of contracts awarded for State governments was only approximately 50 percent of the September 1932 and the August 1933 total.

Table 6 shows the value of highway construction contracts awarded during August and September by the Bureau of Public Roads, by geographic divisions.

TABLE 6.—VALUE OF HIGHWAY CONSTRUCTION AWARDS MADE DURING AUGUST AND SEPTEMBER 1933, AS REPORTED BY THE BUREAU OF PUBLIC ROADS, BY GEOGRAPHIC DIVISIONS

Geographic division	State		Federal		Total	
	August 1933	September 1933	August 1933	September 1933	August 1933	September 1933
New England	$432,254	$381,605	$1,251,512	$1,522,605	$1,683,766	$1,904,210
Middle Atlantic	175,559	513,291	4,522,336	5,523,492	4,697,895	6,036,783
East North Central	1,252,312	240,440	2,286,232	4,905,540	3,538,544	5,145,980
West North Central	2,362,663	877,699	1,936,605	7,402,109	4,299,268	8,279,808
South Atlantic	346,452	392,441	438,940	2,973,297	785,392	3,365,738
South Central	748,082	882,799	2,275,029	4,555,015	3,023,111	5,437,814
Mountain and Pacific	7,353,540	1,952,938	6,580,627	14,377,199	13,934,167	16,330,137
Total	12,670,862	5,241,213	19,291,281	41,259,257	31,962,143	46,500,470
Percent of change		−58.6		+113.9		+45.5

The value of awards made for public roads from State and Federal funds during September was $46,500,470, an increase of 45.5 percent as compared with August. The value of awards made from State funds decreased 58.6 percent, while awards from Federal funds increased 113.9 percent.

Table 7 shows the value of contracts awarded by the United States Government during September for construction projects of all kinds.

TABLE 7.—VALUE OF CONTRACTS AWARDED FOR ALL CONSTRUCTION PROJECTS BY THE UNITED STATES GOVERNMENT, DURING SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS [1]

Geographic division	Building construction	Public roads	River, harbor, and flood-control projects	Streets [2] and roads
New England	$118,925	$1,522,605	$14,315	0
Middle Atlantic	4,213,759	5,523,492	1,569,201	0
East North Central	56,386	4,905,540	2,182,307	0
West North Central	42,890	7,402,109	13,090,220	$225,329
South Atlantic	427,254	2,973,297	3,202,601	171,355
South Central	340,802	4,555,015	9,332,191	404
Mountain and Pacific	55,461	14,377,199	2,747,948	504,776
Total	5,255,477	41,259,257	32,138,783	901,864
Outside of United States	3,325			93,855

Geographic division	Naval vessels	Reclamation projects	Forestry	Miscellaneous	Total
New England	$39,486,283	0	0	$74,401	$41,216,529
Middle Atlantic	74,038,296	0	0	372,533	85,717,281
East North Central	231,158	0	0	32,326	7,407,717
West North Central	0	6,000	0	0	20,766,548
South Atlantic	57,873,713	30,000	0	434,291	65,112,511
South Central	0	8,000	0	6,474	14,242,886
Mountain and Pacific	9,075,680	4,823,671	5,456	14,345	31,604,536
Total	180,705,130	[3] 4,874,671	5,456	934,370	[3] 266,075,008
Outside of United States				28,046	125,226

[1] Subject to revision.
[2] Other than those reported by the Bureau of Public Roads.
[3] Includes $7,000 not allocated by geographic divisions.

During September the Federal Government awarded contracts for construction projects of various kinds totaling $266,075,008. Awards for naval vessels accounted for nearly 70 percent of the total. Public roads accounted for the next largest expenditure, followed by river, harbor, and flood-control projects, and building construction.

Comparisons, September 1933 with September 1932

TABLE 8 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 347 identical cities of the United States having a population of 25,000 or over, for the months of September 1932 and September 1933, by geographic divisions.

TABLE 8.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 347 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN SEPTEMBER 1932 AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	September 1932	September 1933	Percent of change	September 1932	September 1933	Percent of change
New England	$916,800	$806,700	−12.0	$2,298,414	$1,865,429	−18.8
Middle Atlantic	2,608,060	6,933,368	+165.8	2,782,414	6,798,648	+144.3
East North Central	1,207,258	899,098	−25.5	3,646,599	2,707,281	−25.8
West North Central	782,971	555,665	−29.0	1,752,532	608,949	−65.3
South Atlantic	846,617	663,475	−21.6	1,516,291	746,875	−50.7
South Central	613,212	435,129	−29.0	912,287	616,767	−32.4
Mountain and Pacific	2,095,783	1,287,952	−38.5	963,127	1,331,387	+38.2
Total	9,070,701	11,581,387	+27.7	13,871,664	14,675,336	+5.8

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	September 1932	September 1933	Percent of change	September 1932	September 1933	Percent of change	
New England	$821,700	$958,247	+16.6	$4,036,914	$3,630,376	−10.1	53
Middle Atlantic	2,876,711	3,742,121	+30.1	8,267,185	17,474,137	+111.4	73
East North Central	1,551,519	1,855,353	+19.6	6,405,376	5,461,732	−14.7	94
West North Central	558,539	504,373	−9.7	3,094,042	1,668,987	−46.1	25
South Atlantic	1,074,861	1,060,641	−1.3	3,437,769	2,470,991	−28.1	38
South Central	518,892	474,064	−8.6	2,044,391	1,525,960	−25.4	29
Mountain and Pacific	1,156,081	1,366,243	+18.2	4,214,991	3,985,582	−5.4	35
Total	8,558,303,	9,961,042	+16.4	31,500,668	36,217,765	+15.0	347

Increases were shown in indicated expenditures for both types of new buildings, for additions, alterations, and repairs, and for total construction, comparing September 1933 with the same month of the previous year.

Table 9 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 347 identical cities having a population of 25,000 or over for the months of September 1932 and September 1933, by geographic divisions.

TABLE 9.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 347 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN SEPTEMBER 1932 AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933
New England	182	147	622	544	2,219	2,034	3,023	2,725
Middle Atlantic	486	317	1,498	1,055	4,590	5,664	6,574	7,036
East North Central	276	198	1,498	1,277	2,780	2,693	4,554	4,168
West North Central	236	166	819	619	1,124	1,269	2,179	2,054
South Atlantic	219	149	507	410	2,720	2,668	3,446	3,227
South Central	253	138	463	445	1,792	1,419	2,508	2,002
Mountain and Pacific	575	340	1,218	892	3,484	3,501	5,277	4,733
Total	2,227	1,455	6,625	5,242	18,709	19,248	27,561	25,945
Percent of change		−34.7		−20.9		+2.9		−5.9

There was a decrease in the number of new residential buildings, of new nonresidential buildings, and in the number of total building operations, comparing September 1933 with September 1932. The number of additions, alterations, and repairs, however, increased slightly comparing these 2 months.

Table 10 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 347 identical cities during September 1932 and September 1933.

TABLE 10.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 347 IDENTICAL CITIES IN SEPTEMBER 1932 AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933
New England	$802,300	$753,700	167	139	$98,500	$46,000	25	13
Middle Atlantic	1,813,765	1,281,518	396	287	579,495	121,850	159	40
East North Central	1,094,058	862,798	262	193	57,300	36,300	18	9
West North Central	779,471	536,665	235	162	3,500	19,000	2	8
South Atlantic	773,317	638,675	208	143	3,800	16,800	7	10
South Central	533,262	410,829	239	131	44,950	24,300	23	12
Mountain and Pacific	1,736,093	1,175,862	528	324	159,990	86,390	59	37
Total	7,532,266	5,660,047	2,035	1,379	947,535	350,640	293	129
Percent of change		−24.9		−32.2		−63.0		−56.0

TABLE 10.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 347 IDENTICAL CITIES IN SEPTEMBER 1932 AND SEPTEMBER 1933, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933	September 1932	September 1933
New England	$16,000	$7,000	8	3	$916,800	$806,700	200	155
Middle Atlantic	214,800	5,530,000	74	1,793	2,608,060	6,933,368	629	2,120
East North Central	52,000	0	17	0	1,203,358	899,098	297	202
West North Central	0	0	0	0	782,971	555,665	237	170
South Atlantic	69,500	8,000	29	4	846,617	663,475	244	157
South Central	35,000	0	8	0	613,212	435,129	270	143
Mountain and Pacific	157,700	25,700	89	11	2,053,783	1,287,952	676	372
Total	545,000	5,570,700	225	1,811	9,024,801	11,581,387	2,553	3,319
Percent of change		+922.1		+704.9		+28.3		+30.0

Decreases were shown in the indicated expenditures and in the number of families provided for in 1-family and 2-family dwellings, comparing September 1933 and September 1932. There was, however, a large increase in the expenditures for apartment houses and in the number of family dwellings provided therein.

Details by Cities

TABLE 11 shows the estimated expenditures for new residential buildings, for new nonresidential buildings, and for total building operations, together with the number of families provided for in new dwellings, in each of the cities in the United States having a population of 10,000 or over, for which reports were received for September 1933.

Permits were issued during September for the following important building projects: In New Haven, Conn., for a college dormitory to cost $1,300,000; in the Borough of Manhattan for three apartment houses to cost $5,100,000; in Indianapolis, Ind., for store buildings to cost over $400,000; in Newark, N.J., for a factory building to cost $300,000; in Pittsburgh, Pa., for a church to cost $600,000; and for a public utilities building in Miami, Fla., to cost $225,000.

Contracts were awarded by the Supervising Architect of the Treasury Department for a naval hospital in Philadelphia, Pa., to cost over $2,000,000, and for a marine hospital on Staten Island, N.Y., to cost nearly $2,000,000.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933

New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Connecticut:				
Ansonia	$3,000	$600	$3,750	2
Bridgeport	18,900	3,090	44,025	8
Bristol	1,500	5,785	10,077	1
Danbury	4,500	500	9,080	1
Derby	0	0	935	0
East Hartford	4,500	1,575	8,225	1
Fairfield	57,600	21,500	96,060	5
Greenwich	32,000	47,450	136,900	3
Hamden	23,900	1,250	25,365	7
Hartford	10,500	125,950	173,152	2
Manchester	6,000	3,390	15,115	1
Meriden	4,200	1,780	15,585	1
Middletown	10,900	977	14,787	4
Milford	7,000	11,280	28,056	3
New Britain	0	575	9,262	0
New Haven	6,000	1,305,395	1,327,125	2
Norwalk	21,100	4,875	33,215	5
Norwich	0	350	9,625	0
Stamford	6,400	29,825	59,005	1
Stratford	18,426	1,807	25,899	4
Torrington	2,500	5,825	13,205	1
Wallingford	4,300	500	9,183	1
Waterbury	2,000	17,150	25,950	1
West Hartford	61,600	1,975	84,780	10
Willimantic	9,100	0	14,850	2
Maine:				
Auburn	44,000	172,200	219,200	15
Lewiston	8,000	2,800	10,800	1
Portland	12,000	12,415	30,540	3
South Portland	11,000	4,400	17,190	5
Westbrook	0	400	2,275	0
Massachusetts:				
Arlington	46,000	2,600	55,315	6
Attleboro	4,000	1,020	6,570	2
Belmont	91,900	1,400	95,200	13
Beverly	13,000	2,580	20,025	3
Boston[1]	112,000	31,685	446,393	24
Braintree	21,000	53,495	78,350	3
Brockton	26,300	2,305	46,620	5
Brookline	48,000	2,821	55,476	4
Cambridge	0	2,525	20,400	0
Chelsea	0	900	6,280	0
Chicopee	4,500	3,775	11,210	1
Dedham	8,000	16,185	29,550	2
Easthampton	500	600	1,200	1
Everett	0	165	3,365	0
Fairhaven	0	1,140	1,640	0
Fall River	4,550	815	14,874	2
Fitchburg	0	2,400	4,600	0
Framingham	6,250	905	7,580	2
Gardner	7,000	1,500	10,450	3
Holyoke	0	2,100	13,000	0
Lawrence	0	1,000	12,230	0
Leominster	4,000	500	6,357	1
Lowell	6,300	1,295	33,140	3
Lynn	14,000	1,875	42,090	4
Malden	13,300	1,685	20,210	4
Marlborough	3,000	700	3,750	1
Medford	13,000	2,825	17,995	3
Massachusetts—Continued.				
Melrose	$18,500	$1,650	$21,190	3
Milton	52,300	6,070	60,900	14
Natick[2]	4,500	3,900	13,500	1
Needham	23,300	4,325	33,725	4
New Bedford	0	5,200	12,990	0
Newburyport	700	400	1,950	1
Newton	111,500	12,400	133,064	10
North Adams	8,000	1,150	14,040	2
Northampton	0	10,700	11,100	0
North Attleborough	1,200	1,750	3,600	1
Norwood	15,000	1,965	18,650	2
Peabody	3,000	1,075	8,500	1
Pittsfield	5,000	8,375	21,175	1
Plymouth	11,150	4,500	16,750	5
Quincy	29,600	3,430	58,270	5
Revere	0	750	6,475	0
Salem	8,500	11,200	38,890	1
Saugus	0	1,140	3,165	0
Somerville	0	800	9,550	0
Southbridge	0	0	0	0
Springfield	17,800	13,265	39,515	5
Stoneham	15,500	2,300	17,950	3
Swampscott	0	2,850	6,900	0
Taunton	0	695	7,296	0
Waltham	5,600	1,353	11,768	3
Watertown	3,800	450	23,720	1
Wellesley	93,700	6,910	102,435	8
Westfield	1,500	1,500	3,000	1
West Springfield	4,000	1,825	6,210	1
Weymouth	4,500	3,660	17,195	1
Winchester	32,300	1,450	36,360	5
Winthrop	0	1,200	6,053	0
Woburn	0	805	4,545	0
Worcester	19,200	24,870	62,295	6
New Hampshire:				
Concord	6,000	31,500	38,000	2
Manchester	18,100	49,015	88,915	6
Rhode Island:				
Central Falls	0	150	2,580	0
Cranston	13,150	9,035	24,530	4
East Providence	22,500	2,440	33,472	5
Newport	4,800	550	5,900	1
North Providence	6,500	2,400	9,600	2
Pawtucket	15,000	4,450	22,773	1
Providence	24,500	46,550	155,900	4
Warwick	51,900	3,250	78,300	14
Westerly	10,000	1,300	15,575	4
West Warwick	4,300	900	5,500	1
Woonsocket	0	1,090	9,844	0
Vermont:				
Bennington	8,000	0	8,000	2
Burlington	14,000	9,620	26,610	2
Total	1,521,926	2,228,678	4,881,811	309

[1] Applications filed.

[2] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

Middle Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
New Jersey:				
Atlantic City	0	$1,191	$14,276	0
Bayonne	0	0	15,125	0
Belleville	0	2,600	5,500	0
Bloomfield	$63,000	4,700	69,700	10
Bridgeton	5,000	845	6,045	2
Burlington	4,700	1,680	7,873	2
Camden	0	13,453	21,218	0
Clifton	15,800	3,075	26,250	4
Dover	7,155	0	9,318	2
East Orange	0	1,400	53,052	0
Elizabeth	22,000	4,900	31,450	4
Englewood	38,500	10,109	53,129	2
Garfield	0	950	3,600	0
Hackensack	9,668	1,050	15,878	1
Harrison	0	685	1,015	0
Hillside Twp	9,000	2,050	12,450	1
Hoboken	0	0	15,700	0
Irvington	0	3,000	7,525	0
Jersey City	4,000	1,300	32,950	1
Kearny	0	5,440	22,740	0
Linden	0	6,175	6,725	0
Long Branch	1,500	5,585	8,793	1
Lyndhurst	0	162	1,041	0
Maplewood Twp	0	1,635	6,010	0
Montclair	0	1,613	35,927	0
Morristown	0	4,100	10,675	0
Newark	11,000	303,205	377,735	2
New Brunswick	9,500	1,225	19,490	3
Nutley	5,000	17,976	24,173	1
Orange	0	702	76,756	0
Passaic	0	19,075	51,335	0
Paterson	14,700	71,075	113,701	3
Perth Amboy	0	995	7,988	0
Phillipsburg	9,000	0	10,675	2
Plainfield	11,000	7,100	20,651	2
Pleasantville	20,000	50	20,150	1
Red Bank	1,200	400	4,750	1
Ridgefield Park	0	350	1,300	0
Ridgewood	42,450	500	44,150	4
Roselle	6,600	400	7,775	3
Rutherford	6,000	2,720	11,127	1
South Orange	10,000	650	12,700	1
Summit	29,600	0	31,500	4
Teaneck Twp	46,250	1,200	48,565	7
Union City	0	250	13,325	0
Union Twp	30,225	4,175	37,300	6
Weehawken	0	0	4,257	0
Westfield	17,500	16,985	38,400	3
West New York	0	0	7,395	0
West Orange	4,800	1,485	11,350	1
New York:				
Albany	61,000	36,025	122,622	5
Amsterdam	0	525	2,725	0
Auburn	8,500	22,510	31,810	2
Batavia	0	3,950	4,046	0
Binghamton	21,100	5,485	77,420	5
Buffalo	30,750	52,955	156,807	9
Cohoes	0	10	835	0
Dunkirk	0	22,115	25,197	0
Elmira	0	2,331	33,482	0
Endicott	18,350	15,175	39,412	9
Freeport	11,500	4,380	21,580	2
Fulton	0	1,000	1,000	0
Glen Cove	0	815	3,015	0
Glens Falls	0	650	1,722	0
Gloversville	22,600	2,500	26,825	7
Hempstead	5,000	2,085	12,885	1
Hornell	0	0	0	0
New York—Continued.				
Irondequoit	$6,500	$2,392	$9,492	1
Ithaca	19,900	800	34,500	3
Jamestown	0	1,625	8,596	0
Johnson City	0	0	0	0
Kenmore	0	150	455	0
Kingston	28,000	1,850	55,837	6
Lackawanna	3,200	500	3,700	1
Lockport	2,150	775	5,322	3
Lynbrook	0	1,170	2,520	0
Mamaroneck	0	3,590	10,255	0
Massena	6,000	0	8,500	3
Middletown	10,300	850	15,515	3
Mount Vernon	16,500	4,910	23,655	2
Newburgh	25,500	6,400	38,646	4
New Rochelle	41,000	1,915	50,715	3
New York City:				
The Bronx[1]	163,300	21,700	452,356	62
Brooklyn[1]	414,500	321,320	1,689,021	146
Manhattan[1]	5,100,000	380,100	6,206,565	1,618
Queens[1]	326,500	453,886	1,179,402	83
Richmond[1]	38,600	2,065,211	2,084,361	16
Niagara Falls	18,000	9,250	57,580	2
North Tonawanda	8,900	5,802	15,102	2
Ogdensburg	0	0	0	0
Olean	0	900	8,350	0
Oneida	0	600	1,100	0
Oneonta	5,000	10,000	15,000	1
Ossining	0	3,155	3,805	0
Oswego	0	45,300	45,300	0
Plattsburg	7,500	5,225	12,925	4
Port Chester	0	3,400	5,200	0
Port Jervis	0	0	0	0
Poughkeepsie	6,500	1,050	11,800	1
Rensselaer	0	575	3,065	0
Rochester	4,500	9,864	60,977	1
Rockville Center	31,000	1,643	37,509	5
Saratoga Springs	0	875	10,225	0
Schenectady	0	4,312	18,229	0
Syracuse	5,000	4,315	29,812	1
Tonawanda	1,500	1,300	4,300	1
Troy	16,500	1,250	44,450	4
Utica	14,500	22,475	39,775	4
Valley Stream	3,500	510	5,240	1
Watertown	1,800	6,715	13,659	1
White Plains	0	11,217	19,967	0
Yonkers	70,000	7,350	98,825	15
Pennsylvania:				
Abington Twp	5,300	1,840	17,845	3
Allentown	0	4,150	32,856	0
Altoona	0	900	7,845	0
Arnold	6,000	1,650	7,650	1
Berwick	0	5,100	9,781	0
Bethlehem	10,000	850	13,400	1
Braddock	0	0	0	0
Bradford	0	2,350	8,031	0
Bristol	0	300	3,800	0
Canonsburg	1,000	3,300	4,300	1
Carlisle	0	410	1,200	0
Chambersburg	0	800	800	0
Chester	7,000	500	9,400	1
Coatesville	0	0	725	0

[1] Applications filed.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Pennsylvania—Continued.				
Connellsville	0	$2,225	$2,650	0
Conshohocken	0	0	80	0
Coraopolis [2]	0	75,000	80,000	0
Donora	0	0	10,000	0
DuBois	0	0	0	0
Duquesne	0	4,000	7,265	0
Easton	$6,800	100	9,095	1
Elwood City	10,000	0	10,000	1
Erie	0	143,045	151,836	0
Greensburg	0	800	1,075	0
Harrisburg	8,400	1,850	37,000	1
Haverford	10,000	3,113	20,433	1
Hazleton	9,400	4,400	74,553	2
Jeannette	0	0	1,000	0
Johnstown	1,000	1,530	6,120	1
Lancaster	0	25,200	29,700	0
Latrobe	0	0	0	0
Lower Merion	34,000	2,400	45,445	2
McKeesport	0	950	3,470	0
Mahanoy City	0	0	6,000	0
Meadville	3,200	100	9,640	1
Monessen	0	100	450	0
Mount Lebanon	15,000	950	17,650	2
Munhall	0	0	0	0
New Castle	0	2,490	3,720	0
New Kensington	3,300	0	3,300	2
Norristown	0	$500	$13,003	0
North Braddock	$1,000	100	1,100	1
Oil City	0	48,535	49,986	0
Philadelphia	227,600	2,094,715	2,448,725	61
Phoenixville	0	0	200	0
Pittsburgh	42,450	614,475	799,176	12
Pittston	0	0	0	0
Plymouth	0	0	0	0
Pottstown	0	6,575	11,270	0
Pottsville	5,000	6,950	21,985	1
Reading	0	400	12,300	0
Scranton	20,800	9,825	41,245	6
Steelton	0	0	0	0
Sunbury	0	0	5,500	0
Tamaqua	0	0	200	0
Uniontown	0	610	610	0
Upper Darby	20,800	39,375	61,610	4
Vandergrift	0	0	0	0
Warren	0	2,500	2,500	0
Washington	4,500	300	4,800	1
Waynesboro	7,500	0	21,000	1
West Chester	0	0	450	0
Wilkes-Barre	4,150	38,495	54,520	2
Wilkinsburg	4,000	100	4,530	2
Williamsport	7,600	6,186	24,106	2
York	4,500	882	12,504	4
Total	7,510,398	7,152,880	18,652,939	2,230

East North Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Illinois:				
Alton	0	0	$3,440	0
Aurora	$500	$700	6,883	1
Belleville	3,000	125	5,625	1
Berwyn	0	1,600	6,200	0
Bloomington	0	1,000	1,700	0
Blue Island	0	575	5,638	0
Brookfield	0	725	2,025	0
Cairo	0	2,150	2,150	0
Calumet City	0	0	325	0
Canton	0	400	400	0
Centralia	0	0	2,000	0
Champaign	0	0	4,800	0
Chicago	78,500	277,540	810,953	14
Chicago Heights	0	16,350	17,430	0
Cicero	0	3,770	6,470	0
Danville	4,000	1,300	7,959	1
Decatur	5,500	275	6,750	2
East St. Louis	5,825	5,195	26,162	1
Elgin	6,750	8,915	18,008	1
Elmhurst	0	1,025	1,025	0
Elmwood Park	0	200	1,100	0
Evanston	0	2,500	37,500	0
Forest Park	0	5,735	6,035	0
Freeport	2,500	16,570	19,070	1
Granite City	0	12,000	12,000	0
Harvey	0	200	1,570	0
Highland Park	5,300	15,380	21,730	2
Joliet	0	0	41,270	0
Kankakee	6,000	200	6,200	1
La Grange	0	0	2,000	0
Maywood	0	1,020	1,020	0
Melrose Park	0	50	595	0
Moline	2,000	2,615	8,033	1
Mount Vernon	0	$2,500	$2,500	0
Oak Park	0	1,103	9,703	0
Ottawa	0	0	0	0
Park Ridge	0	500	4,645	0
Peoria	$18,000	189,525	240,635	4
Quincy	0	3,825	5,325	0
Rockford	5,000	975	8,050	3
Rock Island	3,000	940	10,187	1
Springfield	18,100	210,615	241,063	8
Sterling	0	225	975	0
Streator	22,000	0	22,150	1
Urbana	0	0	2,980	0
Waukegan	3,000	2,450	11,600	1
Wilmette	0	650	2,775	0
Winnetka	12,000	12,150	46,150	1
Indiana:				
Bedford	0	2,000	2,040	0
Connersville	0	145	5,645	0
Crawfordsville	0	750	1,500	0
Elkhart	0	700	5,515	0
Elwood	0	0	688	0
Evansville	3,000	2,478	15,370	1
Fort Wayne	0	205,910	221,930	0
Gary	3,000	1,525	7,025	3
Goshen	0	250	250	0
Hammond	3,500	6,274	12,884	1
Huntington	0	0	516	0
Indianapolis	18,500	476,642	541,233	3
Jeffersonville	0	0	3,000	0
Kokomo	0	4,880	9,530	0
Lafayette	0	0	1,800	0
La Porte [2]	0	325	2,000	0
Logansport	0	150	26,341	0
Marion	1,400	555	11,135	1
Michigan City	0	1,730	2,495	0

[2] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Indiana—Con.				
Mishawaka	0	$492	$1,212	0
Muncie	$3,500	4,627	16,786	1
New Castle	0	850	850	0
Peru	0	0	75	0
Richmond	0	500	1,950	0
South Bend	0	1,730	7,885	0
Terre Haute	3,000	495	5,907	1
Michigan:				
Adrian	0	1,300	2,100	0
Ann Arbor	9,500	1,100	21,780	2
Battle Creek	0	1,775	8,075	0
Bay City	14,850	1,900	26,479	5
Dearborn	10,500	3,560	16,060	2
Detroit	174,450	402,901	741,885	34
Escanaba	1,500	150	2,350	1
Ferndale	0	815	1,315	0
Flint	1,900	29,694	44,634	1
Grand Rapids	2,500	9,835	30,010	1
Grosse Pointe Park	19,600	0	19,600	2
Hamtramck	0	1,450	5,200	0
Highland Park	500	700	3,340	1
Holland	0	235	375	0
Ironwood	0	70	510	0
Jackson	8,000	4,785	14,195	1
Kalamazoo	2,550	74,385	85,088	2
Lansing	0	6,045	10,775	0
Lincoln Park	0	605	1,805	0
Marquette	10,000	0	10,000	4
Monroe	0	5,100	5,725	0
Mount Clemens	0	1,250	1,250	0
Muskegon	4,100	948	5,803	2
Muskegon Heights	0	400	1,100	0
Owosso	0	700	1,100	0
Pontiac	0	11,540	30,370	0
Port Huron	0	700	7,350	0
River Rouge	0	0	290	0
Royal Oak	3,500	382	4,992	1
Saginaw	0	1,605	13,408	0
Wyandotte	2,800	1,045	6,970	1
Ohio:				
Akron	9,810	6,765	25,692	4
Alliance	0	380	2,280	0
Ashland	40,000	3,850	43,850	2
Ashtabula	0	138	3,279	0
Barberton	0	0	3,135	0
Bellaire	0	0	0	0
Bucyrus	0	0	900	0
Cambridge	1,500	0	1,500	1
Campbell	0	200	550	0
Canton	10,800	2,930	15,973	2
Cincinnati	174,400	262,810	601,250	29
Cleveland	55,500	112,900	491,400	10
Cleveland Heights	22,000	1,250	26,750	4
Columbus	11,500	72,400	128,250	2
Cuyahoga Falls	0	100	100	0
Dayton	0	8,106	39,516	0
East Cleveland	0	250	550	0
Elyria	0	$815	$1,950	0
Euclid	$20,900	445	21,595	5
Findlay	0	900	3,435	0
Fostoria	0	0	250	0
Fremont	3,000	200	3,400	1
Garfield Heights	0	0	0	0
Hamilton	0	725	2,150	0
Ironton	0	50	415	0
Lakewood	10,000	1,135	13,625	2
Lima	0	1,900	6,050	0
Lorain	0	190	3,505	0
Mansfield	22,500	10,000	34,767	3
Marietta	0	650	1,150	0
Marion	0	820	2,180	0
Massillon	0	750	1,730	0
Middletown	5,000	30,865	40,570	1
Newark	0	630	2,180	0
Norwood	0	15,950	17,750	0
Parma	3,950	800	6,385	2
Piqua	0	0	150	0
Portsmouth	0	690	1,704	0
Salem	0	6,025	6,025	0
Sandusky	0	2,593	3,643	0
Shaker Heights	27,500	1,300	31,800	3
Springfield	5,000	2,880	11,115	1
Steubenville	0	2,000	5,375	0
Struthers	0	2,225	2,225	0
Tiffin	4,000	200	4,200	1
Toledo	7,000	41,867	59,967	1
Warren	2,750	1,290	11,005	1
Wooster	0	0	1,525	0
Youngstown	26,800	39,375	73,671	3
Wisconsin:				
Appleton	10,500	2,330	15,890	3
Beloit	0	825	2,675	0
Cudahy	0	200	1,300	0
Eau Claire	12,200	2,600	22,900	6
Fond du Lac	0	2,275	8,665	0
Green Bay	29,900	3,735	40,000	9
Janesville	0	250	5,650	0
Kenosha	0	615	15,583	0
Madison	7,000	4,210	56,853	1
Manitowoc	3,350	10,929	251,876	1
Marinette	2,000	1,010	4,650	1
Milwaukee	37,513	60,735	152,413	9
Oshkosh	9,100	530	21,580	6
Racine	0	850	4,518	0
Sheboygan	3,000	17,929	28,199	1
Shorewood	9,500	782	12,132	1
South Milwaukee	0	0	0	0
Stevens Point	27,500	3,200	34,325	4
Superior	2,600	495	5,700	1
Two Rivers	0	4,285	5,721	0
Waukesha	3,850	700	16,600	1
Wausau	0	2,030	2,030	0
Wauwatosa	5,800	2,500	10,410	1
West Allis	0	670	1,870	0
Total	1,130,848	2,844,265	6,212,307	239

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

West North Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Iowa:				
Ames	0	$585	$2,085	0
Boone	0	475	550	0
Burlington	$15,000	1,285	23,260	1
Cedar Rapids	10,200	2,710	25,548	3
Council Bluffs	5,850	4,992	17,342	3
Davenport	3,600	16,375	40,708	2
Des Moines	37,875	24,175	85,625	18
Dubuque	0	2,555	10,163	0
Fort Dodge	0	4,040	6,315	0
Iowa City	0	1,282	1,432	0
Keokuk	2,500	1,450	4,750	1
Marshalltown	0	2,100	18,100	0
Mason City	18,690	6,555	29,072	13
Muscatine	1,500	900	4,518	1
Ottumwa	7,000	3,000	13,750	3
Sioux City	6,000	7,530	14,810	2
Waterloo	5,000	6,085	14,970	3
Kansas:				
Arkansas City	0	12,000	14,324	0
Atchison	0	150	150	0
Dodge City	0	250	250	0
Eldorado	0	0	615	0
Emporia	0	0	800	0
Fort Scott	0	0	0	0
Hutchinson	8,700	725	16,750	5
Independence	0	150	150	0
Kansas City	6,000	3,720	14,805	2
Lawrence	1,200	200	2,680	1
Leavenworth	3,800	300	7,600	1
Manhattan	0	50	50	0
Newton	0	0	800	0
Pittsburg	0	0	550	0
Salina	1,000	3,360	4,860	1
Topeka	11,950	2,130	16,200	3
Wichita	0	2,682	10,306	0
Minnesota:				
Albert Lea	0	300	550	0
Duluth	6,100	3,960	39,776	5
Faribault	500	120	19,430	1
Hibbing	3,000	7,000	17,700	1
Mankato	0	890	5,127	0
Minneapolis	65,170	141,480	308,725	18
Minnesota—Continued.				
Rochester	$5,700	$400	$7,200	3
St. Cloud	2,800	820	3,770	1
St. Paul	40,920	221,262	337,920	8
South St. Paul	10,950	175	13,200	3
Winona	4,000	0	4,790	2
Missouri:				
Cape Girardeau	7,600	180	7,980	3
Columbia	4,000	0	4,000	1
Hannibal	2,800	200	3,000	2
Independence	0	100	43,780	0
Jefferson City	5,000	4,800	15,180	1
Joplin	0	150	1,741	0
Kansas City	58,000	11,000	82,700	15
Maplewood	0	2,600	2,700	0
Moberly	500	1,150	2,350	1
St. Charles	0	0	0	0
St. Joseph	12,000	550	13,760	4
St. Louis	138,325	126,188	345,222	32
Springfield	16,100	4,965	42,982	5
Nebraska:				
Beatrice	0	0	1,200	0
Fremont	0	150	800	0
Grand Island	0	0	3,685	0
Hastings	0	0	12,000	0
Lincoln	20,550	12,440	44,499	7
North Platte	7,500	23,000	30,500	2
Omaha	63,825	6,445	116,280	21
North Dakota:				
Bismarck	0	375	375	0
Fargo	1,200	0	11,090	1
Grand Forks	2,500	150	3,900	1
Minot	0	500	500	0
South Dakota:				
Aberdeen	0	10,600	10,600	0
Huron	0	0	0	0
Mitchell	0	142	142	0
Rapid City	0	1,825	8,025	0
Sioux Falls	16,300	2,545	20,055	9
Total	641,205	698,273	1,991,122	210

South Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Delaware:				
Wilmington	$27,200	$2,315	$57,410	5
District of Columbia:				
Washington	308,100	45,150	450,500	51
Florida:				
Gainesville	9,000	1,925	12,118	3
Jacksonville	5,650	69,908	139,303	6
Key West	0	0	0	0
Miami	13,350	245,345	375,884	8
Orlando	0	0	21,051	0
Pensacola	5,350	3,880	14,515	6
Sanford	0	0	75	0
St. Augustine	0	0	2,120	0
St. Petersburg	1,000	6,000	57,446	1
Tallahassee	11,095	6,000	19,625	5
Tampa	4,900	2,377	42,141	3
Georgia:				
Athens	0	0	3,979	0
Atlanta	22,150	112,035	153,694	11
Augusta	8,350	250	28,449	4
Brunswick	0	0	1,585	0
Columbus	3,000	130	11,803	1
Lagrange	0	200	200	0
Rome	2,000	200	4,000	1
Savannah	7,000	8,050	37,310	2
Maryland:				
Annapolis	$7,240	$7,500	$15,500	3
Baltimore	48,000	31,850	437,050	9
Cumberland	2,500	1,200	4,450	1
Frederick	18,800	249	25,989	2
Hagerstown	4,200	1,090	10,175	1
Salisbury	9,995	5,425	16,945	6
North Carolina:				
Asheville	12,000	825	15,460	2
Charlotte	15,100	700	19,920	4
Concord	2,100	0	3,950	3
Durham	48,400	675	50,900	7
Elizabeth City	0	0	0	0
Gastonia	2,500	0	3,575	1
Goldsboro	0	475	575	0
Greensboro	1,575	2,800	7,113	1
High Point	4,800	482	6,607	1
Kinston	0	600	600	0
New Bern	0	217,891	217,891	0
Raleigh	0	735	7,185	0
Rocky Mount	3,000	70	3,095	1
Shelby	13,300	0	14,300	4
Statesville	0	0	0	0
Wilmington	14,700	2,350	18,845	3
Wilson	0	0	0	0

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

South Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
North Carolina—Con.				
Winston-Salem	0	$565	$11,225	0
South Carolina:				
Anderson	0	600	2,825	0
Charleston	$4,500	2,500	9,160	2
Columbia	2,500	800	16,664	1
Florence	3,600	0	5,100	2
Greenville	0	61,781	65,891	0
Greenwood	0	25	1,334	0
Rock Hill	0	800	2,490	0
Spartanburg	0	0	2,255	0
Sumter	3,600	400	4,000	2
Virginia:				
Alexandria	31,500	750	38,762	9
Charlottesville	9,500	2,275	13,722	3
Danville	27,294	1,802	32,558	6
Hopewell	0	70	575	0
Newport News	12,000	5,892	26,559	1
Norfolk	$14,250	$6,075	$64,072	5
Petersburg	0	31,500	32,660	0
Portsmouth	7,500	9,310	21,365	3
Richmond	31,800	26,592	122,721	10
Roanoke	0	4,490	9,109	0
Staunton	3,500	135	4,925	1
Suffolk	0	370	2,390	0
Winchester	0	1,300	2,300	0
West Virginia:				
Bluefield	3,500	250	5,215	1
Charleston	1,200	2,450	9,539	1
Clarksburg	5,500	1,500	10,105	1
Fairmont	0	5,800	5,835	0
Huntington	18,150	32,488	53,588	4
Martinsburg	0	500	3,500	0
Morgantown	0	2,000	4,550	0
Parkersburg	0	7,085	13,340	0
Wheeling	8,750	15,700	35,527	2
Total	824,999	1,004,487	2,947,194	210

South Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Alabama:				
Anniston	0	$525	$800	0
Bessemer	0	0	369	0
Birmingham	0	2,100	20,843	0
Decatur	0	0	0	0
Fairfield	0	0	1,695	0
Huntsville	0	0	0	0
Mobile	$9,500	3,700	23,766	6
Montgomery	0	0	18,105	0
Selma	0	1,035	1,835	0
Tuscaloosa	0	150	275	0
Arkansas:				
Blytheville	500	0	3,500	1
El Dorado	0	0	200	0
Fort Smith	0	971	8,155	0
Hot Springs	0	600	3,400	0
Little Rock	1,175	3,780	12,872	2
Texarkana	0	400	4,570	0
Kentucky:				
Ashland	4,000	0	4,000	1
Fort Thomas	8,000	0	8,000	1
Frankfort	0	6,697	6,697	0
Henderson	0	0	0	0
Lexington	0	2,130	6,452	0
Louisville	87,000	69,550	174,390	11
Middlesboro	0	0	6,000	0
Owensboro	0	375	515	0
Paducah	1,100	14,000	18,100	1
Louisiana:				
Alexandria	0	730	7,278	0
Lafayette	2,700	600	4,401	2
Monroe	1,700	500	14,106	2
New Orleans	44,527	6,029	75,431	10
Shreveport	8,850	6,765	33,977	12
Mississippi:				
Biloxi	0	500	500	0
Clarksdale	0	0	0	0
Columbus	0	0	0	0
Greenwood	0	0	0	0
Gulfport	0	25,292	25,292	0
Hattiesburg	1,500	0	1,800	1
Laurel	0	0	0	0
Meridian	1,000	75,000	76,576	1
Vicksburg	0	0	1,825	0
Oklahoma:				
Ada	0	0	6,000	0
Ardmore	0	25	25	0
Oklahoma—Continued.				
Bartlesville	0	$275	$275	0
Chickasha	0	1,100	1,493	0
McAlester	$1,500	100	1,600	1
Oklahoma City	16,500	135,750	169,082	2
Sapulpa	0	0	500	0
Shawnee	0	400	2,500	0
Tulsa	6,000	30,140	46,365	4
Tennessee:				
Chattanooga	7,500	500	27,722	1
Jackson	9,325	0	10,175	3
Johnson City	1,000	0	1,000	1
Kingsport	3,200	190	3,390	2
Knoxville	18,600	3,456	57,090	3
Memphis	2,080	155,623	234,143	3
Nashville	11,800	22,878	44,461	5
Texas:				
Abilene	0	795	4,980	0
Amarillo	0	0	4,752	0
Austin	27,767	16,940	89,359	16
Beaumont	1,098	285	13,672	2
Big Spring	0	0	2,090	0
Corsicana	0	600	3,025	0
Dallas	0	39,670	73,365	0
Del Rio	0	55	3,770	0
El Paso	0	945	2,780	0
Fort Worth	39,500	14,133	75,036	5
Galveston	3,900	5,353	17,571	5
Greenville [2]	6,800	13,400	20,200	2
Harlingen	0	0	181,618	0
Houston	108,350	76,893	203,078	34
Lubbock	0	2,210	2,535	0
Palestine	6,855	1,000	10,902	3
Pampa	1,000	0	3,500	1
Paris	700	560	7,498	1
San Angelo	0	875	1,725	0
San Antonio	22,882	3,542	46,237	15
Sherman [2]	0	4,900	7,354	0
Sweetwater	0	1,800	4,125	0
Temple	0	0	1,250	0
Tyler	19,200	2,845	28,747	6
Waco	14,300	350	17,825	3
Wichita Falls	0	880	2,655	0
Total	494,609	741,597	1,973,641	167

[2] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, SEPTEMBER 1933—Continued

Mountain and Pacific States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for	City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Arizona:					Colorado:				
Phoenix	0	$4,175	$10,567	0	Boulder	0	$130	$4,085	0
Tucson	0	8,420	28,703	0	Colorado Springs	$2,000	4,794	14,279	1
California:					Denver	64,300	23,290	156,868	15
Alameda	$1,500	912	11,241	1	Fort Collins	0	300	2,700	0
Alhambra	6,650	2,400	20,245	4	Grand Junction [2]	0	165	1,450	0
Anaheim	0	0	2,851	0	Greeley	0	1,685	1,965	0
Bakersfield	4,300	5,815	64,600	2	Pueblo	1,000	960	6,243	1
Berkeley	56,940	17,825	93,514	9	Idaho:				
Beverly Hills	34,100	10,100	67,480	10	Boise	8,500	590	23,681	2
Burbank	8,000	3,330	13,880	4	Pocatello	1,500	655	5,945	1
Burlingame	14,523	4,200	23,993	3	Montana:				
Compton	0	2,220	4,721	0	Anaconda	14,000	0	14,000	1
Eureka	2,000	5,750	10,250	1	Billings	8,825	8,950	19,700	6
Fresno	14,000	3,333	35,278	3	Great Falls	0	855	2,655	0
Fullerton	4,000	345	7,977	1	Helena	5,300	4,745	12,840	7
Gardena	0	1,525	1,725	0	Missoula	0	1,660	1,660	0
Glendale	31,500	17,411	54,036	7	Nevada:				
Huntington Park	6,750	1,310	26,399	3	Reno	26,500	250	31,500	2
Inglewood	1,500	9,500	16,690	1	New Mexico:				
Long Beach	22,300	47,120	282,790	12	Albuquerque	1,000	975	11,970	1
Los Angeles	433,300	440,856	1,222,523	131	Oregon:				
Modesto	0	2,925	9,300	0	Astoria	0	129,040	132,252	0
Monrovia	2,300	1,065	9,603	2	Eugene	0	150	6,050	0
Oakland	66,840	52,659	167,787	16	Medford	2,400	4,160	9,315	2
Ontario	1,350	200	3,125	1	Portland	72,745	21,530	187,205	16
Palo Alto	11,450	1,450	15,450	3	Salem	1,500	288	15,776	2
Pasadena	29,500	69,429	136,891	4	Utah:				
Pomona	0	8,255	14,239	0	Ogden	500	200	3,100	1
Redlands	0	1,200	5,664	0	Provo	5,000	6,500	13,630	1
Riverside	5,900	3,900	16,800	3	Salt Lake City	20,800	2,634	49,062	7
Sacramento	38,350	1,110	65,541	10	Washington:				
Salinas	8,500	7,930	21,491	3	Aberdeen	0	500	3,180	0
San Bernardino	1,350	645	8,286	1	Bellingham	800	25,825	29,804	1
San Diego	89,470	45,390	159,462	31	Bremerton	26,453	7,550	45,078	10
San Francisco	205,142	196,060	551,753	59	Hoquiam	0	0	280	0
San Jose	7,250	193,825	214,730	2	Longview	0	75	320	0
San Leandro	7,000	0	8,960	2	Olympia	2,250	175	3,942	2
San Mateo	47,890	37,800	88,860	7	Port Angeles	800	0	800	1
Santa Ana	19,625	0	29,851	4	Seattle	37,500	39,285	137,650	10
Santa Barbara	7,300	1,070	19,309	2	Spokane	15,100	1,624	31,352	7
Santa Cruz	2,800	4,190	10,015	1	Tacoma	11,990	70,450	91,335	4
Santa Monica	18,300	12,247	44,627	3	Walla Walla	500	175	2,550	1
Santa Rosa	8,400	1,700	15,990	3	Wenatchee	0	300	2,100	0
South Pasadena	0	0	2,022	0	Wyoming:				
Vallejo	30,800	13,875	48,891	9	Cheyenne	0	7,735	10,660	0
Whittier	2,500	100	4,675	1	Total	1,584,643	1,611,607	4,758,317	461

Hawaii

City	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Honolulu	$77,383	$5,515	$107,468	56

[2] Not included in totals.

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in the Manufacture of Silk and Rayon Goods, 1933

WAGE earners employed in the manufacture of silk, rayon, or mixed silk and rayon goods in the United States actually worked an average of 45.5 hours in a representative week in 1931, as compared with 44 hours in 1933. These hours are for a representative week in March, April, May, or June in each year. The wage earners earned an average of 40.6 cents per hour and $18.47 in 1 week in 1931, as compared with an average of 26.9 cents per hour and $11.85 in 1 week in 1933. In contrast with the hours actually worked, full-time hours per week averaged 50.7 in 1931 and 50.9 in 1933. Had the employees worked full time and at the same average per hour as was earned in the hours actually worked, they would have earned an average of $20.58 in 1931 and $13.69 in 1933.

Average earnings per hour in 1933 were 13.7 cents, or 33.7 percent less than in 1931; and actual earnings in 1 week in 1933 were $6.62, or 35.8 percent less than in 1931. The percentage loss of average earnings per week was more than for average earnings per hour because of more lost time or part-time work in 1933 than in 1931. The average of the hours that were actually worked in 1 week was 89.7 percent of the average full-time hours per week in 1931, as compared with 86.4 percent in 1933, thus showing that there was 10.3 percent of lost time in 1931, as compared with 13.6 percent of lost time in 1933.

The figures quoted above are part of the summaries of the results of studies by the Bureau of Labor Statistics of the manufacture of silk, rayon, or of mixed silk-and-rayon goods. In making the studies, wage figures covering days, hours, and earnings were collected from the 1931 pay rolls of 340 representative mills in 13 States for 49,036 wage earners, and from the 1933 pay rolls of 291 mills in the same States for 41,713 wage earners.

Studies of the silk-goods industry were made by the Bureau in each of the years from 1910 to 1914 and in 1919. The figures in table 1 for these years are for silk goods only. The manufacture of rayon yarn in the United States is a comparatively new industry and was for years prior to 1925 of so little importance that it was grouped by the United States Census of Manufactures with "Chemicals, not elsewhere classified." Details of the 1933 study will be published later as a bulletin [1] of the Bureau.

The studies in the various years from 1910 to 1933 were limited to mills the principal products of which were broad goods, ribbons, dress goods, linings, shirtings, satins, georgettes, pongees, crepes, taffetas, chiffons, and tie goods, made of silk and/or rayon.

[1] For details of the studies for the specified years prior to 1932, see Buls. Nos. 128, 150, 190, and 568.

There were according to the United States Census of Manufactures 130,467 wage earners in the silk and rayon industry in 1929 and 109,225 in the industry in 1931. The number (41,713) covered in 1933 is 38 percent of the total in the industry in the United States in 1931.

Except for a few mills the 1933 days, hours, and earnings of wage earners were collected by agents of the Bureau directly from the pay rolls of the mills included in the study for one representative pay period in March, April, May, or June and therefore reflect the conditions of the industry for that part of the year. The length of pay periods varied in the different mills from 1 to 2 weeks or more. Those of more than 1 week were converted by the Bureau to a 1-week basis.

The average earnings per hour and per week in this report include earnings at basic rates and any bonuses or premiums earned in the week covered in the study.

Trend of Hours and Earnings, 1910 to 1933

THE averages in table 1 for each of the years from 1910 to 1914 and for 1919 are for a combination of the wage figures for the wage earners in certain selected occupations in the industry. The averages for these years are comparable one year with another. The averages in the table for 1914, 1931, and 1933 for a combination of the wage figures of the wage earners in all occupations in the industry are also comparable, one year with another, but are not comparable with the averages for a combination of the wage figures of the wage earners in the selected occupations for any year from 1910 to 1914 or in 1919.

The index numbers in the table are for the purpose of furnishing comparable figures for the specified years from 1910 to 1933. The index for any year for selected occupations only is the percent that the average for that year is of the 1913 average. The index of average earnings per hour for 1931 or for 1933 was computed by increasing the 1914 index for selected occupations by the percent that the 1931 or 1933 average for all occupations is in excess of the 1914 average for all occupations. The index of average full-time hours and full-time earnings per week were each computed in like manner.

Index numbers of full-time hours per week ranged, by years, from a low of 91 in 1931 to a high of 101.3 in 1910 and 1911, and in 1933 was 8.6 percent less than the 1913 index.

The index of average earnings per hour ranged, by years, from a low of 86.5 in 1910 to a high of 215.8 in 1931, and in 1933 was 43 percent more than the 1913 index.

The index of average full-time earnings per week ranged, by years, from a low of 88.6 in 1910 to a high of 198.2 in 1931, and in 1933 was 31.8 percent more than in 1913, the basic year. The index of average full-time earnings per week did not change in the same proportion as earnings per hour, owing to the change from year to year in average full-time hours per week.

TABLE 1.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS, 1910 TO 1933

Year	Number of establishments	Number of wage earners	Average full-time hours per week	Average hours actually worked in 1 week	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week	Index numbers (1913=100)		
								Full-time hours per week	Earnings per hour	Full-time earnings per week
Selected occupations:										
1910	42	7,779	56.4	(1)	$0.167	$9.43	(1)	101.3	86.5	88.6
1911	42	11,105	56.4	(1)	.172	9.70	(1)	101.3	89.1	91.2
1912	51	11,762	55.9	(1)	.182	10.18	(1)	100.4	94.3	95.7
1913	59	12,002	55.7	(1)	.193	10.64	(1)	100.0	100.0	100.0
1914 [2]	63	18,293	54.6	(1)	.202	11.06	(1)	98.0	104.7	103.9
1919	33	9,415	51.6	(1)	.384	19.81	(1)	92.6	199.0	186.2
All occupations:										
1914 [2]	63	22,344	54.6	(1)	.197	10.79	(1)			
1931	340	49,036	50.7	45.5	.406	20.58	$18.47	91.0	215.8	198.2
1933	291	41,713	50.9	44.0	.269	13.69	11.85	91.4	143.0	131.8

[1] Not available.
[2] 2 sets of averages are shown for 1914 for the industry, one for selected occupations and the other for all occupations in the industry. The 1910 to 1919 averages for selected occupations only are comparable, one year with another, as are those for all occupations for 1914 to 1933.

Average Days, Hours, and Earnings, 1931 and 1933, by Occupation and Sex

TABLE 2 shows for males in each of 23 of the important occupations in the industry and in the miscellaneous group designated in the table as "Other employees", and for females in each of 20 of the 23 important occupations and in the group of "Other employees" average number of days on which wage earners worked in a representative week in 1931 and 1933, average full-time and actual hours and earnings per week in each year, average earnings per hour, and the percent that the average hours actually worked in the week in each year is of the average full-time hours per week. Females were not employed in three of the 23 important occupations, namely dye-house laborers, loom fixers, and bobbin boys. The group of "other employees" include wage earners in all occupations in the industry other than those referred to as important occupations.

The figures at the end of the table are for a combination of all wage earners, males and females, and show that they worked an average of 5.2 days in 1 week in 1931 and an average of 5 days in 1933. In computing this average each day on which a wage earner did any work in the week was counted a day.

Average days worked in the week in 1931 by males ranged, by occupation, from a low of 4.3 for rayon winders to a high of 5.7 for packers, and in 1933 ranged from 3.9 for dye-house laborers and coners to 5.8 for cloth pickers. Average days for females ranged in 1931 from 4.7 for doublers to 5.9 for coners and in 1933 ranged from 4 for soft-silk winders to 5.5 for smash hands.

Average hours actually worked in 1 week by males ranged, by occupation, in 1931 from 38.2 for enterers' helpers to 57.8 for doublers, and in 1933 from 35.6 for dye-house laborers to 55 for hard-silk winders. Averages for females ranged in 1931 from 39.3 for reelers and packers to 51.5 for smash hands, and in 1933 from 33.8 for soft-silk winders to 48 for smash hands.

Average earnings per hour of males in 1931 ranged, by occupation, from 19.7 cents for redrawers to 74.6 cents for loom fixers, and in

1933 ranged from 17.4 cents for hard-silk winders to 53.4 cents for loom fixers. Averages for females ranged in 1931 from 24.3 cents for redrawers to 47.6 cents for warpers, and in 1933 from 17.7 cents for redrawers to 32.1 cents for warpers.

Average earnings per hour of males in each of the occupations in the table except two—soft-silk winders and cloth pickers—and of females in each occupation were less in 1933 than in 1931. No males were found in the occupation of soft-silk winders in 1933. Cloth pickers, males, earned an average of 26 cents per hour in 1931 and 26.9 cents in 1933.

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY OCCUPATION AND SEX

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Winders, hard-silk:										
Male	1931	14	61	5.1	51.9	48.7	93.8	$0.267	$13.86	$13.00
	1933	6	10	5.4	56.7	55.0	97.0	.174	9.87	9.58
Female	1931	183	5,105	5.0	50.1	40.7	81.2	.293	14.68	11.94
	1933	184	4,222	4.9	50.3	40.7	80.9	.206	10.36	8.38
Doublers:										
Male	1931	6	52	5.5	58.9	57.8	98.1	.350	20.62	20.26
	1933	4	17	4.3	49.7	36.3	73.0	.270	13.42	9.82
Female	1931	33	372	4.7	50.3	39.8	79.1	.287	14.44	11.42
	1933	24	273	4.7	50.8	40.7	80.1	.201	10.21	8.19
Spinners:										
Male	1931	109	1,794	4.8	54.2	49.9	92.1	.344	18.64	17.18
	1933	105	2,074	4.6	55.6	47.9	86.2	.251	13.96	12.06
Female	1931	104	2,346	5.1	50.2	43.1	85.9	.289	14.51	12.46
	1933	96	2,208	5.1	50.0	42.6	85.2	.211	10.55	9.01
Reelers:										
Male	1931	6	19	5.4	46.8	41.3	88.2	.319	14.93	13.16
	1933	5	23	4.5	48.9	41.0	83.8	.284	13.89	11.66
Female	1931	31	237	4.9	49.8	39.3	78.9	.287	14.29	11.30
	1933	20	117	4.4	49.4	35.8	72.5	.203	10.03	7.25
Laborers, dye-house, male	1931	13	464	5.2	52.0	50.9	97.9	.479	24.91	24.36
	1933	9	443	3.9	50.0	35.6	71.2	.410	20.50	14.59
Winders, rayon:										
Male	1931	2	30	4.3	55.0	47.4	86.2	.375	20.63	17.77
	1933	2	12	4.6	55.8	51.6	92.5	.205	11.44	10.57
Female	1931	23	372	5.0	52.5	42.2	80.4	.295	15.49	12.45
	1933	61	1,082	4.9	49.5	39.7	80.2	.200	9.90	7.97
Winders, soft-silk:										
Male	1931	6	22	5.4	57.3	52.4	91.4	.319	18.28	16.73
Female	1931	126	1,554	5.0	49.2	42.2	85.8	.340	16.73	14.38
	1933	47	512	4.0	50.1	33.8	67.5	.235	11.77	7.96
Redrawers:										
Male	1931	13	63	5.3	52.7	49.9	94.7	.197	10.38	9.83
	1933	15	119	4.4	56.2	45.3	80.6	.205	11.52	9.27
Female	1931	113	1,887	5.0	50.4	41.5	82.3	.243	12.25	10.08
	1933	120	2,499	5.0	50.6	41.8	82.6	.177	8.96	7.39
Warpers:										
Male	1931	166	993	5.1	51.1	45.4	88.8	.648	33.11	29.42
	1933	153	844	4.9	51.7	44.6	86.3	.396	20.47	17.66
Female	1931	164	1,974	5.1	50.4	43.5	86.3	.476	23.99	20.72
	1933	139	1,343	4.8	50.5	40.3	79.8	.321	16.21	12.94
Quillers:										
Male	1931	62	299	4.9	54.2	49.2	90.8	.250	13.55	12.28
	1933	66	325	5.0	51.9	46.3	89.2	.188	9.76	8.69
Female	1931	238	1,934	5.3	50.0	44.2	88.4	.265	13.25	11.74
	1933	193	1,608	5.0	50.5	42.5	84.2	.192	9.70	8.16
Coners:										
Male	1931	7	161	4.9	52.1	48.8	93.7	.323	16.83	15.76
	1933	9	183	3.9	56.1	38.6	68.8	.258	14.47	9.94
Female	1931	18	528	5.9	50.4	43.4	86.1	.278	14.01	12.07
	1933	25	664	5.1	50.9	43.5	85.5	.213	10.84	9.27
Enterers:										
Male	1931	20	41	5.2	51.7	46.7	90.3	.414	21.40	19.32
	1933	24	73	4.6	53.0	42.3	79.8	.268	14.20	11.34
Female	1931	73	376	5.1	50.8	42.4	83.5	.387	19.66	16.39
	1933	73	407	4.5	51.7	37.6	72.7	.291	15.04	10.93

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY OCCUPATION AND SEX—Continued

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Enterers' helpers:										
Male	1931	15	30	4.6	51.5	38.2	74.2	$0.246	$12.67	$9.40
	1933	7	30	5.1	54.9	49.6	90.3	.177	9.72	8.75
Female	1931	39	154	5.1	50.8	42.3	83.3	.260	13.21	10.98
	1933	24	123	4.3	51.3	35.4	69.0	.197	10.11	6.97
Twisters-in, hand:										
Male	1931	145	407	5.3	49.7	45.5	91.5	.634	31.51	28.84
	1933	123	372	4.8	50.5	41.8	82.8	.435	21.97	18.20
Female	1931	61	228	5.3	50.6	42.5	84.0	.428	21.66	18.19
	1933	51	230	5.1	50.3	43.1	85.7	.279	14.03	12.04
Twisters-in, machine:										
Male	1931	94	198	5.6	50.7	49.2	97.0	.615	31.18	30.27
	1933	85	163	5.2	51.7	49.0	94.8	.427	22.08	20.95
Female	1931	40	97	5.2	51.5	43.8	85.0	.440	22.66	19.30
	1933	23	58	5.2	51.4	42.4	82.5	.315	16.19	13.35
Loom fixer, male	1931	234	1,518	5.6	51.0	50.2	98.4	.746	38.05	37.47
	1933	197	1,236	5.4	51.2	49.9	97.5	.534	27.34	26.63
Bobbin boys	1931	88	460	5.5	51.4	48.6	94.6	.222	11.41	10.78
	1933	129	760	5.0	51.7	45.6	88.2	.178	9.20	8.09
Weavers, broad silk:										
Male	1931	224	9,796	5.2	51.2	47.0	91.8	.499	25.55	23.47
	1933	185	8,604	5.1	50.7	46.4	91.5	.287	14.55	13.34
Female	1931	203	5,904	5.5	49.6	46.0	92.7	.422	20.93	19.38
	1933	169	3,829	5.3	49.6	44.9	90.5	.254	12.60	11.39
Weavers, ribbon:										
Male	1931	15	332	5.0	47.3	42.1	89.0	.558	26.39	23.51
	1933	16	284	4.9	48.7	43.6	89.5	.362	17.63	15.79
Female	1931	12	272	5.3	48.2	42.8	88.8	.444	21.40	19.01
	1933	11	227	5.4	47.7	43.8	91.8	.248	11.83	10.87
Smash hands:										
Male	1931	29	116	5.3	51.5	48.5	94.2	.536	27.60	25.98
	1933	38	176	5.1	51.3	47.7	93.0	.372	19.08	17.73
Female	1931	9	16	5.8	52.1	51.5	98.8	.409	21.31	21.03
	1933	15	27	5.5	51.5	48.0	93.2	.320	16.48	15.37
Pickers, cloth:										
Male	1931	21	64	4.4	52.0	39.1	75.2	.260	13.52	10.18
	1933	22	24	5.8	50.9	50.7	99.6	.269	13.69	13.64
Female	1931	183	1,062	5.2	49.8	42.9	86.1	.270	13.45	11.58
	1933	133	725	4.9	50.5	40.0	79.2	.194	9.80	7.78
Inspectors, cloth:										
Male	1931	68	160	5.8	51.1	50.2	98.2	.538	27.49	27.03
	1933	66	153	5.5	52.2	50.0	95.8	.382	19.94	19.13
Female	1931	57	208	5.6	50.6	47.7	94.3	.327	16.55	15.60
	1933	66	245	5.3	51.4	42.3	82.3	.242	12.44	10.25
Packers:										
Male	1931	36	81	5.7	49.8	48.5	97.4	.355	17.68	17.22
	1933	44	127	5.3	50.6	46.6	92.1	.279	14.12	12.99
Female	1931	23	70	4.9	49.5	39.3	79.4	.263	13.02	10.34
	1933	22	198	4.9	51.1	42.2	82.6	.197	10.07	8.34
Other employees:										
Male	1931	282	4,724	5.6	51.5	50.8	98.6	.434	22.35	22.08
	1933	244	3,448	5.3	51.5	47.7	92.6	.356	18.33	16.96
Female	1931	208	2,455	5.2	50.0	43.3	86.6	.276	13.80	11.95
	1933	178	1,616	5.0	50.5	41.9	83.0	.206	10.40	8.62
All employees:										
Male	1931	340	21,885	5.3	51.5	48.4	94.0	.485	24.98	23.45
	1933	291	19,500	5.0	51.6	46.5	90.1	.319	16.46	14.82
Female	1931	340	27,151	5.2	50.0	43.2	86.4	.335	16.75	14.46
	1933	291	22,213	5.0	50.2	41.8	83.3	.221	11.09	9.24
All wage earners, male and female	1931	340	49,036	5.2	50.7	45.5	89.7	.406	20.58	18.47
	1933	291	41,713	5.0	50.9	44.0	86.4	.269	13.69	11.85

Average actual earnings in 1 week of males in 1931 ranged, by occupation, from a low of $9.40 for enterers' helpers to a high of $37.47 for loom fixers, and in 1933 ranged from $8.09 for bobbin boys to $26.63 for loom fixers. Averages of females in 1931 in the various

occupations ranged from $10.08 for redrawers to $21.03 for smash hands, and in 1933 from $6.97 for enterers' helpers to $15.37 for smash hands. The decrease between 1931 and 1933 of $10.84 per week in the earnings of loom fixers was more than for males in any other occupation, and of $8.14 per week of smash hands was more than for females in any other occupation. Average actual earnings in 1 week of males in each of the occupations in the table except two and of females in each occupation were less in 1933 than in 1931.

Average Days, Hours, and Earnings, 1931 and 1933, by Sex and State

TABLE 3 shows for the wage earners of each sex covered in each State in 1931 and in 1933, or in the group of 3 States (Alabama, Georgia, and South Carolina), average days, hours, and earnings, and the percent of full time actually worked in 1 representative week in each year. The wage figures for the wage earners in the 3 States were combined to avoid presenting data for 1 establishment only, and thus possibly reveal its identity.

Average actual hours worked in 1 week in 1931 by males ranged, by States, from 43 to 53, and for all States averaged 48.4; those by females ranged from 41.3 to 49 and for all States averaged 43.2. The averages in 1933 for males ranged from 42 to 55.8 and for all States the average was 46.5; and for females ranged from 40.2 to 47.6 and for all States averaged 44.

Average earnings per hour for males in 1931 ranged, by States, from 21.8 to 59.7 cents and for all States averaged 48.5 cents, and those for females ranged from 18.1 to 41.8 cents and for all States averaged 33.5 cents. In 1933 the averages for males ranged from 15.1 to 36.4 cents and for all States averaged 31.9 cents, and those for females ranged from 12.7 to 28.4 cents and for all States averaged 22.1 cents per hour.

Average earnings per hour, full-time earnings per week, and actual earnings in 1 week for each State and for the group of 3 States were less in 1933 than in 1931.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY SEX AND STATE

Sex and State	Year	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Males										
Connecticut	1931	13	1,546	5.6	51.0	49.7	97.5	$0.522	$26.62	$25.92
	1933	15	1,823	4.9	50.1	42.0	83.8	.364	18.24	15.29
Maryland	1931	3	132	5.1	56.0	51.7	92.3	.310	17.36	16.01
	1933	5	236	5.1	49.3	45.4	92.1	.247	12.18	11.18
Massachusetts	1931	12	734	4.9	50.2	43.0	85.7	.459	23.04	19.71
	1933	11	597	5.2	50.6	49.3	97.4	.292	14.78	14.40
New Jersey	1931	97	3,331	5.2	47.5	43.7	92.0	.597	28.36	26.06
	1933	74	2,352	5.1	49.1	45.0	91.6	.363	17.82	16.30
New York	1931	37	1,780	5.3	51.3	48.1	93.8	.502	25.75	24.14
	1933	33	1,596	5.4	51.2	49.3	96.3	.350	17.92	17.28
North Carolina	1931	10	1,378	5.1	55.3	51.2	92.6	.419	24.97	21.44
	1933	10	1,422	5.0	51.9	45.3	87.3	.285	14.79	12.94
Pennsylvania	1931	131	10,349	5.3	52.2	49.5	94.8	.474	24.74	23.45
	1933	112	9,332	4.9	52.1	46.2	88.7	.313	16.31	14.46
Rhode Island	1931	20	1,403	5.2	50.3	47.1	93.6	.553	27.82	26.04
	1933	12	932	5.2	51.5	49.4	95.9	.364	18.75	17.96

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY SEX AND STATE—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Males—Continued										
South Carolina, Alabama, and Georgia	1931	5	447	5.2	55.1	51.7	93.8	$0.294	$16.20	$15.20
	1933	6	417	5.1	56.0	51.6	92.1	.225	12.60	11.61
Tennessee	1931	6	311	5.4	56.8	53.0	93.3	.218	12.38	11.53
	1933	8	369	5.3	56.9	55.8	98.1	.151	8.59	8.44
Virginia	1931	6	474	5.2	53.8	50.2	93.3	.323	17.38	16.22
	1933	5	424	5.2	55.7	52.2	93.7	.265	14.76	13.83
Total	1931	340	21,885	5.3	51.5	48.4	94.0	.485	24.98	23.45
	1933	291	19,500	5.0	51.6	46.5	90.1	.319	16.46	14.82
Females										
Connecticut	1931	13	1,429	5.5	49.3	45.7	92.7	.385	18.98	17.56
	1933	15	1,354	4.9	50.8	41.4	81.5	.259	13.16	10.75
Maryland	1931	3	381	5.4	50.0	44.5	89.0	.230	11.50	10.22
	1933	5	309	5.1	48.8	42.8	87.7	.172	8.39	7.35
Massachusetts	1931	12	776	5.3	47.6	42.4	89.1	.278	13.23	11.79
	1933	11	500	5.4	46.9	42.4	90.4	.213	9.99	9.02
New Jersey	1931	97	3,764	5.2	46.9	41.3	88.1	.410	19.23	16.94
	1933	74	2,204	5.1	47.8	41.8	87.4	.251	12.00	10.50
New York	1931	37	3,047	5.4	48.7	44.4	91.2	.335	16.31	14.90
	1933	33	2,400	5.4	48.8	43.4	88.9	.227	11.08	9.85
North Carolina	1931	10	809	5.2	55.2	47.8	86.6	.314	17.33	15.00
	1933	10	817	4.9	52.4	42.4	80.9	.217	11.37	9.18
Pennsylvania	1931	131	14,250	5.1	50.5	42.4	84.0	.324	16.36	13.71
	1933	112	12,165	4.9	50.2	40.2	80.1	.216	10.84	8.70
Rhode Island	1931	20	1,170	4.9	49.7	42.6	85.7	.418	20.77	17.80
	1933	12	842	5.4	50.7	46.8	92.3	.284	14.40	13.28
South Carolina, Alabama, and Georgia	1931	5	428	5.3	55.6	49.0	88.1	.240	13.34	11.75
	1933	6	498	5.1	55.6	47.6	85.6	.165	9.17	7.86
Tennessee	1931	6	511	5.3	56.1	48.1	85.7	.181	10.15	8.70
	1933	8	633	5.1	55.4	47.2	85.2	.127	7.04	6.02
Virginia	1931	6	586	5.2	54.1	47.6	88.0	.265	14.34	12.61
	1933	5	491	5.3	55.3	49.2	89.0	.202	11.17	9.96
Total	1931	340	27,151	5.2	50.0	43.2	86.4	.335	16.75	14.46
	1933	291	22,213	5.0	50.2	41.8	83.3	.221	11.09	9.24
Males and females										
Connecticut	1931	13	2,975	5.6	50.2	47.8	95.2	.459	23.04	21.91
	1933	15	3,177	4.9	50.4	41.8	82.9	.320	16.13	13.36
Maryland	1931	3	513	5.3	51.5	46.3	89.9	.253	13.03	11.71
	1933	5	545	5.1	49.0	43.9	89.6	.205	10.05	9.01
Massachusetts	1931	12	1,510	5.1	48.9	42.7	87.3	.367	17.95	15.64
	1933	11	1,097	5.3	48.9	46.1	94.3	.259	12.67	11.95
New Jersey	1931	97	7,095	5.2	47.2	42.4	89.8	.500	23.60	21.23
	1933	74	4,556	5.1	48.5	43.4	89.5	.311	15.08	13.49
New York	1931	37	4,827	5.4	49.7	45.8	92.2	.400	19.88	18.31
	1933	33	3,996	5.4	49.7	45.8	92.2	.280	13.92	12.82
North Carolina	1931	10	2,187	5.1	55.2	49.9	90.4	.382	21.09	19.06
	1933	10	2,239	5.0	52.1	44.3	85.0	.261	13.60	11.57
Pennsylvania	1931	131	24,599	5.2	51.2	45.4	88.7	.393	20.12	17.81
	1933	112	21,497	4.9	51.0	42.8	83.9	.262	13.36	11.20
Rhode Island	1931	20	2,573	5.0	50.0	45.0	90.0	.495	24.75	22.29
	1933	12	1,774	5.3	51.1	48.2	94.3	.327	16.71	15.74
South Carolina, Alabama, and Georgia	1931	5	875	5.2	55.4	50.4	91.0	.268	14.85	13.51
	1933	6	915	5.1	55.8	49.4	88.5	.194	10.83	9.57
Tennessee	1931	6	822	5.3	56.4	49.9	88.5	.196	11.05	9.77
	1933	8	1,002	5.2	55.9	50.4	90.2	.137	7.66	6.91
Virginia	1931	6	1,060	5.2	54.0	48.8	90.4	.292	15.77	14.23
	1933	5	915	5.2	55.5	50.6	91.2	.232	12.88	11.75
Total	1931	340	49,036	5.2	50.7	45.5	89.7	.406	20.58	18.47
	1933	291	41,713	5.0	50.9	44.0	86.4	.269	13.69	11.85

Average Hours and Earnings for Nine Occupations, 1933, by Sex and State

THE averages in table 4 are limited, for economy in space and cost of printing, to the wage earners in nine representative occupations in the industry. They illustrate the variations in average days, hours, earnings, and of the percent of full time worked in 1 week for the wage earners in all of the occupations in the industry.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 REPRESENTATIVE OCCUPATIONS, 1933, BY SEX AND STATE

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Winders, hard-silk, male:									
Connecticut	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	3	7	5.4	57.4	57.1	99.5	$0.166	$9.53	$9.46
Tennessee	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Virginia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total	6	10	5.4	56.7	55.0	97.0	.174	9.87	9.58
Winders, hard-silk, female:									
Connecticut	10	248	4.9	51.1	41.0	80.2	.199	10.17	8.15
Maryland	4	46	5.2	49.5	43.5	87.9	.141	6.98	6.12
Massachusetts	6	61	5.3	43.4	37.0	85.3	.205	8.90	7.59
New Jersey	46	410	5.1	47.4	40.6	85.7	.216	10.24	8.77
New York	26	489	5.3	48.7	42.9	88.1	.214	10.42	9.18
North Carolina	3	131	5.5	55.1	52.9	96.0	.215	11.85	11.36
Pennsylvania	66	2,392	4.6	50.3	38.3	76.1	.211	10.61	8.09
Rhode Island	9	158	5.4	51.1	46.7	91.4	.212	10.83	9.93
South Carolina, Alabama, and Georgia	4	37	5.3	56.4	54.8	97.2	.151	8.52	8.26
Tennessee	8	159	4.9	55.2	46.3	83.9	.125	6.90	5.77
Virginia	2	91	5.6	54.1	50.7	93.7	.188	10.17	9.55
Total	184	4,222	4.9	50.3	40.7	80.9	.206	10.36	8.38
Spinners, male:									
Connecticut	5	38	3.7	52.1	38.0	72.9	.246	12.82	9.36
Maryland	3	50	4.9	52.0	43.3	83.3	.159	8.27	6.87
Massachusetts	2	22	5.7	48.0	49.3	102.7	.253	12.14	12.47
New Jersey	16	142	4.8	54.3	47.8	88.0	.273	14.82	13.05
New York	12	191	5.3	58.9	57.7	98.0	.297	17.49	17.12
North Carolina	2	54	4.1	59.5	45.5	76.5	.236	14.04	10.73
Pennsylvania	55	1,446	4.5	55.5	46.9	84.5	.254	14.10	11.89
Rhode Island	2	13	5.8	54.0	57.8	107.0	.279	15.07	16.15
South Carolina, Alabama, and Georgia	2	5	5.2	57.5	57.5	100.0	.153	8.80	8.80
Tennessee	4	46	5.6	55.5	55.6	100.2	.119	6.60	6.59
Virginia	2	67	4.7	55.2	46.7	84.6	.183	10.10	8.54
Total	105	2,074	4.6	55.6	47.9	86.2	.251	13.96	12.06
Spinners, female:									
Connecticut	3	49	5.0	50.7	42.9	84.6	.226	11.46	9.71
Maryland	3	17	4.8	46.8	44.4	94.9	.217	10.16	9.64
Massachusetts	2	11	5.7	48.0	46.6	97.1	.227	10.90	10.57
New Jersey	17	127	5.3	49.1	44.0	89.6	.211	10.36	9.30
New York	11	422	5.6	48.5	45.3	93.4	.210	10.19	9.54
North Carolina	2	91	4.6	55.4	45.6	82.3	.203	11.25	9.27
Pennsylvania	51	1,351	5.0	49.8	40.6	81.5	.216	10.76	8.76
Rhode Island	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
South Carolina, Alabama, and Georgia	2	14	5.8	57.3	56.8	99.1	.168	9.63	9.56
Tennessee	2	41	4.9	54.2	42.8	79.0	.145	7.86	6.21
Virginia	2	82	5.4	54.9	52.9	96.4	.193	10.60	10.19
Total	96	2,208	5.1	50.0	42.6	85.2	.211	10.55	9.01

[1] Data included in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 REPRESENTATIVE OCCUPATIONS, 1933, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Winders, soft-silk, female:									
Connecticut	4	109	3.3	48.3	27.4	56.7	$0.293	$14.15	$8.03
New Jersey	16	84	4.5	44.8	35.8	79.9	.288	12.90	10.32
New York	4	31	4.3	49.9	37.8	75.8	.242	12.08	9.14
Pennsylvania	22	275	4.0	52.1	34.7	66.6	.210	10.94	7.27
South Carolina, Alabama, and Georgia	1	(1)	(1)	( )	(1)	(1)	(1)	(1)	(1)
Total	47	512	4.0	50.1	33.8	67.5	.235	11.77	7.96
Redrawers, male:									
New York	2	4	4.8	54.4	44.8	82.4	.175	9.52	7.84
North Carolina	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Pennsylvania	10	108	4.5	56.4	45.6	80.9	.209	11.79	9.52
South Carolina, Alabama, and Georgia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Tennessee	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total	15	119	4.4	56.2	45.3	80.6	.205	11.52	9.27
Redrawers, female:									
Connecticut	9	70	4.9	51.3	40.0	78.0	.204	10.47	8.14
Maryland	3	77	5.7	50.0	45.8	91.6	.127	6.35	5.81
Massachusetts	3	45	4.8	48.0	37.0	77.1	.150	7.20	5.56
New Jersey	17	156	5.4	49.7	43.9	88.3	.169	8.40	7.43
New York	10	272	5.5	49.5	45.1	91.1	.198	9.80	8.93
North Carolina	4	85	3.8	48.2	29.2	60.6	.154	7.42	4.50
Pennsylvania	60	1,623	5.0	41.5	41.5	81.9	.176	8.92	7.32
Rhode Island	4	30	5.7	50.8	49.3	97.0	.186	9.45	9.20
South Carolina, Alabama, and Georgia	4	26	4.4	56.0	41.2	73.6	.182	10.19	7.50
Tennessee	4	58	4.4	54.6	38.1	69.8	.134	7.32	5.11
Virginia	2	57	5.3	54.0	50.0	92.6	.209	11.29	10.47
Total	120	2,499	5.0	50.6	41.8	82.6	.177	8.96	7.39
Warpers, male:									
Connecticut	8	37	5.9	53.2	56.5	106.2	.372	19.79	21.02
Maryland	2	5	5.4	51.0	48.0	94.1	.323	16.47	15.52
Massachusetts	8	29	5.0	50.2	47.3	94.2	.415	20.83	19.64
New Jersey	53	185	5.1	49.2	44.3	90.0	.480	23.62	21.26
New York	21	104	5.3	50.8	47.6	93.7	.469	23.83	22.32
North Carolina	4	58	5.5	49.9	45.4	91.0	.329	16.42	14.90
Pennsylvania	42	367	4.4	52.6	40.6	77.2	.378	19.88	15.33
Rhode Island	6	9	5.9	54.1	54.2	100.2	.465	25.16	25.18
South Carolina, Alabama, and Georgia	4	18	4.8	56.4	53.6	95.0	.206	11.62	11.03
Tennessee	5	32	5.2	57.8	55.8	96.5	.173	10.00	9.65
Total	153	844	4.9	51.7	44.6	86.3	.396	20.47	17.66
Warpers, female:									
Connecticut	10	114	5.3	51.6	46.8	90.7	.323	16.67	15.12
Maryland	2	14	2.7	47.7	23.3	48.8	.202	9.64	4.72
Massachusetts	8	39	5.8	48.0	45.8	95.4	.295	14.16	13.53
New Jersey	27	126	4.8	46.6	38.8	83.3	.356	16.59	13.80
New York	13	49	5.0	48.6	39.8	81.9	.350	17.01	13.94
North Carolina	4	40	4.7	52.9	41.5	78.4	.280	14.81	11.61
Pennsylvania	50	744	4.5	50.5	37.1	73.5	.318	16.06	11.80
Rhode Island	11	138	5.4	50.9	46.2	90.8	.419	21.33	19.36
South Carolina, Alabama, and Georgia	6	43	5.6	56.3	55.2	98.0	.182	10.25	10.03
Tennessee	5	32	5.5	56.1	52.6	93.8	.147	8.25	7.75
Virginia	3	4	5.5	56.3	45.8	81.3	.263	14.81	12.03
Total	139	1,343	4.8	50.5	40.3	79.8	.321	16.21	12.94

[1] Data included in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 REPRESENTATIVE OCCUPATIONS, 1933, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Quillers, male:									
Connecticut	4	24	5.6	50.8	47.8	94.1	$0.198	$10.06	$9.46
Massachusetts	7	29	5.1	51.3	50.4	98.2	.218	11.18	10.97
New Jersey	5	8	4.5	51.7	43.8	84.7	.194	10.03	8.49
New York	7	24	5.4	51.3	46.9	91.4	.156	8.00	7.33
North Carolina	5	84	4.6	49.9	39.1	78.4	.191	9.53	7.47
Pennsylvania	28	107	5.1	52.2	48.3	92.5	.194	10.13	9.38
Rhode Island	2	10	4.0	53.8	35.0	65.1	.200	10.76	6.98
South Carolina, Alabama, and Georgia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Tennessee	4	17	5.1	58.1	59.7	102.8	.095	5.52	5.67
Virginia	3	20	5.1	55.0	51.2	93.1	.215	11.83	11.01
Total	66	325	5.0	51.9	46.3	89.2	.188	9.76	8.69
Quillers, female:									
Connecticut	9	103	5.4	52.3	48.3	92.4	.206	10.77	9.98
Maryland	2	29	4.7	50.2	41.4	82.5	.184	9.24	7.63
Massachusetts	9	64	5.3	46.9	42.8	91.3	.156	7.32	6.66
New Jersey	58	223	5.3	48.0	42.3	88.1	.228	10.94	9.64
New York	25	118	5.0	47.5	39.2	82.5	.216	10.26	8.49
North Carolina	6	92	4.7	50.7	38.2	75.3	.197	9.99	7.51
Pennsylvania	60	711	4.9	50.5	41.2	81.6	.184	9.29	7.59
Rhode Island	10	71	5.5	50.5	48.5	96.0	.229	11.56	11.12
South Carolina, Alabama, and Georgia	4	80	4.8	55.4	45.0	81.2	.157	8.70	7.07
Tennessee	5	44	4.9	56.0	46.7	83.4	.086	4.82	4.02
Virginia	5	73	5.1	55.2	46.6	84.4	.197	10.87	9.19
Total	193	16.08	5.0	50.5	42.5	84.2	.192	9.70	8.16
Loom fixers, male:									
Connecticut	11	99	5.4	50.9	48.7	95.7	.555	28.25	26.99
Maryland	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts	11	43	5.7	50.1	52.0	103.8	.547	27.40	28.48
New Jersey	58	158	5.5	48.8	47.8	98.0	.603	29.43	28.84
New York	25	115	5.4	50.5	47.0	93.1	.546	27.57	25.62
North Carolina	8	107	5.3	51.5	48.6	94.4	.452	23.28	21.97
Pennsylvania	60	524	5.4	51.1	50.2	98.2	.557	28.46	27.97
Rhode Island	9	84	5.5	51.1	52.1	102.0	.593	30.30	30.95
South Carolina, Alabama, and Georgia	6	43	5.0	55.6	49.9	89.7	.312	17.35	15.56
Tennessee	5	32	5.4	57.3	56.3	98.3	.281	16.10	15.79
Virginia	3	28	5.8	55.9	59.1	105.7	.402	22.47	23.77
Total	197	1,236	5.4	51.2	49.9	97.5	.534	27.34	26.63
Weavers, broad-silk, male:									
Connecticut	11	917	5.2	50.2	44.6	88.8	.321	16.11	14.29
Massachusetts	11	361	5.1	51.1	49.2	96.3	.254	12.98	12.51
New Jersey	54	1,317	5.2	49.0	45.8	93.5	.298	14.60	13.67
New York	20	702	5.4	49.9	46.9	94.0	.302	15.07	14.19
North Carolina	8	735	5.2	51.1	45.0	88.1	.292	14.92	13.12
Pennsylvania	56	3,458	5.0	50.7	46.0	90.7	.279	14.15	12.83
Rhode Island	11	619	5.0	51.5	47.5	92.2	.327	16.84	15.51
South Carolina, Alabama, and Georgia	6	188	4.9	56.1	50.5	90.0	.222	12.45	11.23
Tennessee	5	160	5.0	56.5	53.4	94.5	.147	8.31	7.83
Virginia	3	147	5.1	55.4	53.7	96.9	.282	15.62	15.14
Total	185	8,604	5.1	50.7	46.4	91.5	.287	14.55	13.34

[1] Data included in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS FOR 9 REPRESENTATIVE OCCUPATIONS, 1933, BY SEX AND STATE—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days on which wage earners 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	Percent of full time			
Weavers, broad-silk, female:									
Connecticut	11	304	5.5	51.3	47.8	93.2	$0.301	$15.44	$14.41
Massachusetts	8	114	5.8	47.0	46.3	98.5	.242	11.37	11.19
New Jersey	48	572	5.2	48.7	44.1	90.6	.277	13.49	12.23
New York	19	379	5.3	48.0	42.9	89.4	.288	13.82	12.35
North Carolina	6	83	5.2	51.5	44.8	87.0	.268	13.80	12.03
Pennsylvania	55	1,817	5.3	48.7	43.5	89.3	.242	11.79	10.54
Rhode Island	8	239	5.2	50.4	46.8	92.9	.294	14.82	13.76
South Carolina, Alabama, and Georgia	6	98	5.1	55.5	49.1	88.5	.159	8.82	7.81
Tennessee	5	140	5.6	55.0	52.5	95.5	.147	8.09	7.73
Virginia	3	83	5.7	57.3	54.1	94.4	.222	12.72	12.02
Total	169	3,829	5.3	49.6	44.9	90.5	.254	12.60	11.39
Pickers, cloth, male:									
Connecticut	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Massachusetts	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey	3	3	4.3	49.3	37.6	76.3	.263	12.97	9.89
New York	4	4	6.0	50.8	55.3	108.9	.290	14.73	16.01
Pennsylvania	12	13	6.0	51.1	51.4	100.6	.276	14.10	14.22
South Carolina, Alabama, and Georgia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Total	22	24	5.8	50.9	50.7	99.6	.269	13.69	13.64
Pickers, cloth, female:									
Connecticut	8	42	5.5	53.2	48.0	90.2	.180	9.58	8.63
Massachusetts	4	38	5.5	48.0	43.1	89.8	.162	7.78	6.96
New Jersey	37	91	5.2	46.1	40.6	88.1	.258	11.89	10.48
New York	21	71	5.0	47.8	37.0	77.4	.205	9.80	7.59
North Carolina	3	12	5.6	53.0	37.3	70.4	.221	11.71	8.26
Pennsylvania	42	371	4.5	50.8	37.0	72.8	.193	9.80	7.16
Rhode Island	5	27	5.3	50.8	47.4	93.3	.234	11.89	11.11
South Carolina, Alabama, and Georgia	6	20	5.6	55.3	52.3	94.6	.142	7.85	7.45
Tennessee	4	27	5.6	56.6	52.6	92.9	.086	4.87	4.50
Virginia	3	26	5.0	57.3	43.2	75.4	.173	9.91	7.48
Total	133	725	4.9	50.5	40.0	79.2	.194	9.80	7.78

[1] Data included in total.

Earnings and Hours of Labor in Principal Occupations in the Iron and Steel Industry, 1931 and 1933

Part 2. Bar, Rail, Sheet, and Tin-Plate Mills

THIS article presents average earnings and hours of labor of wage earners in four rolling-mill departments of the iron and steel industry—bar, rail, sheet, and tin plate.[1] The data were collected in the early part of 1933 and in most instances relate to the last half of March, which was also, in general, the period covered by the 1931 study made by the Bureau of Labor Statistics. The plants furnishing information were, with few exceptions, the same as those included in the 1931 study.

As stated in a previous article, many wage earners in the iron and steel industry work at operations other than their regular occupation during a given pay period. In order to show actual conditions, data for each of the various occupations were compiled so as to show average hours and earnings (1) in the primary occupation only and (2) in all occupations at which the wage earners did any work during the pay period studied.

In the sheet-mill department the Bureau has included mechanical mills for the first time and information is presented separately for rollers on hand mills and rollers on mechanical mills. It will be noticed that sheet heaters appear for 8 plants only, while rollers on hand mills are shown for 10. This is due to the fact that mills in this department were, at the time of the study, at various stages of mechanization, some being completely mechanical and others only partly changed, i.e., having both hand and mechanical operations.

In 1933 average full-time hours per week of wage earners in the primary occupations shown for these 4 departments ranged from 37.6 hours for pack furnace chargers in the sheet-mill department to 57.9 hours for laborers in the rail-mill department. In 3 occupations in sheet mills, in 4 in tin-plate mills, and in 5 in bar mills wage earners had a longer average full-time week in 1933 than in 1931. Female assorters in tin-plate establishments worked an average of 38.9 hours per week at the primary occupation which exceeds the hours worked by wage earners in any other occupation. While 7 tin-plate establishments were covered, information for assorters is shown for only 6 of them, due to 1 having only male assorters for which averages are not shown. Cold-saw men's helpers in rail mills worked an average of 10.1 hours per week at the primary occupation which is the lowest average of any occupation in the 4 departments. In 1933 wage earners in tin-plate establishments worked a greater percentage of full time than did wage earners in the other departments covered by this article.

Rollers in rail mills had the highest average earnings per hour for work at the primary occupation ($1.355) and female assorters in tin-plate establishments the lowest (29.5 cents). In 1933 rollers on hand-sheet mills earned an average of $1.209 per hour for work at the primary occupation as compared with $1.016 for rollers on mechanical-sheet mills. Rollers on tin-plate mills earned an average of $1.25 per hour while working at their primary occupation.

[1] Summary averages for the industry appeared in the September Monthly Labor Review. Averages for wage earners in certain primary occupations in 6 departments of the industry were published in the October Monthly Labor Review.

Hours at all work in 1933 ranged by occupation, during the period from a low of 11.4 for chippers and cold-saw men's helpers in rail mills to a high of 39.1 for level-handed doublers on tin-plate mills, and earnings in 1 week ranged from $4.28 for cold-saw men's helpers in rail mills to $37.36 for rollers on tin-plate mills.

AVERAGE HOURS AND EARNINGS OF WAGE EARNERS, BY OCCUPATION, 1931 AND 1933

Tin-plate mills

Primary occupation	Year	Number of plants	Number of wage earners	Primary occupation only					All occupations (including primary)		
				Average hours per week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week	Average hours worked in 1 week	Average earnings per hour	Average actual earnings in 1 week
				Full time	Actually worked						
Heaters	1931	8	113	42.7	32.3	$1.102	$47.06	$35.63	36.0	$1.064	$38.34
	1933	5	83	42.6	27.1	.771	32.84	20.88	30.3	.738	22.36
Heaters, level-handed	1931	9	580	42.7	35.4	.942	40.22	33.37	36.6	.936	34.25
	1933	7	451	42.6	30.9	.721	30.71	22.25	34.5	.698	24.06
Heaters' helpers	1931	8	164	42.7	32.7	.798	34.07	26.10	35.2	.788	27.74
	1933	6	96	42.6	26.0	.557	23.73	14.49	29.4	.542	15.95
Pair heaters	1931	7	346	42.7	34.4	.744	31.77	25.59	37.1	.721	26.76
	1933	4	313	42.6	28.3	.533	22.71	15.09	31.9	.504	16.09
Rollers	1931	9	391	42.7	34.4	1.737	74.17	59.71	36.5	1.689	61.63
	1933	7	359	42.6	28.6	1.250	53.25	35.78	31.0	1.205	37.36
Rollers, level-handed	1931	7	84	42.7	28.2	.930	39.71	26.19	35.8	1.088	38.96
	1933	4	66	42.7	26.7	.679	28.99	18.15	30.8	.744	22.88
Roughers	1931	9	428	42.7	32.4	.989	42.23	31.99	36.7	.956	35.05
	1933	7	356	42.6	28.8	.709	30.20	20.41	32.1	.680	21.80
Catchers	1931	9	378	42.7	31.6	.902	38.52	28.52	35.8	.854	30.62
	1933	7	324	42.6	27.0	.654	27.86	17.63	30.7	.615	18.92
Screw boys	1931	9	395	42.7	31.0	.682	29.12	21.16	34.1	.659	22.47
	1933	7	352	42.6	27.1	.489	20.83	13.23	30.0	.470	14.10
Single boys	1931	7	351	42.7	33.8	.737	31.47	24.86	38.3	.698	26.76
	1933	6	345	42.6	27.0	.531	22.62	14.36	30.8	.502	15.46
Doublers, hand	1931	3	65	42.7	23.4	.883	37.70	20.70	24.3	.871	21.13
	1933	3	35	42.6	30.2	.776	33.06	23.40	32.6	.758	24.69
Doublers, mechanical	1931	7	380	42.7	34.7	.749	31.98	25.99	38.2	.717	27.42
	1933	6	356	42.6	27.2	.544	23.17	14.79	30.3	.518	15.68
Doublers, level-handed, hand	1931	2	38	42.7	16.4	.760	32.45	12.44	16.6	.756	12.52
	1933	2	19	42.7	37.8	.684	29.21	25.82	39.1	.677	26.45
Doublers' helpers, hand	1931	1	32	42.7	38.9	.622	26.56	24.20	40.3	.624	25.14
	1933	2	27	42.7	35.4	.507	21.65	17.98	36.4	.503	18.29
Shearmen	1931	8	135	43.6	32.1	.983	42.86	31.55	32.9	.974	32.01
	1933	5	77	43.6	28.8	.528	23.02	15.20	28.8	.528	15.20
Shearmen's helpers	1931	4	60	46.1	34.3	.551	25.40	18.90	35.7	.558	19.92
	1933	3	27	45.8	25.8	.430	19.69	11.10	25.8	.430	11.10
Openers	1931	8	355	47.5	36.0	.748	35.53	26.94	37.5	.737	27.59
	1933	4	182	51.7	21.0	.516	26.68	10.82	22.1	.509	11.25
Tinners, hand	1931	5	125	42.7	33.9	.899	38.39	30.50	34.3	.899	30.84
	1933	4	92	43.8	34.1	.654	28.65	22.31	34.8	.648	22.56
Tinners, machine	1931	6	119	42.7	31.9	.834	35.61	26.57	33.3	.821	27.34
	1933	5	117	42.9	29.5	.587	25.18	17.32	30.8	.578	17.81
Branners	1931	6	83	44.7	35.7	.577	25.79	20.58	37.3	.576	21.51
	1933	6	69	45.3	36.6	.415	18.80	15.21	38.2	.415	15.85
Assorters, female	1931	6	305	45.5	38.1	.380	17.29	14.47	38.1	.380	14.49
	1933	6	295	45.2	38.9	.295	13.33	11.46	39.0	.295	11.50
Laborers	1931	9	350	55.4	40.2	.419	23.21	16.82	42.9	.425	18.25
	1933	7	413	55.4	34.0	.332	18.39	11.29	35.1	.335	11.73

Sheet mills

Pair heaters	1931	15	532	43.5	23.8	$0.870	$37.85	$20.75	24.4	$0.866	$21.11
	1933	12	195	42.4	15.6	.626	26.54	9.77	17.0	.608	10.32
Rollers, hand mills	1931	15	541	43.5	24.1	1.811	78.78	43.68	24.7	1.790	44.20
	1933	10	143	42.3	18.1	1.209	51.14	21.82	19.1	1.174	22.44
Rollers, level handed, hand mills	1931	7	112	42.8	30.9	.971	41.56	29.97	32.3	.969	31.32
	1933	7	48	41.6	18.4	.962	40.02	17.71	22.1	1.053	23.24
Rollers helpers and finishers, hand mills	1931	13	388	43.2	25.0	.773	33.39	19.32	25.8	.779	20.07
	1933	9	152	42.4	16.2	.583	24.72	9.45	17.6	.576	10.17

AVERAGE HOURS AND EARNINGS OF WAGE EARNERS, BY OCCUPATION, 1931 AND 1933—Continued

Sheet mills—Continued

Primary occupation	Year	Number of plants	Number of wage earners	Primary occupation only					All occupations (including primary)		
				Average hours per week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week	Average hours worked in 1 week	Average earnings per hour	Average actual earnings in 1 week
				Full time	Actually worked						
Rollers, mechanical mills	1933	6	57	41.5	25.4	$1.016	$42.16	$25.75	26.4	$0.998	$26.35
Assistant rollers, mechanical mills	1933	5	55	40.9	25.8	.651	26.63	16.83	29.2	.641	18.72
Spannermen	1933	4	83	39.6	11.9	.647	25.62	7.66	13.1	.647	8.49
Roughers	1931	15	513	43.6	23.5	.952	41.51	22.37	24.3	.953	23.18
	1933	12	220	40.5	16.0	.744	30.13	11.88	17.7	.723	12.77
Catchers	1931	15	619	43.5	24.2	.915	39.80	22.18	25.4	.907	23.01
	1933	13	292	40.5	15.0	.665	26.93	10.01	16.3	.649	10.60
Matchers	1931	15	550	43.5	22.9	.772	33.58	17.67	24.0	.770	18.44
	1933	11	288	40.7	15.1	.526	21.41	7.92	16.2	.519	8.38
Doublers	1931	14	522	43.6	22.8	.764	33.31	17.39	24.2	.763	18.48
	1933	11	203	41.7	17.1	.516	21.52	8.81	18.1	.513	9.30
Sheet heaters	1931	15	484	43.5	24.6	1.287	55.98	31.64	25.0	1.279	31.96
	1933	8	115	43.4	16.9	.828	35.94	14.02	18.0	.809	14.58
Sheet heaters, level handed	1931	8	37	43.5	23.3	.822	35.76	19.15	25.0	.830	20.73
	1933	7	53	43.4	17.0	.601	26.08	10.23	20.6	.634	13.03
Sheet heaters' helpers	1931	14	415	43.1	24.7	.758	32.67	18.70	25.5	.765	19.49
	1933	9	118	43.3	15.5	.527	22.82	8.17	16.8	.521	8.77
Chargers, pack furnaces (mechanical)	1933	7	109	37.6	19.4	.392	14.74	7.60	20.5	.393	8.05
Shearmen	1931	15	321	43.5	26.3	1.052	45.76	27.61	27.5	1.032	28.39
	1933	13	177	41.9	20.8	.702	29.41	14.57	21.6	.692	14.93
Shearman's helpers	1931	14	321	43.7	25.6	.627	27.40	16.07	26.9	.629	16.88
	1933	13	183	41.9	20.1	.429	17.98	8.63	21.2	.433	9.16
Openers	1931	9	276	43.8	20.0	.659	28.86	13.20	20.8	.658	13.69
	1933	9	228	38.4	16.2	.442	16.97	7.17	16.8	.443	7.47
Openers, level handed	1931	6	107	43.3	23.2	.544	23.56	12.61	25.8	.548	14.13
	1933	4	123	43.5	21.1	.418	18.18	8.84	21.9	.417	9.13
Picklers	1931	13	116	50.6	31.9	.712	36.03	22.71	33.5	.701	23.50
	1933	11	124	48.4	30.5	.384	18.59	11.69	33.2	.387	12.83
Feeders	1931	9	73	46.4	34.8	.750	34.80	26.13	36.6	.739	27.06
	1933	10	89	48.6	24.1	.410	19.93	9.90	26.3	.407	10.71
Cold-roll rollers	1931	15	142	53.3	33.8	.759	40.45	25.62	35.7	.747	26.65
	1933	14	109	51.3	29.3	.463	23.75	13.58	31.7	.457	14.47
Cold-roll catchers	1931	15	174	53.0	31.1	.663	35.14	20.60	33.0	.659	21.76
	1933	14	120	51.5	25.8	.399	20.55	10.31	28.6	.397	11.35
Laborers	1931	15	396	57.7	31.0	.428	24.70	13.25	33.3	.437	14.53
	1933	14	580	54.2	23.8	.330	17.89	7.87	26.2	.339	8.89
Bar mills											
Stockers	1931	38	244	54.2	31.7	$0.455	$24.66	$14.44	32.9	$0.455	$14.95
	1933	34	249	52.2	15.8	.326	17.02	5.16	16.0	.326	5.20
Heaters	1931	43	175	57.4	33.4	.902	51.77	30.18	33.7	.901	30.39
	1933	42	176	55.6	17.7	.650	36.14	11.52	18.4	.639	11.77
Heaters' helpers	1931	38	202	56.5	31.4	.621	35.09	19.51	33.0	.618	20.42
	1933	38	207	55.3	15.7	.402	22.23	6.33	17.0	.404	6.87
Chargers and helpers	1931	33	181	54.5	31.4	.567	30.90	17.81	32.6	.564	18.34
	1933	31	149	54.2	15.9	.357	19.35	5.69	16.9	.357	6.02
Drag downs	1931	21	86	56.5	26.0	.548	30.96	14.26	26.8	.543	14.59
	1933	17	79	56.8	15.2	.406	23.06	6.16	15.9	.404	6.43
Roll engineers	1931	18	50	59.3	35.3	.534	31.67	18.85	36.3	.535	19.42
	1933	21	50	57.6	19.8	.401	23.10	7.96	20.3	.403	8.16
Rollers	1931	43	122	55.4	37.8	1.542	85.43	58.27	38.2	1.533	58.61
	1933	42	118	54.5	23.8	.965	52.59	23.02	24.4	.956	23.31
Roughers	1931	32	175	56.7	32.8	.791	44.85	25.92	33.7	.787	26.56
	1933	33	153	55.8	17.9	.536	29.91	9.59	18.4	.535	9.86
Catchers	1931	30	128	56.1	30.9	.781	43.81	24.15	32.0	.775	24.77
	1933	35	139	55.2	18.0	.532	29.37	9.58	18.6	.527	9.83
Stranders	1931	32	230	55.8	32.4	.701	39.12	22.68	34.1	.693	23.65
	1933	34	241	54.8	16.9	.458	25.10	7.73	17.8	.459	8.15

AVERAGE HOURS AND EARNINGS OF WAGE EARNERS, BY OCCUPATION, 1931 AND 1933—Continued

Bar mills—Continued

Primary occupation	Year	Number of plants	Number of wage earners	Primary occupation only					All occupations (including primary)		
				Average hours per week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week	Average hours worked in 1 week	Average earnings per hour	Average actual earnings in 1 week
				Full time	Actually worked						
Finishers	1931	38	143	54.4	31.5	$0.864	$47.00	$27.24	34.0	$0.842	$28.65
	1933	39	142	55.0	17.7	.500	27.50	8.85	19.3	.497	9.61
Hook-ups	1931	27	161	55.2	25.3	.645	35.60	16.35	26.5	.640	16.95
	1933	25	137	56.1	14.1	.381	21.37	5.35	14.8	.386	5.73
Roll hands, other	1931	31	284	55.1	31.0	.712	39.23	22.07	32.5	.708	23.01
	1933	33	288	54.9	16.7	.471	25.86	7.85	17.2	.469	8.06
Hotbed men	1931	42	472	54.1	27.9	.578	31.27	16.14	29.9	.572	17.11
	1933	36	406	55.5	15.2	.349	19.37	5.30	16.3	.346	5.64
Shearmen	1931	40	193	53.5	31.5	.594	31.78	18.71	33.7	.582	19.59
	1933	39	169	54.3	16.0	.412	22.37	6.60	17.1	.409	7.00
Shearmen's helpers	1931	35	438	54.3	26.1	.529	28.72	13.82	28.1	.525	14.76
	1933	34	389	54.1	12.3	.348	18.83	4.27	13.0	.346	4.50
Bundlers	1931	22	147	54.3	30.4	.513	27.86	15.57	32.6	.509	16.60
	1933	18	95	53.1	14.5	.347	18.43	5.03	15.4	.349	5.38
Laborers	1931	39	637	54.2	28.1	.394	21.35	11.06	30.2	.399	12.05
	1933	34	506	53.7	14.6	.305	16.38	4.47	15.3	.304	4.67

Rail mills

Charging machine operator	1931	4	20	54.6	37.8	$0.637	$34.78	$24.08	39.4	$0.627	$24.68
	1933	3	16	51.0	19.2	.534	27.23	10.23	19.7	.530	10.41
Re-heaters	1931	5	18	50.5	37.5	1.117	56.41	41.83	37.7	1.113	41.93
	1933	4	15	49.5	20.4	.949	46.98	19.37	20.6	.948	19.57
Re-heaters' helpers	1931	5	23	52.9	29.5	.633	33.49	18.66	31.7	.645	20.45
	1933	4	14	50.6	18.1	.556	28.13	10.06	19.1	.553	10.58
Roll engineers	1931	4	18	51.1	32.7	.922	47.11	30.13	33.9	.915	31.01
	1933	2	17	48.0	15.0	.684	32.83	10.27	15.0	.684	10.27
Rollers	1931	7	15	53.7	43.2	1.596	85.71	68.89	43.2	1.596	68.89
	1933	4	10	50.4	24.6	1.355	68.29	33.27	25.6	1.321	33.80
Assistant rollers	1931	6	15	55.6	45.9	.954	53.04	43.77	55.4	.936	51.85
	1933	4	7	53.5	15.0	.732	39.16	10.96	17.4	.719	12.47
Table levermen	1931	8	81	52.2	34.4	.816	42.60	28.06	36.0	.809	29.16
	1933	6	62	50.4	17.1	.696	35.08	11.93	17.5	.693	12.11
Guide setters	1931	8	38	55.5	40.6	.816	45.29	33.11	42.5	.811	34.48
	1933	6	26	53.4	15.1	.760	40.58	11.48	16.2	.751	12.13
Hot-saw men	1931	8	24	54.0	36.9	.653	35.26	24.08	37.8	.652	24.66
	1933	6	21	51.9	18.7	.581	30.15	10.88	18.8	.580	10.90
Hot-saw men's helpers	1931	7	32	53.1	29.8	.496	26.34	14.77	34.7	.491	17.04
	1933	5	15	50.4	12.7	.420	21.17	5.34	15.0	.431	6.48
Hotbed leverman	1931	7	52	54.0	36.1	.565	30.51	20.42	38.9	.561	21.86
	1933	5	29	52.6	14.8	.438	23.04	6.48	15.3	.436	6.65
Hotbed men	1931	7	136	52.1	31.5	.525	27.35	16.55	33.7	.524	17.64
	1933	4	46	51.6	12.8	.395	20.38	5.06	13.6	.392	5.34
Straighteners, gag press	1931	8	134	52.7	32.0	1.131	59.60	36.19	32.8	1.122	36.76
	1933	6	66	52.3	13.4	.931	48.69	12.47	15.0	.876	13.11
Straighteners' helpers	1931	7	138	53.5	33.3	.625	33.44	20.80	35.3	.625	22.05
	1933	5	72	52.4	12.0	.538	28.19	6.44	12.9	.528	6.79
Chippers	1931	7	119	54.3	35.8	.655	35.57	23.49	38.5	.650	25.03
	1933	5	75	53.4	10.4	.585	31.24	6.10	11.4	.575	6.54
Drillers and punchers	1931	8	210	55.1	34.5	.649	35.76	22.40	36.1	.645	23.30
	1933	6	130	53.9	12.5	.589	31.75	7.35	13.2	.579	7.66
Cold-saw men	1931	7	14	57.1	38.2	.489	27.92	18.68	44.0	.484	21.28
	1933	6	9	53.9	15.4	.376	20.27	5.79	17.6	.379	6.68
Cold-saw helpers	1931	6	50	53.4	24.5	.472	25.20	11.56	28.5	.476	13.59
	1933	4	25	49.4	10.1	.372	18.38	3.74	11.4	.375	4.28
Inspectors	1931	8	88	55.7	42.1	.587	32.70	24.71	44.2	.581	25.70
	1933	6	41	54.6	14.7	.462	25.23	6.78	15.5	.458	7.11
Laborers	1931	8	225	58.0	31.8	.406	23.55	12.90	35.7	.416	14.85
	1933	5	156	57.9	12.3	.324	18.76	3.97	13.2	.336	4.45

Union Scales of Wages and Hours of Labor in 1933

Part 2. Average Wage Rates, by Trades[1]

THE 1933 survey of union scales of wages and hours of labor, recently completed by the Bureau of Labor Statistics, covered nearly a half million organized workers, in 67 important industrial cities.

The present article shows the average rates per hour of certain of the principal time-work trades—bakery trades, building trades, chauffeurs and teamsters and drivers, granite and stone trades, laundry workers, linemen, longshoremen, and the printing trades (book and job and newspaper), where such trades were found to be organized and maintaining an effective scale.

The average hourly wage rate in 1933 for all of the trades indicated was $1.062, as compared with $1.111 in 1932, a decrease of 4.9 cents an hour, or 4.4 percent. Of the 69 separate time-work trades, 9 showed slight increases and 60 showed decreases in the average wage rates per hour.

There are many trade unions whose members are employed wholly or mainly on piecework, but these frequently have a multitude of rates which are practically impossible to incorporate in a general tabulation and difficult to understand by anyone not familiar with the particular industries, and are therefore not included in the present tabulation. The rates for organized bus drivers, street-railway motormen and conductors, and barbers have likewise been omitted from this tabulation because their hours of labor are either lacking in uniformity or the wage rates are such as not to be susceptible of presentation in the same manner as the trades above mentioned. Data for bus drivers, street-railway motormen and conductors, and barbers will be published later.

In table 1 are shown the average hourly wage rates by trade groups for the years 1929, 1930, 1931, 1932, and 1933, together with the amount and the percent of decrease, comparing 1933 with 1932.

TABLE 1.—AVERAGE HOURLY WAGE RATES IN SPECIFIED TRADE GROUPS, 1929 TO 1933, AND AMOUNT AND PERCENT OF DECREASE, 1932-33

Trade group	Average hourly wage rates					Amount of decrease 1932-33	Percent of decrease 1932-33
	1929	1930	1931	1932	1933		
Bakers	$0.979	$0.965	$0.934	$0.951	$0.799	$0.152	16.0
Building trades	1.352	1.410	1.428	1.216	1.201	.015	1.2
Chauffeurs and teamsters and drivers	.715	.732	.740	.722	.663	.059	8.2
Granite and stone trades	1.369	1.412	1.437	1.293	1.234	.059	4.6
Laundry workers	.458	.479	.481	.487	.435	.052	10.7
Linemen	1.019	1.128	1.135	1.091	1.034	.057	5.2
Longshoremen	.863	.875	.868	.868	.837	.031	3.6
Printing and publishing:							
Book and job	1.049	1.074	1.068	1.084	1.006	.078	5.6
Newspaper	1.241	1.241	1.247	1.231	1.149	.082	6.7
Average, all trades	1.204	1.250	1.254	1.111	1.062	.049	4.4

Table 2 shows for 1933 the average hours per full-time week and the percent of members in each trade group having specified working

[1] Preliminary data on 20 trades in 40 cities were given in the September 1933 Monthly Labor Review (pp. 660-673).

hours. The hours stated represent the regular full time per week. No data are available as to broken time or overtime that may have been worked.

It will be noted that 59.1 percent of the total membership have a regular work week of 40 hours or less and 89.9 percent a work week of 48 hours or less. Of the separate trade groups, the building trades with an average of 40.4 hours have the shortest full-time work week. To a large extent this short week is occasioned by the rather general adoption of a 5-day week within this group. However, the normal change in this regard has been slightly interfered with in the past 2 years by the adoption of short-time work for the purpose of spreading employment among the members. In some cases members in individual local unions are limited by agreement to less than 5 days' work each week. The chauffeurs and teamsters and drivers with an average of 53 hours per week had the longest full-time week. In this group it will be noted that 68.5 percent had a full-time week of more than 48 hours.

TABLE 2.—AVERAGE HOURS PER WEEK AND PERCENT OF TRADE-UNION MEMBERS, BY TRADE GROUPS, WORKING EACH CLASSIFIED NUMBER OF HOURS PER WEEK, MAY 15, 1933

Trade groups	Average hours per full-time week	Percent of members whose hours per week were—										
		Under 40	40	Over 40 and under 44	44	Over 44 and under 48	48	Over 48 and under 54	54	Over 54 and under 60	60	Over 60
Bakers	47.6	1.5	3.2	0.3	------	7.2	84.3	------	3.6	------	------	------
Building trades	40.4	.9	88.1	------	10.4	.2	.3	------	(1)	------	------	------
Chauffeurs and teamsters and drivers	53.0	------	.5	.5	1.2	5.4	24.0	7.6	29.1	16.6	12.0	3.2
Granite and stone trades	40.9	------	78.3	------	21.7	------	------	------	------	------	------	------
Laundry workers	48.0	------	------	------	------	------	100.0	------	------	------	------	------
Linemen	43.4	6.2	38.0	1.0	19.0	.2	33.1	2.6	------	------	------	------
Longshoremen	44.5	------	------	------	88.9	------	9.4	1.4	------	------	------	.3
Printing and publishing:												
Book and job	42.0	10.8	31.7	.2	53.6	.1	3.6	------	------	------	------	------
Newspaper	43.8	13.4	6.3	11.3	11.1	37.6	20.3	------	------	------	------	------
Grand average	43.1	2.4	56.7	.7	18.5	3.2	8.4	1.2	4.3	2.4	1.7	.5

[1] Less than one tenth of 1 percent.

Table 3 shows the percent of members falling within each specified rate interval, by trade groups, May 15, 1933.

Considering the total membership it is found that 40.3 percent have regular rates of less than $1 per hour, 74.5 percent under $1.37½ per hour and 91.4 percent under $1.50 per hour.

The spread between rates of the majority of the members' wage rates per hour in the several trade groups are as follows:

Bakers: 68.7 percent fall between 62½ cents and under $1 per hour.
Building: 69.6 percent fall between $1 and under $1.50 per hour.
Chauffeurs and teamsters and drivers: 84.5 percent fall between 50 cents and under 87½ cents per hour.
Granite and stone trades: 68.5 percent fall between $1 and under $1.37½ per hour.
Laundry workers: 100 percent fall under 75 cents per hour.
Linemen: 82.9 percent fall between 75 cents and under $1.12½ per hour.
Longshoremen: 89.4 percent fall between 75 cents and under $1 per hour.
Printing and publishing: Book and job, 78.5 per cent fall between 75 cents and under $1.37½ per hour; newspaper, 82.5 percent fall between 87½ cents and under $1.37½ per hour.

TABLE 3.—PERCENT OF TRADE-UNION MEMBERS WHOSE AVERAGE RATES IN CENTS PER HOUR FALL WITHIN EACH SPECIFIED RATE INTERVAL, MAY 15, 1933, BY TRADE GROUPS

Trade group	Percent of members whose rates (in cents) per hour were—											
	Under 50	50 and under 62½	62½ and under 75	75 and under 87½	87½ and under 100	100 and under 112½	112½ and under 125	125 and under 137½	137½ and under 150	150 and under 162½	162½ and under 175	175 and over
Bakery	2.3	14.1	28.2	19.8	20.7	7.4	5.5	2.1	------	------	------	------
Building trades	.2	1.5	2.6	5.6	7.5	19.1	10.4	12.9	27.2	7.5	4.9	0.5
Chauffeurs and teamsters and drivers	7.2	29.5	37.9	17.1	7.6	.3	.1	.1	------	------	------	------
Granite and stone trades	------	.1	------	2.8	.7	25.0	9.4	34.1	1.4	26.6	------	------
Laundry workers	65.0	21.7	13.3	------	------	------	------	------	------	------	------	------
Linemen	------	.4	1.7	11.4	19.6	51.9	2.2	2.8	9.1	1.0	------	------
Longshoremen	.3	.5	6.3	55.7	33.7	.4	.2	------	(1)	2.8	------	------
Printing and publishing:												
Book and job	4.4	6.1	4.2	13.6	21.8	15.6	8.6	18.9	4.5	2.3	------	(1)
Newspaper	------	.1	.7	5.3	20.4	20.1	20.7	21.3	6.7	2.6	.5	1.4
Total	2.1	6.3	8.7	11.6	11.6	14.7	8.4	11.1	17.0	5.3	2.9	.4

[1] Less than one tenth of 1 percent.

Trend of Union Wage Rates and Hours, 1907 to 1933

THE grand average hourly union wage rate on May 15, 1933, was lower by 4.4 percent than it was on the same date in 1932; it was 11.8 percent lower than in 1929; however, it was 102.5 percent higher than in 1917, 131.2 percent higher than in 1913, 144.8 percent higher than in 1910, and 157.7 percent higher than in 1907.

On the weekly basis, the grand average rate in 1933 was 4.3 percent lower than the grand average rate in 1932, 15.7 percent lower than in 1929, 80.6 percent higher than in 1917, 103 percent higher than in 1913, 113.2 percent higher than in 1910, and 121.8 percent higher than in 1907.

TABLE 4.—INDEX NUMBERS OF UNION WAGE RATES AND HOURS OF LABOR IN THE UNITED STATES AS OF MAY EACH YEAR, 1907 TO 1933

[1913=100]

Year	Index numbers of—			Year	Index numbers of—		
	Rate of wages per hour	Hours per full-time week	Rate of wages per full-time week		Rate of wages per hour	Hours per full-time week	Rate of wages per full-time week
1907	89.7	102.6	91.5	1921	205.3	93.9	193.3
1908	91.0	102.1	92.5	1922	193.1	94.4	183.0
1909	91.9	101.9	93.3	1923	210.6	94.3	198.6
1910	94.4	101.1	95.2	1924	228.1	93.9	214.3
1911	96.0	100.7	96.5	1925	237.9	93.0	222.3
1912	97.6	100.3	97.7	1926	250.3	92.8	233.4
1913	100.0	100.0	100.0	1927	259.5	92.4	240.8
1914	101.9	99.6	101.6	1928	260.6	91.9	240.6
1915	102.8	99.4	102.3	1929	262.1	91.5	240.7
1916	107.2	98.8	106.2	1930	272.1	89.8	243.8
1917	114.2	98.4	112.4	1931	273.0	89.2	242.9
1918	132.7	97.0	129.6	1932	241.8	87.7	212.2
1919	154.5	94.7	147.8	1933	231.2	88.0	203.0
1920	199.0	93.8	188.5				

The index numbers shown in table 4 are computed on the basis of 1913 as 100. These indexes include all the time-work trades and all

the cities covered in preceding years, but the number of trades and cities included in the data has varied to some degree during the period.

Because of the wide interest in building operations and the resultant inquiries to the Bureau for wage changes in building trades as a group, the data for these trades are given below.

Index numbers of union wage rates per hour in the building trades

	Index number		Index number
1913	100. 0	1924	224. 0
1914	101. 9	1925	232. 7
1915	102. 8	1926	248. 0
1916	106. 2	1927	256. 7
1917	112. 8	1928	258. 1
1918	125. 2	1929	261. 6
1919	145. 4	1930	272. 8
1920	196. 8	1931	276. 3
1921	200. 3	1932	235. 3
1922	187. 5	1933	232. 4
1923	207. 3		

Table 5 shows the average union wage rates per hour, average full-time hours per week, the number of quotations on which 1933 averages are based, and index numbers of hourly rates for the years 1928 to 1933. The index numbers for the years back to 1907 may be found in Bulletin No. 482 of this Bureau, but are omitted here for want of space. For some trades data were not collected as early as 1913, hence there can be no index numbers for them on a 1913 base.

In computing an average rate, each rate quoted is multiplied by the number of union members having such rate. The products are added and the sum divided by the grand total membership; in other words, the rates are weighted by the number of union members. This membership is furnished the Bureau for this sole purpose and is held strictly confidential.

The rates for a city may enter into an average 1 year because the trade has an effective wage scale, but may drop out the next year because the trade cannot enforce its scale or because the union has disbanded. Also, the membership fluctuations in high- or low-rate cities have an important bearing on this weighted average rate. The grand average rate may, possibly, vary to a greater extent than the rate in any city reporting for both years or it may show a decrease while the individual rates composing it may show no change and some increases. For the past 2 years the fluctuations in rates and membership have been unusually severe, which factors have been productive of anomalous or paradoxical average rates for several occupations and group averages. The index numbers are computed from these averages, and are, of course, affected by these same influences.

In table 5 hourly rates only are considered. Equivalent weekly rates do not exactly parallel hourly rates because of changes in working hours.

TABLE 5.—NUMBER OF QUOTATIONS IN 1933, AVERAGE WAGE RATES PER HOUR, 1932 AND 1933, AVERAGE FULL-TIME HOURS PER WEEK, 1933, AND INDEX NUMBERS OF HOURLY RATES FOR SPECIFIED YEARS

Trade	Number of quotations, May 1933	Average rate of wages per hour		Index numbers of rates of wages per hour (1913=100)						Average hours per week, May 1933
		May 1932	May 1933	May 1928	May 1929	May 1930	May 1931	May 1932	May 1933	
Bakery trades										
Bakers	201	$0.951	$0.799	285.9	293.4	289.2	279.9	285.0	239.5	47.6
Building trades										
Asbestos workers	42	1.237	1.222	(1)	(1)	(1)	(1)	(1)	(1)	40.0
Bricklayers:										
Building	63	1.465	1.435	233.9	239.6	245.1	245.9	211.9	207.5	40.1
Sewer, tunnel, and caisson	8	1.522	1.604	214.2	199.5	199.1	212.2	158.4	166.9	41.2
Building labor group:										
Building laborers	53	.762	.761	257.0	258.2	275.3	267.5	228.3	228.0	41.4
Hod carriers	39	.883	.754	280.7	293.0	302.3	297.3	241.3	206.1	40.4
Plasterers' laborers	38	.910	.838	264.1	265.0	282.3	274.3	221.3	203.7	40.2
Plumbers' laborers	9	.883	.908	(1)	(1)	(1)	(1)	(1)	(1)	40.1
Carpenter group:										
General carpenters	67	1.166	1.106	247.5	252.0	261.6	263.5	219.4	208.1	40.3
Millwrights (carpenters)	34	1.108	1.047	(1)	(1)	(1)	(1)	(1)	(1)	40.5
Parquetry-floor layers (carpenters)	27	1.184	1.004	236.1	241.9	259.5	262.8	208.3	176.6	39.5
Ship carpenters	11	1.109	1.021	(1)	(1)	(1)	(1)	(1)	(1)	40.8
Wharf and bridge carpenters	19	1.153	1.228	(1)	(1)	(1)	(1)	(1)	(1)	40.3
Cement finishers	54	1.245	1.228	234.6	234.6	256.4	253.3	213.8	210.9	41.8
Composition roofers	31	1.182	1.207	(1)	(1)	(1)	(1)	(1)	(1)	40.9
Composition roofers' helpers	5	.730	.682	(1)	(1)	(1)	(1)	(1)	(1)	41.6
Elevator constructors	75	1.409	1.295	(1)	(1)	(1)	(1)	(1)	(1)	40.7
Elevator constructors' helpers	68	1.004	.936	(1)	(1)	(1)	(1)	(1)	(1)	40.6
Engineers, portable and hoisting	109	1.511	1.321	233.5	232.5	259.0	261.4	245.7	214.8	41.4
Glaziers	34	1.211	1.222	(1)	(1)	(1)	(1)	(1)	(1)	40.8
Inside wiremen	70	1.437	1.320	257.2	268.2	271.1	275.1	262.5	241.1	40.1
Inside wiremen, fixture hangers	19	1.276	1.002	235.8	241.8	258.2	257.7	246.3	193.4	39.9
Lathers	73	1.385	1.309	251.0	249.0	259.4	262.6	232.4	219.6	40.0
Marble setters	51	1.432	1.398	218.0	233.4	234.5	235.5	214.6	209.5	40.4
Marble setters' helpers	22	.931	.938	248.0	262.8	259.1	254.1	230.6	232.3	40.5
Mosaic and terrazzo workers	40	1.356	1.238	(1)	(1)	(1)	(1)	(1)	(1)	40.2
Painter group:										
Building painters	65	1.228	1.243	270.8	270.2	289.5	292.4	242.3	245.3	40.1
Fresco painters	18	1.051	1.070	226.7	230.9	253.4	267.3	192.9	196.4	41.2
Sign painters	46	1.393	1.338	247.5	249.9	249.6	248.3	219.9	211.2	40.9
Plasterers	62	1.423	1.360	241.6	238.6	250.3	253.0	210.6	201.3	40.1
Plumbers and gas fitters	66	1.302	1.300	232.1	233.8	240.0	244.2	210.0	209.7	40.6
Sheet-metal workers	50	1.234	1.200	247.4	256.9	268.5	273.2	234.0	227.5	40.3
Slate and tile roofers	20	1.401	1.375	(1)	(1)	(1)	(1)	(1)	(1)	40.6
Steam and sprinkler fitters	82	1.283	1.266	239.5	241.0	252.2	254.5	214.2	211.3	40.0
Steam and sprinkler fitters' helpers	40	.953	.926	309.2	305.0	340.5	346.6	304.7	296.1	40.1
Stonemasons	53	1.449	1.369	259.3	266.5	266.4	269.0	237.4	224.3	40.1
Structural-iron workers	85	1.339	1.323	235.7	236.0	248.1	251.6	215.4	212.8	40.6
Structural-iron workers, finishers	47	1.332	1.346	230.2	240.0	257.2	257.1	214.3	216.5	40.4
Tile layers	54	1.350	1.340	221.8	224.2	234.9	237.2	206.1	204.5	40.4
Tile layers' helpers	23	.923	.831	278.5	274.3	300.8	291.8	257.3	231.6	41.5
Average, building trades	1,772	1.216	1.201							40.4
Chauffeurs and teamsters and drivers										
Chauffeurs	484	.711	.664	243.2	244.2	249.4	253.9	244.9	228.7	52.8
Teamsters and drivers	82	.785	.654	277.1	279.8	292.0	287.8	299.2	249.3	54.1
Average, chauffeurs, etc	566	.722	.663							53.0
Granite and stone trades										
Granite cutters	40	1.199	1.170	245.3	249.8	262.3	262.5	234.1	228.5	40.7
Stone cutters	52	1.380	1.294	242.2	253.6	256.0	262.6	237.7	222.9	41.1
Average, granite and stone trades	92	1.293	1.234							40.9
Miscellaneous trades										
Laundry workers	38	.487	.435	(1)	(1)	(1)	(1)	(1)	(1)	48.0
Linemen	41	1.091	1.034	(1)	(1)	(1)	(1)	(1)	(1)	43.4
Longshoremen	39	.868	.837	248.6	250.1	253.5	251.5	251.5	242.5	44.5

[1] No data for 1913.

TABLE 5.—NUMBER OF QUOTATIONS IN 1933, AVERAGE WAGE RATES PER HOUR, 1932 AND 1933, AVERAGE FULL-TIME HOURS PER WEEK, 1933, AND INDEX NUMBERS OF HOURLY RATES FOR SPECIFIED YEARS—Continued

Trade	Number of quotations, May 1933	Average rate of wages per hour		Index numbers of rates of wages per hour (1913=100)						Average hours per week, May 1933
		May 1932	May 1933	May 1928	May 1929	May 1930	May 1931	May 1932	May 1933	
Printing and publishing—book and job										
Bindery women	45	$0.515	$0.509	[1]	[1]	[1]	[1]	[1]	[1]	44.6
Bookbinders	88	.988	.968	244.8	247.5	250.7	252.7	244.0	239.1	44.4
Compositors (hand)	68	1.162	1.063	250.1	251.5	259.3	260.2	259.3	237.2	42.5
Electrotypers	52	1.307	1.216	257.1	263.2	269.9	274.5	272.8	253.9	42.2
Machine operators	69	1.251	1.137	224.6	228.0	238.0	228.8	240.1	218.3	41.9
Machine tenders (machinists)	32	1.279	1.191	216.8	219.9	233.2	224.2	235.4	219.2	41.8
Photoengravers	48	1.371	1.321	[1]	[1]	[1]	[1]	[1]	[1]	40.6
Press assistants and feeders	137	.852	.796	287.0	289.7	294.8	299.9	290.4	271.3	40.7
Pressmen, cylinder	141	1.147	1.088	232.7	236.8	240.1	239.1	236.2	224.1	40.7
Pressmen, platen	108	.911	.879	253.9	257.8	259.9	260.2	250.1	241.3	42.0
Average, book and job	788	1.084	1.006							42.0
Printing and publishing—newspaper										
Compositors (hand):										
Daywork	80	1.164	1.114	206.6	211.3	212.5	212.5	204.5	195.7	43.5
Nightwork	69	1.283	1.222	203.0	205.3	203.6	203.0	198.7	189.2	43.3
Machine operators, daywork:										
Piecework	8	[2].149	[2].129	138.5	124.1	130.4	132.2	134.0	116.0	42.5
Timework	78	1.206	1.110	213.8	217.4	216.7	220.0	214.2	197.1	43.6
Machine operators, nightwork:										
Piecework	7	[2].167	[2].158	108.1	103.2	106.5	117.2	117.2	110.9	42.3
Timework	68	1.335	1.219	205.9	207.5	207.0	207.9	207.3	189.3	43.3
Machine tenders (machinists):										
Daywork	69	1.233	1.094	198.4	201.7	205.1	204.7	209.7	186.0	43.5
Nightwork	63	1.380	1.211	190.8	196.6	191.9	195.5	202.5	177.7	43.4
Photoengravers:										
Daywork	40	1.347	1.263	[1]	[1]	[1]	[1]	[1]	[1]	44.0
Nightwork	38	1.652	1.478	[1]	[1]	[1]	[1]	[1]	[1]	41.9
Pressmen, web presses:										
Daywork	124	1.122	1.028	224.9	228.1	229.3	231.2	235.0	215.3	46.4
Nightwork	112	1.306	1.240	215.7	216.1	218.7	222.1	224.5	213.1	41.9
Stereotypers:										
Daywork	60	1.075	1.004	191.0	200.1	201.8	201.6	203.9	190.4	46.0
Nightwork	55	1.227	1.160	188.6	198.3	202.8	204.9	202.6	191.5	42.4
Average, newspaper	871	1.231	1.149							43.8
Grand average	4,408	1.111	1.062	260.6	262.1	272.1	273.0	241.8	231.2	43.1

[1] No data for 1913.

[2] Per 1,000 ems.

Table 6 shows the percent of change in weekly wage rates in 1933 as compared with specified years.

Comparing 1933 wage rates per full-time week with those of 1932, the changes noted in individual trades are as follows: The bakers' wage rate shows a decrease of 15.7 percent. Of the 39 individual building trades, the average rates show 12 increases ranging from less than one tenth of 1 percent to 6.4 percent, and 27 show decreases ranging from seven tenths of 1 percent to 23.2 percent. The chauffeurs and teamsters' rates decreased 6.7 percent and 16 percent, respectively. The granite cutters decreased 6.7 percent and the stone cutters 6.2 percent. The laundry workers decreased 10.7 percent, the linemen decreased 5.4 percent and the longshoremen 3.8 percent. In the book and job printing trades all the occupations show decreases ranging from 1.1 percent to 12.4 percent. In the newspaper printing trades all occupations show decreases ranging from 4.3 percent to 10.1 percent. It will be noted that the average rates per full-time week in 1933 were generally lower than the rates in 1925 and in a few occupations were lower than in 1921.

TABLE 6.—PERCENT OF CHANGE IN RATES OF WAGES PER FULL-TIME WEEK IN 1933 AS COMPARED WITH SPECIFIED YEARS

Trade and occupation	Percent of increase (+) or decrease (−) in rates of wages per full-time week in 1933 as compared with—									
	1907	1913	1917	1921	1925	1928	1929	1930	1931	1932
Bakery trades										
Bakers	+153.9	+116.0	+89.2	−13.1	−17.4	−15.1	−17.0	−16.0	−13.9	−15.7
Building trades										
Asbestos workers	(1)	(1)	+88.6	+7.1	−4.7	−15.5	−18.6	−19.3	−18.5	−2.3
Bricklayers:										
Building	+93.1	+86.5	+75.4	+9.3	−11.4	−18.8	−18.4	−18.4	−17.3	−.7
Sewer, tunnel, and caisson	(1)	+56.9	+51.8	+2.5	−16.1	−26.6	−20.3	−16.9	−23.0	+6.4
Building labor group:										
Building laborers	+107.9	+94.3	+74.1	−7.3	−8.7	−18.0	−18.4	−21.7	−18.3	−2.2
Hod carriers	+92.8	+87.3	+60.5	−20.6	−24.9	−32.8	−31.5	−33.3	−32.1	−14.6
Plasterers' laborers	+100.9	+84.1	+65.7	−14.7	−23.1	−26.5	−26.8	−28.9	−27.0	−9.2
Plumbers' laborers	(1)	(1)	(1)	−3.0	−14.1	−14.2	−20.7	−13.9	−13.5	+2.8
Carpenter group:										
General carpenters	+105.0	+88.1	+64.0	−3.4	−14.6	−22.6	−24.0	−24.3	−23.6	−5.7
Millwrights (carpenters)	(1)	(1)	+44.5	−13.2	−17.2	−23.6	−19.8	−23.3	−26.1	−7.2
Parquetry-floor layers (carpenters)	(1)	+49.8	+28.6	−27.6	−25.7	−32.1	−34.0	−33.9	−34.1	−17.3
Ship carpenters	(1)	(1)	+53.6	+2.8	+6.3	+5.1	−15.1	−28.5	−25.6	−9.0
Wharf and bridge carpenters	(1)	(1)	+95.4	+14.1	−4.4	−13.8	−13.0	−13.0	−13.4	+5.5
Cement finishers	+105.8	+90.9	+79.6	+5.4	−6.4	−14.3	−14.4	−18.3	−17.0	+.1
Composition roofers	(1)	(1)	+106.4	+11.3	−3.8	−15.8	−16.9	−14.9	−16.5	+3.7
Composition roofers' helpers	(1)	(1)	+55.6	−8.3	−15.6	−20.2	−18.5	−18.5	−12.5	−5.1
Elevator constructors	(1)	(1)	+77.3	+6.3	−8.9	−17.4	−17.3	−18.3	−17.1	−9.4
Elevator constructors' helpers	(1)	(1)	+99.2	+6.6	−7.4	−18.1	−17.0	−17.6	−16.7	−8.0
Engineers, portable and hoisting	(1)	+90.3	+79.4	+11.5	−2.9	−15.0	−14.9	−20.2	−20.1	−12.4
Glaziers	(1)	(1)	(1)	+14.6	−7.5	−15.6	−16.1	−16.2	−15.9	+.9
Inside wiremen	+137.5	+113.1	+90.5	+8.9	−5.3	−14.0	−15.3	−14.3	−14.7	−7.9
Inside wiremen, fixture hangers	(1)	+69.2	+48.1	−12.9	−20.3	−24.8	−26.3	−26.1	−26.7	−23.2
Lathers	(1)	+95.9	+80.1	+4.3	−14.7	−19.1	−18.0	−16.5	−17.0	−5.8
Marble setters	+107.9	+90.1	+86.1	+19.3	+.9	−12.0	−17.9	−13.4	−12.4	−2.8
Marble setters' helpers	(1)	+113.0	+99.4	−1.0	−4.2	−14.0	−18.9	−13.6	−10.0	+.6
Mosaic and terrazzo workers	(1)	(1)	+95.4	+14.9	−7.1	−16.2	−20.2	−18.7	−18.0	−7.5
Painters:										
Building	+151.8	+119.6	+89.5	+8.4	−5.8	−11.9	−11.5	−16.3	−16.6	+.9
Fresco painters	(1)	+84.2	+58.9	−3.5	−10.0	−13.5	−15.2	−21.5	−25.3	+1.2
Sign painters	(1)	+92.5	+81.6	−.5	−15.9	−18.0	−17.4	−16.9	−15.6	−4.7
Plasterers	+88.4	+81.2	+71.4	+2.9	−15.9	−19.9	−18.3	−20.5	−20.8	−2.9
Plumbers and gas fitters	+110.0	+90.1	+80.3	+7.0	−6.2	−16.4	−16.2	−14.1	−14.6	+.5
Sheet-metal workers	+132.4	+102.7	+83.3	+2.8	−9.3	−15.5	−18.5	−18.7	−19.0	−2.9
Slate and tile roofers	(1)	(1)	+93.8	+10.0	−10.8	−17.7	−17.7	−15.7	−13.1	−2.0
Steam and sprinkler fitters	+113.9	+87.0	+71.9	+12.2	−9.5	−19.6	−19.7	−19.7	−19.8	−1.8
Steam and sprinkler fitters' helpers	+212.5	+164.7	+135.6	+22.6	−1.4	−12.5	−11.2	−13.4	−14.8	−2.9
Stonemasons	+113.2	+101.7	+84.6	+5.6	−11.0	−21.2	−20.7	−18.2	−17.4	−5.9
Structural-iron workers	+115.2	+93.7	+77.6	+6.6	−4.1	−16.8	−16.5	−17.8	−17.9	−1.5
Structural-iron workers, finishers	(1)	+98.9	+83.4	+8.4	+1.1	−13.7	−17.0	−18.8	−18.1	+.8
Tile layers	(1)	+84.2	+73.7	+16.0	−7.2	−15.2	−15.9	−15.2	−14.9	(2)
Tile layers' helpers	(1)	+114.6	+98.5	−4.4	−11.7	−21.0	−19.5	−22.2	−19.8	−6.5
Chauffeurs and teamsters and drivers										
Chauffeurs	(1)	+83.7	+68.3	+5.3	−4.6	−8.7	−7.8	−8.0	−9.9	−6.7
Teamsters and drivers	(1)	+116.5	+92.7	+8.5	−2.9	−12.4	−12.5	−16.5	−17.6	−16.0
Granite and stone trades										
Granite cutters	+128.3	+110.2	+92.9	+1.1	−2.8	−14.1	−15.4	−15.0	−14.2	−4.3
Stone cutters	+112.2	+104.3	+85.4	+9.1	−7.0	−14.6	−18.3	−16.3	−16.6	−6.7
Miscellaneous										
Laundry workers	(1)	(1)	+73.8	+4.7	−2.0	−2.7	−5.0	−9.2	−9.5	−10.7
Linemen	(1)	(1)	(1)	+3.4	+2.9	−2.7	−5.0	−11.2	−10.9	−5.4
Longshoremen	(1)	+83.2	+54.0	+1.2	−1.8	−2.9	−3.5	−4.7	−4.3	−3.8
Printing and publishing—book and job										
Bindery women	(1)	(1)	+109.1	−2.0	−3.9	−4.6	−5.3	−7.9	−7.2	−2.5
Bookbinders	+136.4	+120.6	+103.8	+6.2	+.1	−3.4	−4.3	−5.6	−6.1	−2.5
Compositors (hand)	+135.7	+109.4	+95.1	+1.5	−3.9	−8.8	−9.3	−12.2	−12.3	−11.7
Electrotypers	+152.7	+127.4	+101.0	+5.6	−6.0	−8.7	−10.6	−11.9	−12.9	−12.4
Machine operators	+107.8	+91.0	+83.2	+3.1	−2.3	−7.7	−9.1	−12.9	−9.3	−13.6
Machine tenders (machinists)	(1)	+90.4	+83.8	+4.1	−1.6	−4.4	−5.8	−11.2	−7.9	−11.9
Photoengravers	(1)	(1)	+98.1	+18.7	+6.1	−7.3	−8.6	−8.7	−8.3	−6.4
Press assistants and feeders	+155.1	+128.5	+107.4	−.5	−11.0	−13.4	−14.2	−15.7	−17.1	−1.1

[1] Not reported.

[2] Less than one tenth of 1 percent increase.

TABLE 6.—PERCENT OF CHANGE IN RATES OF WAGES PER FULL-TIME WEEK IN 1933 AS COMPARED WITH SPECIFIED YEARS—Continued

Trade and occupation	Percent of increase (+) or decrease (−) in rates of wages per full-time week in 1933 as compared with—									
	1907	1913	1917	1921	1925	1928	1929	1930	1931	1932
Printing and publishing—book and job—Continued										
Pressmen, cylinder	+113.8	+88.8	+78.4	−2.2	−9.3	−11.8	−13.2	−14.5	−14.2	−3.7
Pressmen, platen	+128.9	+109.7	+92.0	−3.9	−7.6	−10.5	−12.0	−12.6	−12.7	−6.4
Printing and publishing—newspaper										
Compositors (hand):										
Daywork	+105.4	+84.3	+76.2	+5.7	−4.6	−9.7	−11.2	−11.9	−12.0	−6.6
Nightwork	+93.9	+80.7	+74.6	+5.4	−3.6	−10.3	−11.0	−10.8	−10.5	−5.2
Machine operators:										
Daywork	+105.0	+87.4	+78.6	+7.6	−4.4	−10.8	−12.2	−11.8	−13.5	−8.6
Nightwork	+94.0	+81.8	+74.3	+7.0	−3.8	−11.2	−12.0	−11.8	−12.2	−6.6
Machine tenders (machinists):										
Daywork	(1)	+76.1	+71.9	−1.1	−5.2	−11.0	−12.1	−13.1	−13.2	−8.9
Nightwork	(1)	+68.7	+65.5	−1.2	−5.6	−11.5	−13.6	−11.2	−12.5	−6.5
Photoengravers:										
Daywork	(1)	(1)	+96.2	+19.4	+7.2	−5.6	−6.3	−5.7	−6.3	−6.1
Nightwork	(1)	(1)	+101.7	+20.9	+6.9	−5.7	−6.6	−8.9	−9.6	−10.1
Pressmen, web presses:										
Daywork	+137.1	+111.2	+102.4	+14.7	+1.9	−5.5	−6.6	−7.1	−7.8	−7.5
Nightwork	+129.1	+118.1	+111.4	+19.1	+5.5	−2.4	−3.0	−4.0	−5.4	−4.3
Stereotypers:										
Daywork	+110.3	+84.2	+75.7	+8.6	+.4	−2.9	−6.2	−7.1	−7.1	−7.5
Nightwork	+105.4	+87.1	+79.3	+9.5	+1.9	−.9	−5.2	−6.3	−6.7	−6.3

[1] Not reported.

Employment and Wages in Retail Stores

THE United States Bureau of the Census has recently issued a study dealing with various phases of employment and wage costs in the retail industry, covering store operations for the calendar year 1929. The study is in five parts, of which the first deals with the different kinds of retail employees and of stores in which they are employed, the second discusses the wage costs in retail stores and the wide variations in this respect between different kinds of stores, the third treats of the seasonal variations of retail employment, the fourth deals with average sales per employee, and the fifth compares the wage costs of chains and independent establishments.

Number of Retail Workers and Where They are Employed

THE census showed that in 1929 retail stores employed 3,833,581 full-time workers, which was 64 percent of the entire force; 676,559 part-time employees (11 percent), and 1,510,607 active proprietors engaged in the operation of their own stores. This total of 6,020,747 persons was more than 12 percent of the whole number of gainfully employed persons, and nearly 5 percent of the total population of the United States. The percentage distribution of these workers according to the kind of retail selling in which they were engaged was as follows:

	Percent		Percent
Food	19.79	Automotive	15.43
General merchandise	14.54	Restaurants	10.41
Apparel	8.37	Furniture and household appliances	5.37
Lumber and building	4.74	Miscellaneous	17.04
General stores	4.31		

Geographically, nearly two thirds of all retail workers were found in 11 States, each of which had a total of more than 150,000 such employees. New York led with a total of 760,284, Pennsylvania came next with 506,075, Illinois was third with 442,192, California fourth with 374,619, and Ohio fifth with 349,879. Indiana, with 162,266, stood lowest in the list.

Listed as retail workers are a number of employees engaged not in selling, but in distributing, servicing, preparing material, or some other ancilliary process. Thus the automotive group includes a large number of mechanics engaged in repairing and servicing autos, the restaurants and bakery goods stores class cooks as retail employees, dealers in household appliances have workers to install and service all or a part of the merchandise sold, etc.

Salaries and Wages of Retail Employees

SALARIES and wages, which amounted to $10.57 per $100 of total sales, were the largest single item of expense in the operating costs of retail stores. The reported pay roll included compensation paid to salaried executives, to buyers, to office employees, to salespeople, and to delivery and service employees, but did not include compensation for active proprietor-owners in the case of unincorporated proprietorships.

Since these proprietors form an active part of the working force, their inclusion seemed essential to any accurate calculation of labor costs. The true measure of their compensation is, of course, the net earnings of the business, but since this item was not reported, it was determined to calculate their salaries at the wage value, i.e., the average salary paid to full-time employees in the same kind of business. Adding the amount thus calculated to the annual pay roll reported gave a total wage cost for 1929 of $7,012,560,329, which is equivalent to $14.28 per $100 of sales.

The average annual compensation for retail employment in the United States was $1,312 for full-timers and $239 for part-timers. The average full-time compensation varied with the kind of business and with the geographical location, as shown in table 1.

TABLE 1.—AVERAGE FULL-TIME SALARIES OF EMPLOYEES CLASSIFIED BY BUSINESS GROUP AND GEOGRAPHIC DIVISION

Classification	Average full-time salary	Classification	Average full-time salary
Lines handled:		Geographic division:	
Food	$1,285	New England	$1,312
General stores	1,025	Middle Atlantic	1,420
General merchandise	1,125	East North Central	1,377
Automotive	1,460	West North Central	1,193
Apparel	1,480	South Atlantic	1,144
Other retail stores	1,406	East South Central	1,073
Furniture and household appliances	1,592	West South Central	1,140
Restaurants and eating places	909	Mountain	1,301
Lumber and building	1,630	Pacific	1,425

In the group distribution it will be noticed that the lumber and building, and the furniture and household groups pay considerably larger average annual salaries than any of the others, that the automotive and apparel groups, with nearly the same average, stand next, and that the restaurants and eating places have by far the lowest

average. From the geographical standpoint, the Pacific and the Middle Atlantic groups lead, the East North Central comes next, while the New England and the Mountain groups have nearly the same average, and the other groups lag considerably behind. These differences are due to a number of causes, among which are mentioned variations in the cost of living, and the presence in many cities of dominant industries which set the general scale of wages, and with which retail stores must compete for desirable employees. The business group differences are a more complicated matter, and are treated more fully under the subject of wage costs.

Wage Costs in Different Kinds of Retail Business

VARIATIONS in wage costs, from the national average of 14.28 percent, result from a number of contributing factors, many of which are capable of analysis. The necessity in many kinds of business for the conversion of certain commodities into another form before sale, or the further processing of materials, is responsible for increases in personnel with a resulting increase in wage costs. Another factor is the inauguration of customer services, such as delivery, credit, etc., from which there is no direct return in income. A third reason for the high wage costs is the necessity in certain kinds of stores for a highly trained selling organization, such as millinery stores, jewelry stores, and others, requiring salespeople with special qualifications, who necessarily receive higher than average salaries.

When the stores are grouped according to their wage ratios, it is found that there are 16 kinds of business in which the total wage cost, as reported, formed less than 10 percent of the total sales. This group includes 265,085 stores, and accounts for nearly 28 percent of the total retail business of the country. In 42 other kinds of business, wage costs ranged from 10 to 15 percent of sales, with a total sales volume of more than $20,000,000,000 in 557,393 stores. "These two groups of 58 kinds of stores, all with an average wage ratio under 15 percent of sales, contained 822,478 stores whose sales represented nearly 70 percent of the total reported sales of all retail stores in operation in 1929." The remaining businesses are divided into five groups, with wage ratios, respectively, of 15 to 20 percent, 20 to 25 percent, 25 to 30 percent, 30 to 35 percent, and in the final group, of over 35 percent.

Table 2 shows the kinds of stores in the two lowest cost groups, with data as to number of workers, ratio of wage costs to sales, and amount of total sales:

TABLE 2.—NUMBER OF EMPLOYEES AND WAGE COST IN RELATION TO SALES IN STORES WITH WAGE RATIO OF UNDER 10 AND OF 10 TO 15 PERCENT, BY KIND OF BUSINESS

Average wage ratios under 10 percent

Kind of business	Number of stores	Total retail workers, including full-time and part-time employees and proprietors	Total wage cost (percent of total sales)	Total sales
Grocery stores with meats	91,888	276,939	9.78	$3,025,304,722
General stores—groceries with apparel	5,426	12,332	9.92	111,074,663
General stores—groceries with dry goods	40,159	85,676	9.92	713,226,435
General stores—groceries with general merchandise	58,504	161,312	8.74	1,746,442,908
Mail-order houses	31	35,877	8.64	447,023,641
General merchandise stores (with food)	2,182	11,876	9.62	139,404,484

TABLE 2.—NUMBER OF EMPLOYEES AND WAGE COST IN RELATION TO SALES IN STORES WITH WAGE RATIO OF UNDER 10 AND OF 10 TO 15 PERCENT, BY KIND OF BUSINESS—Continued

Average wage ratios under 10 percent—Continued

Kind of business	Number of stores	Total retail workers, including full-time and part-time employees and proprietors	Total wage cost (percent of total sales)	Total sales
Automobile sales rooms	40,797	380,820	9.58	$6,153,216,567
Automobile dealers with farm implements	1,407	8,162	9.25	113,363,249
Apparel (mail-order houses)	9	121	6.52	2,120,818
Shoe stores—men's	1,402	4,271	9.65	61,507,370
Farm implement dealers with hay, grain, and feed	673	2,784	6.51	46,818,230
Feed stores	9,953	29,238	6.58	480,305,303
Fertilizer stores	1,213	2,325	7.99	21,669,045
Coal and feed stores	4,093	18,474	7.62	287,706,575
Grain elevators (at retail)	221	812	4.98	17,494,757
Feed stores with groceries	7,127	19,126	8.21	205,235,703
Total	265,085	1,050,145	9.32	13,571,914,470

Average wage ratios 10 to 15 percent

Dairy product stores	4,488	14,806	11.52	$165,965,016
Eggs and poultry dealers	3,258	7,098	10.64	70,858,063
Delicatessen stores	11,166	23,396	11.58	194,820,089
Grocery stores without meats	191,876	369,888	10.92	3,449,129,144
Meat markets with groceries	23,661	82,078	10.74	878,357,345
Meat markets	43,788	113,407	12.00	1,253,259,544
Farm products stores	974	1,785	14.49	8,942,183
General food stores	686	1,509	14.87	8,598,165
Department stores with food	460	118,188	14.85	939,411,294
Department stores without food	3,730	391,494	15.00	2,963,662,603
Dry-goods stores	24,676	91,302	13.08	641,385,596
Piece-goods stores	774	1,891	11.93	21,822,252
General merchandise stores without food	9,849	51,094	11.49	363,887,420
Army and Navy goods stores	724	2,032	12.47	19,783,037
Variety, 5-and-10, and to-a-dollar stores	12,110	170,960	11.13	904,147,495
Used-car dealers	3,097	11,058	11.78	140,932,126
Filling stations—gas and oil	52,727	106,922	14.72	869,081,365
Filling stations with tires and accessories	26,775	70,143	14.50	516,916,621
Boat dealers (retail only)	219	807	10.93	10,741,113
Men's and boys' clothing stores	3,386	14,138	12.94	176,418,581
Men's and boys' hat stores	1,566	5,042	14.57	43,744,215
Men's furnishings stores	9,196	22,624	14.43	212,032,317
Men's clothing and furnishings stores	14,049	69,819	14.16	760,527,660
Family clothing stores	10,551	62,297	14.20	552,353,340
Women's ready-to-wear stores	18,253	133,427	14.25	1,087,600,723
Blouse shops	11	42	14.32	313,362
Corset and lingerie shops	2,390	6,937	14.67	49,555,828
Knit goods shops	464	1,738	13.17	11,347,587
Children's specialty shops	1,019	2,985	12.75	23,982,252
Infants' wear shops	290	761	13.53	5,983,019
Shoe stores—women's	1,666	11,507	12.74	130,680,659
Family shoe stores	21,191	69,241	14.33	614,640,960
Furniture and undertaker	3,590	11,889	14.68	103,162,762
Furniture and hardware stores	3,672	13,908	12.81	134,258,767
Lumber and building material dealers	16,911	116,803	12.54	1,471,744,992
Lumber and hardware dealers	6,139	35,615	11.33	457,659,775
Farm implements, machinery, and equipment dealers	4,980	15,663	10.25	174,975,432
Hardware and farm implement stores	6,589	26,809	11.34	296,714,129
Farmers' supply stores	306	1,423	10.39	15,377,055
Coal and wood yards	15,444	95,492	13.11	929,829,335
Sporting goods stores with toys and stationery	675	2,426	14.40	19,893,517
Athletic and playground equipment	17	70	14.35	682,500
Total	557,393	2,350,514	12.92	20,695,179,238

Ten of the sixteen kinds of business in the first group are stores which are normally found only in small cities, in villages, and in rural areas. The unit of sale is relatively large, especially in those stores selling feed, fertilizer, and other farm supplies and equipment. Service is limited. The more favorable cost of living and the general low level of wages contribute to the very low expense ratios found generally in the sixteen kinds of stores included in this group.

Mail-order houses selling general merchandise and mail-order apparel houses also show low wage costs. No selling personnel is necessary and there is little delivery cost. This classification includes only catalog business. Retail stores operated by some of the mail-order houses are classified as department stores.

Combination stores (grocery stores with meats) show a low average wage cost which reflects the limited service characteristic of chain-store operation in this field. Chains in the grocery field have developed the combination store either entirely or in part, and it is claimed that chains are largely responsible for this particular kind of food store. (This is not true, however, of the combination meat market with groceries which will be discussed later.) Delivery service usually is held to a minimum and little or no credit is extended. The number of part-time employees reported by combination stores indicates that these organizations long ago realized the advantage to be obtained from employing part-time salespeople to cover those hours of the day and particularly those days of the week when the selling load is at its peak. All of these factors have contributed to bringing about a low average for the grocery stores carrying fresh meats.

The general merchandise stores (with food), somewhat resembling the country general stores except in the proportion of foods sold, are also low in wage costs. Their operation is kept as simple as possible, and almost the entire personnel is engaged directly in the sale of merchandise. The fact that a majority of these stores are proprietorships with the proprietors actively engaged in the business and are small enough to be closely supervised has a tendency to reduce wage costs.

The businesses in these and in the succeeding groups are considered in detail with a view to finding the causes for differences in the cost of selling. Usually, a low cost of selling means either that little display and little service is necessary or that the unit of sale is so large that it can absorb a considerable addition to the costs of selling, in the way of specialized workers or additional services, without being expensive to handle.

Seasonal Employment

VARIATIONS of employment are not so marked in retail selling as in some of the industrial occupations. "For the United States as a whole the extreme variation between the year's peak in December and April, which is the lowest season, is only 7 percent." In many kinds of business the variation exceeds this, but since the maximum of employment in one line may coincide with the minimum in another, the employment curve tends to level off. The food and the restaurant group show a variation of only 3 percent during the year, and the automotive group of only 4 percent, while general merchandise has a range of 25 percent.

Distribution of Employees by Sex

THE retail census provided for the first time a basis for segregating according to sex those engaged in retail selling. During 1929 the average total number so engaged was 6,020,747, of whom 4,441,547 were men and 1,579,200 were women. These figures include active proprietor-owners and both full-time and part-time employees. The relative number of men and women varied widely among these groups, as well as between different businesses. Table 3 shows the sex distribution by kinds of business, and also by the status of the workers considered.

TABLE 3.—PROPORTION OF MEN AND WOMEN IN LABOR FORCE OF RETAIL STORES

Kind of lines	Percent men and women form of—						Total retail workers (proprietors, full-time and part-time employees)			
	Total employees (full-time and part-time)		Part-time employees (included in total column)		Proprietors and firm members (not on pay roll)		Men		Women	
	Men	Women	Men	Women	Men	Women	Number	Percent	Number	Percent
Food	79	21	75	25	92	8	1,004,829	22	186,879	12
General stores	70	30	62	38	92	8	208,470	5	50,850	3
General merchandise	31	69	20	80	85	15	300,758	7	574,839	37
Automotive	93	7	92	8	97	3	874,475	20	54,302	3
Apparel	49	51	52	48	79	21	278,718	6	225,025	14
Furniture and household	80	20	77	23	92	8	266,007	6	57,457	4
Restaurants and eating places	55	45	46	54	82	18	386,414	9	240,310	15
Lumber and building	91	9	95	5	96	4	263,126	6	22,535	2
Other retail stores	80	20	81	19	92	8	827,202	18	164,392	10
Second hand stores	90	10	90	10	95	5	31,548	1	2,611	[1]
Total	68	32	63	37	91	9	4,441,547	100	1,579,200	100

[1] Less than 1 percent.

It will be noticed that women form nearly 70 percent of the total number of employees in the general merchandise group, 51 percent in the apparel group, and 45 percent in restaurants and eating places, but that there is no other group in which they constitute as much as one third, although in general stores they reach 30 percent. They are relatively more numerous among the part-time employees, though even here they form but 37 percent of the total number employed, while in the group of proprietors and firm members, not on the pay roll, they are only 9 percent against the men's 91 percent.

Comparative Wage Costs of Chains and Independent Stores

A BRIEF comparison is made between the wage costs of chains and independent stores in five lines of business. Table 4 shows the figures on this point:

TABLE 4.—COMPARATIVE WAGE COSTS IN CHAINS AND INDEPENDENT STORES

Kind of business	Average wage costs, percent of sales	
	Chains [1]	Independents [2]
Men's and boys' clothing and furnishings stores	10.81	14.99
Grocery stores (without meats)	6.89	13.58
Combination stores—groceries and meats	8.02	10.98
Filling stations	13.21	17.03
Drug stores	12.94	16.67

[1] Includes sectional and national chains only.
[2] Includes single-store, 2-store, and 3-store independents.

This comparison bears out the impression widely held that the wage costs of chains are lower in many cases than the wage costs of independents, but it does not necessarily follow that the chains pay lower salaries or wages than the independents. Because of the many additional factors which may have a bearing on wage ratios it is unsafe to base such a conclusion on wage costs alone, and certainly census material provides no basis for such an interpretation.

The more effective use of part-timers and the more systematic selection and training of the selling force are factors which must come in for their proper share of attention. Unquestionably each presents a practical method for reducing wage costs through improved selling effectiveness.

Customer services are also a factor if by their addition or elimination the expenses are affected proportionately. No census data are available on this subject. However, it is well known that in many fields, in which the chains have shown extensive development, these multiunit organizations have reduced service to a minimum. Obviously, nonselling employees are also reduced to a minimum if service operations are curtailed.

Wage-Rate Changes in American Industries

Manufacturing Industries

THE following table presents information concerning wage-rate adjustments occurring between August 15 and September 15, 1933, as shown by reports received from manufacturing establishments supplying employment data to this Bureau.

Increases in wage rates averaging 21 percent and affecting 358,224 employees were reported by 1,937 of the 18,330 manufacturing establishments surveyed in September. Ninety-five establishments in the boot-and-shoe industry reported increases in wage rates affecting 55,538 workers, 205 establishments in the sawmill industry reported increases affecting 37,829 employees, 84 men's clothing establishments reported increases affecting 16,165 workers, and 77 paper and pulp mills reported increases affecting 20,860 workers. One hundred and three foundry and machine shops reported wage-rate increases affecting 17,864 workers, 41 automobile plants reported increases in wage rates to 15,776 workers, and 24 firms in the electrical-machinery group reported changes in wage rates affecting 13,496 employees. Increases in rates each affecting slightly more than 9,000 workers were reported in the iron and steel, glass, furniture, and cigar and cigarette industries.

These changes in wage rates, as pointed out in connection with the changes reported last month affecting over 1,100,000 workers, do not necessarily represent an increase in average weekly earnings of employees, but they do represent a change in the hourly rates of pay whereby the worker receives as much pay for the shorter work week as he had received previously for longer hours at a lower rate. In a number of instances the increases in wage rates represent a restoration of wage cuts previously reported.

Of the 18,330 manufacturing establishments included in the September survey, 16,388 establishments, or 89.4 percent of the total, reported no change in wage rates over the month interval. The 3,004,326 employees not affected by changes in wage rates constituted 89.3 percent of the total number of employees covered by the September trend-of-employment survey of manufacturing industries.

Only five manufacturing establishments reported wage-rate decreases.

TABLE 1.—WAGE-RATE CHANGES IN **MANUFACTURING** INDUSTRIES DURING MONTH ENDING SEPTEMBER 15, 1933

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
All manufacturing industries	18,330	3,362,727	16,388	1,937	5	3,004,326	358,224	177
Percent of total	100.0	100.0	89.4	10.6	(1)	89.3	10.7	(1)
Food and kindred products:								
Baking	995	71,092	948	47		68,432	2,660	
Beverages	394	26,429	375	18	1	23,729	2,681	19
Butter	306	5,937	281	25		5,420	517	
Confectionery	305	41,143	266	39		36,867	4,276	
Flour	420	17,575	385	35		15,787	1,788	
Ice cream	371	13,936	357	14		13,667	269	
Slaughtering and meat packing	244	113,025	229	15		109,430	3,595	
Sugar, beet	63	8,083	29	34		4,988	3,095	
Sugar refining, cane	12	8,520	11	1		7,611	909	
Textiles and their products:								
Fabrics:								
Carpets and rugs	28	18,730	23	5		16,730	2,000	
Cotton goods	683	312,087	672	11		309,671	2,416	
Cotton small wares	114	11,734	108	6		11,112	622	
Dyeing and finishing textiles	153	34,760	153			34,760		
Hats, fur-felt	34	6,862	34			6,862		
Knit goods	454	120,387	436	18		114,494	5,893	
Silk and rayon goods	240	57,648	235	5		56,198	1,450	
Woolen and worsted goods	243	76,715	210	33		67,865	8,850	
Wearing apparel:								
Clothing, men's	405	74,200	321	84		58,035	16,165	
Clothing, women's	527	32,332	425	102		26,743	5,589	
Corsets and allied garments	34	6,111	26	8		5,222	889	
Men's furnishings	80	7,542	74	6		7,257	285	
Millinery	147	10,970	138	9		9,029	1,941	
Shirts and collars	117	17,566	110	7		16,775	791	
Iron and steel and their products, not including machinery:								
Bolts, nuts, washers, and rivets	72	12,012	67	5		10,709	1,303	
Cast-iron pipe	41	6,175	34	7		5,566	609	
Cutlery (not including silver and plated cutlery) and edge tools	129	10,440	114	15		9,428	1,012	
Forgings, iron and steel	64	7,716	50	14		6,529	1,187	
Hardware	107	30,857	94	13		28,805	2,052	
Iron and steel	207	261,961	193	14		252,403	9,558	
Plumbers' supplies	71	9,569	61	10		8,258	1,311	
Steam and hot-water heating apparatus and steam fittings	98	18,263	83	15		15,505	2,758	
Stoves	157	24,927	134	23		20,915	4,012	
Structural and ornamental metalwork	192	16,676	164	28		14,610	2,066	
Tin cans and other tinware	61	11,135	57	4		10,601	534	
Tools (not including edge tools, machine tools, files, and saws)	127	8,709	120	7		7,684	1,025	
Wirework	70	7,755	67	3		7,600	155	
Machinery, not including transportation equipment:								
Agricultural implements	77	8,632	64	13		7,277	1,355	
Cash registers, adding machines, and calculating machines	36	13,519	36			13,519		
Electrical machinery, apparatus, and supplies	288	109,846	264	24		96,350	13,496	
Engines, turbines, tractors, and waterwheels	89	20,401	80	9		15,786	4,615	

[1] Less than one tenth of 1 percent.

TABLE 1.—WAGE-RATE CHANGES IN **MANUFACTURING** INDUSTRIES DURING MONTH ENDING SEPTEMBER 15, 1933—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
Machinery—Continued.								
Foundry and machine-shop products	1,076	128,310	973	103	----	110,446	17,864	----
Machine tools	146	14,936	140	6	----	14,112	824	----
Radios and phonographs	41	31,968	37	4	----	30,114	1,854	----
Textile machinery and parts	49	10,904	41	8	----	10,279	625	----
Typewriters and supplies	16	11,237	14	2	----	11,222	15	----
Nonferrous metals and their products:								
Aluminum manufactures	25	6,628	22	3	----	6,016	612	----
Brass, bronze, and copper products	214	38,972	188	26	----	36,468	2,504	----
Clocks and watches, and time-recording devices	27	9,118	22	5	----	4,739	4,379	----
Jewelry	132	9,085	117	15	----	7,537	1,548	----
Lighting equipment	52	3,535	47	5	----	3,142	393	----
Silverware and platedware	53	8,315	47	6	----	8,022	293	----
Smelting and refining—copper, lead, and zinc	45	14,413	42	2	1	14,272	133	8
Stamped and enameled ware	87	17,021	67	20	----	13,118	3,903	----
Transportation equipment:								
Aircraft	28	7,654	24	4	----	6,354	1,300	----
Automobiles	239	239,907	198	41	----	224,131	15,776	----
Cars, electric and steam railroad	41	5,929	39	2	----	4,522	1,407	----
Locomotives	11	2,359	9	2	----	2,240	119	----
Shipbuilding	95	29,548	91	4	----	29,305	243	----
Railroad repair shops:								
Electric railroad	378	18,843	364	14	----	18,590	253	----
Steam railroad	545	79,484	545	----	----	79,484	----	----
Lumber and allied products:								
Furniture	465	60,073	390	75	----	49,658	10,415	----
Lumber:								
Millwork	463	21,770	395	68	----	18,153	3,617	----
Sawmills	617	82,883	412	205	----	45,054	37,829	----
Turpentine and rosin	25	1,660	22	3	----	911	749	----
Stone, clay, and glass products:								
Brick, tile, and terra cotta	657	22,878	574	83	----	17,997	4,881	----
Cement	129	15,545	126	3	----	15,451	94	----
Glass	184	46,235	151	33	----	37,137	9,098	----
Marble, granite, slate, and other products	221	5,698	209	12	----	5,398	300	----
Pottery	121	18,432	111	8	2	17,432	890	110
Leather and its manufactures:								
Boots and shoes	344	122,175	249	95	----	66,637	55,538	----
Leather	156	31,659	128	28	----	27,168	4,491	----
Paper and printing:								
Boxes, paper	322	27,737	265	57	----	23,086	4,651	----
Paper and pulp	416	100,844	339	77	----	79,984	20,860	----
Printing and publishing:								
Book and job	771	47,692	744	27	----	45,929	1,763	----
Newspapers and periodicals	446	66,020	437	9	----	65,274	746	----
Chemicals and allied products:								
Chemicals	104	26,374	93	11	----	22,519	3,855	----
Cottonseed oil, cake, and meal	103	5,721	73	29	1	3,631	2,050	40
Druggists' preparations	45	8,362	43	2	----	7,843	519	----
Explosives	29	4,309	28	1	----	4,177	132	----
Fertilizers	167	7,347	150	17	----	6,443	904	----
Paints and varnishes	352	17,111	330	22	----	15,606	1,505	----
Petroleum refining	127	52,591	117	10	----	45,130	7,461	----
Rayon and allied products	24	37,580	24	----	----	37,580	----	----
Soap	98	17,230	86	12	----	16,188	1,042	----
Rubber products:								
Rubber boots and shoes	9	14,335	8	1	----	14,207	128	----
Rubber goods, other than boots, shoes, tires, and inner tubes	100	26,628	93	7	----	26,228	400	----
Rubber tires and inner tubes	41	59,889	39	2	----	54,675	5,214	----
Tobacco manufactures:								
Chewing and smoking tobacco and snuff	32	10,042	30	2	----	9,987	55	----
Cigars and cigarettes	207	43,764	167	40	----	32,501	11,263	----

Nonmanufacturing Industries

DATA concerning wage-rate changes occurring between August 15 and September 15, 1933, in 15 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite-mining industry. Increases were reported in each of the remaining 14 industries and decreases were reported in 3 industries over the month interval. The average percents of increase reported were as follows: Banks-brokerage-insurance-real estate, 29.5 percent; canning and preserving, 25.9 percent; quarrying and nonmetallic mining, 20.4 percent; laundries, 18.8 percent; retail trade, 18.2 percent; bituminous-coal mining, 17.9 percent; hotels, 16.7 percent; dyeing and cleaning, 13.1 percent; wholesale trade, 12.9 percent; metalliferous mining, 11.8 percent; crude-petroleum producing, 9.3 percent; power and light, 7.3 percent; electric-railroad and motor-bus operation and maintenance, 6 percent; and telephone and telegraph, 4.8 percent. The average percents of decrease were: Banks-brokerage-insurance-real estate, 15.6 percent; and hotels and power and light, 8 percent each.

TABLE 2.—WAGE-RATE CHANGES IN **NONMANUFACTURING** INDUSTRIES DURING MONTH ENDING SEPTEMBER 15, 1933

Industrial group	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
Anthracite mining	158	77,598	158	----	----	77,598	----	----
Percent of total	100.0	100.0	100.0	----	----	100.0	----	----
Bituminous-coal mining	1,495	218,200	1,462	33	----	212,513	5,687	----
Percent of total	100.0	100.0	97.8	2.2	----	97.4	2.6	----
Metalliferous mining	271	25,678	252	19	----	21,992	3,686	----
Percent of total	100.0	100.0	93.0	7.0	----	85.6	14.4	----
Quarrying and nonmetallic mining	1,152	35,442	1,059	93	----	32,390	3,052	----
Percent of total	100.0	100.0	91.9	8.1	----	91.4	8.6	----
Crude-petroleum producing	244	26,304	235	9	----	24,680	1,624	----
Percent of total	100.0	100.0	96.3	3.7	----	93.8	6.2	----
Telephone and telegraph	8,240	245,724	7,744	496	----	243,757	1,967	----
Percent of total	100.0	100.0	94.0	6.0	----	99.2	.8	----
Power and light	3,098	201,108	2,950	147	1	189,111	11,977	20
Percent of total	100.0	100.0	95.2	4.7	(1)	94.0	6.0	(1)
Electric-railroad and motor-bus operation and maintenance	557	124,331	538	19	----	119,997	4,334	----
Percent of total	100.0	100.0	96.6	3.4	----	96.5	3.5	----
Wholesale trade	2,947	82,505	2,869	78	----	80,352	2,153	----
Percent of total	100.0	100.0	97.4	2.6	----	97.4	2.6	----
Retail trade	17,549	405,422	17,396	153	----	401,219	4,203	----
Percent of total	100.0	100.0	99.1	.9	----	99.0	1.0	----
Hotels	2,638	140,362	2,614	23	1	140,054	299	9
Percent of total	100.0	100.0	99.1	.9	(1)	99.8	.2	(1)
Canning and preserving	1,021	152,969	906	115	----	137,486	15,483	----
Percent of total	100.0	100.0	88.7	11.3	----	89.9	10.1	----
Laundries	935	56,815	789	146	----	49,985	6,830	----
Percent of total	100.0	100.0	84.4	15.6	----	88.0	12.0	----
Dyeing and cleaning	344	11,942	314	30	----	11,026	916	----
Percent of total	100.0	100.0	91.3	8.7	----	92.3	7.7	----
Banks, brokerage, insurance, and real estate	4,538	178,827	4,470	64	4	176,023	2,795	9
Percent of total	100.0	100.0	98.5	1.4	.1	98.4	1.6	(1)

[1] Less than one tenth of 1 percent.

Wage Changes Reported by Trade Unions and Municipalities Since July 1933

IN THE table following are shown wage and hour changes reported by trade unions and municipalities covering the months of July to October 1933. The tabulation covers 113,803 workers of whom 65,523 are reported to have gone on the 5-day week.

RECENT WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, JULY TO OCTOBER 1933

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Barbers, New York, N.Y., Yorkville and Murray Hill section	Sept. 30	*Per week* [1] $22.50	*Per week* [2] $25.00	72	71
Brewery workers:					
Chicago, Ill.:		*Per hour*	*Per hour*		
Engineers	July 15	1.07½	1.25	48	40
Firemen and oilers:					
Water tenders	do	.87½	1.00	48	40
Boiler washers	do	.87½	1.00	48	40
Firemen	do	.87½	1.00	48	40
Oilers	do	.87½	1.00	48	40
Helpers	do	.75	.87½	48	40
Coal passers	do	.75	.87½	48	40
		Per week	*Per week*		
Los Angeles, Calif	Sept. 5	42.00	42.00	44	40
Sacramento, Calif	Sept. —	38.00	38.00	44	40
Building trades:		*Per hour*	*Per hour*		
Bricklayers and masons, Chicago, Ill., and vicinity	Sept. 1	1.37½	1.50	40	40
Carpenters, Sheridan, Wyo	Oct. 1	.75	1.00	48	40
House wreckers, New York, N.Y.:					
Barmen	Sept. 22	.60	.80	44–48	35
Helpers	do	.50	.70	44–48	35
Painters, Sheridan, Wyo	Oct. 1	.75	1.00	[3]	[3]
Plasterers, Chicago, Ill	do	1.37½	1.50	40	40
Chauffers and teamsters, Hoboken, N.J.:		*Per week*	*Per week*		
Milk wagon drivers	Sept. 2	[4] 27.82	[4] 32.62	48	48
Clothing trades:					
Haverhill, Newburyport, Georgetown, Amesbury, Mass., and Seabrook, N.H., wood-heel makers	Aug. 1	[5]	[6]	48	40
Hazleton, Pottstown, Meyerstown, and Newmanstown, Pa., shirtmakers	July 10	[3]	[7]	[3]	[3]
Johnstown, N.Y., glove cutters	July 22	[8] 1.75	[8] 2.15	48	40
New York, N.Y., and vicinity, boys' and men's clothing workers, operators, cutters, pressers	July 20	[3]	[9]	44	44
Scranton, Wilkes-Barre, and Pittston, Pa., pants makers	July 10	[3]	[6]	50	50
Loggers and lumbermen, Oregon, Idaho, Washington, and northern California, common laborers	Aug. 1	*Per hour* .20–.32½	*Per hour* .42½	48	40
Miners, metal:					
East Tintic district, Utah:		*Per day*	*Per day*		
Hoisting engineers	Sept. 5	4.25	5.50	56	40
Machinists	do	4.00–4.25	5.25–5.50	56	40
Electricians	do	3.50–3.75	4.75–5.00	56	40
Helpers	do	3.25–3.50	4.50–4.75	56	40
Blacksmiths	do	4.25	5.50	56	40
Helpers	do	3.00	4.25	56	40
Tool sharpeners	do	3.75	5.00	56	40
Top carmen	do	3.00	4.25	56	40
Laborers	do	2.75	4.00	56	40
Shaft men	do	4.25	5.50	56	40
Helpers	do	4.00	5.25	56	40
Machine miners	do	3.50	4.75	56	40
Hand miners	do	3.25	4.50	56	40
Timbermen	do	3.50	4.75	56	40
Timbermen, special	do	3.75	5.00	56	40
Muckers	do	3.00	4.25	56	40
Special timber helpers	do	3.25	4.50	56	40
Pump men	do	3.50	4.75	56	40

[1] And 50 percent of receipts over $37.50.
[2] And 50 percent of receipts over $40.
[3] Not reported.
[4] Average.
[5] Piecework.
[6] 20 percent increase.
[7] 15 percent increase.
[8] Per dozen.
[9] 10 to 20 percent increase.

RECENT WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, JULY TO OCTOBER 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Miners, metal—Continued.					
Park City, Utah:		*Per day*	*Per day*		
Hoisting engineers	Aug. 1	$3.75	$4.50	48	40
Machinists	do	3.50	4.25	48	40
Electricians	do	3.50	4.25	48	40
Helpers	do	3.00	3.75	48	40
Blacksmiths	do	3.50	4.25	48	40
Helpers	do	2.75	3.50	48	40
Top carmen	do	2.75	3.50	48	40
Laborers	do	2.50	3.25	48	40
Shaft men	do	3.50	4.25	48	40
Helpers	do	2.75	3.50	48	40
Machine miners	do	3.25	4.00	48	40
Hand miners	do	3.00	3.75	48	40
Timber men	do	3.25	4.00	48	40
Muckers	do	2.75	3.50	48	40
Pump men	do	2.75	3.50	48	40
Printing and publishing trades:					
Compositors and machine operators, Ithaca, N.Y.:		*Per week*	*Per week*		
Newspaper, day	July 1	42.00	43.00	48	48
Newspaper, night	do	45.00	46.00	48	48
Stereotypers, Indianapolis, Muncie, and Anderson, Ind	July 15	*Per day* 7.30	*Per day* 7.30	46	38
Street-railway workers:					
Boston, Mass.:		*Per hour*	*Per hour*		
Motormen and conductors	Sept. 14	.68½	.71	[10] 8	[10] 8
1-man car operators	do	.78½	.81	[10] 8	[10] 8
Cleveland, Ohio	Sept. 1	.54	.57	[3]	[3]
Municipal employees:					
St. Marys, Ohio, teachers and janitors	do	[3]	[11]	[3]	[3]

[3] Not reported. [10] Hours per day. [11] 10 percent reduction.

Rates of Wages of Public-Road Work, August 1933

DURING August 1933 there were 149,094 employees on the public roads under the jurisdiction of the Bureau of Public Roads of the United States Department of Agriculture. Of these, 91,101 were paid from the emergency fund as provided by an act of Congress (Public No. 202). The remaining 57,993 were employed under the regular State aid plan of the Bureau.

On August 31 there were 1,200 employees on public roads hired under the National Recovery Administration allotment of $400,000,000. These employees are not included in the following tables.

Wage Rates

THE first section of the table shows the number of positions and the average hourly wage rates by geographic divisions on emergency highway construction projects, by occupations. The second section of the table gives similar data on nonemergency Federal and State highway construction projects.

NUMBER OF POSITIONS AND AVERAGE HOURLY WAGE RATES ON HIGHWAY CONSTRUCTION PROJECTS, AUGUST 1933, BY GEOGRAPHIC DIVISIONS

Emergency projects

Occupation	New England division		Middle Atlantic division		East North Central division		West North Central division		South Atlantic division	
	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate
Superintendents	57	$0.89	121	$0.96	263	$0.83	156	$0.79	189	$0.69
Foremen	261	.58	571	.60	903	.55	454	.56	716	.41
Shovel, elevating grader, and crane operators	105	.84	268	.81	459	.66	260	.63	215	.58
Other operators	91	.56	420	.53	656	.52	409	.52	375	.37
Truck and tractor drivers	727	.44	1,216	.49	2,969	.44	2,522	.46	1,947	.32
Teamsters	1	.44	75	.42	751	.39	943	.37	303	.23
Skilled labor	498	.53	668	.57	1,170	.52	505	.52	675	.35
Common labor	2,358	.40	5,976	.39	12,589	.38	4,317	.37	7,006	.22

Occupation	East South Central division		West South Central division		Mountain division		Pacific division		United States	
	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate
Superintendents	137	$0.67	151	$0.73	178	$0.97	136	$1.10	1,388	$0.84
Foremen	628	.40	515	.46	743	.70	557	.75	5,348	.55
Shovel, elevating grader, and crane operators	177	.56	161	.60	298	1.01	324	1.10	2,267	.75
Other operators	219	.33	275	.44	486	.67	438	.70	3,369	.52
Truck and tractor drivers	1,102	.28	1,087	.34	2,343	.61	1,695	.64	15,608	.46
Teamsters	511	.22	826	.28	1,482	.50	159	.54	5,051	.38
Skilled labor	806	.32	849	.42	833	.66	1,310	.68	7,314	.52
Common labor	6,311	.21	4,940	.27	3,922	.48	3,337	.50	50,756	.36

Nonemergency Federal and State projects

Occupation	New England division		Middle Atlantic division		East North Central division		West North Central division		South Atlantic division	
	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate
Superintendents	133	$0.86	162	$1.14	303	$0.92	172	$0.74	153	$0.62
Foremen	333	.59	448	.71	749	.62	478	.53	456	.40
Shovel, elevating grader, and crane operators	175	.73	277	.87	439	.76	195	.59	108	.47
Other operators	149	.53	378	.54	532	.56	363	.50	124	.34
Truck and tractor drivers	977	.44	1,062	.45	2,416	.50	1,494	.47	526	.27
Teamsters	31	.45	26	.47	358	.44	716	.37	63	.26
Skilled labor	465	.54	1,056	.60	1,137	.60	522	.50	313	.33
Common labor	3,796	.37	4,311	.35	9,314	.42	3,858	.35	2,124	.23
Convicts	------	------	------	------	------	------	1	------	4,452	.10

Occupation	East South Central division		West South Central division		Mountain division		Pacific division		United States	
	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate	Number of positions	Average hourly rate
Superintendents	91	$0.59	66	$0.77	32	$0.83	67	$1.19	1,179	$0.85
Foremen	258	.44	173	.52	72	.63	179	.80	3,146	.57
Shovel, elevating grader, and crane operators	121	.54	78	.55	51	.72	108	1.06	1,552	.71
Other operators	152	.32	141	.39	92	.56	161	.70	2,092	.50
Truck and tractor drivers	558	.28	493	.34	294	.50	552	.66	8,372	.44
Teamsters	761	.28	389	.30	155	.48	21	.57	2,520	.38
Skilled labor	530	.34	179	.38	116	.60	364	.73	4,682	.52
Common labor	2,807	.20	1,475	.28	581	.43	1,049	.50	29,315	.35
Convicts	145	------	246	------	65	------	226	.26	5,135	.15

Of the slightly more than 91,000 employees on emergency highway construction, 50,756 were common laborers. The hourly common-laborer rate on emergency construction averaged 36 cents per hour for the United States as a whole. The labor rate differed materially in the different geographic divisions, ranging from 21 cents per hour in the East South Central States to 50 cents per hour in the Pacific States. The skilled-labor rates also differed considerably. In the East South Central States the rate for skilled laborers was 32 cents per hour and in the Pacific division 68 cents per hour.

Truck and tractor drivers, next to common laborers, were the most numerous class of employees on public roads. There were 15,608 of these drivers employed during August, their wages ranging from a low of 28 cents in the East South Central States to a high of 64 cents in the Pacific States. Lower wages were paid in the East South Central States than in any other geographic division for each class of work shown. The highest wages for each class of employees were paid in the Pacific States.

Under the legislative mandate by which this emergency fund was disbursed, the hours of labor were limited to 30 per week. Throughout the United States the actual time spent on the job during August averaged about 100 hours per man per month.

Over 29,000 employees on the regular State-aid public road work were paid the common-laborer rate which averaged 35 cents per hour in the United States as a whole. The highest rate paid common laborers under regular State-aid funds was 50 cents in the Pacific States and the lowest, 20 cents, in the East South Central States. Higher wages were paid to all occupations, from common laborers to superintendents, in the Pacific States than in any other geographic divisions. Superintendents, foremen, shovel, elevating grader, and crane operators, and "other operators" were paid a lower rate in the East South Central States than in any other geographic division. The South Atlantic States paid lower wages to truck and tractor drivers, teamsters, and skilled laborers than any other divisions.

The average full time of employment for employees shown in this table was approximately 59 hours per week. Actual working time averaged about 180 hours per month.

Occupational Terms

THE following is a list of the classes of work included under the different occupational headings shown in the table on page 1205. The term "superintendent" needs no description.

Foremen:
- Carpenter, journeyman
- Head mechanic
- Master finisher, concrete pavement
- Painter, journeyman
- Stonemason, journeyman

Shovel, elevating grader, and crane operators:
- Asphalt plant engineer
- Crane operator
- Dragline operator
- Elevating grader operator
- Hoisting engineer (structural steel work)
- Pile-driver operator
- Power-shovel operator

Other operators:
- Air-compressor operator
- Asphalt plant drierman or fireman
- Blade-grader operator
- Churn-drill operators
- Clefplane operator
- Compressor operator
- Crusher (stone and gravel) operator
- Distributor operator
- Finishing-machine operator (concrete or asphalt)
- Flexplane operator
- Grader operator (except elevating graders)
- Hoist operators (ordinary)
- Jack-hammer operator
- Jetting-machine operator
- Mixer operator (machines less than 3-bag capacity)
- Oiler (power, shovels, cranes, drag lines, dredges)
- Paver operator
- Proportioning-plant operator
- Pumpman
- Roller operator
- Screening and/or washing-plant operator
- Spreader-box man (asphalt or gravel)
- Trenching-machine operator
- Unloading-machine operator

Truck and tractor drivers:
- Distributor driver
- Motor-patrol operator
- Tractor operator (20 hp. rated capacity)
- Truck driver (over 1½-ton rated capacity)

Teamsters:
- Teamster (4 up or more)

Skilled labor:
- Powderman (heavy rock)
- Structural-steel worker
- Blacksmith, rough
- Blacksmith's assistant
- Carpenter's assistant
- Carpenters, rough (saw and hammer men)

Skilled labor—Continued.
- False work builder (carpenters' assistant)
- Finisher, assistant (concrete pavement
- Form setter head
- Hand-float operator (assistant finisher)
- Joint and lipcurb finisher (finisher's assistant)
- Mechanic's assistant (trouble shooter)
- Painter's assistant (guard rail, and similar work)
- Pile-driver lead man
- Pile-driver holders
- Plow holders (4 up or more)
- Powder man (miscellaneous work, including light solid rock)
- Raker (asphalt)
- Stonemason's assistant

Common labor:
- Asphalt loader and shoveler
- Asphalt plant miscellaneous labor
- Axman
- Blacksmith's helper
- Burlapman
- Carpenter's helper
- Cement handler
- Concrete shoveler
- Driver, team (on Morman, slip wheeler, wagon, etc.)
- Driver, truck (1½-ton or less)
- Dumper (wagons, trucks, etc.)
- Finisher's helper (concrete pavement)
- Form-setter's helper
- Guard-fence builder
- Jetting labor
- Joint-filling labor
- Labor, miscellaneous, unskilled
- Mechanic's helper
- Painter's helper
- Pitman
- Pile-driver workman
- Pipe layer
- Powder monkey (helper)
- Reinforcing steel labor
- Sack shaker
- Sawman
- Sledgman
- Sprinkler labor (concrete pavements)
- Stonemason's helper
- Spader (concrete work)
- Subgrade labor (hand tools)
- Teamster, 2 line (Morman, Fresno, wheeler, wagon, etc.)
- Tractor operator, (under 20 hp.)
- Truck driver (1½ ton or less)
- Water boy
- Watchman
- Wheelbarrowman

Monthly Wages in Sao Paulo, Brazil, First Half of 1933

THE following table shows monthly money wages in the three largest interior cities in the State of Sao Paulo, Brazil, in the first half of 1933.[1] The three cities under review had a population in 1927 as follows: Campinas, 134,805; Ribeirao Preto, 73,820; and Sao Carlos, 59,427.[2]

MONTHLY WAGES IN THE 3 LARGEST INTERIOR CITIES IN SAO PAULO, BRAZIL, FIRST HALF OF 1933

[Conversion into United States currency on basis of milreis at par=12 cents; exchange rate, July 1, 1933, approximately 8 cents]

Occupation	Campinas		Ribeirao Preto		Sao Carlos	
	Brazilian currency	United States currency	Brazilian currency	United States currency	Brazilian currency	United States currency
	Milreis		*Milreis*		*Milreis*	
Blacksmiths	180	$21.60	200–250	$24.00–$30.00	180	$21.60
Carpenters	240	28.80	200–300	24.00– 36.00	180	21.60
Masons	240	28.80	200–250	24.00– 30.00	180	21.60
Servants	120	14.40	100–150	12.00– 18.00	120	14.40
Painters	240	28.80	180–240	21.60– 28.80	180	21.60
Drivers	150	18.00	200–250	24.00– 30.00	220	26.40
Joiners	260	31.20	200–300	24.00– 36.00	200	24.00
Mechanics	260	31.20			300	36.00
Factory workers	180	21.60	100–250	12.00– 30.00	120	14.40
Cooks	210	25.20	80–120	9.60– 14.40	60	7.20
Typists	120	14.40	60– 70	7.20– 8.40	60	7.20
Chambermaids	90	10.80	70	8.40	50	6.00
Messengers	60	7.20	170	20.40	40	4.80
Gardeners	150	18.00	100	12.00	150	18.00
Stablemen	150	18.00			120	14.40
Chauffeurs	240	28.80	200–250	24.00– 30.00	150	18.00

Wages in the Industries of Denmark, First Quarter of 1933

AVERAGE hourly wages in the industries of Denmark in 1932 and in the first quarter of 1933 are shown in the following table by localities and groups of workers: [3]

[1] Sao Paulo (Brazil). Secretaria da Agricultura, Industria e Comércio. Boletim do Departamento Estadual do Trabalho. Nos. 78 and 79. Sao Paulo, 1933, p. 17.
[2] Sao Paulo (Brazil). Serviço Sanitario do Estado de Sao Paulo. Annuario Demographico, Anno 1927. Vols. I and II. Sao Paulo, 1928, pp. 389, 500, and 618.
[3] Denmark. Statistiske Departement. Statistiske Efterretninger, Sept. 22, 1933, p. 211.

AVERAGE HOURLY WAGES IN THE INDUSTRIES OF DENMARK IN 1932 AND IN THE FIRST QUARTER OF 1933

[Conversion into United States currency on basis of krone (100 øre) at par=26.8 cents; actual exchange rate was as follows: 1932—March 20 cents, in June 19.9 cents, in September 18 cents; and 1933—March 15.3 cents]

Locality and group of workers	1932								1933, first quarter		Number of workers on Mar. 31, 1933
	First quarter		Second quarter		Third quarter		Fourth quarter				
	Danish currency	United States currency	Danish currency	United States currency	Danish currency	United States currency	Danish currency	United States currency	Danish currency	United States currency	
Copenhagen	*Øre*	*Cents*	*Øre*	*Cents*	*Øre*	*Cents*	*Øre*	*Cents*	*Øre*	*Cents*	
Skilled workers	173	46.4	170	45.6	170	45.6	172	46.1	167	44.8	17,568
Unskilled workers	139	37.3	139	37.3	139	37.3	141	37.8	137	36.7	16,207
Total male workers	156	41.8	155	41.5	155	41.5	157	42.1	152	40.7	33,775
Female workers	89	23.9	89	23.9	89	23.9	89	23.9	88	23.6	14,185
Total workers	137	36.7	137	36.7	136	36.4	137	36.7	134	35.9	47,960
Provinces											
Skilled workers	139	37.3	139	37.3	139	37.3	140	37.5	138	37.0	14,309
Unskilled workers	120	32.2	121	32.4	121	32.4	124	33.2	121	32.4	19,370
Total male workers	128	34.3	128	34.3	128	34.3	130	34.8	128	34.3	33,679
Female workers	81	21.7	81	21.7	82	22.0	82	22.0	83	22.2	8,579
Total workers	119	31.9	120	32.2	119	31.9	121	32.4	119	31.9	42,258
Grand total:											
Male workers	143	38.3	141	37.8	141	37.8	143	38.3	141	37.8	67,454
Female workers	86	23.0	86	23.0	86	23.0	86	23.0	87	23.3	22,764
All workers	129	34.6	129	34.6	128	34.3	130	34.8	127	34.0	90,218

Earnings in the Building Trades in Germany, August 1932

THE Federal Statistical Office of Germany has made a study of the actual earnings of workers engaged in the building trades in Germany in August 1933. The first part of the results of the study was published in the Monthly Labor Review for August 1933 (pp. 390–392). The second part, which is reviewed here,[1] covered 982 establishments with 20,770 workers in 50 cities with a population over 100,000.

The following table shows average actual hourly and daily earnings, hours of labor, and wage deductions in the building trades in the larger cities of Germany.

[1] Germany. Statistisches Reichsamt. Wirtschaft und Statistik. Heft No. 17, Sept. 1, 1933, pp. 544–546.

AVERAGE ACTUAL HOURLY AND DAILY EARNINGS AND HOURS OF LABOR IN BUILDING TRADES IN GERMAN CITIES OF OVER 100,000 POPULATION, AUGUST 1932, BY OCCUPATION

[Conversions into United States currency on basis of mark (100 pfennige) at par=23.8 cents]

Occupation and age	Rate	Number of workers	Hours worked per day	Actual earnings per hour		Union rate per hour		Percent actual earnings form of union rate	Actual earnings per day [1]	
				German currency	United States currency	German currency	United States currency		German currency	United States currency
Masons:				*Pfe.*	*Cents*	*Pfe.*	*Cents*		*Marks*	
Over 20 years	Time	7,699	7.95	97.9	23.3	97.4	23.2	100.1	7.78	$1.85
Do	Piece	341	7.76	115.6	27.5	101.6	24.2	113.7	8.97	2.13
From 19 to 20 years	Time	127	7.93	87.5	20.8	90.1	21.4	97.0	6.94	1.65
Carpenters:										
Over 20 years	do	2,823	7.96	99.8	23.8	99.3	23.6	100.1	7.95	1.89
Do	Piece	42	8.10	99.6	23.7	95.6	22.8	104.2	8.07	1.92
From 19 to 20 years	Time	48	7.81	95.0	22.6	96.4	22.9	98.4	7.42	1.77
Helpers:										
Over 20 years	do	5,567	8.04	81.6	19.4	80.8	19.2	100.2	6.56	1.56
Do	Piece	196	7.96	100.4	23.9	84.1	20.0	118.9	7.99	1.90
From 19 to 20 years	Time	46	7.97	72.6	17.3	71.9	17.1	100.7	5.79	1.38
Underground workers:										
Over 20 years	do	3,632	8.16	70.9	16.9	68.4	16.3	102.2	5.79	1.38
Do	Piece	187	7.99	77.1	18.3	63.8	15.2	120.1	6.16	1.47
From 19 to 20 years	Time	53	8.01	63.7	15.2	60.8	14.5	103.8	5.10	1.21

[1] Without deductions for taxes on contributions for social insurance.

Wage deductions for taxes and social insurance are made on an hourly basis. For taxes such deductions range from 2.1 pfennige for underground workers 19 to 20 years, to 6.5 pfennige for masons over 20 years, while for social insurance (including accident insurance) the range is from 6.5 to 11.1 pfennige for the same occupations.

Hours of Labor in the Tobacco Industry in Germany, 1932

THE following data, from a report from W. A. Leonard, American consul at Bremen, dated August 9, 1933, show the working hours in the various branches of the tobacco industry in Germany, May and June 1933:

WORKING HOURS IN THE TOBACCO INDUSTRY OF GERMANY, MAY AND JUNE 1933

Branch of industry	Hours worked last week in—			
	May 1933		June 1933	
	Total man-hours worked	Average hours per worker	Total man-hours worked	Average hours per worker
Cigar	698,387	40.10	839,395	41.79
Cigarette	241,114	36.87	243,473	35.36
Chewing tobacco	84,868	40.88	92,151	43.65
Smoking tobacco and snuff	45,894	42.61	48,011	42.56

Forty-Four Hour Week in Queensland

THE new conciliation and arbitration law of Queensland, which, in the main, became effective in February 1933 (see Monthly Labor Review, July 1933, p. 108), contained a provision that except in certain pursuits awards must forbid the working of employees on more than 6 out of each 7 consecutive days, and that the weekly hours of work must not exceed 44. This provision was to come into force July 1, 1933.

According to the New South Wales Industrial Gazette for June 1933 (p. 1077), the unions applied to the Industrial Court in May for a general ruling that the hourly rates fixed in awards affected by this reduction in hours should be increased sufficiently to offset the reduction in time, and to leave the weekly earnings unaltered. The decision of the court was that such an increase would follow as a matter of course.

The president said that he did not think that the present act was any different from the 1925 act. He had already ruled that the 44-hour week operated automatically, and the basic wage rate had been allowed to stand. Each time the hours were reduced from 48 per week the hourly wages affected had been increased by the court. The court could always act on its own motion, and its jurisdiction to do so was undoubted. The law required that the basic rate of £3 14s. a week should be paid for 44 hours a week unless in any particular case the court decided otherwise.

Yearly Wages in the Soviet Union in 1932

ACCORDING to the Soviet Union official source in English entitled "Summary of the Fulfillment of the First Five-year Plan", published by the State Planning Commission in Moscow, 1933 (pp. 286, 287), the yearly money wages per worker in 1932 were as follows: In industries, 1,470.10 rubles ($757.10); in transport and communication, 1,483.70 rubles ($764.11); in construction, 1,544.90 rubles ($795.62); in social and cultural institutions, 1,492.90 rubles ($768.84) per worker; and in agriculture and forestry, 957.90 rubles ($493.32).

The total number of the workers employed in the industries, trades, and services amounted to 22,804,300 and their aggregate pay roll amounted to 32,667,300,000 rubles ($16,823,659,500) or 1,432.40 rubles ($737.69) per worker in 1932.

Conversion of the ruble into United States currency is made on the basis of the gold value of ruble in international financial transactions, which is 51.5 cents of gold dollar. There are no available data to show the value of the ruble in domestic transactions, i.e., in relation to prices of commodities in home markets, socialized and private.

Wages and Labor Cost on Tobacco Plantations in Sumatra

THE following data show wage rates and labor cost on the tobacco plantations in Sumatra.[1]

Wage rates.—The number of coolies employed on the tobacco plantations in North Sumatra in each of the years 1928 to 1930 was as follows:

[1] Data are from report of Daniel M. Braddock, American vice consul at Medan, Sumatra, July 3, 1931, report of L. H. Gourley, American consul at Medan, Sumatra, May 13, 1933, and Netherlands, India, Centraal Kantoor voor de Statistiek, Indisch Verslag, 1932, II, Statistisch Jaaroverzicht over het Jaar 1931.

	Number
1928	98, 442
1929	107, 107
1930	103, 701

The usual wage rates per day for such laborers in 1931 were as follows:

	Wages per day [2]
Men:	
New hands	0. 42 florins (16. 88 cents)
Old hands	0. 47 florins (18. 89 cents)
Women:	
New hands	0. 37 florins (14. 87 cents)
Old hands	0. 42 florins (16. 88 cents)

[2] Conversion into United States currency on basis of florin at par=40.2 cents.

The wages were not fixed by the coolie ordinance and may vary, though the above figures were considered to be standard. Wages are paid for rest days as well as workdays.

Overtime work generally commands a rate of 0.07 or 0.08 florin (2.81 or 3.22 cents) per hour, or part thereof, for new hands and 0.08 or 0.09 florin (3.22 or 3.62 cents) for old hands.

In 1933 the wage rate per day for men was decreased from 0.47 to 0.37 florin (18.89 to 14.87 cents) and for women from 0.42 to 0.32 florin (16.88 to 12.86 cents).

The overseers and head overseers chosen from among the coolies received in 1930 the following monthly wages:

	Wages per month
Overseers, female	25–40 florins ($10. 05–$16. 08)
Overseers, male	30–50 florins ($12. 06–$20. 10)

The monthly rates of Javanese and Chinese coolies from 1929 to 1931 are shown in table 1.

TABLE 1.—AVERAGE MONTHLY WAGES OF COOLIES ON TOBACCO PLANTATIONS ON THE EAST COAST OF SUMATRA AND ACHEEN, 1929–31

Locality and plantation no.	Javanese coolies					
	1929		1930		1931	
	Dutch currency	United States currency	Dutch currency	United States currency	Dutch currency	United States currency
East coast of Sumatra:	*Florins*		*Florins*		*Florins*	
No. 1	27. 28	$10. 97	23. 80	$9. 57		
No. 2	27. 88	11. 21	25. 48	10. 24	24. 94	$10. 03
No. 3	27. 63	11. 11	26. 71	10. 74	25. 81	10. 38
No. 4						
No. 5	24. 25	9. 75				
No. 6	25. 78	10. 36	23. 66	9. 51	24. 14	9. 70
No. 7	23. 91	9. 61	25. 82	10. 38		
No. 8	24. 32	9. 78	27. 75	11. 16	25. 75	10. 35
No. 9	25. 81	10. 38	24. 07	9. 68	23. 91	9. 61
No. 10	28. 46	11. 44	28. 28	11. 37	24. 72	9. 94
No. 11	30. 65	12. 32	25. 58	10. 28		
No. 12	30. 28	12. 17	28. 26	11. 36	26. 03	10. 46
No. 13						
Acheen:						
No. 14	33. 46	13. 45	26. 50	10. 65	22. 56	9. 07

TABLE 1.—AVERAGE MONTHLY WAGES OF COOLIES ON TOBACCO PLANTATIONS ON THE EAST COAST OF SUMATRA AND ACHEEN, 1929-31—Continued

Locality and plantation no.	Chinese coolies					
	1929		1930		1931	
	Dutch currency	United States currency	Dutch currency	United States currency	Dutch currency	United States currency
East coast of Sumatra:	*Florins*		*Florins*		*Florins*	
No. 1	25.39	$10.21	22.16	$8.91	24.65	$9.91
No. 2	25.24	10.15	25.39	10.21	25.36	10.19
No. 3	25.15	10.11	24.93	10.02	24.66	9.91
No. 4	26.84	10.79	27.68	11.13	30.53	12.27
No. 5	24.75	9.95	22.55	9.07	----	----
No. 6	26.09	10.49	22.70	9.13	24.03	9.66
No. 7	23.82	9.58	25.12	10.10	----	----
No. 8	25.37	10.20	25.07	10.08	24.03	9.66
No. 9	25.49	10.25	24.60	9.89	24.08	9.68
No. 10	26.82	10.78	27.61	11.10	25.58	10.28
No. 11	31.45	12.64	25.30	10.17	28.79	11.57
No. 12	26.78	10.77	26.90	10.81	24.26	9.75
No. 13	29.94	12.04	29.66	11.92	28.46	11.44
Acheen:						
No. 14	35.78	14.39	31.42	12.63	26.70	10.73

Yearly earnings.—The average yearly earnings (cash wages only) of coolies on the plantations were respectively 286 florins ($114.97) in 1928, 275 florins ($110.55) in 1929, and 257 florins ($103.31) in 1930.

Nonwage costs of labor.—The labor costs, other than the wages, borne by the employers include medical treatment, cost of recruiting and hiring, pensions, and housing. In 1930 the provision of living quarters cost the employers, on the average, 0.05 florin (2 cents) per coolie per day. The employers' expenditures for the other items entering into the total cost of labor in 1928, 1929, and 1930 are shown in table 2.

TABLE 2.—YEARLY LABOR EXPENDITURES PER COOLIE ON THE TOBACCO PLANTATIONS IN NORTH SUMATRA

Expenditures	1928		1929		1930	
	Dutch currency	United States currency	Dutch currency	United States currency	Dutch currency	United States currency
	Florins		*Florins*		*Florins*	
Wages	286	$114.97	275	$110.55	257	$103.31
Medical treatment, rice, housing, etc	34	13.67	34	13.67	32	12.86
Immigration (recruiting) cost	20	8.04	22	8.84	11	4.42
Pensions	5	2.01	4	1.61	5	2.01
Yearly total per coolie	345	138.69	335	134.67	305	122.60

Methods of wage payment.—Wages are paid monthly, fortnightly, weekly, or daily, at the choice of the manager of the plantation. The employer has the right to pay part of the wages in rice of good quality; the quantity is limited to one half month's supply for the coolie and his family, and must be furnished at a price allowing no profit to the employer.

Advances of wages to the laborer may be deducted from his wages but the total deductions may not exceed one fourth of the wages.

The employer must prepare a statement of account with each coolie once a month, to be posted on a clear list at the latter's living quarters.

In piecework the proportion between the quantity of work to be executed by the coolie and the wages to be paid may not be lower than the proportion (on the plantation where he is working) between day's work and day's wage for similar work, while the wage granted to him will be proportionate to the amount of work done.

In contract (job) work the wages to be paid the coolie must be at least equal to the wages which he would have earned at day wages during the time which is considered reasonable to finish the work. In going beyond that time no increment will be added to the contracted wages.

Wages in Switzerland, 1932[1]

THE annual report of wages in certain industries in Switzerland made by the Federal Bureau of Industry, Arts and Trades, and Labor, is based on statistics of wages of workers injured in industrial accidents. The statistics for 1932 relate to reports by 89,679 injured workers who were insured under the federal workmen's compensation law, the average daily earnings being reported for 16,055 workers and average hourly earnings for 73,624 workers.

The following tables show the average daily and hourly earnings of different groups of workers in various industries in 1932.

AVERAGE DAILY AND HOURLY EARNINGS OF WORKERS IN SPECIFIED INDUSTRIES IN SWITZERLAND IN 1932

[Conversions into United States currency on basis of franc=19.3 cents]

Industry	Average daily earnings									
	Foremen and master workmen		Skilled and semiskilled workers		Unskilled workers		Women 18 years of age and over		Young persons under 18 years of age	
	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency
Metals and machines	17.85	$3.45	12.93	$2.50	10.84	$2.09				
Building	17.64	3.40	13.43	2.59	11.22	2.17			5.94	$1.15
Wood	16.79	3.24	10.26	1.98	8.35	1.61				
Textiles	15.00	2.90	11.32	2.18	9.97	1.92	6.78	$1.31	4.20	.81
Watch			12.62	2.44						
Stone and earth	17.23	3.33	12.91	2.49	9.93	1.92				
Shoes										
Paper			13.48	2.60			6.19	1.19		
Graphic arts			16.47	3.18	9.70	1.87	6.55	1.26		
Chemical	18.86	3.64	13.67	2.64	11.18	2.16				
Food, drink, and tobacco	18.09	3.49	14.18	2.74	12.19	2.35	5.70	1.10		
Conveyances			11.39	2.20	10.30	1.99				
Commercial establishments	16.20	3.13	13.38	2.58	11.50	2.22	7.12	1.37		
Electrical light and power	18.65	3.60	15.47	2.99	13.72	2.65				
Gas and water			16.94	3.27	14.39	2.78				
Mining and quarrying			11.74	2.27	8.98	1.73				
Forestry			9.63	1.86	7.95	1.53				
Average, all occupations	17.17	3.31	12.92	2.49	10.35	2.00	5.38	1.04	4.71	.91

[1] Switzerland. Département Fédéral de l'Économie publique. La Vie Économique, Berne, August 1933

AVERAGE DAILY AND HOURLY EARNINGS OF WORKERS IN SPECIFIED INDUSTRIES IN SWITZERLAND IN 1932—Continued

Industry	Average hourly earnings									
	Foremen and master workmen		Skilled and semiskilled workers		Unskilled workers		Women 18 years of age and over		Young persons under 18 years of age	
	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency	Swiss currency	United States currency
Metals and machines	1.77	$0.34	1.44	$0.28	1.16	$0.22	0.76	$0.15	0.54	$0.10
Building	1.68	.32	1.53	.30	1.12	.22	------	------	.84	.16
Wood	1.58	.30	1.36	.26	1.01	.19	.71	.14	.57	.11
Textiles	1.39	.27	1.16	.22	1.03	.20	.74	.14	.49	.09
Watch	------	------	1.38	.27	------	------	.83	.16	------	------
Stone and earth	------	------	1.43	.28	1.10	.21	.71	.14	.67	.13
Shoes	------	------	1.25	.24	.96	.19	.75	.14	.50	.10
Paper	------	------	1.33	.26	1.07	.21	.70	.14	.50	.10
Graphic arts	------	------	1.97	.38	1.19	.23	.79	.15	------	------
Chemical	------	------	1.49	.29	1.24	.24	.80	.15	------	------
Food, drink, and tobacco	------	------	1.44	.28	1.33	.26	.71	.14	.57	.11
Conveyances	------	------	1.33	.26	1.18	.23	------	------	------	------
Commercial establishments	------	------	1.47	.28	1.19	.23	.73	.14	------	------
Electrical light and power	------	------	1.51	.29	1.19	.23	------	------	------	------
Gas and water	------	------	1.68	.32	1.40	.27	------	------	------	------
Mining and quarrying	1.50	.29	1.32	.25	1.01	.19	------	------	------	------
Forestry	------	------	1.02	.20	.93	.18	------	------	.70	.14
Average, all occupations	1.65	.32	1.45	.28	1.11	.21	.74	.14	.62	.12

TREND OF EMPLOYMENT

Trend of Employment, September 1933

THE Bureau of Labor Statistics of the United States Department of Labor presents herewith data compiled from pay-roll reports supplied by cooperating establishments in 17 important industrial groups of the country and covering the pay period ending nearest the 15th of the month.

Information for 89 of the principal manufacturing industries of the country is shown, following which are presented tabulations showing the changes in employment and pay rolls in the 16 nonmanufacturing industries included in the Bureau's monthly survey, together with information available concerning employment in the executive civil service and on class I railroads.

Employment in Selected Manufacturing Industries in September 1933

Comparison of Employment and Pay-Roll Totals in September 1933 with August 1933 and September 1932

EMPLOYMENT in manufacturing industries increased 3.2 percent in September 1933 as compared with August 1933 and pay rolls increased 2.7 percent over the month interval, according to reports received from representative establishments in 89 important manufacturing industries of the country. Comparing the changes in employment and pay rolls over the year interval, it is seen that the level of employment in September 1933 is 26.3 percent above the level of September 1932, and pay rolls in September 1933 showed a gain of 39.9 percent over the year interval.

The index of employment in September 1933 was 73.9, as compared with 71.6 in August 1933, 67.3 in July 1933, and 58.5 in September 1932; the pay-roll index in September 1933 was 53.3, as compared with 51.9 in August 1933, 46.5 in July 1933, and 38.1 in September 1932. The 12-month average for 1926 equals 100.

These changes in employment and pay rolls in September 1933 are based on reports supplied by 18,330 establishments in 89 of the principal manufacturing industries of the United States. These establishments reported 3,365,524 employees on their pay rolls during the pay period ending nearest September 15 whose combined weekly earnings were $62,830,748. The employment reports received from these cooperating establishments cover approximately 50 percent of the total wage earners in all manufacturing industries of the country.

These continued gains in September mark the sixth successive month in which increased employment and pay rolls have been reported in manufacturing industries. While the percentage gains

in employment and pay rolls in September were not as pronounced as the gains shown in the 4 months immediately preceding, the increases continued on a broad scale, 73 of the 89 manufacturing industries reporting gains in employment over the month interval and 61 industries reporting increases in pay rolls.

The average percentages of increase between August and September over the preceding 10-year period were 1.2 percent in employment and 0.5 percent in pay rolls. The increases, therefore, in September of the current year are somewhat larger than the average increases over the preceding 10-year period and may be attributed to a combination of seasonal gains plus an increase in number of workers added to the reporting companies' pay rolls by the adoption of N.R.A. codes.

This increase of 3.2 percent in employment in manufacturing industries in September 1933 represents an estimated gain of over 200,000 workers between August and September, and the increase of 2.7 percent in factory pay rolls indicates that the total weekly pay rolls of factory employees in September were approximately $3,000,000 greater than the total weekly pay rolls disbursed in August in all manufacturing industries combined.

The September factory employment index (73.9) shows a gain of 34.1 percent over the employment index of March 1933 (55.1), which was the low point of employment recorded in manufacturing industries. The pay-roll index in September (53.3) stands 59.6 percent above the level of the March pay-roll index of 33.4. These percentage changes indicate an increase in employment in manufacturing industries of approximately 1,700,000 workers over this 6-month interval and an increase of nearly $44,000,000 in weekly wages in September over the total amount paid in 1 week in March 1933.

The most pronounced gain in employment over the month interval was a seasonal increase in the cottonseed oil-cake-meal industry of 45.6 percent. The fertilizer industry also reflected the usual seasonal activity due to the fall shipping season with an increase of 28.2 percent in number of employees. Sixteen of the remaining 71 industries which reported increased employment showed gains ranging from 10.2 percent to 24.1 percent, among which were the confectionery, agricultural implement, shipbuilding, furniture, stove, machine tool, women's clothing, and radio industries. Among the 16 industries in which decreased employment was reported in September, as compared with August, the cotton-goods industry reported a decline of 2 percent; silk and rayon goods, 1.9 percent; woolen and worsted goods, 5.4 percent; and the dyeing and finishing textiles industry, 16.8 percent. In the last-named industry, labor disturbances in certain localities accentuated the decline.

Ten of the 14 groups of manufacturing industries reported increased employment, 1 group (stone-clay-glass) reported no change, and 3 groups (textiles, tobacco, and leather) reported fewer workers in September than in the preceding month. The gains in the lumber, machinery, nonferrous metals, and chemicals groups were slightly more than 7 percent each. In the lumber group, furniture and sawmills reported pronounced gains in number of workers over the month interval; each of the industries comprising the machinery group reported increases in employment, the largest percentage gains appearing in the radio, engine, machine tool, agricultural implement,

16487°—33——14

and typewriter industries. Each of the 8 industries comprising the nonferrous metal group reported increased employment, silverware, smelting and refining, and jewelry reporting the largest gains. In the chemical group, seasonal increases in the cottonseed oil-cake-meal and fertilizer industries were outstanding, while the explosive, druggists' preparations, and petroleum-refining industries also reported gains in employment ranging from 13.6 percent to 6 percent. The food group reported a gain of 6.5 percent in employment between August and September, each of the nine separate industries composing the group reporting increases in workers with the exception of the beverage industry in which a seasonal decrease of 1 percent was shown. The beet-sugar, flour, and confectionery industries reported the most pronounced gains in this group. The paper and transportation groups reported gains in employment of 4.6 percent each, general expansions appearing in the paper box, paper and pulp, book and job printing, and newspaper industries in the first-named group. In the last-named group, the shipbuilding, locomotive, and automobile industries reported increases ranging from 11.5 to 4.2 percent, while the aircraft and the electric and steam-railroad car-building industries reported declines in employment over the month interval.

The iron and steel group reported a gain of 4.3 percent in employment between August and September. Of the 13 industries comprising the iron and steel group, only 1 industry (hardware) failed to show a gain in number of workers between August and September. The stove industry reported the most pronounced gain in employment in this group (13.2 percent) and the structural metalwork, forgings, and cutlery industries reported gains of slightly more than 9 percent each. The rubber products group reported an increase of 2.2 percent in employment and the railroad car repair shop group reported a gain of 1.6 percent. In the three groups in which decreases in employment were shown, the losses in the textile and tobacco groups were less than 1 percent, and the decrease in the leather group amounted to 2.4 percent, due to declining employment shown in the boot and shoe industry.

Sporadic strikes continued to retard the general advances in employment in manufacturing industries, a number of firms in various localities reporting partial or complete shut-downs due to labor disturbances. A number of these labor disturbances were reported in women's clothing and knit-goods factories in New York, dyeing and finishing plants in New Jersey, boot and shoe factories in Massachusetts, silk mills in Pennsylvania and New Jersey, and women's clothing factories in Missouri.

A comparison of the indexes of employment and pay roll in manufacturing industries in September 1933 with September 1932 shows that all but 5 of the 89 industries surveyed reported increased employment and all but 10 industries reported increased pay-roll totals over the year interval. The five industries reporting decreased employment were: dyeing and finishing textiles, millinery, electric-railroad repair shops, marble-granite-slate, and cigars and cigarettes. The 10 industries reporting decreased pay-roll totals were: butter; ice cream; sugar refining, cane; dyeing and finishing textiles; millinery; electric-railroad car shops; cement; marble-granite-slate; book and job printing; and newspapers and periodicals.

In table 1, which follows, are shown the number of identical establishments reporting in both August and September 1933 in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest September 15, the amount of their earnings for 1 week in September, the percents of change over the month and year intervals, and the indexes of employment and pay roll in September 1933.

The monthly percents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the 2 months considered. The percents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighing the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The percents of change over the year interval in the separate industries, in the groups and in the totals, are computed from the index numbers of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **MANUFACTURING** ESTABLISHMENTS IN SEPTEMBER 1933 WITH AUGUST 1933 AND SEPTEMBER 1932

Industry	Establishments reporting in both August and September 1933	Employment			Pay-roll totals			Index numbers September 1933 (average: 1926=100)	
		Number on pay-roll September 1933	Percent of change		Amount of pay roll (1 week, September 1933	Percent of change		Employment	Pay-roll totals
			August to September 1933	September 1932 to September 1933		August to September 1933	September 1932 to September 1933		
Food and kindred products	**3,110**	**305,740**	**+6.5**	**+19.7**	**$6,282,271**	**+7.2**	**+16.6**	**100.1**	**80.1**
Baking	995	71,092	+6.0	+9.3	1,564,455	+8.7	+5.2	87.9	72.3
Beverages	394	26,429	−1.0	+109.6	720,872	−4.9	+128.4	161.4	141.6
Butter	306	5,937	+1.3	+5.4	120,089	+2.5	−4.7	107.3	79.5
Confectionery	305	41,143	+10.7	+6.6	620,387	+19.7	+9.6	94.8	75.7
Flour	420	17,575	+10.2	+11.1	347,667	+14.0	+2.8	94.0	70.8
Ice cream	371	13,936	+1.7	+9.7	339,281	−.6	−.7	83.9	61.1
Slaughtering and meat packing	244	113,025	+8.6	+27.9	2,221,237	+8.4	+23.6	111.4	87.5
Sugar, beet	63	8,083	+12.6	+46.6	163,202	+13.0	+35.4	91.8	66.9
Sugar refining, cane	12	8,520	+2.7	+11.9	185,081	−4.1	−5.0	86.6	65.1
Textiles and their products	**3,259**	**787,644**	**−.3**	**+24.5**	**12,020,085**	**+3.9**	**+39.2**	**88.5**	**68.9**
Fabrics	**1,949**	**638,923**	**−2.0**	**+30.1**	**9,395,089**	**−2.5**	**+45.1**	**94.3**	**74.6**
Carpets and rugs	28	18,730	+5.1	+66.1	353,825	+7.1	+141.9	78.4	61.2
Cotton goods	683	312,087	−2.0	+41.0	4,092,436	−2.6	+70.2	101.4	85.6
Cotton small wares	114	11,734	−3.4	+39.5	182,795	−4.6	+47.6	101.8	78.4
Dyeing and finishing textiles	153	34,760	−16.8	−.5	601,361	−19.9	−12.2	77.4	52.7
Hats, fur-felt	34	6,862	+2.6	+14.0	154,106	+11.2	+11.8	84.8	63.7
Knit goods	454	120,387	+6.9	+17.6	1,834,656	+9.8	+29.3	95.1	75.4
Silk and rayon goods	240	57,648	−1.9	+18.5	829,953	−6.5	+31.7	72.5	54.4
Woolen and worsted goods	243	76,715	−5.4	+35.1	1,345,957	−5.2	+45.6	102.8	82.1
Wearing apparel	**1,310**	**148,721**	**+4.6**	**+9.9**	**2,624,996**	**+24.2**	**+25.8**	**74.6**	**57.5**
Clothing, men's	405	74,200	+1.2	+15.2	1,269,323	+8.8	+31.5	78.7	56.4
Clothing, women's	527	32,332	+18.1	+5.7	723,971	+73.0	+29.5	70.6	58.9
Corsets and allied garments	34	6,111	+4.4	+9.9	94,459	+4.9	+24.6	105.7	88.1
Men's furnishings	80	7,542	−8.2	+4.2	97,740	−11.7	+11.7	62.7	42.1
Millinery	147	10,970	−.4	−4.6	224,096	+16.0	−3.2	72.2	57.5
Shirts and collars	117	17,566	+.5	+21.3	215,407	+.5	+57.3	69.6	54.6

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **MANUFACTURING** ESTABLISHMENTS IN SEPTEMBER 1933 WITH AUGUST 1933 AND SEPTEMBER 1932—Continued

Industry	Establishments reporting in both August and September 1933	Employment			Pay-roll totals			Index numbers September 1933 (average: 1926=100)	
		Number on pay roll September 1933	Percent of change		Amount of pay roll (1 week) September 1933	Percent of change		Employment	Pay-roll totals
			August to September 1933	September 1932 to September 1933		August to September 1933	September 1932 to September 1933		
Iron and steel and their products, not including machinery	**1,396**	**426,195**	**+4.3**	**+44.4**	**$7,922,878**	**−5.2**	**+94.6**	**74.8**	**47.1**
Bolts, nuts, washers, and rivets	72	12,012	+2.1	+48.7	218,161	+1.9	+99.0	90.7	58.7
Cast-iron pipe	41	6,175	+4.1	+21.4	79,120	−3.8	+15.2	34.1	18.2
Cutlery (not including silver and plated cutlery) and edge tools	129	10,440	+9.2	+18.6	189,591	+8.6	+30.7	75.4	51.1
Forgings, iron and steel	64	7,716	+9.3	+66.7	130,963	−2.7	+122.4	83.2	48.7
Hardware	107	30,857	−1.4	+22.4	512,621	−3.8	+46.3	59.0	33.2
Iron and steel	207	261,961	+2.9	+52.2	5,027,862	−10.0	+141.7	78.1	49.3
Plumbers' supplies	71	9,569	+8.3	+74.5	161,429	+9.6	+93.8	87.6	53.3
Steam and hot-water heating apparatus and steam fittings	98	18,263	+3.7	+36.1	329,616	−.9	+48.5	48.3	30.3
Stoves	157	24,927	+13.2	+51.5	468,182	+14.4	+58.9	78.3	50.2
Structural and ornamental metalwork	192	16,676	+9.7	+18.5	293,159	+13.7	+30.1	50.6	31.1
Tin cans and other tinware	61	11,135	+2.9	+15.0	208,030	+1.4	+6.5	93.4	55.8
Tools (not including edge tools, machine tools, files, and saws)	127	8,709	+3.4	+35.9	157,678	+2.9	+59.0	80.2	51.5
Wirework	70	7,755	+5.6	+38.9	146,466	−8.9	+61.7	128.8	102.2
Machinery, not including transportation equipment	**1,818**	**352,550**	**+7.3**	**+36.2**	**6,880,772**	**+6.5**	**+55.7**	**61.7**	**40.8**
Agricultural implements	77	8,632	+11.0	+65.2	146,192	+12.2	+86.3	34.7	27.2
Cash registers, adding machines, and calculating machines	36	16,316	+5.0	+33.1	405,754	+5.7	+41.9	83.7	64.4
Electrical machinery, apparatus, and supplies	288	109,846	+6.2	+20.0	2,263,947	+5.5	+35.9	60.7	44.7
Engines, turbines, tractors, and water wheels	89	20,401	+22.2	+40.5	400,456	+23.5	+50.9	55.2	34.1
Foundry and machine-shop products	1,076	128,310	+5.0	+36.4	2,367,371	+3.6	+62.6	59.2	36.1
Machine tools	146	14,936	+13.8	+47.4	310,501	+17.7	+70.1	44.5	30.1
Radios and phonographs	41	31,968	+23.5	+96.2	545,086	+23.5	+62.6	133.6	91.2
Textile machinery and parts	49	10,904	+3.4	+73.6	229,561	+5.2	+109.4	90.8	69.1
Typewriters and supplies	16	11,237	+9.4	+36.4	211,904	+10.9	+89.0	76.1	55.0
Nonferrous metals and their products	**635**	**107,087**	**+7.3**	**+37.0**	**1,952,487**	**+7.5**	**+45.8**	**71.8**	**49.0**
Aluminum manufactures	25	6,628	+5.1	+37.1	110,608	+.6	+61.6	65.1	41.7
Brass, bronze, and copper products	214	38,972	+2.7	+45.1	749,306	+2.1	+73.7	73.0	50.9
Clocks and watches and time-recording devices	27	9,118	+8.5	+24.4	157,203	+16 7	+43.5	49.9	38.6
Jewelry	132	9,085	+12.8	+11.1	172,222	+20.1	+11.8	45.2	31.2
Lighting equipment	52	3,535	+8.3	+29.9	62,964	+9.6	+29.9	82.1	58.6
Silverware and plated ware	53	8,315	+24.1	+16.7	157,452	+28.5	+21.4	70.6	46.0
Smelting and refining—copper, lead, and zinc	45	14,413	+13.5	+53.7	268,325	+5.2	+50.7	84.4	53.8
Stamped and enameled ware	87	17,021	+3.6	+33.4	274,407	+.7	+31.8	82.3	52.7
Transportation equipment	**414**	**285,397**	**+4.6**	**+37.3**	**6,145,949**	**−3.2**	**+94.9**	**61.8**	**46.0**
Aircraft	28	7,654	−1.3	+47.8	197,951	−8.2	+24.1	238.7	207.5
Automobiles	239	239,907	+4.2	+43.3	5,181,559	−4.6	+125.5	64.9	48.7
Cars, electric and steam railroad	41	5,929	−3.1	+13.5	96,700	−4.8	+8.1	21.9	12.0
Locomotives	11	2,359	+6.7	+15.9	41,992	+10.4	+8.5	16.8	10.2
Shipbuilding	95	29,548	+11.5	+11.4	627,747	+14.7	+8.1	76.9	55.8

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **MANUFACTURING** ESTABLISHMENTS IN SEPTEMBER 1933 WITH AUGUST 1933 AND SEPTEMBER 1932—Continued

Industry	Establishments reporting in both August and September 1933	Employment			Pay-roll totals			Index numbers September 1933 (average: 1926=100)	
		Number on pay roll September 1933	Percent of change		Amount of pay roll (1 week) September 1933	Percent of change		Employment	Pay-roll totals
			August to September 1933	September 1932 to September 1933		August to September 1933	September 1932 to September 1933		
Railroad repair shops	**923**	**98,327**	**+1.6**	**+9.9**	**$2,317,477**	**−1.4**	**+23.6**	**51.1**	**41.4**
Electric railroad	378	18,843	+.6	−6.0	462,901	−.7	−9.1	62.5	48.8
Steam railroad	545	79,484	+1.8	+11.8	1,854,576	−1.4	+27.9	50.2	40.8
Lumber and allied products	**1,570**	**166,386**	**+7.4**	**+35.5**	**2,527,314**	**+14.7**	**+57.2**	**51.1**	**32.7**
Furniture	465	60,073	+12.4	+39.1	951,570	+20.2	+55.6	63.0	40.0
Lumber:									
Millwork	463	21,770	+.5	+20.3	323,192	+1.3	+26.5	41.5	25.3
Sawmills	617	82,883	+6.1	+36.9	1,230,314	+14.9	+70.7	48.2	30.9
Turpentine and rosin	25	1,660	+9.2	+43.9	22,238	+19.1	+42.2	60.6	49.9
Stone, clay, and glass products	**1,312**	**108,788**	(1)	**+21.6**	**1,831,395**	**−1.5**	**+25.0**	**52.9**	**32.5**
Brick, tile, and terra cotta	657	22,878	−2.3	+16.2	290,291	−5.0	+18.2	34.4	16.2
Cement	129	15,545	−9.7	+5.0	256,836	−19.0	−2.4	44.0	23.9
Glass	184	46,235	+3.3	+47.0	857,944	+4.2	+60.4	79.8	58.4
Marble, granite, slate, and other products	221	5,698	+2.3	−15.7	106,842	−.5	−26.4	44.6	26.2
Pottery	121	18,432	+3.0	+31.9	319,482	+1.8	+56.4	72.0	46.6
Leather and its manufactures	**500**	**153,834**	**−2.4**	**+11.3**	**2,801,027**	**−.9**	**+26.0**	**85.7**	**66.4**
Boots and shoes	344	122,175	−3.1	+6.0	2,183,616	−.9	+21.5	84.3	64.4
Leather	156	31,659	+.4	+36.7	617,411	−.4	+42.9	91.6	73.6
Paper and printing	**1,955**	**242,293**	**+4.6**	**+12.6**	**5,668,852**	**+5.3**	**+6.5**	**88.7**	**69.3**
Boxes, paper	322	27,737	+5.6	+30.2	493,977	+6.8	+29.3	90.9	76.3
Paper and pulp	416	100,844	+5.7	+26.7	1,898,912	+1.9	+34.4	93.9	66.4
Printing and publishing:									
Book and job	771	47,692	+3.1	+1.0	1,200,267	+6.1	−3.4	72.4	56.6
Newspapers and periodicals	446	66,020	+4.5	+4.7	2,075,696	+6.8	−2.6	100.8	82.5
Chemicals and allied products	**1,049**	**176,625**	**+7.2**	**+30.7**	**3,757,755**	**+4.5**	**+24.7**	**95.9**	**74.2**
Chemicals	104	26,374	+4.4	+44.1	601,179	−.5	+39.8	118.6	81.8
Cottonseed oil, cake, and meal	103	5,721	+45.6	+17.5	58,692	+38.5	+23.6	54.4	49.8
Druggists' preparations	45	8,362	+7.2	+10.3	166,991	+5.5	+10.7	76.9	75.4
Explosives	29	4,309	+13.6	+45.0	87,266	+5.8	+60.0	103.8	71.7
Fertilizers	167	7,347	+28.2	+53.4	92,109	+30.5	+43.6	65.2	42.5
Paints and varnishes	352	17,111	+.6	+20.2	348,599	−1.6	+14.7	80.4	59.2
Petroleum refining	127	52,591	+6.1	+10.4	1,393,358	+4.6	+5.5	70.0	57.6
Rayon and allied products	24	37,580	+4.5	+50.3	653,132	+7.7	+51.9	196.7	168.3
Soap	98	17,230	+4.6	+22.8	356,429	+6.8	+10.3	116.0	91.9
Rubber products	**150**	**100,852**	**+2.2**	**+43.5**	**1,978,336**	**−1.4**	**+63.8**	**89.4**	**61.6**
Rubber boots and shoes	9	14,335	+18.1	+36.2	258,091	+12.2	+59.0	67.4	59.3
Rubber goods, other than boots, shoes, tires, and inner tubes	100	26,628	+4.1	+50.5	457,024	+2.1	+44.1	118.6	76.8
Rubber tires and inner tubes	41	59,889	−2.1	+41.7	1,263,221	−5.6	+76.7	84.0	56.9
Tobacco manufactures	**239**	**53,806**	**−.7**	**−4.0**	**744,150**	**+8.4**	**+2.6**	**69.1**	**55.6**
Chewing and smoking tobacco and snuff	32	10,042	+1.2	+2.3	143,376	+1.3	+3.8	89.5	77.0
Cigars and cigarettes	207	43,764	−1.1	−5.0	600,774	+9.8	+2.3	66.5	53.0
Total, 89 industries	**18,330**	**3,365,524**	**+3.2**	**+26.3**	**62,830,748**	**+2.7**	**+39.9**	**73.9**	**53.3**

[1] No change.

Per Capita Earnings in Manufacturing Industries

PER capita weekly earnings in September 1933 for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics and for all industries combined, together with the percents of change in September 1933 as compared with August 1933 and September 1932, are shown in table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN SEPTEMBER 1933 AND COMPARISON WITH AUGUST 1933 AND SEPTEMBER 1932

Industry	Per capita weekly earnings in September 1933	Percent of change compared with—	
		August 1933	September 1932
Food and kindred products:			
Baking	$22.01	+2.6	−3.8
Beverages	27.28	−3.9	+9.0
Butter	20.23	+1.2	−9.6
Confectionery	15.08	+8.1	+2.7
Flour	19.78	+3.5	−7.3
Ice cream	24.35	−2.3	−9.0
Slaughtering and meat packing	19.65	−.2	−3.4
Sugar, beet	20.19	+.4	−7.6
Sugar refining, cane	21.72	−6.6	−14.7
Textiles and their products:			
Fabrics:			
Carpets and rugs	18.89	+1.9	+45.0
Cotton goods	13.11	−.7	+20.1
Cotton small wares	15.58	−1.3	+5.7
Dyeing and finishing textiles	17.30	−3.7	−11.5
Hats, fur-felt	22.46	+8.3	−1.9
Knit goods	15.24	+2.7	+10.0
Silk and rayon goods	14.40	−4.7	+11.4
Woolen and worsted goods	17.54	+.2	+7.5
Wearing apparel:			
Clothing, men's	17.11	+7.6	+14.0
Clothing, women's	22.39	+46.4	+22.3
Corsets and allied garments	15.46	+.5	+13.5
Men's furnishings	12.96	−3.9	+7.5
Millinery	20.43	+16.5	+1.5
Shirts and collars	12.26	−.1	+29.7
Iron and steel and their products, not including machinery:			
Bolts, nuts, washers, and rivets	18.16	−.3	+33.6
Cast-iron pipe	12.81	−7.6	−5.0
Cutlery (not including silver and plated cutlery) and edge tools	18.16	−.6	+9.8
Forgings, iron and steel	16.97	−11.0	+33.2
Hardware	16.61	−2.4	+19.6
Iron and steel	19.19	−12.5	+58.7
Plumbers' supplies	16.87	+1.3	+11.7
Steam and hot-water heating apparatus and steam fittings	18.05	−4.5	+9.4
Stoves	18.78	+1.1	+5.0
Structural and ornamental metal work	17.58	+3.7	+10.0
Tin cans and other tinware	18.68	−1.5	−7.6
Tools (not including edge tools, machine tools, files, and saws)	18.11	−.4	+16.9
Wirework	18.89	−13.7	+16.3
Machinery, not including transportation equipment:			
Agricultural implements	16.94	+1.1	+12.7
Cash registers, adding machines, and calculating machines	24.87	+.6	+6.5
Electrical machinery, apparatus, and supplies	20.61	−.7	+13.6
Engines, turbines, tractors, and water wheels	19.63	+1.1	+7.4
Foundries and machine-shop products	18.45	−1.3	+19.2
Machine tools	20.79	+3.4	+15.7
Radios and phonographs	17.05	(1)	−16.9
Textile machinery and parts	21.05	+1.7	+20.4
Typewriters and supplies	18.86	+1.4	+38.7
Nonferrous metals and their products:			
Aluminum manufactures	16.69	−4.3	+17.8
Brass, bronze, and copper products	19.23	−.5	+19.5
Clocks and watches and time-recording devices	17.24	+7.5	+15.2
Jewelry	18.96	+6.5	+.8
Lighting equipment	17.81	+1.2	(1)

[1] No change.

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN SEPTEMBER 1933 AND COMPARISON WITH AUGUST 1933 AND SEPTEMBER 1932—Con.

Industry	Per capita weekly earnings in September 1933	Percent of change compared with—	
		August 1933	September 1932
Nonferrous metals and their products—Continued.			
Silverware and plated ware	$18.94	+3.6	+4.2
Smelting and refining—copper, lead, and zinc	18.62	−7.3	−1.7
Stamped and enameled ware	16.12	−2.8	−1.3
Transportation equipment:			
Aircraft	25.86	−7.0	−16.1
Automobiles	21.60	−8.4	+57.4
Cars, electric and steam railroad	16.31	−1.8	−4.4
Locomotives	17.80	+3.4	−6.2
Shipbuilding	21.24	+2.8	−3.2
Railroad repair shops:			
Electric railroad	24.57	−1.2	−3.6
Steam railroad	23.33	−3.2	+14.1
Lumber and allied products:			
Furniture	15.84	+7.0	+11.7
Lumber:			
Millwork	14.85	+.7	+4.7
Sawmills	14.84	+8.2	+23.7
Turpentine and rosin	13.40	+9.1	−1.2
Stone, clay, and glass products:			
Brick, tile, and terra cotta	12.69	−2.7	+1.9
Cement	16.52	−10.4	−7.3
Glass	18.56	+.9	+8.9
Marble, granite, slate, and other products	18.75	−2.7	−12.7
Pottery	17.33	−1.3	+18.5
Leather and its manufactures:			
Boots and shoes	17.87	+2.2	+14.5
Leather	19.50	−.8	+4.8
Paper and printing:			
Boxes, paper	17.81	+1.1	−.8
Paper and pulp	18.83	−3.5	+5.9
Printing and publishing:			
Book and job	25.17	+2.9	−4.0
Newspapers and periodicals	31.44	+2.1	−7.6
Chemicals and allied products:			
Chemicals	22.79	−4.6	−2.8
Cottonseed oil, cake, and meal	10.26	−4.8	+5.4
Druggists' preparations	19.97	−1.6	+.5
Explosives	20.25	−6.9	+10.1
Fertilizers	12.54	+1.9	−6.0
Paints and varnishes	20.37	−2.3	−4.6
Petroleum refining	26.49	−1.5	−4.6
Rayon and allied products	17.38	+3.0	+.7
Soap	20.69	+2.2	−10.4
Rubber products:			
Rubber boots and shoes	18.00	−5.1	+16.5
Rubber goods, other than boots, shoes, tires, and inner tubes	17.16	−1.9	−4.2
Rubber tires and inner tubes	21.09	−3.6	+24.6
Tobacco manufactures:			
Chewing and smoking tobacco and snuff	14.28	+.1	+1.4
Cigars and cigarettes	13.73	+11.0	+7.8
Total, 89 industries	18.67	[2] −.6	[2] +10.8

[2] Weighted.

General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

GENERAL index numbers of employment and pay-roll totals in manufacturing industries by months, from January 1926 to September 1933, together with average indexes for each of the years from 1926 to 1932, and for the 9-month period, January to September 1933, inclusive, are shown in the following table. In computing these general indexes the index numbers of each of the separate industries are weighted according to their relative importance in the total. Following this table are two charts prepared from these general indexes showing the course of employment and pay rolls from January 1926 to September 1933, inclusive.

TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING INDUSTRIES, JANUARY 1926 TO SEPTEMBER 1933

[12-month average, 1926=100]

Month	Employment								Pay rolls							
	1926	1927	1928	1929	1930	1931	1932	1933	1926	1927	1928	1929	1930	1931	1932	1933
January	100.4	97.3	91.6	95.2	90.7	74.6	64.8	56.6	98.0	94.9	89.6	94.5	88.1	63.7	48.6	35.8
February	101.5	99.0	93.0	97.4	90.9	75.3	65.6	57.5	102.2	100.6	93.9	101.8	91.3	68.1	49.6	36.4
March	102.0	99.5	93.7	98.6	90.5	75.9	64.5	55.1	103.4	102.0	95.2	103.9	91.6	69.6	48.2	33.4
April	101.0	98.6	93.3	99.1	89.9	75.7	62.2	56.0	101.5	100.8	93.8	104.6	90.7	68.5	44.7	34.9
May	99.8	97.6	93.0	99.2	88.6	75.2	59.7	58.7	99.8	99.8	94.1	104.8	88.6	67.7	42.5	38.9
June	99.3	97.0	93.1	98.8	86.5	73.4	57.5	62.8	99.7	97.4	94.2	102.8	85.2	63.8	39.3	43.1
July	97.7	95.0	92.2	98.2	82.7	71.7	55.2	67.3	95.2	93.0	91.2	98.2	77.0	60.3	36.2	46.5
August	98.7	95.1	93.6	98.6	81.0	71.2	56.0	71.6	98.7	95.0	94.2	102.1	75.0	59.7	36.3	51.9
September	100.3	95.8	95.0	99.3	80.9	70.9	58.5	73.9	99.3	94.1	95.4	102.6	75.4	56.7	38.1	53.3
October	100.7	95.3	95.9	98.4	79.9	68.9	59.9	-----	102.9	95.2	99.0	102.4	74.0	55.3	39.9	-----
November	99.5	93.5	95.4	95.0	77.9	67.1	59.4	-----	99.6	91.6	96.1	95.4	69.6	52.5	38.6	-----
December	98.9	92.6	95.5	92.3	76.6	66.7	58.3	-----	99.8	93.2	97.7	92.4	68.8	52.2	37.7	-----
Average	**100.0**	**96.4**	**93.8**	**97.5**	**84.7**	**72.2**	**60.1**	[1] **62.2**	**100.0**	**96.5**	**94.5**	**100.5**	**81.3**	**61.5**	**41.6**	[1] **41.6**

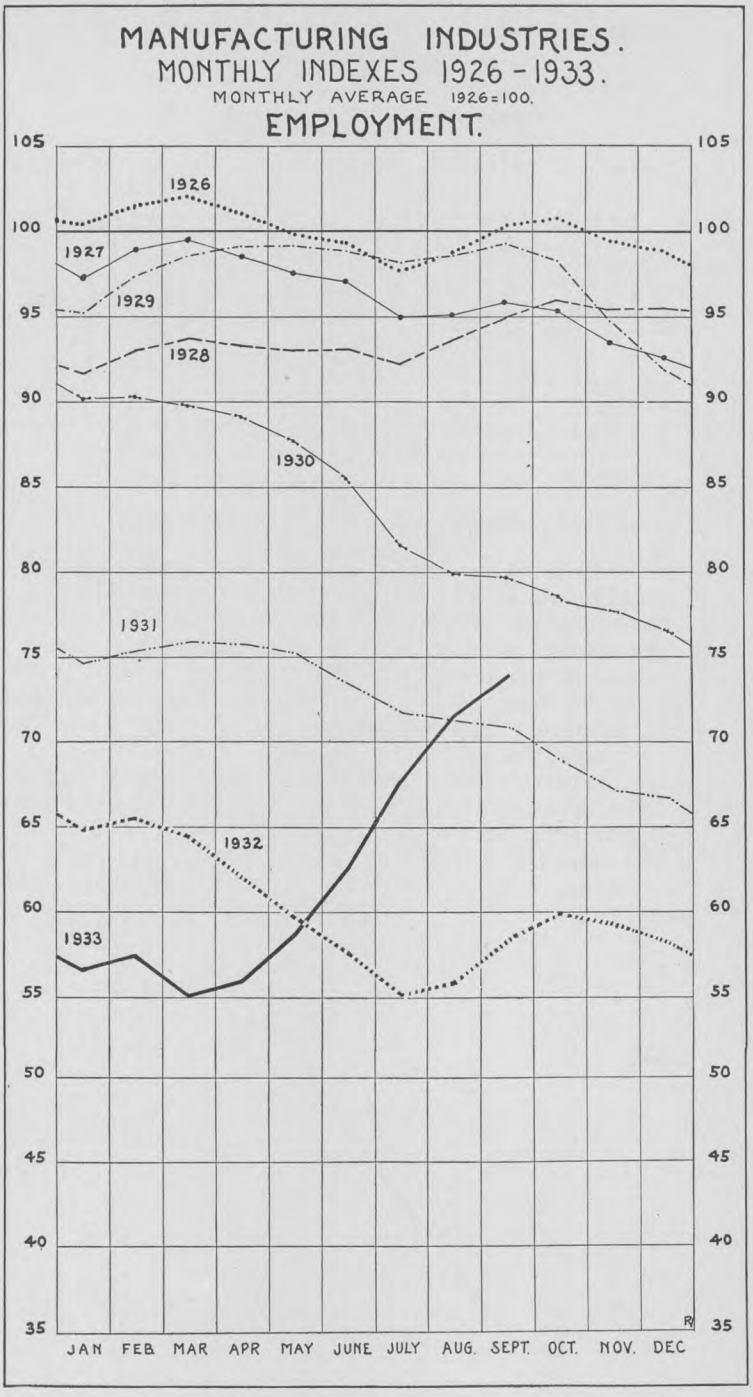
[1] Average for 9 months.

Time Worked in Manufacturing Industries in September 1933

REPORTS as to working time in September were received from 14,109 establishments in 89 manufacturing industries. Two percent of these establishments were idle, 70 percent operated on a full-time basis, and 28 percent worked on a part-time schedule.

An average of 90 percent of full-time operation in September was shown by reports received from all the operating establishments included in table 4. The establishments working part time in September averaged 76 percent of full-time operation.

A number of establishments supplying data concerning plant-operating time have reported full-time operations but have qualified the hours reported with the statement that, while the plant was operating full time, the work in the establishment was being shared and the employees were not working the full-time hours operated by the plant.



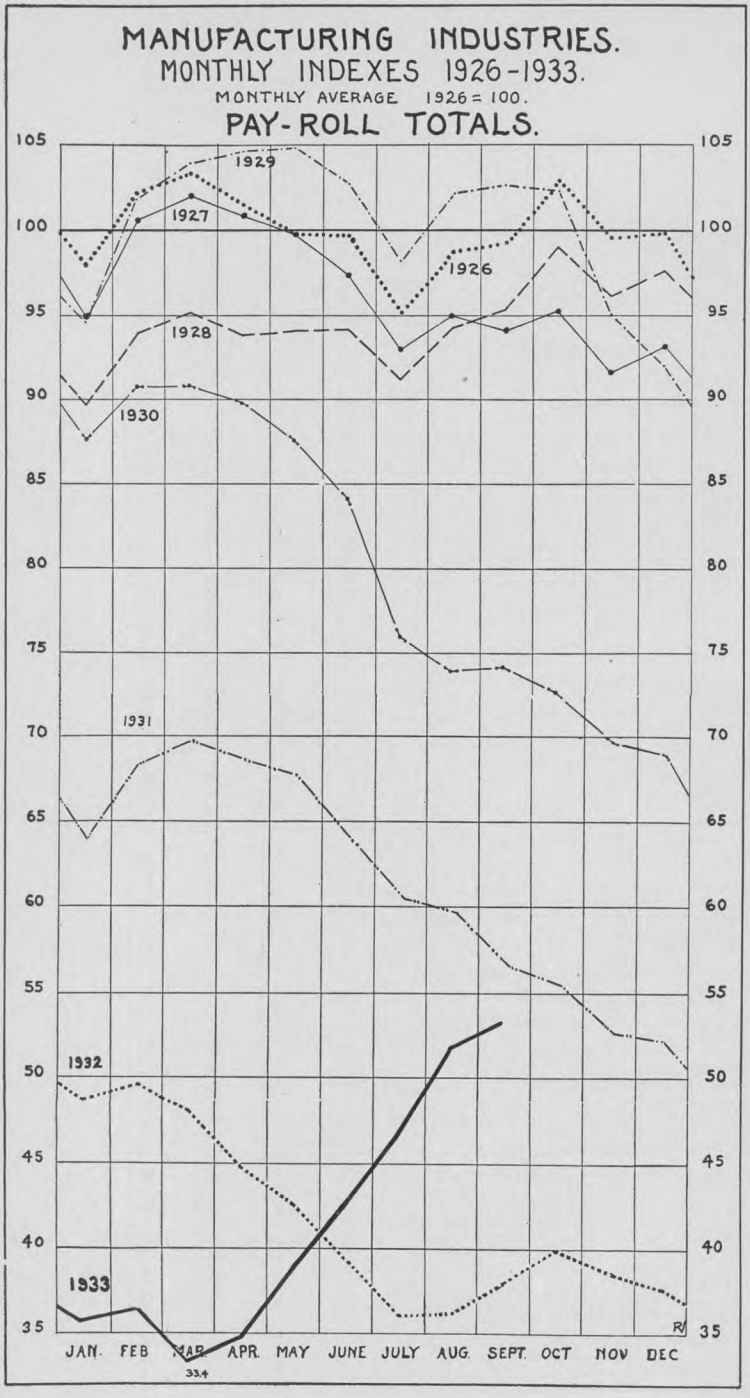


TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN SEPTEMBER 1933

Industry	Establishments reporting		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	**2,454**	**1**	**73**	**26**	**94**	**78**
Baking	843	(1)	81	18	97	82
Beverages	283	----	57	43	91	79
Butter	240	2	63	35	93	79
Confectionery	233	3	72	25	93	74
Flour	357	1	73	26	92	70
Ice cream	267	----	70	30	94	79
Slaughtering and meat packing	173	----	77	23	96	84
Sugar, beet	48	----	92	8	99	88
Sugar refining, cane	10	----	60	40	92	79
Textiles and their products	**2,563**	**3**	**84**	**13**	**97**	**73**
Fabrics:						
Carpets and rugs	16	6	88	6	99	81
Cotton goods	585	2	85	13	96	69
Cotton small wares	103	2	63	35	91	74
Dyeing and finishing textiles	132	2	80	17	94	68
Hats, fur-felt	20	----	35	65	83	74
Knit goods	413	1	91	8	98	75
Silk and rayon goods	217	7	83	9	97	73
Woolen and worsted goods	205	2	92	6	98	72
Wearing apparel:						
Clothing, men's	273	2	86	11	97	78
Clothing, women's	333	5	87	8	99	73
Corsets and allied garments	24	----	46	54	91	84
Men's furnishings	63	8	40	52	88	79
Millinery	92	5	80	14	94	63
Shirts and collars	87	1	91	8	98	70
Iron and steel and their products, not including machinery	**1,041**	**3**	**49**	**48**	**87**	**74**
Bolts, nuts, washers, and rivets	58	----	34	66	81	72
Cast-iron pipe	34	24	12	65	81	77
Cutlery (not including silver and plated cutlery) and edge tools	108	2	41	57	85	75
Forgings, iron and steel	40	----	38	63	83	73
Hardware	76	----	66	34	91	75
Iron and steel	138	9	66	25	91	69
Plumbers' supplies	54	----	41	59	86	76
Steam and hot-water heating apparatus and steam fittings	69	1	49	49	82	64
Stoves	108	1	61	38	91	76
Structural and ornamental metal-work	143	3	55	41	89	75
Tin cans and other tinware	55	2	64	35	93	81
Tools (not including edge tools, machine tools, files, and saws)	108	2	26	72	81	75
Wirework	50	----	42	58	87	77
Machinery, not including transportation equipment	**1,396**	**1**	**61**	**38**	**90**	**73**
Agricultural implements	43	2	86	12	97	72
Cash registers, adding machines, and calculating machines	29	----	45	55	89	79
Electrical machinery, apparatus, and supplies	214	(1)	65	35	93	79
Engines, turbines, tractors, and water wheels	70	1	36	63	80	74
Foundry and machine-shop products	859	1	62	37	89	71
Machine tools	110	1	60	39	88	70
Radios and phonographs	26	----	69	31	91	70
Textile machinery and parts	36	----	50	50	90	79
Typewriters and supplies	9	----	44	56	94	90
Nonferrous metals and their products	**501**	**1**	**45**	**54**	**87**	**76**
Aluminum manufactures	19	----	21	79	84	79
Brass, bronze, and copper products	166	1	52	48	88	76
Clocks and watches and time-recording devices	19	----	11	89	81	79
Jewelry	109	1	28	71	86	81
Lighting equipment	43	----	35	65	82	72
Silverware and plated ware	46	2	26	72	77	68
Smelting and refining—copper, lead, and zinc	36	3	83	14	96	73
Stamped and enameled ware	63	----	73	27	93	74
Transportation equipment	**317**	**2**	**75**	**23**	**95**	**77**
Aircraft	24	----	58	42	92	81
Automobiles	165	1	92	8	100	77
Cars, electric and steam railroad	33	9	12	79	76	72
Locomotives	7	----	43	57	82	68
Shipbuilding	88	1	75	24	96	82

[1] Less than one half of 1 percent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN SEPTEMBER 1933—Continued

Industry	Establishments reporting		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Railroad repair shops	**723**	(1)	**45**	**55**	**89**	**80**
Electric railroad	301		69	31	94	82
Steam railroad	422	(1)	28	72	86	80
Lumber and allied products	**1,244**	**2**	**77**	**21**	**95**	**78**
Furniture	384	2	88	10	98	85
Lumber:						
Millwork	348	1	69	30	93	79
Sawmills	493	2	77	21	94	73
Turpentine and rosin	19	5	16	79	87	84
Stone, clay, and glass products	**729**	**13**	**60**	**28**	**92**	**75**
Brick, tile, and terra cotta	226	19	61	20	92	68
Cement	75	21	67	12	94	59
Glass	150	5	81	13	97	77
Marble, granite, slate, and other products	179	12	28	60	85	78
Pottery	99	4	77	19	96	74
Leather and its manufactures	**406**	**3**	**90**	**7**	**98**	**77**
Boots and shoes	278	4	92	4	99	72
Leather	128	1	85	14	97	81
Paper and printing	**1,661**	(1)	**79**	**20**	**96**	**79**
Boxes, paper	278		77	23	95	76
Paper and pulp	346	2	72	27	94	79
Printing and publishing:						
Book and job	656	(1)	82	18	96	75
Newspapers and periodicals	381	(1)	84	16	98	88
Chemicals and allied products	**772**	**1**	**68**	**31**	**94**	**81**
Chemicals	55	2	84	15	98	88
Cottonseed oil, cake, and meal	53	4	68	28	90	67
Druggists' preparations	30		57	43	91	80
Explosives	14		29	71	86	81
Fertilizers	149	2	96	2	100	84
Paints and varnishes	304	1	52	47	91	81
Petroleum refining	69	1	84	14	99	91
Rayon and allied products	14		100		100	
Soap	84		56	44	91	79
Rubber products	**115**	**1**	**45**	**54**	**88**	**77**
Rubber boots and shoes	5		80	20	98	90
Rubber goods, other than boots, shoes, tires, and inner tubes	78	1	27	72	84	78
Rubber tires and inner tubes	32		84	16	96	72
Tobacco manufactures	**187**	**8**	**59**	**33**	**90**	**72**
Chewing and smoking tobacco and snuff	30	3	57	40	93	83
Cigars and cigarettes	157	9	59	32	89	70
Total, 89 industries	**14,109**	**2**	**70**	**28**	**90**	**76**

[1] Less than one half of 1 percent.

Employment in Nonmanufacturing Industries in September 1933

EMPLOYMENT increased in September as compared with August 1933 in each of the 15 nonmanufacturing industries appearing in the following table. Pay-roll totals increased in all but three of these industries. Data for the building-construction industry are not presented here but are shown in more detail under the section "Building construction."

The increases in employment in these nonmanufacturing industries represent gains ranging from more than 200,000 employees in retail trade to only a slight gain in number of workers in the electric-railroad operation industry. The increase in retail trade reflects a seasonal gain in employment coupled with the effect of the the N.R.A. code.

While increases shown in several of these industries were seasonal, the gains in practically all instances were more pronounced than usual, reflecting increased business activity combined with accessions in number of employees under the various codes.

The increases in employment in September ranged from a pronounced seasonal increase of 55.8 percent in the canning and preserving industry, which reaches its peak of employment in September, to a gain of 0.2 percent in the electric-railroad and motor-bus operation industry. The anthracite-mining industry reported a gain of 19 percent in number of workers coupled with an increase of 30.2 percent in pay rolls reflecting seasonal demands. Retail trade establishments reported an increase of slightly more than 10 percent in employment coupled with a corresponding increase in pay-roll totals. The increases in employment in the remaining 12 industries in the order of their percentage gains were as follows: crude-petroleum producing, 8.9 percent; dyeing and cleaning, 6.7 percent; metalliferous mining, 5.8 percent; bituminous-coal mining, 4.7 percent; wholesale trade, 3 percent; power and light, 2.8 percent; hotels, 2.1 percent; laundries, 1.8 percent; banks-brokerage-insurance-real estate, 0.7 percent; and telephone and telegraph, 0.4 percent.

With the exception of the three industries comprising the public-utility group, each of the nonmanufacturing industries reported more employees on their pay rolls in September 1933 than in September 1932.

In the following table are presented employment and pay-roll data for the nonmanufacturing industries surveyed, exclusive of building construction:

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **NONMANUFACTURING** ESTABLISHMENTS IN SEPTEMBER 1933 WITH AUGUST 1933 AND SEPTEMBER 1932

Industrial group	Establishments reporting in both August and September 1933	Employment			Pay-roll totals			Index numbers, September 1933 (average 1929=100)	
		Number on pay roll, September 1933	Percent of change		Amount of pay roll (1 week) September 1933	Percent of change		Employment	Pay-roll totals
			August to September 1933	September 1932 to September 1933		August to September 1933	September 1932 to September 1933		
Coal mining:									
Anthracite	158	77,598	+19.0	+1.8	$2,412,795	+30.2	+29.1	56.8	60.7
Bituminous	1,495	218,200	+4.7	+15.1	3,443,759	+1.9	+46.0	71.8	44.1
Metalliferous mining	271	25,678	+5.8	+32.8	517,134	+8.8	+40.6	38.9	23.9
Quarrying and nonmetallic mining	1,152	35,442	+1.9	+.4	516,932	−2.0	−3.9	52.6	29.3
Crude-petroleum producing	244	26,304	+8.9	+17.8	692,052	+4.3	+6.0	66.2	44.4
Public utilities:									
Telephone and telegraph	8,240	245,724	+.4	−11.8	6,290,218	−2.3	−14.9	68.3	64.6
Power and light	3,098	201,108	+2.8	−.9	5,667,250	+1.3	−3.9	80.3	71.8
Electric-railroad and motor-bus operation and maintenance	557	124,331	+.2	−5.2	3,293,441	−.8	−7.5	69.7	57.8
Trade:									
Wholesale	2,947	82,505	+3.0	+6.5	2,119,915	+2.4	−1.3	82.1	62.3
Retail	17,549	405,422	+10.1	+10.5	7,931,714	+10.4	+7.1	86.0	69.2
Hotels (cash payments only)[1]	2,638	140,362	+2.1	+2.2	1,743,194	+3.1	−5.9	78.7	55.6
Canning and preserving	1,021	152,969	+55.8	+40.1	1,835,076	+85.9	+69.1	175.6	127.0
Laundries	935	56,815	+1.8	+.9	859,513	+5.2	−3.7	79.3	60.6
Dyeing and cleaning	344	11,942	+6.7	+6.4	211,131	+14.3	−1.1	88.6	60.3
Banks, brokerage, insurance, and real estate	4,538	178,827	[2] +.7	[2] +.6	5,800,487	[2] +.1	[2] −3.0	[2] 99.0	[2] 84.5

[1] The additional value of board, room, and tips cannot be computed.
[2] Weighted.

Per capita weekly earnings in September 1933 for 15 nonmanufacturing industries included in the Bureau's monthly trend-of-employment survey, together with the percents of change in September 1933 as compared with August 1933 and September 1932, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN 15 **NONMANUFACTURING** INDUSTRIES IN SEPTEMBER 1933 AND COMPARISON WITH AUGUST 1933 AND SEPTEMBER 1932

Industrial group	Per capita weekly earnings in September 1933	Percent of change September 1933 compared with—	
		August 1933	September 1932
Coal mining:			
Anthracite	$31.09	+9.4	+27.0
Bituminous	15.78	−2.7	+26.9
Metalliferous mining	20.14	+2.9	+5.9
Quarrying and nonmetallic mining	14.59	−3.8	−4.3
Crude-petroleum producing	26.31	−4.2	−10.1
Public utilities:			
Telephone and telegraph	25.60	−2.6	−3.6
Power and light	28.18	−1.5	−3.0
Electric-railroad and motor-bus operation and maintenance	26.49	−1.0	−2.5
Trade:			
Wholesale	25.69	−.6	−7.2
Retail	19.56	+.3	−3.0
Hotels (cash payments only) [1]	12.42	+1.0	−8.1
Canning and preserving	12.00	+19.4	+20.7
Laundries	15.13	+3.3	−4.5
Dyeing and cleaning	17.68	+7.2	−7.0
Banks, brokerage, insurance, and real estate	32.44	[2] −.6	[2] −3.5

[1] The additional value of board, room, and tips cannot be computed.
[2] Weighted.

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

INDEX numbers of employment and pay-roll totals for 15 nonmanufacturing industries are presented in the following table. These index numbers show the variation in employment and pay rolls by months, from January 1930 to September 1933, in all nonmanufacturing industries with the exception of the laundry, dyeing and cleaning, and the banks, brokerage, insurance, and real-estate industries for which information over the entire period is not available. The Bureau has secured data concerning employment and pay rolls for the index base year 1929 from establishments in these industries and has computed index numbers for those months for which data are available from the Bureau's files. These indexes are shown in this tabulation.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO SEPTEMBER 1933

[12-month average, 1929=100

Month	Anthracite mining								Bituminous-coal mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	102.1	90.6	76.2	52.5	105.8	89.3	61.5	43.2	102.5	93.9	80.8	69.8	101.4	73.3	47.0	36.1
February	106.9	89.5	71.2	58.7	121.5	101.9	57.3	56.8	102.4	91.5	77.4	69.3	102.1	68.3	47.0	37.2
March	82.6	82.0	73.7	54.6	78.5	71.3	61.2	48.8	98.6	88.8	75.2	67.6	86.4	65.2	46.8	30.7
April	84.1	85.2	70.1	51.6	75.0	75.2	72.0	37.4	94.4	85.9	65.5	63.7	81.7	58.6	33.9	26.6
May	93.8	80.3	66.9	43.2	98.8	76.1	58.0	30.0	90.4	82.4	62.6	61.2	77.5	54.4	30.7	26.9
June	90.8	76.1	53.0	39.5	94.3	66.7	37.4	34.3	88.4	78.4	60.5	61.3	75.6	52.4	27.3	29.2
July	91.6	65.1	44.5	43.8	84.0	53.7	34.5	38.2	88.0	76.4	58.6	63.2	68.9	50.4	24.4	33.6
August	80.2	67.3	49.2	47.7	78.8	56.4	41.4	46.6	89.2	77.0	59.4	68.6	71.1	50.6	26.4	43.3
September	93.8	80.0	55.8	56.8	91.6	64.9	47.0	60.7	90.5	80.4	62.4	71.8	74.9	53.6	30.2	44.1
October	99.0	86.8	63.9	-----	117.2	91.1	66.7	-----	91.8	81.3	67.0	-----	79.4	56.2	37.8	-----
November	97.2	83.5	62.7	-----	98.0	79.5	51.0	-----	92.5	81.1	69.4	-----	79.1	54.6	38.0	-----
December	99.1	79.8	62.3	-----	100.0	78.4	56.2	-----	92.5	81.2	70.0	-----	77.7	52.3	37.7	-----
Average	93.4	80.5	62.5	[1] 49.8	95.3	75.4	53.7	[1] 44.0	93.4	83.2	67.4	[1] 66.3	81.3	57.5	35.6	[1] 34.2

Month	Metalliferous mining								Quarrying and nonmetallic mining							
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	95.7	68.3	49.3	32.4	92.7	55.0	29.7	18.1	79.6	64.4	48.9	35.1	71.9	50.4	30.2	18.1
February	92.3	65.3	46.9	31.5	92.5	54.6	27.8	17.8	79.8	66.6	47.4	34.8	73.5	54.4	29.6	17.4
March	90.9	63.5	45.0	30.0	90.8	52.8	26.5	17.4	83.0	70.0	46.0	35.1	80.0	58.2	28.7	17.8
April	89.3	63.9	43.3	29.4	88.3	51.4	25.0	16.4	87.4	76.1	48.6	39.3	85.4	62.6	30.0	20.2
May	87.5	62.4	38.3	30.0	85.6	49.3	23.8	17.0	90.8	75.0	50.6	43.4	90.2	62.3	32.3	23.8
June	84.6	60.0	32.2	31.5	81.6	46.1	20.1	18.3	90.3	72.3	49.5	47.3	90.9	60.1	30.0	27.5
July	80.5	56.2	29.5	33.0	71.9	41.3	16.9	19.0	89.9	71.0	49.5	49.5	85.5	57.3	29.1	28.4
August	79.0	55.8	28.6	36.8	71.0	40.2	16.5	21.9	89.3	68.9	51.1	51.6	85.8	55.1	29.7	29.9
September	78.1	55.5	29.3	38.9	69.9	40.0	17.0	23.9	87.7	66.6	52.4	52.6	82.5	51.2	30.5	29.3
October	77.2	53.8	30.5	-----	68.6	37.4	18.0	-----	84.7	64.5	52.4	-----	79.3	48.7	30.1	-----
November	72.8	52.8	31.9	-----	63.4	35.1	18.7	-----	78.3	59.3	49.4	-----	66.8	43.3	27.1	-----
December	70.1	51.2	33.3	-----	59.9	34.3	18.7	-----	70.2	53.9	42.3	-----	59.9	36.9	22.1	-----
Average	83.2	59.1	36.5	[1] 32.6	78.0	44.8	21.6	[1] 18.9	84.3	67.4	49.0	[1] 43.2	79.3	53.4	29.1	[1] 23.6

Month	Crude-petroleum producing								Telephone and telegraph							
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	92.7	74.8	54.9	57.2	94.0	71.5	46.5	39.9	101.6	90.5	83.0	74.6	105.1	96.3	89.1	71.7
February	90.8	73.2	54.4	57.0	88.6	70.0	46.9	41.7	100.2	89.2	82.0	73.9	101.9	94.8	89.6	71.9
March	89.3	72.2	51.4	56.5	91.3	73.2	43.2	42.5	99.4	88.6	81.7	73.2	105.8	97.9	88.2	71.6
April	86.8	69.8	54.9	56.8	86.6	66.3	44.5	40.1	98.9	88.1	81.2	72.3	103.4	95.0	83.4	67.8
May	89.8	67.8	54.5	56.9	85.4	64.7	47.1	41.6	99.7	87.4	80.6	70.1	103.2	94.1	82.8	68.5
June	90.2	65.0	54.2	58.0	87.1	62.7	44.8	40.6	99.8	86.9	79.9	69.2	103.4	95.0	82.1	66.6
July	89.9	65.3	55.4	59.5	88.5	59.2	44.6	42.2	100.0	86.6	79.1	68.5	106.6	93.3	79.6	66.7
August	87.7	62.4	57.4	60.8	86.0	56.3	42.9	42.5	98.8	85.9	78.1	68.1	102.5	92.3	79.1	66.1
September	85.0	61.2	56.2	66.2	84.0	55.2	41.9	44.4	96.8	85.0	77.4	68.3	102.2	92.1	75.9	64.6
October	85.2	60.4	56.8	-----	82.6	54.4	42.5	-----	94.5	84.1	76.2	-----	100.9	91.6	75.7	-----
November	83.6	57.6	56.5	-----	80.0	52.0	42.4	-----	93.0	83.5	75.5	-----	97.9	89.7	74.3	-----
December	77.4	58.2	57.2	-----	77.2	54.9	41.7	-----	91.6	83.1	74.8	-----	101.3	92.7	73.5	-----
Average	87.4	65.7	55.3	[1] 58.8	85.9	61.7	44.1	[1] 41.7	97.9	86.6	79.1	[1] 70.9	102.9	93.7	81.1	[1] 68.4

Month	Power and light								Electric-railroad and motor-bus operation and maintenance [2]							
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	99.6	99.2	89.3	77.7	99.7	98.6	88.4	73.0	97.1	86.9	79.5	70.6	97.8	85.6	75.4	60.9
February	98.8	97.8	87.2	77.4	100.4	99.7	86.0	71.6	95.1	86.6	78.9	70.4	95.7	87.1	74.8	60.6
March	99.7	96.7	85.5	76.9	102.1	102.4	85.4	71.9	94.4	86.4	77.6	69.8	95.4	88.1	73.6	59.4
April	100.7	97.1	84.8	76.9	102.6	97.6	82.4	69.4	95.2	86.8	78.0	69.5	97.1	86.6	71.8	58.1
May	103.4	97.6	84.0	76.9	104.5	98.7	84.2	69.9	95.2	85.9	76.9	69.1	96.0	85.1	72.2	58.2
June	104.6	97.2	83.2	77.3	107.8	98.3	80.5	69.9	94.8	85.3	76.5	69.3	97.0	84.8	70.2	58.0
July	105.9	96.7	82.3	77.5	106.7	97.4	78.7	70.0	95.3	85.6	75.6	69.4	95.6	83.3	66.4	57.4
August	106.4	95.9	81.5	78.1	106.6	96.2	76.7	70.9	92.9	84.8	74.1	69.5	92.1	81.9	63.8	58.2
September	105.2	94.7	81.0	80.3	106.1	94.3	74.7	71.8	91.8	84.0	73.5	69.7	90.5	81.2	62.5	57.8
October	104.8	92.7	79.9	-----	105.6	93.2	74.4	-----	91.0	82.7	72.3	-----	88.9	79.0	61.5	-----
November	103.4	91.3	79.1	-----	103.7	93.3	73.2	-----	89.3	81.5	71.8	-----	87.7	79.7	61.7	-----
December	103.2	90.3	78.4	-----	106.3	91.2	73.2	-----	88.8	79.9	71.4	-----	88.6	77.8	61.9	-----
Average	103.0	95.6	83.0	[1] 77.7	104.3	96.7	79.8	[1] 70.9	93.4	84.7	75.5	[1] 69.7	93.5	83.4	68.0	[1] 58.7

[1] Average for 9 months.

[2] Not including electric-railroad car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO SEPTEMBER 1933—Continued

Month	Wholesale trade								Retail trade							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	100.0	89.5	81.8	75.3	100.0	87.5	74.1	61.7	98.9	90.0	84.3	76.9	99.7	89.4	78.0	62.7
February	98.5	88.2	80.9	74.1	98.3	88.4	72.5	58.6	94.4	87.1	80.5	73.4	96.0	86.7	73.7	58.4
March	97.7	87.4	79.8	73.1	99.7	89.1	71.3	57.1	93.9	87.8	81.4	71.4	95.5	87.5	73.4	55.1
April	97.3	87.4	78.9	73.3	97.9	85.2	68.9	56.0	97.3	90.1	81.6	78.6	97.5	88.3	72.7	60.4
May	96.8	87.1	77.9	74.0	97.4	84.7	69.7	57.4	96.7	89.9	80.9	77.0	97.3	88.0	71.1	59.5
June	96.5	87.1	77.0	75.7	98.6	84.1	66.2	57.3	93.9	89.1	79.4	78.3	96.8	87.6	68.2	60.5
July	96.0	86.8	76.6	76.9	96.0	83.3	64.7	59.1	89.0	83.9	74.6	74.6	91.7	83.3	63.3	58.1
August	95.0	86.5	76.4	79.7	93.6	82.1	63.2	60.8	85.6	81.8	72.6	78.1	87.6	80.3	60.7	62.7
September	94.8	86.1	77.1	82.1	93.6	81.4	63.1	62.3	92.0	86.6	77.8	86.0	92.4	83.5	64.6	69.2
October	94.2	85.2	77.8	-----	92.9	79.9	63.9	-----	95.5	89.8	81.3	-----	95.1	84.6	67.1	-----
November	92.6	84.1	77.6	-----	91.0	79.7	63.3	-----	98.4	90.9	81.7	-----	96.8	85.4	66.9	-----
December	92.0	83.7	77.0	-----	91.3	77.8	62.6	-----	115.1	106.2	95.2	-----	107.7	94.1	73.6	-----
Average	96.0	86.6	78.2	[1]76.0	95.9	83.6	67.0	[1]58.9	95.9	89.4	80.9	[1]77.1	96.2	86.6	69.4	[1]60.7

Month	Hotels								Canning and preserving							
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	100.4	95.0	83.2	73.8	100.3	91.0	73.9	55.7	46.1	48.9	35.0	34.1	50.3	46.1	31.8	24.8
February	102.4	96.8	84.3	73.8	103.8	93.7	73.9	55.9	45.7	48.3	37.1	35.1	51.5	48.6	32.7	25.9
March	102.4	96.8	84.0	72.4	104.4	93.4	72.4	53.5	49.7	53.0	36.3	33.2	50.8	50.3	31.9	24.2
April	100.1	95.9	82.7	71.9	100.3	89.9	69.6	51.7	74.8	59.6	47.0	49.2	72.6	57.1	37.9	33.5
May	98.0	92.5	80.1	71.9	98.4	87.7	67.0	51.8	65.7	56.0	40.5	45.5	66.9	56.0	36.0	31.8
June	98.0	91.6	78.0	73.6	98.1	85.4	63.8	52.3	83.0	70.6	55.5	55.6	81.5	58.6	40.5	36.7
July	101.3	93.3	78.4	75.6	99.8	85.2	61.8	53.3	126.3	102.2	73.0	76.6	112.7	74.2	47.5	46.2
August	101.5	92.8	77.6	77.1	98.6	83.8	59.6	54.0	185.7	142.9	99.0	112.7	172.0	104.7	65.6	68.3
September	100.1	90.6	77.0	78.7	97.1	81.9	59.1	55.6	246.6	180.1	125.3	175.6	214.8	129.4	75.1	127.0
October	97.5	87.4	75.4	-----	95.5	79.7	58.6	-----	164.7	108.1	81.1	-----	140.0	77.6	51.8	-----
November	95.2	84.9	74.3	-----	93.6	77.1	57.5	-----	96.7	60.8	50.5	-----	82.9	48.1	34.4	-----
December	93.5	83.1	73.2	-----	91.5	75.4	56.6	-----	61.6	40.7	33.7	-----	57.4	36.9	25.6	-----
Average	99.2	91.7	79.0	[1]74.3	98.5	85.4	64.5	[1]53.8	103.9	80.9	59.5	[1]68.6	96.1	65.6	42.6	[1]46.5

Month	Laundries						Dyeing and cleaning						Banks, brokerage, insurance, and real estate [3]			
	Employment			Pay rolls			Employment			Pay rolls			Employment		Pay rolls	
	1931	1932	1933	1931	1932	1933	1931	1932	1933	1931	1932	1933	1932	1933	1932	1933
January	90.5	84.7	75.4	86.6	76.4	57.9	88.9	82.1	73.0	77.7	65.8	46.6	98.3	97.5	93.5	85.2
February	90.0	82.9	74.4	85.6	73.3	55.5	87.4	80.5	70.9	75.1	62.2	42.4	98.3	96.8	93.0	84.3
March	89.5	82.0	73.0	85.6	71.6	52.9	88.0	80.6	71.2	75.6	61.7	41.0	98.9	96.5	92.9	83.7
April	90.5	82.0	73.4	86.8	71.4	54.0	95.7	83.3	81.1	86.3	65.9	54.6	98.6	96.2	92.1	82.9
May	90.3	81.4	73.5	86.5	70.6	54.5	96.7	84.5	82.0	86.6	67.3	53.9	98.0	96.2	92.7	83.2
June	91.0	81.0	76.0	87.1	68.6	56.7	99.0	85.1	85.6	89.1	65.8	56.7	97.9	97.3	90.0	84.4
July	91.8	80.3	76.3	87.4	66.3	56.1	98.6	82.4	82.9	86.2	60.0	52.8	98.4	97.7	89.8	84.8
August	90.2	78.9	77.9	84.6	63.9	57.6	93.5	79.5	83.1	80.0	56.3	52.8	98.5	98.3	88.2	84.4
September	89.3	78.6	79.3	84.1	62.9	60.6	95.3	83.3	88.6	82.6	61.0	60.3	98.4	99.0	87.1	84.5
October	88.1	77.5	-----	81.8	61.2	-----	94.2	82.3	-----	81.4	58.8	-----	98.6	-----	86.3	-----
November	86.2	76.2	-----	78.9	59.1	-----	90.1	78.0	-----	74.7	52.3	-----	98.0	-----	85.7	-----
December	85.3	75.9	-----	77.4	58.7	-----	84.9	75.2	-----	67.9	48.4	-----	98.0	-----	85.5	-----
Average	89.4	80.1	[1]75.5	84.4	67.0	[1]56.2	92.7	81.4	[1]79.8	80.3	60.5	[1]51.2	98.3	[1]97.3	89.7	[1]84.2

[1] Average for 9 months.
[3] Revised.

Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the Bureau presents a tabulation of man-hours worked per week and average hourly earnings based on reports supplied by identical establishments in August and September 1933 in 15 industrial groups and 78 separate manufacturing industries. Man-hour data for the building-construction group and for the insurance, real estate, banking, and brokerage group are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.

The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 percent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by multiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups.

In presenting information for the separate manufacturing industries shown in table 2, data are published for only those industries in which the available man-hour information covers 20 percent or more of the total number of employees in the industry at the present time. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, table 1.

TABLE 1.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, AUGUST AND SEPTEMBER 1933

Industrial group	Average hours per week		Average hourly earnings	
	August 1933	September 1933	August 1933	September 1933
	Hours	*Hours*	*Cents*	*Cents*
Manufacturing	38.6	36.1	48.3	51.4
Coal mining:				
Anthracite	34.2	38.1	83.6	82.1
Bituminous	35.0	31.9	48.2	50.1
Metalliferous mining	39.5	39.1	49.0	50.8
Quarrying and nonmetallic mining	38.7	34.4	40.4	43.3
Crude-petroleum producing	41.8	37.8	63.9	68.6
Public utilities:				
Telephone and telegraph	38.0	37.1	69.9	69.6
Power and light	45.2	42.8	63.1	65.8
Electric-railroad and motor-bus operation and maintenance	46.5	45.7	56.8	57.2
Trade:				
Wholesale	44.1	42.1	57.0	59.3
Retail	40.4	39.6	48.7	49.7
Hotels	50.5	50.2	23.0	23.6
Canning and preserving	33.1	39.8	32.2	34.4
Laundries	40.3	38.8	36.1	38.5
Dyeing and cleaning	40.8	41.5	41.7	43.8
Total	39.7	38.0	49.3	51.5

16487°—33——15

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical with the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation, which are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments. As already noted, the basic information upon which the average weekly man-hours and average hourly earnings are computed covers approximately 50 percent of the establishments reporting monthly employment data.

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED **MANUFACTURING** INDUSTRIES, AUGUST AND SEPTEMBER 1933

Industry	Average hours per week		Average hourly earnings	
	August 1933	September 1933	August 1933	September 1933
	Hours	*Hours*	*Cents*	*Cents*
Food and kindred products:				
Baking	43.0	41.5	47.7	50 3
Beverages	44.0	41.3	65.7	67.4
Confectionery	35.6	37.5	36.7	38.7
Flour	39.9	38.2	47.6	52.2
Ice cream	47.0	44.1	53.8	54.4
Slaughtering and meat packing	40.7	40.0	48.3	49.8
Sugar, beet	48.2	48.0	43.0	43.9
Sugar refining, cane	45.1	38.7	49.5	52.3
Textiles and their products:				
Fabrics:				
Carpets and rugs	36.3	37.1	47.4	48.2
Cotton goods	36.5	35.8	35.8	36.4
Cotton small wares	37.5	37.0	42.0	42.3
Dyeing and finishing textiles	36 8	35.1	49.0	49.5
Knit goods	37.4	36.3	42.2	44.8
Silk and rayon goods	36.8	33.9	41.0	42 7
Woolen and worsted goods	41.0	37.1	43.3	48 7
Iron and steel and their products, not including machinery:				
Bolts, nuts, washers, and rivets	36.3	35.0	46.7	48.1
Cast-iron pipe	33.4	28.4	41 8	46.0
Cutlery (not including silver and plated cutlery) and edge tools	38.0	37.4	50.0	50.4
Forgings, iron and steel	37.1	33.2	51 6	55.4
Hardware	37.7	34.3	46.4	50.5
Iron and steel	39 6	33.7	55.3	56.8
Plumbers' supplies	36.2	34.0	46.6	49.5
Steam and hot-water heating apparatus and steam fittings	36.6	33.1	51.6	54.2
Stoves	38.7	36.3	47.4	51.2
Structural and ornamental metalwork	35.4	33.8	47.7	51.7
Tin cans and other tinware	42.9	40.4	44.2	46.4
Tools (not including edge tools, machine tools, files, and saws)	37.2	35.4	48.6	50.9
Wirework	45.0	36.8	49.6	52.3
Machinery, not including transportation equipment:				
Agricultural implements	35.1	34.4	47.8	49.5
Cash registers, adding machines, and calculating machines	38.3	38.6	66.6	67.0
Electrical machinery, apparatus, and supplies	35.2	33.4	56.8	58.7
Engines, turbines, tractors, and water wheels	34.7	34.6	56.4	58.7
Foundry and machine-shop products	33.6	33.5	55.4	54.6
Machine tools	34.3	35.1	57.9	59.0
Radios and phonographs	35.6	33.8	46.1	48.9
Textile machinery and parts	37.1	36.6	58.5	61.9
Typewriters and supplies	37.8	37.1	50.1	51.2
Nonferrous metals and their products:				
Aluminum manufactures	38.7	35.5	43.1	46.1
Brass, bronze, and copper products	37.9	36.8	50.7	52.0
Clocks and watches and time-recording devices	39.5	38.7	40.7	44.8
Jewelry	38.7	35.4	42.4	49.1
Lighting equipment	36.3	35.9	49.4	50.6
Silverware and platedware	37.7	37.7	48.4	49.9
Smelting and refining—copper, lead, and zinc	41.6	36.8	48.8	50.1
Stamped and enameled ware	41.0	35.5	40.9	45.5

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED **MANUFACTURING** INDUSTRIES, AUGUST AND SEPTEMBER 1933—Continued

Industry	Average hours per week		Average hourly earnings	
	August 1933	September 1933	August 1933	September 1933
	Hours	*Hours*	*Cents*	*Cents*
Transportation equipment:				
Aircraft	43.3	39.0	63.1	66.5
Automobiles	37.6	33.3	62.7	65.3
Cars, electric- and steam-railroad	34.0	32.3	53.3	57.4
Locomotives	29.5	29.7	58.7	60.4
Shipbuilding	30.5	30.6	61.3	64.2
Railroad repair shops:				
Electric railroad	44.5	43.5	55.6	56.2
Steam railroad	39.5	37.9	62.5	63.1
Lumber and allied products: Furniture	38.7	37.7	38.2	42.1
Lumber:				
Millwork	39.7	34.7	37.6	43.0
Sawmills	43.0	37.1	33.6	41.6
Stone, clay, and glass products:				
Brick, tile, and terra cotta	35.6	32.7	37.2	40.2
Cement	36.0	31.5	50.2	52.6
Glass	37.0	33.9	48.5	53.6
Marble, granite, slate, and other products	33.5	33.7	57.1	57.0
Pottery	40.5	38.1	42.5	44.7
Leather and its manufactures: Leather	41.8	37.9	44.7	48.6
Paper and printing:				
Boxes, paper	41.3	37.8	43.4	46.5
Paper and pulp	44.3	39.9	44.3	47.2
Printing and publishing:				
Book and job	36.3	35.4	69.9	72.3
Newspapers and periodicals	39.2	38.0	76.8	81.2
Chemicals and allied products:				
Chemicals	40.9	38.1	57.8	59.6
Cottonseed oil, cake, and meal	39.7	41.5	28.8	26.3
Druggists' preparations	37.7	38.3	49.8	47.7
Explosives	38.8	35.5	58.2	59.9
Fertilizers	42.3	40.1	29.3	31.4
Paints and varnishes	39.4	37.8	52.1	53.9
Petroleum refining	39.9	35.5	63.1	70.6
Rayon and allied products	39.5	38.0	45.2	47.1
Soap	40.3	39.2	47.1	49.7
Rubber products:				
Rubber goods, other than boots, shoes, tires, and inner tubes	35.8	34.5	47.4	49.5
Rubber tires and inner tubes	32.4	29.9	65.0	68.1
Tobacco manufactures:				
Chewing and smoking tobacco and snuff	38.1	37.6	36.2	37.5
Cigars and cigarettes	37.7	38.5	35.1	35.4

Employment in Building Construction in September 1933

EMPLOYMENT in the building-construction industry increased 4.5 percent in September as compared with August and pay rolls increased 5.3 percent over the month interval.

The percents of change of employment and pay-roll totals in September as compared with August are based on returns made by 11,013 firms employing in September 90,730 workers in the various trades in the building-construction industry and whose combined weekly earnings during the pay period ending nearest September 15 were $1,950,356. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN THE **BUILDING-CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, AUGUST AND SEPTEMBER 1933

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		Aug. 15	Sept. 15		Aug. 15	Sept. 15	
Alabama: Birmingham	77	373	467	+25.2	$5,539	$6,795	+22.7
California:							
Los Angeles [1]	21	440	419	−4.8	8,423	8,066	−4.2
San Francisco-Oakland [1]	35	975	997	+2.3	22,721	23,022	+1.3
Other reporting localities [1]	22	881	856	−2.8	16,160	15,211	−5.9
Colorado: Denver	202	580	592	+2.1	11,473	11,464	−.1
Connecticut:							
Bridgeport	133	584	584	[2]	11,882	11,987	+.9
Hartford	220	1,094	1,158	+5.9	22,871	24,107	+5.4
New Haven	182	1,091	1,130	+3.6	24,632	26,799	+8.8
Delaware: Wilmington	120	1,020	989	−3.0	18,871	19,452	+3.1
District of Columbia	520	9,071	8,659	−4.5	258,776	246,125	−4.9
Florida:							
Jacksonville	57	420	544	+29.5	6,897	9,155	+32.7
Miami	86	872	1,101	+26.3	13,360	17,346	+29.8
Georgia: Atlanta	150	1,197	1,124	−6.1	18,248	16,690	−8.5
Illinois:							
Chicago [1]	125	1,167	1,609	+37.9	30,996	50,600	+63.2
Other reporting localities [1]	72	664	945	+42.3	13,846	15,317	+10.6
Indiana:							
Evansville	54	272	311	+14.3	4,033	4,367	+8.2
Fort Wayne	84	296	351	+18.6	4,697	5,947	+26.6
Indianapolis	163	1,084	1,161	+7.1	21,555	22,556	+4.6
South Bend	37	196	206	+5.1	3,504	3,493	−.3
Iowa: Des Moines	104	577	574	−.5	9,816	9,869	+.5
Kansas: Wichita	71	373	342	−8.3	6,189	6,082	−1.7
Kentucky: Louisville	129	1,145	1,207	+5.4	19,846	22,658	+14.2
Louisiana: New Orleans	131	1,137	1,313	+15.5	17,773	20,356	+14.5
Maine: Portland	98	388	405	+4.4	8,003	9,085	+13.5
Maryland: Baltimore [1]	112	830	985	+18.7	14,082	18,019	+28.0
Massachusetts: All reporting localities [1]	710	4,630	4,643	+.3	112,012	116,335	+3.9
Michigan:							
Detroit	503	4,194	4,766	+13.6	83,495	93,258	+11.7
Flint	51	208	231	+11.1	3,621	4,246	+17.3
Grand Rapids	110	407	447	+9.8	5,579	7,060	+26.5
Minnesota:							
Duluth	51	370	398	+7.6	5,749	5,840	+1.6
Minneapolis	214	1,454	1,662	+14.3	29,271	34,436	+17.6
St. Paul	172	1,276	1,168	−8.5	26,331	25,895	−1.7
Missouri:							
Kansas City [3]	288	1,716	1,691	−1.5	35,116	35,550	+1.2
St. Louis	574	3,279	3,218	−1.9	86,770	80,139	−7.6
Nebraska: Omaha	148	883	749	−15.2	17,013	14,560	−14.4
New York:							
New York City [1]	298	5,327	5,251	−1.4	161,870	151,986	−6.1
Other reporting localities [1]	206	5,651	5,799	+2.6	132,659	133,948	+1.0
North Carolina: Charlotte	57	345	372	+7.8	4,599	5,386	+17.1
Ohio:							
Akron	84	314	366	+16.6	5,130	6,206	+21.0
Cincinnati [4]	472	2,364	2,394	+1.3	53,081	55,021	+3.7
Cleveland	603	2,702	2,857	+5.7	66,117	71,942	+8.8
Dayton	121	580	597	+2.9	10,455	10,776	+3.1
Youngstown	76	307	290	−5.5	5,082	4,708	−7.4
Oklahoma:							
Oklahoma City	89	462	515	+11.5	7,479	7,821	+4.6
Tulsa	53	179	210	+17.3	2,372	3,056	+28.8
Oregon: Portland	181	1,005	1,121	+11.5	17,782	22,564	+26.9
Pennsylvania: [5]							
Erie area [1]	29	206	355	+72.3	2,322	4,390	+89.1
Philadelphia area [1]	496	5,041	5,692	+12.9	86,833	102,427	+18.0
Pittsburgh area [1]	258	1,931	1,954	+1.2	42,585	51,896	+21.9
Reading-Lebanon area [1]	46	238	252	+5.9	3,774	4,136	+9.6
Scranton area [1]	34	231	231	[2]	4,741	5,120	+8.0
Other reporting areas [1]	338	2,764	3,022	+9.3	42,793	51,949	+21.4
Rhode Island: Providence	258	1,561	1,682	+7.8	33,547	35,579	+6.1
Tennessee:							
Chattanooga	40	356	356	[2]	5,029	5,570	+10.8
Knoxville	51	483	466	−3.5	6,634	6,725	+1.4
Memphis	88	471	583	+23.8	6,578	9,449	+43.6
Nashville	85	1,255	1,238	−1.4	16,505	16,926	+2.6
Texas:							
Dallas	186	1,164	983	−15.5	17,035	15,378	−9.7
El Paso	29	156	194	+24.4	1,529	2,129	+39.2
Houston	169	1,057	1,147	+8.5	15,481	18,069	+16.7
San Antonio	122	755	729	−3.4	10,956	9,713	−11.3

[1] Data supplied by cooperating State bureau.
[2] No change.
[3] Includes both Kansas City, Mo., and Kansas City, Kans.
[4] Includes Covington and Newport, Ky.
[5] Each separate area includes from 2 to 8 counties.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN THE **BUILDING-CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, AUGUST AND SEPTEMBER 1933—Contd.

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		Aug. 15	Sept. 15		Aug. 15	Sept. 15	
Utah: Salt Lake City	85	385	408	+6.0	6,894	8,317	+20.6
Virginia:							
Norfolk-Portsmouth	92	1,041	1,082	+3.9	19,608	18,877	−3.7
Richmond	146	991	1,191	+20.2	18,524	23,381	+26.2
Washington:							
Seattle	152	873	861	−1.4	18,068	17,081	−5.5
Spokane	54	217	206	−5.1	4,009	4,314	+7.6
Tacoma	86	212	200	−5.7	3,662	3,403	−7.1
West Virginia: Wheeling	45	162	266	+64.2	2,985	5,338	+78.8
Wisconsin: All reporting localities [1]	58	925	858	−7.2	16,331	14,888	−8.8
Total, all localities	11,013	86,855	90,730	+4.5	1,852,199	1,950,356	+5.3

[1] Data supplied by cooperating State bureau.

Trend of Employment in September 1933, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in September 1933 as compared with August 1933, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundry, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group—public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in August and September 1933 as reported by identical establishments in this industry are included, however, in the combined total of "all groups."

The percents of change shown in the accompanying table, unless otherwise noted, are unweighted percents of change; that is, the industries included in the groups, and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

As the anthracite-mining industry is confined entirely to the State of Pennsylvania, the changes reported in this industry in table 1, nonmanufacturing industries, are the fluctuations in this industry by State totals.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "all groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Total, all groups					Manufacturing				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	505	64,724	−0.8	$846,967	−6.1	209	46,105	−2.5	$587,664	−8.3
Arizona	406	8,559	+7.1	168,247	+6.9	53	2,325	+5.1	42,999	+3.9
Arkansas	[1] *431*	*18,406*	*+10.0*	*269,666*	*+14.8*	*174*	*13,232*	*+11.6*	*174,656*	*+13.0*
California	[2] *1,915*	*295,404*	*+8.0*	*6,572,335*	*+8.0*	*1,101*	*179,488*	*+12.4*	*3,669,690*	*+14.9*
Colorado	813	33,545	+7.8	672,271	+9.4	114	11,923	+2.9	242,345	+7.2
Connecticut	1,105	172,273	+4.8	3,356,964	+5.4	649	151,622	+5.0	2,825,046	+6.0
Delaware	143	13,137	+12.8	236,122	+5.6	50	8,049	+1.2	156,445	+1.3
Dist. of Columbia	617	31,861	+5.4	707,608	+3.0	47	3,128	+5.2	94,727	+6.3
Florida	552	22,983	+9.3	386,790	+18.3	124	13,200	+6.6	191,575	+29.7
Georgia	650	91,337	−1.3	1,224,148	−2.0	301	77,042	−2.2	948,309	−2.6
Idaho	221	8,722	+6.1	166,802	+8.6	40	4,261	+6.4	81,183	+5.5
Illinois	[3] *1,752*	*347,538*	*+2.8*	*7,081,200*	*+.6*	*1,108*	*224,537*	*+2.7*	*4,245,164*	*+.9*
Indiana	1,278	146,059	+10.6	2,674,536	+6.1	577	107,406	+7.1	2,012,396	+4.0
Iowa	1,179	49,241	+6.6	901,922	+4.2	433	27,584	+3.7	511,481	+4.4
Kansas	[4] *1,333*	*66,545*	*+4.1*	*1,538,636*	*+12.9*	*445*	*28,320*	*+6.9*	*571,936*	*+7.7*
Kentucky	818	69,519	+6.0	1,150,565	+6.0	196	28,796	+6.9	504,574	+8.9
Louisiana	481	35,441	+6.3	572,312	+7.4	209	21,493	+4.4	316,666	+8.8
Maine	576	54,350	+4.9	933,081	+4.0	184	44,129	+1.8	769,916	+2.7
Maryland	[3] *828*	*91,987*	*+4.1*	*1,864,205*	*+7.8*	*449*	*66,146*	[5] *+5.5*	*1,295,289*	[5] *+9.7*
Massachusetts	[6] *8,045*	*386,678*	*+3.2*	*8,058,900*	*+3.7*	*1,134*	*203,787*	*+2.6*	*3,863,123*	*+3.7*
Michigan	1,603	311,449	+3.8	6,693,563	−1.8	*560*	*269,561*	*+3.1*	*5,755,554*	*−7.1*
Minnesota	1,023	71,140	+5.7	1,413,152	+3.2	277	35,080	+12.1	669,062	+5.8
Mississippi	362	11,002	+6.6	147,586	+11.9	71	7,661	+8.6	96,562	+17.7
Missouri	1,207	120,465	+1.7	2,425,317	+1.6	521	69,283	+(7)	1,339,699	+.8
Montana	354	10,227	+1.6	246,738	−.1	52	3,000	+5.7	63,780	+1.0
Nebraska	699	24,236	+7.8	488,273	+4.0	125	12,395	+10.3	249,143	+6.1
Nevada	137	1,665	+3.6	39,758	+.1	24	327	+6.9	7,747	−.3
New Hampshire	503	42,993	+1.5	744,524	−.7	187	37,573	+.9	637,816	−1.1
New Jersey	1,549	209,232	+2.7	4,461,138	+1.1	[8] *673*	*186,905*	*+6.1*	*3,825,516*	*+4.4*
New Mexico	184	4,175	−18.4	75,764	−4.4	21	232	+1.3	5,447	+1.2
New York	8,160	576,676	+5.3	13,844,115	+6.1	[9] *1,786*	*365,716*	*+5.9*	*8,365,579*	*+7.8*
North Carolina	899	140,406	+.5	1,854,464	+1.9	551	135,811	+.4	1,780,671	+2.0
North Dakota	334	4,134	+3.4	85,283	−4.4	56	1,120	+.3	24,565	+.7
Ohio	5,053	456,169	+3.3	8,965,065	−1.4	1,918	338,354	+2.0	6,596,547	−2.8
Oklahoma	725	29,707	+5.4	569,243	+3.3	131	11,132	+4.6	202,635	+4.2
Oregon	701	40,748	+26.6	751,816	+21.8	157	20,332	+8.1	382,599	+11.8
Pennsylvania	4,978	675,689	+6.2	13,613,738	+6.4	*1,735*	*394,732*	*+4.6*	*6,915,881*	*+.9*
Rhode Island	911	62,981	−4.7	1,207,518	−4.5	262	50,651	−6.0	913,598	−6.4
South Carolina	316	59,701	−.3	759,356	+.5	176	56,398	−.8	706,971	+.2
South Dakota	261	6,135	+3.6	137,908	+1.4	48	2,132	+1.2	39,102	+2.4
Tennessee	728	70,708	+1.9	1,069,803	+3.4	260	53,163	+1.5	772,656	+3.2
Texas	*798*	*66,092*	*+5.3*	*1,447,801*	*+5.0*	*384*	*38,510*	*+5.0*	*788,963*	*+5.8*
Utah	344	14,969	+8.2	281,995	+10.1	84	4,708	+10.0	91,848	+8.3
Vermont	382	11,049	+.5	208,532	+2.1	118	6,294	+.1	117,759	+.6
Virginia	1,284	95,035	+5.3	1,578,486	+6.4	407	68,059	+6.2	1,097,777	+9.0
Washington	1,118	64,760	+14.4	1,265,235	+8.7	254	32,259	+8.2	629,685	+4.9
West Virginia	867	113,868	+6.7	2,062,016	−.1	177	45,154	+6.9	853,978	+1.0
Wisconsin	[10] *1,052*	*155,047*	*+3.0*	*2,698,148*	*+.9*	*778*	*124,199*	[5] *+4.7*	*2,098,629*	[5] *+3.0*
Wyoming	191	5,869	+4.0	139,274	+6.3	29	1,346	+2.0	35,460	−2.0

[1] Includes automobile dealers and garages, and sand, gravel, and building construction.
[2] Includes banks, insurance, and office employment.
[3] Includes building and contracting.
[4] Includes transportation, financial institutions, restaurants, theaters, and building construction.
[5] Weighted percent of change.
[6] Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional, and transportation services.
[7] Less than one tenth of 1 percent.
[8] Includes laundries.
[9] Includes laundering and cleaning.
[10] Includes construction but does not include hotels and restaurants.

COMPARISON OE EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Wholesale trade					Retail trade				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	14	283	+7.6	$5,718	+5.4	60	1,955	+9.3	$33,493	+8.8
Arizona	19	170	−.6	4,378	−1.6	184	1,719	+8.1	29,732	+6.4
Arkansas	*16*	*576*	*+28.3*	*14,135*	*+25.4*	*130*	*1,486*	*+1.3*	*23,380*	*+2.6*
California	*102*	*5,577*	*+2.3*	*151,948*	*+2.1*	*124*	*27,888*	*+7.1*	*576,696*	*+5.6*
Colorado	28	967	+1.4	26,351	+1.8	277	4,597	+9.3	87,679	+6.9
Connecticut	57	1,402	+3.1	36,108	+1.8	119	5,155	+8.2	102,280	+6.5
Delaware	8	117	+1.7	2,331	−2.5	9	178	+2.3	2,803	+4.2
Dist. of Columbia	28	387	−.8	11,159	−1.7	405	12,118	+10.7	239,173	+9.8
Florida	49	788	+5.6	17,631	+1.8	77	1,227	+13.1	21,760	+11.5
Georgia	31	457	+6.0	12,768	+5.3	29	2,200	+8.5	36,533	+7.0
Idaho	8	122	+3.4	3,216	+1.3	68	880	+8.8	13,463	+5.7
Illinois	*47*	*2,314*	*+6.8*	*54,551*	*+8.9*	*142*	*23,795*	*+2.4*	*478,967*	*+.4*
Indiana	57	1,163	+1.7	28,244	+1.9	180	6,794	+12.4	118,783	+14.4
Iowa	37	1,183	+2.3	28,259	+1.8	120	3,331	+3.6	57,877	+7.9
Kansas	*79*	*2,014*	*+2.1*	*49,005*	*+6.7*	*458*	*6,484*	*+7.2*	*117,727*	*+9.2*
Kentucky	19	416	+3.2	8,834	+.9	28	1,490	+10.5	25,122	+7.8
Louisiana	29	737	+.3	16,507	+3.0	23	3,394	+8.5	52,726	+14.4
Maine	19	471	−.2	11,010	−1.8	67	1,005	+5.1	19,164	+3.1
Maryland	*32*	*739*	*+1.4*	*16,714*	*+3.2*	*39*	*6,638*	*+11.6*	*118,635*	*+14.2*
Massachusetts	*706*	*15,228*	*+3.0*	*394,548*	*+3.2*	*4,188*	*64,843*	*+7.3*	*1,276,704*	*+7.1*
Michigan	61	1,597	+.6	42,883	+1.3	156	11,772	+17.1	215,888	+13.7
Minnesota	56	4,366	+2.5	112,808	+2.7	246	7,574	+11.7	136,363	+14.7
Mississippi	4	65	[11]	1,309	+2.5	47	466	+9.6	5,050	+17.3
Missouri	59	4,811	+3.5	121,008	+4.2	101	9,674	+11.7	184,817	+12.8
Montana	15	257	+2.0	7,147	+1.6	82	895	+8.7	18,351	+5.1
Nebraska	34	962	+1.7	24,719	+2.1	157	1,824	+8.4	32,904	+10.1
Nevada	7	106	+6.0	3,148	+4.0	39	256	+.4	5,975	−.8
New Hampshire	16	184	+1.1	4,691	+1.1	72	945	+8.2	14,178	+13.7
New Jersey	25	636	+7.3	17,848	+6.8	408	7,908	+20.0	172,732	+19.9
New Mexico	6	84	+9.1	2,977	+12.6	49	267	−3.6	6,232	+2.6
New York	426	11,164	+2.1	332,291	+2.4	4,101	74,793	+16.2	1,577,199	+17.8
North Carolina	15	170	+3.0	3,450	+3.5	158	621	+8.0	13,723	+7.4
North Dakota	14	225	+5.6	6,005	+.5	10	211	+18.5	3,210	+24.3
Ohio	232	5,181	+2.1	126,750	+2.1	1,573	35,620	+8.8	683,384	+9.6
Oklahoma	48	943	+10.8	19,126	+1.1	88	1,491	+10.4	25,910	+11.6
Oregon	53	1,304	+2.5	32,750	+1.1	195	2,398	+4.5	49,215	+11.2
Pennsylvania	124	3,751	+2.3	98,330	+.4	337	28,028	+10.8	547,696	+11.7
Rhode Island	43	1,140	+1.7	27,050	+5.9	489	4,865	+3.6	104,982	+4.1
South Carolina	13	181	+5.2	4,341	+4.1	14	497	+6.4	5,275	+25.4
South Dakota	10	131	+4.8	3,254	+1.2	7	84	+5.0	1,433	−.5
Tennessee	33	843	+8.1	17,312	+7.3	53	3,597	+8.5	56,701	+7.6
Texas	*141*	*3,116*	*+4.2*	*75,824*	*+4.9*	*70*	*6,104*	*+6.0*	*107,418*	*+8.2*
Utah	13	481	+4.1	11,362	+5.3	76	573	+2.3	12,918	+3.4
Vermont	4	98	−6.7	2,450	−3.4	38	468	+5.2	7,202	+7.6
Virginia	44	1,176	+14.1	27,038	+6.3	474	5,091	+5.8	96,070	+10.0
Washington	90	2,301	+3.8	58,191	+3.6	368	6,909	+13.2	129,687	+14.6
West Virginia	28	638	+3 9	16,705	+2.3	52	906	+6.1	15,516	+12.1
Wisconsin	*46*	*2,017*	*+4.7*	*43,536*	*−1.1*	*51*	*10,289*	*+2.2*	*149,513*	*+11.4*
Wyoming	8	64	+3.2	1,763	+3.5	38	230	+1.3	5,230	+3.6

[11] No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	17	596	−7.2	$5,547	−11.2	9	1,623	+9.8	$25,937	+8.7
Arizona	3	64	+18.5	805	+12.4	18	1,943	+10.6	42,633	+18.2
Arkansas	9	375	+3.9	4,794	+14.3					
California	38	1,147	+9.3	20,860	+5.1	*34*	*2,778*	*+5.5*	*64,851*	*+3.5*
Colorado	4	35	−10.3	585	−.5	17	1,073	+12.9	24,950	+8.2
Connecticut	26	406	+24.5	6,173	+5.0					
Delaware	3	62	+40.9	827	+73.7					
Dist. of Columbia										
Florida	16	841	+17.5	9,661	+3.4					
Georgia	24	1,113	−4.6	10,109	−12.8					
Idaho						7	2,013	+1.6	46,635	+21.1
Illinois	26	938	−7.2	15,894	−3.7					
Indiana	63	1,604	+5.0	25,688	+12.2					
Iowa	29	553	+22.9	7,258	+13.4					
Kansas	*24*	*1,370*	*+12.5*	*22,974*	*−4.5*	*11*	*992*	*+14.9*	*17,370*	*+10.5*
Kentucky	35	955	−12.5	9,896	−5.5					
Louisiana	13	720	+7.6	9,536	+6.5					
Maine	10	249	+41.5	5,220	+56.9					
Maryland	*15*	*281*	*−8.8*	*3,652*	*−1.1*					
Massachusetts	24	517	−4.8	10,853	−4.1					
Michigan	48	1,588	+4.9	26,544	+5.1	34	3,028	+1	43,516	+6.1
Minnesota	18	265	+6.4	4,052	−11.1	25	1,316	+36.0	26,620	+59.8
Mississippi	7	130	+41.3	1,720	+119.7					
Missouri	48	1,139	−7.4	15,825	−6.6	15	1,734	+2.2	21,558	+9.9
Montana	9	142	−10.1	2,185	−11.8	17	2,302	+6.1	64,884	+6.1
Nebraska	11	244	+22.6	3,009	+20.6					
Nevada						11	342	+4.3	8,080	+.7
New Hampshire	11	103	+18.4	2,153	+5.5					
New Jersey	39	681	+7.4	11,658	+4.4	3	9	−18.2	225	+4.7
New Mexico						5	941	−2.3	17,292	−5.3
New York	78	2,158	−2.2	38,642	−10.9					
North Carolina	12	211	−2.7	1,953	−9.2					
North Dakota										
Ohio	132	3,786	+1.8	55,471	+.8					
Oklahoma	18	204	+7.9	1,593	+8.9	32	1,687	+1.5	21,895	−10.1
Oregon	3	31	+10.7	453	+3.0	6	58	−13.4	1,005	−9.8
Pennsylvania	158	6,114	−.2	81,332	−13.1					
Rhode Island										
South Carolina	4	104	−1.0	1,165	+20.6					
South Dakota	8	64	+30.6	876	+6.1					
Tennessee	24	1,210	−4.8	14,131	−10.9	4	300	+13.2	5,623	+14.5
Texas	*22*	*690*	*+19.6*	*12,189*	*+8.8*					
Utah	3	70	−12.5	1,001	+16.7	12	2,026	+1.4	37,113	+7.7
Vermont	38	2,211	+4.5	42,051	+9.1					
Virginia	28	1,448	−3.5	14,539	−6.4					
Washington	16	191	−9.9	2,991	−3.5					
West Virginia	25	929	+10.2	12,722	−1.5					
Wisconsin	*14*	*171*	*−15.8*	*2,418*	*−14.6*	(15)	*359*	*+6.8*	*6,819*	*+20.0*
Wyoming										

[15] Not available.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Bituminous-coal mining					Crude-petroleum producing				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	56	10,229	+2.7	$127,681	−5.2					
Arizona										
Arkansas	*3*	*86*	*−29.5*	*2,752*	*−23.5*	9	444	+7.2	$9,642	+10.1
California						39	7,059	+8.8	203,443	+6.0
Colorado	50	4,564	+25.4	77,266	+57.0					
Connecticut										
Delaware										
Dist. of Columbia										
Florida										
Georgia										
Idaho										
Illinois	*36*	*7,550*	*+17.9*	*126,316*	*+10.1*	7	138	−.7	2,430	−2.9
Indiana	53	5,836	+2.7	102,548	+.7	3	18	+12.5	168	+41.2
Iowa	20	1,253	+11.2	15,290	−29.2					
Kansas	*21*	*1,146*	*−3.4*	*16,631*	*+6.0*	26	1,233	+5.3	26,933	+.1
Kentucky	156	26,908	+5.0	393,829	+5.4	5	228	−1.3	2,687	−6.7
Louisiana						9	200	+35.1	4,027	+18.9
Maine										
Maryland	*16*	*1,324*	*+3.4*	*17,109*	*−11.1*					
Massachusetts										
Michigan										
Minnesota										
Mississippi										
Missouri	21	1,655	+3.0	21,360	+15.9					
Montana	10	713	+11.9	19,296	−2.5	3	26	+4.0	577	−17.5
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	14	1,338	−42.6	22,109	−14.1	4	52	+20.9	1,495	+16.5
New York						4	154	+19.4	3,229	+19.9
North Carolina										
North Dakota	9	468	+7.8	9,485	+34.4					
Ohio	85	13,246	+4.5	198,096	−13.8	5	66	+22.2	661	+16.2
Oklahoma	19	739	+2.4	13,375	+9.3	61	5,014	+9.6	117,450	+7.3
Oregon										
Pennsylvania	454	66,921	+3.7	1,006,652	+5.5	17	378	+13.5	8,120	+5.7
Rhode Island										
South Carolina										
South Dakota										
Tennessee	20	2,892	−.7	39,169	+5.7					
Texas	5	348	+1.8	7,218	+16.7	*3*	*8,386*	*+8.3*	*268,977*	*+4.2*
Utah	19	1,672	+18.8	41,287	+39.0					
Vermont										
Virginia	36	7,976	−4.7	122,825	−10.6					
Washington	10	355	−2.2	7,259	−17.7					
West Virginia	346	57,108	+6.5	966,848	−1.8	6	299	−7.4	6,901	−10.0
Wisconsin										
Wyoming	33	3,241	+5.0	75,670	+10.9	5	151	+38.5	3,633	+51.1

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics but are taken from reports issued by cooperating State organizations]

State	Public utilities					Hotels				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	88	1,644	+1.0	$31,894	−2.0	24	1,059	+2.7	$8,459	+6.8
Arizona	67	1,304	+6.2	30,737	+.2	18	391	+8.3	5,218	+4.9
Arkansas	*62*	*1,706*	*+3.3*	*41,016*	*+5.0*	*12*	*558*	*+10.7*	*4,488*	*+8.1*
California	*43*	*41,922*	*−.5*	*1,115,251*	*−3.4*	*183*	*9,183*	*+2.3*	*138,992*	*+5.8*
Colorado	196	5,254	−.3	130,330	−.9	59	1,309	−2.5	16,927	−1.3
Connecticut	135	9,343	+.6	284,634	+.5	31	1,174	+3.5	14,715	+1.6
Delaware	28	1,058	−1.4	29,030	−2.6	5	243	−1.6	3,209	+.5
Dist. of Columbia	22	8,337	+1.2	220,087	−4.5	49	3,867	+3.6	53,021	+4.2
Florida	185	4,705	+17.9	112,010	+11.5	55	953	−.3	8,981	+2.2
Georgia	186	6,342	+1.5	164,965	−2.1	27	1,088	−1.5	8,303	+.6
Idaho	56	689	+.3	13,257	−3.1	21	359	+9.8	3,945	+7.0
Illinois	*80*	*67,942*	*+.9*	*1,822,630*	*−2.2*	[12] *51*	*11,909*	*+2.8*	*175,669*	*+3.7*
Indiana	132	9,078	+3.4	212,367	+2.4	85	3,151	+4.1	31,363	+5.4
Iowa	421	9,210	+2.2	198,740	−1.1	67	2,248	+5.8	20,825	+7.0
Kansas	*143*	*7,277*	*+2.3*	*166,037*	*+2.4*	*32*	*658*	*+1.2*	*6,759*	*+4.6*
Kentucky	293	6,274	+2.7	138,201	−.9	36	1,780	+4.2	17,492	+2.8
Louisiana	151	5,443	+1.5	131,453	+.5	22	1,812	+2.1	18,740	+3.9
Maine	168	2,370	+3.7	61,720	+.8	35	1,725	−.1	20,650	+1.3
Maryland	*94*	*12,401*	*+1.0*	*345,841*	*+7.0*	*24*	*1,132*	*+5.9*	*13,404*	*+5.6*
Massachusetts	[13] *131*	*45,521*	*+1.5*	*1,277,277*	*+2.6*	*92*	*5,137*	*+1.5*	*69,001*	*+4.0*
Michigan	412	20,278	+.7	572,421	+2.2	104	4,850	+1.5	52,255	+3.8
Minnesota	226	12,523	+3.5	304,453	−.2	76	3,095	+3.5	35,614	+6.2
Mississippi	190	1,644	+3.5	31,470	−1.8	16	446	−10.6	3,186	−7.7
Missouri	204	19,132	+.5	477,063	−2.1	92	4,360	−.2	49,702	+1.0
Montana	101	1,793	−1.3	51,222	−2.1	25	405	−3.6	5,450	−1.4
Nebraska	299	5,617	+1.5	133,004	−2.3	42	1,343	+7.2	12,906	+7.9
Nevada	37	365	+.3	9,932	−1.4	13	194	+7.2	3,227	+2.1
New Hampshire	140	2,080	+.4	55,230	−2.5	25	1,353	+20.3	14,714	+13.7
New Jersey	265	21,195	+.5	591,279	−.6	86	5,484	−6.0	58,945	−6.9
New Mexico	49	602	+4.5	10,787	−.3	15	358	+6.5	3,653	+3.5
New York	874	96,252	+.2	2,914,929	−.3	271	30,983	+3.7	451,454	+4.5
North Carolina	87	1,534	+3.4	31,228	−1.7	35	1,121	+1.2	9,346	+.7
North Dakota	171	1,219	+3.7	28,335	+.9	25	404	+1.3	4,015	+2.9
Ohio	489	31,318	+.7	791,381	−1.4	150	8,546	+.9	98,599	+3.2
Oklahoma	244	5,836	+2.9	124,996	−.4	50	1,153	+5.6	11,283	+5.7
Oregon	183	5,507	+2.3	134,698	−.5	61	1,223	+5.7	14,735	+6.8
Pennsylvania	*695*	*45,550*	*+.9*	*1,208,430*	*−1.4*	178	9,335	+.4	111,041	+3.0
Rhode Island	42	3,258	−2.4	90,540	−2.7	21	572	+3.4	6,407	−3.0
South Carolina	70	1,650	+10.0	31,881	+[7]	12	214	+2.9	1,405	+4.8
South Dakota	129	990	+5.5	23,699	+3.2	18	301	+.7	3,572	+2.7
Tennessee	244	4,251	+1.8	95,334	+1.8	36	2,128	+1.0	17,776	+1.4
Texas	*134*	*6,175*	*+1.1*	*158,028*	*+.4*	*44*	*3,111*	*+5.7*	*36,402*	*+6.1*
Utah	68	1,870	+4.1	37,374	−2.8	12	476	+7.2	5,683	+2.9
Vermont	122	1,051	+6.9	25,185	+3.0	24	564	−15.4	5,472	−18.1
Virginia	179	5,713	+1.5	135,343	+.4	33	1,848	+4.7	19,374	+5.7
Washington	198	9,471	+.8	244,979	−3.9	81	2,476	+2.7	27,377	+3.6
West Virginia	120	6,098	+9.3	146,488	+3.4	36	1,037	[11]	10,775	+.6
Wisconsin	[14] *41*	*10,637*	*+2.4*	*288,752*	*+.9*	[12] *43*	*1,340*	−.7	[15]	.....
Wyoming	48	449	+3.7	9,943	−3.7	9	90	+2.3	1,164	+2.5

[7] Less than one tenth of 1 percent.
[11] No change.
[12] Includes restaurants.
[13] Includes steam railroads.
[14] Includes railways and express.
[15] Not available.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and cleaning				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	4	427	−4.0	$3,839	+9.0	3	133	+7.3	$1,304	+5.6
Arizona	10	372	+2.2	5,090	+8.0					
Arkansas	*13*	*388*	*−2.3*	*3,551*	*−4.3*					
California	[16] *67*	*5,424*	*+1.1*	*95,497*	*+2.4*					
Colorado	10	744	+.8	10,618	+3.3	11	196	+5.9	3,441	+7.5
Connecticut	24	984	+2.1	15,859	+4.5	7	198	+4.2	4,324	+10.1
Delaware	4	313	−1.6	5,176	+3.7					
Dist. of Columbia	20	2,554	+2.4	38,676	+5.8	5	135	+4.7	2,358	+3.6
Florida	10	489	+6.8	4,825	+10.8	7	52	−5.5	859	+4.1
Georgia	11	654	−1.2	6,343	+4.4	3	91	+8.3	1,053	+8.4
Idaho										
Illinois	[16] *27*	*1,954*	*−4.2*	*27,006*	*−4.5*					
Indiana	17	1,388	−.8	19,271	+3.7	12	212	+5.5	3,551	+14.3
Iowa	5	228	−1.3	3,256	+4.1	7	286	+2.1	4,667	+7.3
Kansas	[16] *40*	*879*	*+3.5*	*10,913*	*+11.4*					
Kentucky	15	773	+1.8	9,974	+10.3	4	156	+3.3	2,427	+8.0
Louisiana	3	115	−.9	952	+15.0	3	57	−6.6	680	+14.7
Maine	17	428	−.2	6,251	+1.2					
Maryland	*24*	*1,884*	*+2.2*	*29,224*	*+6.2*	*10*	*395*	*−2.0*	*5,397*	*+4.3*
Massachusetts	*113*	*3,719*	*−1.2*	*59,828*	*+.1*	*77*	*1,928*	*+12.4*	*35,916*	*+22.4*
Michigan	22	1,371	+2.1	18,898	+10.5	16	594	+3.7	11,052	−16.8
Minnesota	13	708	+6.3	11,044	+9.1	9	418	+8.9	7,174	+13.3
Mississippi	5	260	+6.6	2,740	+12.6					
Missouri	30	2,374	+2.3	32,366	+7.9	14	498	+7.1	8,879	+15.6
Montana	14	329	−1.2	5,423	−[7]	3	22	+4.8	494	+9.1
Nebraska	7	534	−4.8	7,620	−.2	3	100	+19.0	1,668	+26.7
Nevada	3	38	+2.7	667	−2.3					
New Hampshire	12	249	−7.8	3,884	−5.5					
New Jersey	26	3,228	+1.7	61,885	+5.1	7	222	+2.8	5,553	+8.9
New Mexico	4	209	+8.3	3,078	+7.2					
New York	70	7,367	+3.2	124,155	+7.6	13	451	−2.2	8,732	+[7]
North Carolina	9	525	+1.4	5,386	+8.6	3	66	+4.8	813	+26.2
North Dakota	10	194	+2.1	2,799	+1.0					
Ohio	77	4,197	+.4	61,599	+5.5	44	1,683	+1.8	29,920	+8.8
Oklahoma	9	715	+6.1	9,145	+7.3	3	78	[11]	970	+3.4
Oregon										
Pennsylvania	40	2,887	+.1	44,452	+5.0	13	845	+13.4	14,694	+44.3
Rhode Island	19	1,166	+2.3	19,810	+5.3	5	367	+.3	6,395	+5.4
South Carolina	8	433	−13.6	4,185	+25.4					
South Dakota	7	128	[11]	1,743	+2.8					
Tennessee	12	888	+3.1	8,006	+15.5	3	50	+28.2	651	+29.4
Texas	23	1,351	+5.2	15,681	+11.9	14	420	+4.2	6,922	+1.8
Utah	7	489	−2.6	6,863	−.5	7	126	+2.4	2,149	+11.2
Vermont	3	40	+5.3	462	+11.6					
Virginia	11	837	+11.6	10,041	+22.1	17	262	+7.2	3,525	+2.8
Washington	11	489	+.6	8,816	+3.2	10	105	+10.5	1,836	+14.1
West Virginia	20	710	+1.4	9,026	+6.7	9	219	+7.9	2,926	+7.8
Wisconsin	[16] *28*	*991*	*+1.7*	*13,214*	*+10.8*					
Wyoming	6	98	−1.0	1,605	+3.5					

[7] Less than one tenth of 1 percent.
[11] No change.
[16] Includes dyeing and cleaning.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN AUGUST AND SEPTEMBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Banks, brokerage, insurance, and real estate				
	Number of establishments	Number on pay roll, September 1933	Percent of change	Amount of pay roll (1 week), September 1933	Percent of change
Alabama	18	474	+0.2	$13,548	+0.9
Arizona	31	214	(11)	5,628	−.9
Arkansas	18	236	+1.3	5,642	+3.1
California	1,146	23,652	−.1	768,550	−.5
Colorado	28	1,077	−.3	35,104	+1.1
Connecticut	56	1,856	−.2	66,287	−.3
Delaware	17	573	−.7	19,771	+.1
Dist. of Columbia	41	1,335	+.6	48,407	+.6
Florida	18	564	−1.1	17,339	−2.8
Georgia	25	1,019	+1.8	29,455	+.2
Idaho	16	140	−2.8	3,404	−1.0
Illinois	94	10,790	+.2	361,704	−1.4
Indiana	38	1,201	−1.0	39,069	−1.3
Iowa	17	989	−.2	31,304	−.6
Kansas	*31*	*749*	*+5.8*	*23,189*	*+4.4*
Kentucky	21	837	−.7	30,127	+1.4
Louisiana	9	370	(11)	13,586	+1.8
Maine	15	245	−2.0	6,380	−13.5
Maryland	24	856	−.5	31,634	+.7
Massachusetts	223	7,969	−.7	246,704	+.7
Michigan	96	3,979	+1.7	120,763	−2.5
Minnesota	53	3,330	+10.3	88,334	+4.1
Mississippi	16	181	(11)	3,928	+5.1
Missouri	86	4,737	−.5	143,395	+1.2
Montana	21	244	+.8	6,900	−6.4
Nebraska	17	504	+2.6	17,267	+.3
Nevada					
New Hampshire	38	471	+.4	11,313	−2.1
New Jersey	108	12,439	−.2	352,847	+(7)
New Mexico	16	86	(11)	2,546	+.2
New York	720	53,514	−.6	1,852,914	−.3
North Carolina	28	322	+1.3	7,644	+3.9
North Dakota	36	262	+.8	6,391	−1.4
Ohio	275	8,026	−2.7	260,750	−.4
Oklahoma	20	597	+2.1	17,503	−1.7
Oregon	14	757	−.3	25,999	+15.9
Pennsylvania	*805*	*25,189*	*+.9*	*790,904*	*−.5*
Rhode Island	28	925	+.4	38,124	+3.0
South Carolina	11	110	+2.8	3,201	+3.6
South Dakota	32	244	−2.4	5,834	−1.5
Tennessee	31	1,125	+.6	38,348	+.5
Texas	22	1,297	−.2	37,352	+.4
Utah	14	463	+.2	16,388	+2.5
Vermont	30	233	−9.7	6,726	−1.4
Virginia	32	1,353	+1.7	43,612	+2.2
Washington	33	1,425	+4.9	44,024	+2.1
West Virginia	46	690	+2.4	19,547	+1.4
Wisconsin	17	921	+1.3	31,108	+.2
Wyoming	11	99	(11)	3,015	+3.0

[7] Less than one tenth of 1 percent.
[11] No change.

Employment and Pay Rolls in September 1933 in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in September 1933 as compared with August 1933 in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the Bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLLS IN SEPTEMBER 1933 AS COMPARED WITH AUGUST 1933

Cities	Number of establishments reporting in both months	Number on pay roll		Percent of change	Amount of pay roll (1 week)		Percent of change
		August 1933	September 1933		August 1933	September 1933	
New York City	5,191	318,344	338,437	+6.3	$8,397,766	$9,013,332	+7.3
Chicago, Ill	1,830	234,978	240,708	+2.4	5,538,992	5,594,171	+1.0
Philadelphia, Pa	827	131,236	139,180	+6.1	2,898,703	3,047,543	+5.1
Detroit, Mich	514	180,929	189,250	+4.6	4,350,336	4,330,963	−0.4
Los Angeles, Calif	810	67,901	72,499	+6.8	1,606,169	1,708,222	+6.4
Cleveland, Ohio	1,129	96,567	100,606	+4.2	2,060,997	2,086,643	+1.2
St. Louis, Mo	515	73,224	73,569	+0.5	1,559,851	1,573,526	+0.9
Baltimore, Md	568	51,346	54,268	+5.7	1,012,566	1,095,225	+8.2
Boston, Mass	3,077	92,705	98,401	+6.1	2,193,802	2,330,519	+6.2
Pittsburgh, Pa	418	55,442	57,987	+4.6	1,180,539	1,219,266	+3.3
San Francisco, Calif	1,164	52,972	54,997	+3.8	1,232,920	1,279,929	+3.8
Buffalo, N.Y	435	44,478	46,072	+3.6	974,993	1,001,516	+2.7
Milwaukee, Wis	456	45,513	46,911	+3.1	925,791	922,549	−0.4

Employment in the Executive Civil Service of the United States, September 1933

The United States Government pay rolls for September 1933 showed 8,934 fewer employees than Government pay rolls for September 1932. This is a decrease of 1.6 percent.

Comparing September 1933 with August 1933, there was an increase of 10,017 employees or 1.8 percent.

The data herein do not include the legislative, judicial, or Army and Navy services. The information as shown in table 1 was compiled by the various departments and offices of the United States Government and sent to the United States Civil Service Commission where it was assembled. The figures were tabulated by the Bureau of Labor Statistics and are published in compliance with the direction of Congress.

Table 1 shows the number of Federal employees inside the District of Columbia, the number of employees outside of the District of Columbia, and the total number for the entire Federal service.

Approximately 12 percent of the total number of workers on the pay rolls of the United States Government are employed inside the District of Columbia.

TABLE 1.—EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES SEPTEMBER 1932, AUGUST AND SEPTEMBER 1933

Item	District of Columbia			Outside the District			Entire service		
	Permanent	Temporary [1]	Total	Permanent	Temporary [1]	Total	Permanent	Temporary [1]	Total
Number of employees:									
September 1932	64,616	2,454	67,070	470,502	37,718	508,220	535,118	40,172	575,290
August 1933	62,681	5,034	67,715	456,417	32,207	488,624	519,098	37,241	556,339
September 1933	63,258	6,482	69,740	453,750	42,866	496,616	517,008	49,348	566,356
Gain or loss:									
September 1932–September 1933	−1,358	+4,028	+2,670	−16,752	+5,148	−11,604	−18,110	+9,176	−8,934
August 1933–September 1933	+577	+1,448	+2,025	−2,667	+10,659	+7,992	−2,090	+12,107	+10,017
Percent of change:									
September 1932–September 1933	−2.1	+164.1	+4.0	−3.6	+13.6	−2.3	−3.4	+22.8	−1.6
August 1933–September 1933	+0.9	+28.8	+3.0	−0.6	+33.1	+1.6	−0.4	+32.5	+1.8
Labor turnover, September 1933:									
Additions	[2] 1,201	2,905	[2] 4,106	3,787	23,172	26,959	4,988	26,077	31,065
Separations	972	[2] 1,109	[2] 2,081	6,454	12,513	18,967	7,426	13,622	21,048
Turnover rate per 100	1.54	19.26	3.03	0.83	33.34	3.85	0.96	31.46	3.75

[1] Not including field service of Post Office Department.
[2] Not including 348 employees, transferred from a temporary status in the National Industrial Recovery Administration to a permanent status in the same agency.

Comparing September 1933 with September 1932, there was a decrease of 2.1 percent in the number of permanent Federal employees in the District of Columbia. However, comparing these 2 months, the number of temporary employees increased 164.1 percent. This large increase in temporary employees caused a net increase of 4 percent in the total number of Federal employees in the city of Washington.

Comparing September 1933 with August 1933, there was an increase of nine tenths of 1 percent in the number of permanent employees. This increase was largely caused by a number of employees in the N.R.A. being transferred from a temporary to a permanent status.

Outside the District of Columbia the number of permanent employees decreased 3.6 percent and the number of temporary employees increased 13.6 percent, comparing September 1933 pay rolls with those for September 1932.

Comparing September 1933 with August 1933, there was a decrease of 0.4 percent in the number of permanent employees, an increase of 32.5 percent in the number of temporary employees, and an increase of 1.8 percent in the number of total Federal employment.

Table 2 shows employment and pay rolls in the Emergency Conservation Work.

TABLE 2.—EMPLOYMENT AND PAY ROLLS IN THE EMERGENCY CONSERVATION WORK, AUGUST AND SEPTEMBER 1933

Group	Number		Pay rolls	
	August	September	August	September
Enrolled personnel	276,172	208,402	$8,624,859	$6,508,392
Reserve officers, line	1,286	2,902	[1]	[1]
Reserve officers, medical	869	986	[1]	[1]
Supervisory and technical	14,444	14,744	1,714,705	1,754,485
Total	292,771	227,034	[2] 10,339,564	[2] 8,262,877

[1] Data not available.
[2] Not including pay rolls of Reserve officers, line or medical.

Information concerning employment and amount of pay rolls in the Emergency Conservation Work is collected by the Bureau of Labor Statistics from the War Department and the Forest Service of the Department of Agriculture.

There were 227,034 persons in the Emergency Conservation Work on September 30, 1933. This is a decrease of 65,000 as compared with August.

The pay of the enlisted personnel is $30 per month, except that 5 percent of the personnel of each company are paid $45 a month and an additional 8 percent are paid $36 per month. The pay roll for this branch of the service are figured on this basis. The amounts paid to Reserve officers, line and medical, are not available at the present time. Data for this branch of the service will be shown beginning with the October figures.

Employment on Class I Steam Railroads in the United States

REPORTS of the Interstate Commerce Commission for class I railroads show that the number of employees (exclusive of executives and officials) increased from 1,002,177 on August 15, 1933, to 1,018,017 on September 15, 1933, or 1.8 percent. Data are not yet available concerning total compensation of employees for September 1933. The latest pay-roll information available shows an increase from $115,936,195 in July to $121,857,255 in August, or 5.1 percent.

The monthly trend of employment from January 1923 to September 1933 on class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEXES OF EMPLOYMENT ON **CLASS I STEAM RAILROADS** IN THE UNITED STATES, JANUARY 1923 TO SEPTEMBER 1933

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
January	98.3	96.6	95.6	95.8	95.5	89.3	88.2	86.3	73.3	61.2	53.0
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3	52.7
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5	51.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0	51.8
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7	52.5
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8	53.6
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	56.4	55.4
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	55.0	[1]56.8
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	55.8	57.7
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	57.0	-------
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	55.9	-------
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	54.8	-------
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	57.9	[2]53.9

[1] Revised.

[2] Average for 9 months.

Table 2 shows the total number of employees by occupations on the 15th day each of July and August 1933 and by group totals on the 15th of September 1933; also pay-roll totals for the entire months of July and August. Total compensation for the month of September is not yet available. Beginning in January 1933 the Interstate Commerce Commission excluded reports of switching and terminal companies from their monthly tabulations. The actual figures for the months shown in the following table, therefore, are not comparable with the totals published for the months prior to January 1933. The index numbers of employment for class I railroads shown in table 1 have been adjusted to allow for this revision and furnish a monthly indicator of the trend of employment over the period from January 1923 to the latest month available. In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, JULY AND AUGUST 1933

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups. Employment figures for September 1933 are available by group totals only at this time]

Occupation	Number of employees at middle of month			Total earnings	
	July 1933	August 1933	September 1933	July 1933	August 1933
Professional, clerical and general	162,145	163,550	164,074	$21,373,020	$22,086,339
Clerks	84,881	85,853	----------	10,607,607	11,048,777
Stenographers and typists	15,288	15,366	----------	1,786,959	1,850,071
Maintenance of way and structures	210,748	219,055	224,876	15,840,377	17,335,030
Laborers, extra gang and work train	21,473	23,835	----------	1,083,656	1,313,580
Laborers, track and roadway section	114,834	118,615	----------	6,326,246	6,984,277
Maintenance of equipment and stores	263,156	274,397	278,898	28,081,634	30,911,586
Car men	53,851	57,003	----------	6,542,531	7,234,396
Electrical workers	7,980	8,092	----------	1,042,150	1,110,818
Machinists	37,406	38,595	----------	4,603,292	5,147,086
Skilled trades helpers	58,124	61,092	----------	5,146,639	5,794,029
Laborers (shops, engine houses, power plants, and stores)	20,189	20,636	----------	1,543,174	1,606,556
Common laborers (shops, engine houses, power plants, and stores)	17,826	18,644	----------	1,036,331	1,167,174
Transportation, other than train, engine, and yard	125,126	125,351	126,592	13,860,586	14,206,931
Station agents	24,239	24,266	----------	3,344,594	3,444,699
Telegraphers, telephoners, and towermen	14,855	14,930	----------	2,073,327	2,087,436
Truckers (stations, warehouses, and platforms)	17,889	17,930	----------	1,356,491	1,413,000
Crossing and bridge flagmen and gatemen	16,878	16,854	----------	1,137,362	1,140,930
Transportation (yardmasters, switch tenders, and hostlers)	11,984	12,238	12,286	2,045,155	2,095,668
Transportation, train and engine	203,451	207,586	211,291	34,735,423	35,221,701
Road conductors	22,539	22,828	----------	4,924,187	4,974,790
Road brakemen and flagmen	46,873	47,492	----------	6,630,511	6,696,554
Yard brakemen and yard helpers	34,463	35,989	----------	4,682,421	4,784,238
Road engineers and motormen	27,139	27,501	----------	6,583,487	6,657,199
Road firemen and helpers	30,141	30,193	----------	4,755,444	4,804,518
All employees	976,610	1,002,177	1,018,017	115,936,195	121,857,255

Unemployment in Foreign Countries

THE table following gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports for the years 1927 to 1932, inclusive, and by months beginning with July 1932 to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Year and date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number of unemployed in receipt of benefit	Unemployment-insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Percent		Number	Percent	Number	Percent
1927	31,032	7.0	172,450	11,112	1.8	23,763	3.9
1928	45,669	10.8	156,185	5,386	.9	22,293	3.5
1929	47,359	11.1	164,509	8,462	1.3	18,831	3.0
1930	84,767	19.3	208,389	23,250	3.6	50,918	7.9
1931	117,866	27.4	253,368	79,186	10.9	121,890	16.9
1932	120,454	29.4	309,969	161,468	19.0	175,259	20.7
1932							
July	(1)		266,365	169,411	19.6	174,646	20.3
August	(1)		269,188	167,212	19.5	170,081	19.9
September	122,340	29.6	275,840	163,048	18.3	166,160	18.9
October	(1)		297,791	157,023	17.7	148,812	16.8
November	(1)		329,707	154,657	17.7	144,583	16.3
December	115,042	28.1	367,829	171,028	18.6	155,669	16.9
1933							
January			397,920	207,136	22.1	196,237	20.9
February			401,321	201,305	21.0	185,052	19.3
March	109,182	26.5	379,693	195,715	20.1	186,942	19.2
April			350,552	180,143	18.2	187,222	18.8
May			320,955	162,781	16.4	176,174	17.7
June	106,652	25.7	307,873	145,881	14.4	158,005	15.5
July			300,762	142,119	13.7	168,653	16.3
August			291,224				
September			279,053				

Year and date (end of month)	Canada	Czechoslovakia			Danzig, Free City of	Denmark	
	Percent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Percent		Number	Percent
1927	4.9	52,869	17,626	1.6		61,705	22.5
1928	4.5	38,636	16,342	1.4		50,226	18.5
1929	5.7	41,630	23,763	2.2	12,905	42,817	15.5
1930	11.1	105,442	52,047	4.6	18,291	39,631	13.7
1931	16.8	291,332	102,179	8.3	24,898	53,019	17.9
1932	22.0	554,059	184,555	13.5	33,244	99,508	31.7
1932							
July	21.8	453,294	167,529	12.2	29,195	92,732	29.5
August	21.4	460,952	172,118	12.5	28,989	95,770	30.5
September	20.4	486,935	170,772	12.3	30,469	96,076	30.4
October	22.0	533,616	173,706	12.4	31,806	101,518	31.8
November	22.8	608,809	190,779	13.5	35,507	113,273	35.6
December	25.5	746,311	239,959	16.9	39,042	138,335	42.8
1933							
January	25.5	872,775	300,210	20.5	40,726	141,354	43.5
February	24.3	920,182	305,036	20.7	39,843	139,331	42.8
March	25.1	877,955	295,297	20.2	38,313	116,762	35.4
April	24.5	797,516	264,530	17.9	36,205	95,619	28.9
May	23.8	726,629	247,687	16.6	33,372	84,201	25.4
June	21.8	675,933	236,007	15.8	29,622	73,565	21.9
July	21.2	640,360	[2] 226,243	15.1	28,714	74,756	21.7
August	19.9	625,836			26,400	72,559	21.4
September	19.8	[2] 622,344			25,219	[2] 74,139	22.0

[1] Not reported.

[2] Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and 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	Percent wholly unemployed	Percent partially unemployed	Number unemployed in receipt of benefit
1927	3,037	1,868	33,549	1,353,000	8.7	3.4	
1928	2,629	1,735	4,993	1,353,000	8.6	5.7	1,029,694
1929	3,181	3,906	905	1,678,824	13.2	7.5	1,451,137
1930	3,054	7,993	2,432	3,144,910	22.2	13.4	2,158,049
1931	3,632	11,522	54,587	4,573,218	34.3	20.0	2,757,999
1932	7,121	17,581	264,845	5,579,858	43.8	22.6	2,535,601
1932							
July	2,022	13,278	262,642	5,392,248	43.9	23.0	2,111,342
August	3,256	16,966	264,253	5,223,810	44.0	23.2	1,991,985
September	5,957	18,563	259,237	5,102,750	43.6	22.7	1,849,768
October	8,901	19,908	247,090	5,109,173	42.9	22.6	1,720,577
November	10,715	21,690	255,411	5,355,428	43.2	22.1	1,768,602
December	13,727	20,289	277,109	5,772,852	45.1	22.7	2,073,101
1933							
January	16,511	23,178	315,364	6,013,612	46.2	23.7	2,372,066
February	15,437	20,731	330,874	6,000,958	47.4	24.1	2,455,428
March	14,512	19,083	313,518	5,598,855	52.7	22.2	2,165,891
April	11,680	17,732	309,101	5,331,252	46.3	22.6	1,938,910
May	4,857	13,082	282,545	5,038,640	44.7	21.6	1,801,930
June	2,822	11,479	256,197	4,856,942	(1)	(1)	1,726,676
July	1,568	13,437	239,449	4,463,841	(1)	(1)	1,647,155
August	2,046	15,269	235,590	4,124,288	26.3	17.1	1,530,452
September			226,375	3,849,222			

Year and date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		Irish Free State
	Compulsory insurance					Trade-unionists unemployed		
	Wholly unemployed		Temporary stoppages		Number of persons registered with employment exchanges	Christian (Budapest)	Social Democratic	Compulsory insurance—number unemployed
	Number	Percent	Number	Percent				
1927	899,093	7.4	263,077	2.3	1,107,000			21,100
1928	980,326	8.2	309,903	2.6	1,355,000			22,721
1929	994,091	8.2	268,400	2.2	1,281,000	852	15,322	20,860
1930	1,467,347	11.8	526,604	4.3	2,297,000	951	21,339	22,176
1931	2,129,359	16.7	587,494	4.6	2,668,000	977	27,635	25,230
1932	2,272,590	17.6	573,805	4.5	2,757,000	1,026	29,772	[3] 62,817
1932								
July	2,185,015	17.1	735,929	5.8	2,811,782	940	28,297	[3] 77,648
August	2,215,704	17.4	731,104	5.7	2,859,828	947	28,186	[3] 57,081
September	2,279,779	17.9	645,286	5.0	2,858,011	1,022	27,860	[3] 80,923
October	2,295,500	17.9	515,405	4.0	2,747,006	1,091	28,654	[3] 70,067
November	2,328,920	18.2	520,105	4.0	2,799,806	1,072	29,336	[3] 102,747
December	2,314,528	18.1	461,274	3.6	2,723,287	1,106	30,967	[3] 102,619
1933								
January	2,422,808	18.9	532,640	4.2	2,903,065	1,178	31,431	[3] 95,577
February	2,394,106	18.7	520,808	4.1	2,856,638	1,210	30,955	[3] 88,747
March	2,310,062	18.0	511,309	4.0	2,776,184	1,131	29,771	[3] 82,503
April	2,200,397	17.2	536,882	4.2	2,697,634	1,080	28,521	[3] 70,039
May	2,128,614	16.6	497,705	3.9	2,582,879	1,104	26,778	[3] 65,296
June	2,029,185	15.8	468,868	3.7	2,438,108	1,061	26,209	[3] 60,578
July	2,000,923	15.6	506,850	4.0	2,442,175	938	24,881	[3] 56,230
August	1,970,379	15.4	488,365	3.8	2,411,137			[3] 55,590
September					2,336,726			[3] 58,937

[1] Not reported.

[3] Registration area extended.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and date (end of month)	Italy		Japan		Latvia	Netherlands	
	Number of unemployed registered		Official estimates, unemployed		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
	Wholly unemployed	Partially unemployed	Number	Percent		Number	Percent
1927	278,484	97,054			3,131	26,868	9.0
1928	324,422	38,457			4,700	22,009	6.9
1929	300,787	16,154			5,617	27,775	7.5
1930	425,437	23,408	368,465	5.2	4,851	41,281	9.7
1931	734,454	28,721	413,248	5.9	8,709	87,659	18.2
1932	1,006,442	33,468	489,168	6.9	14,582	162,638	30.1
1932							
July	931,291	33,218	510,901	7.2	7,181	123,947	24.6
August	945,972	33,666	509,580	7.1	9,650	116,524	22.9
September	949,408	37,043	505,969	7.0	8,762	126,510	24.9
October	956,357	32,556	503,958	7.0	13,806	128,961	25.2
November	1,038,757	36,349	484,213	6.7	17,621	142,554	27.6
December	1,129,654	37,644	463,403	6.4	17,247	188,252	31.5
1933							
January	1,225,470	33,003	444,032	6.1	14,777	226,709	37.6
February	1,229,387	34,506	438,250	6.1	13,886	187,652	31.1
March	1,081,536	29,129	424,287	5.8	13,087	165,367	27.3
April	1,025,754	51,871	414,392	5.7	10,377	147,531	24.3
May	1,000,128	45,183	429,295	5.9	5,993	123,447	25.3
June	883,621	38,815			3,769	117,805	22.5
July	824,195	[4] 229,217			3,690	118,346	22.6
August	888,560	[4] 259,640			3,930	113,988	21.9
September	907,463					116,237	22.4

Year, and date (end of month)	New Zealand	Norway			Poland	Rumania
	Number unemployed registered by employment exchanges [5]	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Percent			
1927		8,561	25.4	23,889	165,340	
1928		6,502	19.2	21,759	125,552	10,373
1929	2,895	5,902	15.4	19,089	129,450	7,288
1930	5,037	7,175	16.6	19,353	226,659	25,338
1931	41,430		23.3	27,479	299,502	35,851
1932	51,549	14,790	30.8	33,831	255,582	38,890
1932						
July	55,203	12,563	25.9	26,390	218,059	32,809
August	56,332	13,084	26.9	27,543	187,537	29,654
September	55,855	14,358	29.3	31,431	147,166	21,862
October	54,549	15,512	31.6	35,082	146,982	28,172
November	52,477	16,717	34.2	38,807	177,459	30,651
December	52,533	20,735	42.4	41,571	220,245	38,471
1933						
January	51,698	19,249	39.3	40,642	264,258	44,797
February	49,971	19,673	40.0	42,460	287,219	45,371
March	51,035	18,992	38.5	42,437	279,779	44,294
April	53,171	17,678	35.7	39,846	258,954	37,532
May	55,477	15,335	30.9	35,803	235,356	30,336
June	56,563	13,532	27.2	30,394	224,566	24,685
July	57,169	12,995	26.0	25,918	213,806	21,084
August	[2] 56,914	14,204	28.4	27,459	204,364	
September				32,848	200,030	

[2] Provisional figure.
[4] New series, coverage extended in middle of year 1932.
[5] Includes not only workers wholly unemployed but also those intermittently employed.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
		Trade-unionists unemployed		Unemployment funds				
	Number of unemployed registered	Number	Percent	Wholly unemployed		Partially unemployed		Number of unemployed registered
				Number	Percent	Number	Percent	
1927		31,076	12.0		2.7		2.0	
1928		29,716	10.6		2.1		1.1	6,781
1929	6,591	32,621	10.7		1.8		1.7	8,465
1930	9,286	42,016	12.2		3.4		7.2	8,198
1931	20,963	64,815	17.2		5.9		12.1	10,018
1932	41,373	89,922	22.8		9.1		12.2	14,761
1932								
July	39,063	77,468	19.4	35,700	7.5	54,000	11.4	9,940
August	38,858	80,975	20.0	36,600	7.6	53,400	11.1	11,940
September	40,320	86,709	20.7	38,070	7.8	52,967	10.8	10,985
October	40,728	92,868	22.2	42,300	8.7	52,100	10.6	10,474
November	41,962	97,666	23.8	50,500	10.3	55,700	11.3	11,670
December	44,311	129,002	31.4	66,053	13.3	59,089	11.9	14,248
1933								
January	45,700	120,156	28.8	83,400	17.0	56,000	11.4	23,574
February	45,101	118,251	27.4	81,800	16.5	57,400	11.6	25,346
March	42,258	121,456	28.4	60,698	12.0	52,575	10.4	22,609
April	40,082	110,055	26.1	49,100	9.8	47,400	9.6	19,671
May	37,341	93,360	22.2	43,600	8.7	44,100	8.9	15,115
June	36,492	89,485	21.1	40,958	8.0	40,431	7.9	14,492
July	35,053	83,771	20.0	39,200	7.8	37,500	7.5	11,710
August	34,840	76,686	19.7	39,200	7.8	38,400	7.6	9,841

RETAIL PRICES

THE Bureau of Labor Statistics of the United States Department of Labor has since 1913 collected, compiled, and issued, as of the 15th of each month, retail prices of food. From time to time the work has been expanded by including additional cities and articles. The Bureau now covers 51 localities well scattered throughout the continental United States and also the Territory of Hawaii. Retail prices are secured for 45 of the principal articles of food.

In order that current information may be available oftener, the Bureau is now collecting these prices every 2 weeks. The plan was inaugurated during August 1933 and prices are being collected every other Tuesday.

Retail prices of coal were collected on January 15 and July 15 for the years 1913 through 1919 from the cities covered in the retail-food study. Beginning with June 1920, prices have been collected on the 15th of each month. No change has been made in the dates for the collection of retail prices of coal. A summary of prices and index numbers for earlier years and for current months is shown in a section of this publication.

Retail Prices of Food September 1933

RETAIL prices of food were collected by the Bureau for two periods during the month, namely, September 12 and 26. Prices were received from the same dealers and the same cities were covered as have been included in the Bureau's reports for former periods. For August 29, however, a representative number of reports was not received from some of the cities, and average prices for the United States as a whole for this date are not strictly comparable with average prices shown for other dates. The index numbers, however, have been adjusted by using the percent of change in identical cities and are, therefore, comparable with indexes of other periods.

Three commodities have been added to the Bureau's list of food items beginning with August 29. These items are rye bread, canned peaches, and canned pears. Only average prices can be shown for these articles as corresponding prices for the year 1913 are not available for the purpose of index numbers.

Data for the tabular statements shown in this report are compiled from simple averages of the actual selling prices as reported to the Bureau by retail dealers in the 51 cities. Comparable information for months and years, 1913 to 1928, inclusive, is shown in Bulletins Nos. 396 and 495; and by months and years, 1929 to 1932, inclusive, in the January, February, and April 1933 issues of this publication.

Indexes of all articles, combined, or groups of articles combined, both for cities and for the United States, are weighted according to

the average family consumption. Consumption figures used since January 1921 are given in Bulletin 495 (p. 13). Those used for prior dates are given in Bulletin 300 (p. 61). The list of articles included in the groups, cereals, meats, and dairy products, will be found in the May 1932 issue of this publication.

Table 1 shows index numbers of the total weighted retail cost of important food articles and of three groups of these articles; viz, cereals, meats, and dairy products, in the United States, 51 cities combined, by years, 1913 to 1932, inclusive, and on specified days of the months of 1932 and 1933. These index numbers are based on the year 1913 as 100.

TABLE 1.—INDEX NUMBERS OF THE TOTAL RETAIL COST OF FOOD AND OF CEREALS, MEATS, AND DAIRY PRODUCTS IN THE UNITED STATES BY YEARS, 1913 TO 1932, INCLUSIVE, AND ON SPECIFIED DATES OF EACH MONTH, JAN. 15, 1932, TO SEPT. 26, 1933, INCLUSIVE

[1913=100]

Year	All food	Cereals	Meats	Dairy products
1913	100.0	100.0	100.0	100.0
1914	102.4	106.7	103.4	97.1
1915	101.3	121.6	99.6	96.1
1916	113.7	126.8	108.2	103.2
1917	146.4	186.5	137.0	127.6
1918	168.3	194.3	172.8	153.4
1919	185.9	198.0	184.2	176.6
1920	203.4	232.1	185.7	185.1
1921	153.3	179.8	158.1	149.5
1922	141.6	159.3	150.3	135.9
1923	146.2	156.9	149.0	147.6
1924	145.9	160.4	150.2	142.8
1925	157.4	176.2	163.0	147.1
1926	160.6	175.5	171.3	145.5
1927	155.4	170.7	169.9	148.7
1928	154.3	167.2	179.2	150.0
1929	156.7	164.1	188.4	148.6
1930	147.1	158.0	175.8	136.5
1931	121.3	135.9	147.0	114.6
1932	102.1	121.1	116.0	96.6
1932				
Jan. 15	109.3	126.4	123.4	106.5
Feb. 15	105.3	125.0	117.3	102.9
Mar. 15	105.0	124.3	118.9	101.9
Apr. 15	103.7	122.9	118.6	97.4
May 15	101.3	122.6	115.3	94.3
June 15	100.1	122.5	113.4	92.6
July 15	101.0	121.2	122.6	91.4
Aug. 15	100.8	120.4	120.1	93.1
Sept. 15	100.3	119.2	119.2	93.5
Oct. 15	100.4	119.0	114.6	93.8
Nov. 15	99.4	118.0	109.1	93.9
Dec. 15	98.7	114.8	103.2	95.9
1933				
Jan. 15	94.8	112.3	99.9	93.3
Feb. 15	90.9	112.0	99.0	90.3
Mar. 15	90.5	112.3	100.1	88.3
Apr. 15	90.4	112.8	98.8	88.7
May 15	93.7	115.8	100.1	92.2
June 15	96.7	117.2	103.7	93.5
July 15	104.8	128.0	103.5	97.7
Aug. 15	106.7	137.8	105.7	96.5
Aug. 29	107.1	138.8	106.9	97.5
Sept. 12	107.0	140.2	104.4	97.8
Sept. 26	107.4	142.7	107.8	97.9

The following chart shows the trend in the retail cost of all food and of the classified groups, cereals, meats, and dairy products in the United States (51 cities) from January 15, 1929, to September 26, 1933, inclusive.

Table 2 shows index numbers of the total weighted retail costs of important food articles and of cereals, meats, and dairy products in the United States based on the year 1913 as 100, and changes on September 26, 1933, compared with September 15, 1932, and August 29 and September 12, 1933.

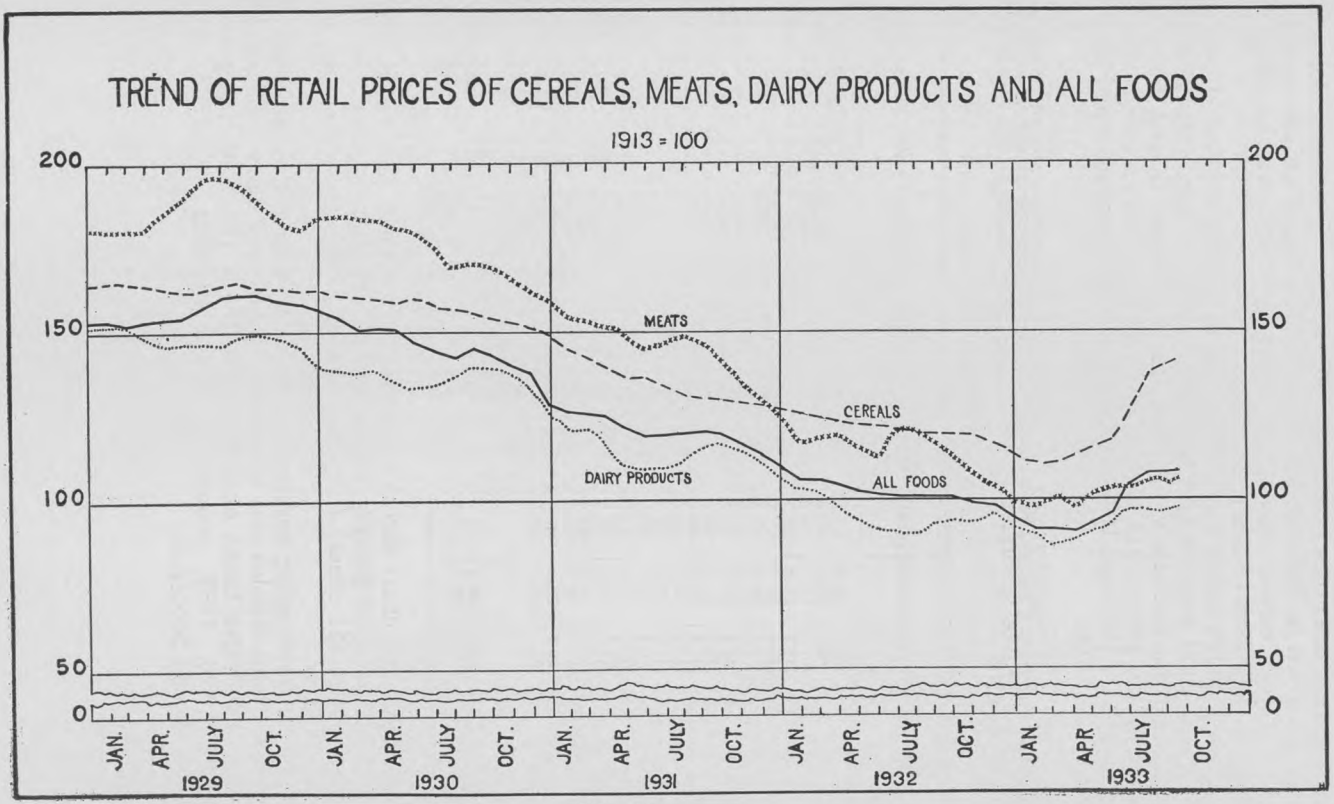


FIGURE 1.

TABLE 2.—INDEX NUMBERS FOR THE UNITED STATES OF THE TOTAL WEIGHTED RETAIL COST OF FOOD AND OF CEREALS, MEATS, AND DAIRY PRODUCTS; AND PERCENT OF CHANGE SEPT. 26, 1933, COMPARED WITH SEPT. 15, 1932; AND AUG. 29 AND SEPT. 12, 1933

Article	Index, 1913=100				Percent of change, Sept. 26, 1933, compared with—		
	Sept. 15, 1932	Aug. 29, 1933	Sept. 12, 1933	Sept. 26, 1933	Sept. 15, 1932	Aug. 29, 1933	Sept. 12, 1933
All food	100.3	107.1	107.0	107.4	+7.1	+0.3	+0.4
Cereals	119.2	138.8	140.2	142.7	+19.7	+2.8	+1.8
Meats	119.2	106.9	104.4	107.8	−9.6	+.8	+3.3
Dairy products	93.5	97.5	97.8	97.9	+4.7	+.4	+.1

Table 3 shows the average retail prices of principal food articles for the United States, and index numbers for 23 of these articles based on the year 1913, for September 15, 1932, and August 29, September 12, and September 26, 1933.

TABLE 3.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES FOR THE YEAR 1913 AND SEPT. 15, 1932, AND ON AUG. 29, SEPT. 12, AND SEPT. 26, 1933

Article	Average price					Index number (1913=100)			
	Year 1913	1932	1933			1932	1933		
		Sept. 15	Aug. 29	Sept. 12	Sept. 26	Sept. 15	Aug. 29	Sept. 12	Sept. 26
	Cents	*Cents*	*Cents*	*Cents*	*Cents*				
Sirloin steak, pound	25.4	34.4	29.8	30.1	30.1	135.4	119.3	118.5	118.5
Round steak, do	22.3	30.2	26.5	26.2	26.1	135.4	119.7	117.5	117.0
Rib roast, do	19.8	24.3	21.2	20.9	21.0	122.7	107.1	105.6	106.1
Chuck roast, do	16.0	17.8	15.4	15.3	15.4	111.3	96.9	95.6	96.3
Plate beef, do	12.1	11.2	10.0	9.9	9.9	92.6	81.8	81.8	81.8
Pork chops, do	21.0	23.8	21.2	21.7	23.8	113.3	100.9	103.3	113.3
Bacon, sliced, do	27.0	23.5	23.5	23.1	23.2	87.0	86.3	85.6	85.9
Ham, sliced, do	26.9	35.2	33.1	32.4	32.5	130.9	122.7	120.4	120.8
Lamb, leg of, do	18.9	23.4	23.1	22.3	22.2	123.8	121.7	118.0	117.5
Hens, do	21.3	23.5	20.3	20.4	20.9	110.3	96.2	95.8	98.1
Salmon, red canned, 16-oz. can		20.6	20.3	20.4	20.5				
Milk, fresh, quart	8.9	10.6	10.9	11.0	11.0	119.1	123.6	123.6	123.6
Milk, evaporated, 14½-oz. can		6.1	6.8	6.9	6.8				
Butter, pound	38.3	26.9	27.9	27.9	28.1	70.2	72.6	72.8	73.4
Margarine, do		14.5	13.6	13.6	13.5				
Cheese, do	22.1	22.7	23.2	23.5	23.5	102.7	105.9	106.3	106.3
Lard, do	15.8	9.1	9.8	9.6	9.6	57.6	62.0	60.8	60.8
Vegetable lard substitute, do		19.0	19.0	19.0	19.0				
Eggs, strictly fresh, dozen	34.5	29.5	25.6	28.3	30.3	85.5	76.0	82.0	87.8
Breads, wheat, pound	5.6	6.7	7.6	7.7	7.9	119.6	135.7	137.5	141.1
Bread, rye, do			8.4	8.5	8.6				
Flour, do	3.3	3.1	4.9	4.9	4.9	93.9	151.6	148.5	148.5
Cornmeal, do	3.0	3.8	3.8	4.0	4.0	126.7	130.1	133.3	133.3
Rolled oats, do		7.4	6.4	6.4	6.5				
Cornflakes, 8-oz. pkg		8.4	8.6	8.7	8.7				
Wheat cereal, 28-oz. pkg		22.5	23.8	23.7	23.7				
Macaroni, pound		15.1	15.6	15.6	15.7				
Rice, do	8.7	6.5	6.5	6.6	6.7	74.7	73.6	75.9	77.0
Beans, navy, do		5.0	6.1	6.3	6.3				
Potatoes, do	1.7	1.5	3.3	3.1	2.8	88.2	194.1	182.4	164.7
Onions, do		3.0	4.1	3.9	3.7				
Cabbage, do		2.6	4.0	3.6	3.5				
Pork and beans, 16-oz. can		7.0	6.8	6.8	6.9				
Corn, canned, no. 2 can		10.4	10.3	10.5	10.6				
Peas, canned, do		12.7	13.1	13.3	13.3				
Tomatoes, canned, do		9.1	9.4	9.6	9.8				
Sugar, pound	5.5	5.1	5.7	5.7	5.7	92.7	101.8	103.6	103.6
Tea, do	54.4	69.9	65.8	66.0	66.4	128.5	119.1	121.3	122.1
Coffee, do	29.8	30.1	27.2	26.7	26.6	101.0	90.9	89.6	89.3
Prunes, do		9.1	10.1	10.1	10.3				
Raisins, do		11.4	9.4	9.4	9.4				
Bananas, dozen		22.2	24.5	25.1	25.4				
Oranges, do		30.4	28.6	28.7	29.9				
Peaches, canned, no. 2½ can			16.9	17.0	17.1				
Pears, canned, do			20.5	20.5	20.4				

Table 4 shows index numbers of the weighted retail cost of food for the United States and 39 cities, based on the year 1913 as 100. The percents of change on September 26, 1933, compared with September 15, 1932, and August 29 and September 12, 1933, are also given for these cities and the United States and for 12 additional cities from which prices were not secured in 1913.

TABLE 4.—INDEX NUMBERS OF THE TOTAL WEIGHTED RETAIL COST OF FOOD BY CITIES AND FOR THE UNITED STATES, AND PERCENT OF CHANGE SEPT. 26, 1933, COMPARED WITH SEPT. 15, 1932, AND AUG. 29 AND SEPT. 12, 1933

City	Index, 1913=100				Percent of change Sept. 26 1933, compared with—		
	Sept. 15, 1932	Aug. 29, 1933	Sept. 12, 1933	Sept. 26, 1933	Sept. 15, 1932	Aug. 29, 1933	Sept. 12, 1933
United States	100.3	107 1	107.0	107.4	+7.1	+0.3	+0.4
Atlanta	98.6	106.6	105.4	104.6	+6.1	−1.9	−.8
Baltimore	105.7	110.1	110.5	110.8	+4.8	+.7	+.3
Birmingham	98.3	103.7	103.0	102.9	+4.6	−.9	−.1
Boston	102.2	110.1	108.6	108.5	+6.2	−1.4	−.1
Bridgeport					+6.6	+.7	+.9
Buffalo	104.3	112.1	112.6	113.0	+8.3	+.8	+.3
Butte					+.3	+.6	+.2
Charleston, S.C.	104.0	107.3	108.0	108.5	+4.3	+1.1	+.5
Chicago	109.9	113.4	111.0	111.0	+1.1	−2.1	(1)
Cincinnati	97.8	108.8	106.1	106.9	+9.4	−1.7	+.8
Cleveland	95.4	106.7	105.6	106.0	+11.0	−.7	+.3
Columbus					+12.0	(1)	+.2
Dallas	94.4	102.8	103.8	103.7	+9.9	+.9	(1)
Denver	95.0	98.8	101.2	100.1	+5.3	+1.3	−1.2
Detroit	94.1	109.1	108.8	109.4	+16.2	+.3	+.6
Fall River	99.7	106.2	105.5	106.9	+7.2	+.6	+1.3
Houston					+6.7	−1.1	−.7
Indianapolis	94.9	105.6	104.4	101.9	+7.3	−3.5	−2.4
Jacksonville	93.8	98.6	99.8	101.5	+8.2	+2.9	+1.7
Kansas City	98.7	106.6	105.7	105.0	+6.4	−1.5	−.7
Little Rock	91.5	96.7	96.8	97.7	+6.8	+1.1	+1.0
Los Angeles	92.3	99.9	101.9	102.1	+10.6	+2.2	+.2
Louisville	92.6	105.7	105.8	104.2	+12.6	−1.4	−1.4
Manchester	102.6	(2)	108.5	108.5	+5.7	(2)	(1)
Memphis	93.4	98.6	98.9	100.2	+7.2	+1.6	+1.3
Milwaukee	102.2	110.3	109.8	108.8	+6.5	−1.3	−.9
Minneapolis	98.1	104.4	104.4	106.8	+8.8	+2.3	+2.3
Mobile					+7.5	+.7	(1)
Newark	105.1	107.5	106.5	109.1	+3.8	+1.5	+2.5
New Haven	106.9	113.9	112.3	113.1	+5.9	−.7	+.7
New Orleans	100.8	105.7	107 4	107.0	+6.1	+1.2	−.4
New York	109.2	112.3	112.4	115.2	+5 5	+2.6	+2 5
Norfolk					+.8	+2.9	+1.9
Omaha	93.5	99.8	98.6	101.9	+9.0	+2.1	+3.3
Peoria					+7.3	−2.1	(1)
Philadelphia	104.5	109.1	110.1	111.0	+6.2	+1.7	+.9
Pittsburgh	98.6	104.3	103.9	105.2	+6.6	+.8	+1.2
Portland, Maine					+3.5	−.9	−.9
Portland, Oreg.	94.9	96.1	96.7	95.9	+1.1	−.2	−.8
Providence	102.2	110.0	109.0	110.4	+8.0	+.3	+1.2
Richmond	103.0	109.2	110.9	111.1	+7.8	+1.8	+.2
Rochester					+10.0	(2)	+1.0
St. Louis	100.1	112.3	110.3	109.1	+8.9	−2.9	−1.1
St. Paul					+9.4	+1.3	+1.5
Salt Lake City	85.4	91.5	90.1	91.0	+6.6	−.5	+1.0
San Francisco	105.5	109.7	110.2	109.1	+3.4	−.6	−1.1
Savannah					+7.4	+1.0	+.1
Scranton	105.8	113.6	113.4	114.5	+8.2	+.8	+1.0
Seattle	98.7	105.1	105.3	104.0	+5.4	−1.0	−1.2
Springfield, Ill.					+8.3	−1.9	+4
Washington	107.9	112.6	113.3	114.3	+6.0	+1.5	+.9
Hawaii:							
Honolulu					+1.4		+.4
Other localities					+2.5		+2.9

[1] No change. [2] Data not available.

Retail Prices of Coal on September 15, 1933

RETAIL prices of coal as of the 15th of each month are secured from each of the 51 cities from which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use. The prices shown for bituminous coal are averages of prices of the several kinds. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

Table 1 shows for the United States both average prices and index numbers of Pennsylvania white-ash anthracite, stove and chestnut sizes, and of bituminous coal on January 15 and July 15, 1913 to 1931, and for each month from January 15, 1932, to September 15, 1933. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the index number.

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF COAL FOR THE UNITED STATES BASED ON THE YEAR 1913 AS 100, ON THE FIFTEENTH OF SPECIFIED MONTHS FROM JANUARY 1913 TO SEPTEMBER 1933

Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut			
	Average price	Index 1913 = 100	Average price	Index 1913 = 100	Average price	Index 1913 = 100
	Dols.		*Dols.*		*Dols.*	
1913: Av. for yr.	7.73	100.0	7.91	100.0	5.43	100.0
January	7.99	103.4	8.15	103.0	5.48	100.8
July	7.46	96.6	7.68	97.0	5.39	99.2
1914: January	7.80	100.9	8.00	101.0	5.97	109.9
July	7.60	98.3	7.78	98.3	5.46	100.6
1915: January	7.83	101.3	7.99	101.0	5.71	105.2
July	7.54	97.6	7.73	97.7	5.44	100.1
1916: January	7.93	102.7	8.13	102.7	5.69	104.8
July	8.12	105.2	8.28	104.6	5.52	101.6
1917: January	9.29	120.2	9.40	118.8	6.96	128.1
July	9.08	117.5	9.16	115.7	7.21	132.7
1918: January	9.88	127.9	10.03	126.7	7.68	141.3
July	9.96	128.9	10.07	127.3	7.92	145.8
1919: January	11.51	149.0	11.61	146.7	7.90	145.3
July	12.14	157.2	12.17	153.8	8.10	149.1
1920: January	12.59	162.9	12.77	161.3	8.81	162.1
July	14.28	184.9	14.33	181.1	10.55	194.1
1921: January	15.99	207.0	16.13	203.8	11.82	217.6
July	14.90	192.8	14.95	188.9	10.47	192.7
1922: January	14.98	193.9	15.02	189.8	9.89	182.0
July	14.87	192.4	14.92	188.5	9.49	174.6
1923: January	15.43	199.7	15.46	195.3	11.18	205.7
July	15.10	195.5	15.05	190.1	10.04	184.7
1924: January	15.77	204.1	15.76	199.1	9.75	179.5
July	15.24	197.2	15.10	190.7	8.94	164.5
1925: January	15.45	200.0	15.37	194.2	9.24	170.0
July	15.14	196.0	14.93	188.6	8.61	158.5
1926: January	[1]	[1]	[1]	[1]	9.74	179.3
July	15.43	199.7	15.19	191.9	8.70	160.1
1927: January	15.66	202.7	15.42	194.8	9.96	183.3
July	15.15	196.1	14.81	187.1	8.91	163.9
1928: January	15.44	199.8	15.08	190.6	9.30	171.1
July	14.91	192.9	14.63	184.9	8.69	159.9
1929: January	15.38	199.1	15.06	190.3	9.09	167.2
July	14.94	193.4	14.63	184.8	8.62	158.6
1930: January	15.33	198.4	15.00	189.5	9.11	167.6
July	14.84	192.1	14.53	183.6	8.65	159.1
1931: January	15.12	195.8	14.88	188.1	8.87	163.2
July	14.61	189.1	14.59	184.3	8.09	148.9
1932: January	15.00	194.2	14.97	189.1	8.17	150.3
February	14.98	193.9	14.95	188.9	8.14	149.7
March	14.54	188.2	14.45	182.6	8.01	147.4
April	13.62	176.3	13.46	170.0	7.85	144.5
May	13.30	172.2	13.11	165.6	7.60	139.9
June	13.36	173.0	13.16	166.3	7.53	138.6
July	13.37	173.0	13.16	166.2	7.50	138.0
August	13.50	174.8	13.28	167.9	7.52	138.4
September	13.74	177.9	13.52	170.8	7.54	138.7
October	13.79	178.5	13.58	171.5	7.60	139.9
November	13.83	178.9	13.60	171.9	7.59	139.7
December	13.87	179.5	13.65	172.5	7.51	138.3
1933: January	13.82	178.9	13.61	171.9	7.46	137.3
February	13.75	178.0	13.53	171.0	7.45	137.0
March	13.70	177.3	13.48	170.4	7.43	136.7
April	13.22	171.1	13.00	164.3	7.37	135.6
May	12.44	161.0	12.25	154.8	7.17	132.0
June	12.18	157.6	12.00	151.6	7.18	132.1
July	12.47	161.3	12.26	155.0	7.64	140.7
August	12.85	166.3	12.65	159.8	7.77	143.0
September	13.33	172.5	13.12	165.8	7.93	146.0

[1] Insufficient data.

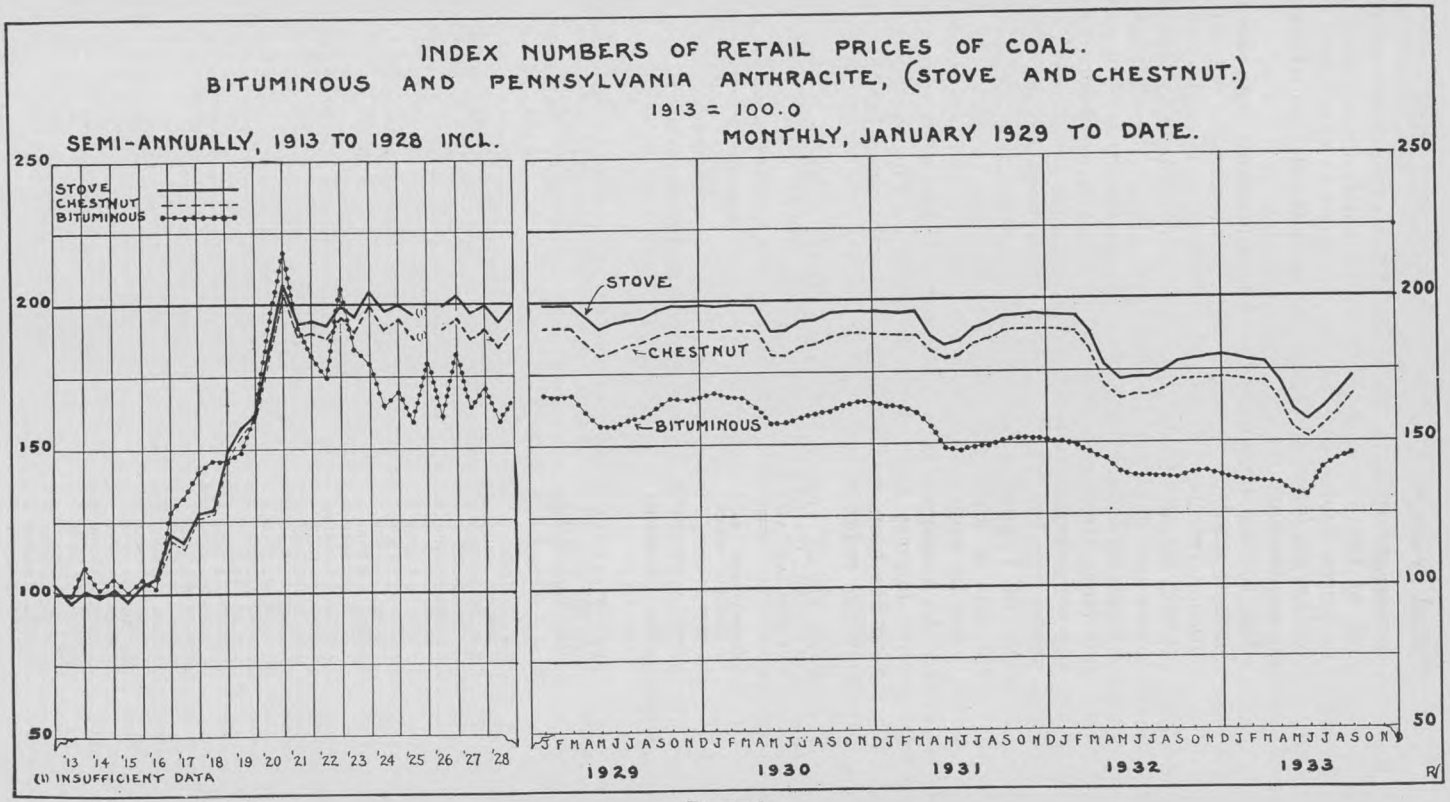


FIGURE 2.

The accompanying chart shows the trend in retail prices of stove and chestnut sizes of Pennsylvania anthracite and of bituminous coal in the United States. The trend is shown semiannually for the years 1913 to 1928, inclusive, and by months from January 15, 1929, to September 15, 1933, inclusive.

Table 2 shows average retail prices per ton of 2,000 pounds and index numbers (1913 = 100) for the United States on September 15, 1932, and August 15 and September 15, 1933, and percentage change in the year and in the month.

TABLE 2.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF COAL FOR THE UNITED STATES AND PERCENT OF CHANGE ON SEPT. 15, 1933, COMPARED WITH SEPT. 15, 1932, AND AUG. 15, 1933

Article	Average retail price on—			Percent of increase (+) or decrease (−) Sept. 15, 1933, compared with—	
	Sept. 15, 1932	Aug. 15, 1933	Sept. 15, 1933	Sept. 15, 1932	Aug. 15, 1933
Pennsylvania anthracite:					
Stove:					
Average price per 2,000 pounds	$13.74	$12.85	$13.33	−3.0	+3.7
Index (1913=100)	177.9	166.3	172.5		
Chestnut:					
Average price per 2,000 pounds	$13.52	$12.65	$13.12	−3.0	+3.7
Index (1913=100)	170.8	159.8	165.8		
Bituminous:					
Average price per 2,000 pounds	$7.54	$7.77	$7.93	+5.2	+2.1
Index (1913=100)	138.7	143.0	146.0		

Table 3 shows average retail prices of coal for household use by cities on September 15, 1932, and August 15 and September 15, 1933, as reported by local dealers in each city.

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, SEPT. 15, 1932, AND AUG. 15 AND SEPT. 15, 1933, BY CITIES

City, and kind of coal	1932	1933		City, and kind of coal	1932	1933	
	Sept. 15	Aug. 15	Sept. 15		Sept. 15	Aug. 15	Sept. 15
Atlanta, Ga.:				Charleston, S.C.:			
Bituminous, prepared sizes	$5.74	$6.25	$6.52	Bituminous, prepared sizes	$9.50	$8.62	$8.59
Baltimore, Md.:				Chicago, Ill.:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove	13.00	12.58	13.00	Stove	15.64	13.53	13.91
Chestnut	12.50	12.25	12.75	Chestnut	15.39	13.31	13.70
Bituminous:				Bituminous:			
Prepared sizes:				Prepared sizes:			
Low volatile	8.75	9.06	9.06	High volatile	7.32	7.74	7.99
Run of mine:				Low volatile	9.69	9.99	10.44
High volatile	6.93	7.21	7.39	Run of mine:			
Birmingham, Ala.:				Low volatile	6.92	7.45	7.70
Bituminous, prepared sizes	4.98	5.11	5.38	Cincinnati, Ohio:			
Boston, Mass.:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Stove	13.75	13.25	13.75	High volatile	5.00	5.35	5.54
Chestnut	13.45	13.00	13.50	Low volatile	7.00	7.23	7.38
Bridgeport, Conn.:				Cleveland, Ohio:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove	13.00	13.50	13.75	Stove	13.50	12.19	12.44
Chestnut	13.00	13.50	13.75	Chestnut	13.25	11.94	12.19
Buffalo, N.Y.:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Stove	12.25	12.28	12.85	High volatile	5.97	5.67	5.82
Chestnut	12.00	12.03	12.60	Low volatile	8.18	8.57	8.82
Butte, Mont.:							
Bituminous, prepared sizes	9.74	9.70	9.70				

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, SEPT. 15, 1932, AND AUG. 15 AND SEPT. 15, 1933, BY CITIES—Continued

City, and kind of coal	1932	1933	
	Sept. 15	Aug. 15	Sept. 15
Columbus, Ohio:			
Bituminous:			
Prepared sizes:			
High volatile	$5.04	$5.35	$5.50
Low volatile	6.42	6.75	6.88
Dallas, Tex.:			
Arkansas anthracite, egg	13.50	13.50	13.50
Bituminous, prepared sizes	10.00	10.00	10.00
Denver, Colo.:			
Colorado anthracite:			
Furnace, 1 and 2 mixed	14.69	14.50	14.75
Stove, 3 and 5 mixed	14.69	14.50	14.75
Bituminous, prepared sizes	7.59	7.30	7.39
Detroit, Mich.:			
Pennsylvania anthracite:			
Stove	13.00	11.55	12.02
Chestnut	12.88	11.55	12.02
Bituminous:			
Prepared sizes:			
High volatile	5.93	6.27	6.30
Low volatile	6.83	7.24	7.36
Run of mine:			
Low volatile	6.25	6.38	6.70
Fall River, Mass.:			
Pennsylvania anthracite:			
Stove	14.50	13.67	14.50
Chestnut	14.25	13.42	14.25
Houston, Tex.:			
Bituminous, prepared sizes	9.70	9.60	10.60
Indianapolis, Ind.:			
Bituminous:			
Prepared sizes:			
High volatile	4.93	5.38	5.64
Low volatile	7.46	7.40	7.70
Run of mine:			
Low volatile	6.05	6.50	6.50
Jacksonville, Fla.:			
Bituminous, prepared sizes	9.00	9.94	10.75
Kansas City, Mo.:			
Arkansas anthracite:			
Furnace	10.88	10.44	10.38
Stove no. 4	12.08	12.33	12.33
Bituminous, prepared sizes	5.80	5.57	5.61
Little Rock, Ark.:			
Arkansas anthracite, egg	11.25	10.25	10.50
Bituminous, prepared sizes	8.17	7.94	8.17
Los Angeles, Calif.:			
Bituminous, prepared sizes	15.75	16.46	17.30
Louisville, Ky.:			
Bituminous:			
Prepared sizes:			
High volatile	4.69	5.08	5.20
Low volatile	7.25	7.06	7.44
Manchester, N.H.:			
Pennsylvania anthracite:			
Stove	14.67	14.00	15.00
Chestnut	14.67	14.00	15.00
Memphis, Tenn.:			
Bituminous, prepared sizes	5.67	6.68	6.69
Milwaukee, Wis.:			
Pennsylvania anthracite:			
Stove	14.85	12.86	13.25
Chestnut	14.60	12.61	13.00
Bituminous:			
Prepared sizes:			
High volatile	6.99	7.21	7.27
Low volatile	9.15	9.31	9.37
Minneapolis, Minn.:			
Pennsylvania anthracite:			
Stove	17.15	15.00	15.50
Chestnut	16.90	14.75	15.25
Bituminous:			
Prepared sizes:			
High volatile	9.48	9.76	10.09
Low volatile	11.87	12.36	12.24
Mobile, Ala.:			
Bituminous, prepared sizes	$7.23	$7.13	$7.77
Newark, N.J.:			
Pennsylvania anthracite:			
Stove	12.08	12.10	12.60
Chestnut	11.83	11.80	12.20
New Haven, Conn.:			
Pennsylvania anthracite:			
Stove	13.65	13.40	13.50
Chestnut	13.65	13.40	13.50
New Orleans, La.:			
Bituminous, prepared sizes	8.07	8.07	9.07
New York, N.Y.:			
Pennsylvania anthracite:			
Stove	12.50	12.12	12.65
Chestnut	12.25	11.87	12.40
Norfolk, Va.:			
Pennsylvania anthracite:			
Stove	13.00	13.00	13.50
Chestnut	13.00	13.00	13.50
Bituminous:			
Prepared sizes:			
High volatile	6.50	7.00	7.00
Low volatile	8.00	8.00	8.50
Run of mine:			
Low volatile	6.50	7.00	7.00
Omaha, Nebr.:			
Bituminous, prepared sizes	8.70	8.70	8.52
Peoria, Ill.:			
Bituminous, prepared sizes	6.09	6.22	6.39
Philadelphia, Pa.:			
Pennsylvania anthracite:			
Stove	11.50	11.71	12.25
Chestnut	11.25	11.46	12.00
Pittsburgh, Pa.:			
Pennsylvania anthracite:			
Chestnut	12.75	12.38	12.38
Bituminous, prepared sizes	4.00	4.64	4.64
Portland, Maine:			
Pennsylvania anthracite:			
Stove	15.84	14.13	14.50
Chestnut	15.60	13.88	14.25
Portland, Oreg.:			
Bituminous, prepared sizes	11.96	13.07	12.99
Providence, R.I.:			
Pennsylvania anthracite:			
Stove	[1] 14.50	[1] 13.70	[1] 14.50
Chestnut	[1] 14.25	[1] 13.44	[1] 14.25
Richmond, Va.:			
Pennsylvania anthracite:			
Stove	13.00	13.25	13.75
Chestnut	13.00	13.25	13.75
Bituminous:			
Prepared sizes:			
High volatile	6.67	7.33	7.33
Low volatile	7.65	8.40	8.40
Run of mine:			
Low volatile	6.50	6.75	6.75
Rochester, N.Y.:			
Pennsylvania anthracite:			
Stove	13.13	12.35	13.23
Chestnut	12.88	12.10	12.98
St. Louis, Mo.:			
Pennsylvania anthracite:			
Stove	15.23	13.97	13.91
Chestnut	15.23	13.72	13.72
Bituminous, prepared sizes	5.45	5.19	5.61
St. Paul, Minn.:			
Pennsylvania anthracite:			
Stove	17.15	15.00	15.50
Chestnut	16.90	14.75	15.25
Bituminous:			
Prepared sizes:			
High volatile	9.49	9.79	9.98
Low volatile	11.87	12.39	12.33

[1] The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, SEPT. 15, 1932, AND AUG. 15 AND SEPT. 15, 1933, BY CITIES—Continued

City, and kind of coal	1932	1933	
	Sept. 15	Aug. 15	Sept. 15
Salt Lake City, Utah:			
Bituminous, prepared sizes	$7.39	$7.77	$7.79
San Francisco, Calif.:			
New Mexico anthracite:			
Cerillos egg	25.00	25.63	25.63
Colorado anthracite:			
Egg	-------	25.11	25.11
Bituminous, prepared sizes	15.00	16.06	15.98
Savannah, Ga.:			
Bituminous, prepared sizes	[2] 8.37	[2] 8.90	[2] 9.94
Scranton, Pa.:			
Pennsylvania anthracite:			
Stove	9.03	8.38	8.81
Chestnut	8.75	8.13	8.56
Seattle, Wash.:			
Bituminous, prepared sizes	$10.11	$9.63	$9.73
Springfield, Ill.:			
Bituminous, prepared sizes	4.34	3.75	3.73
Washington, D.C.:			
Pennsylvania anthracite:			
Stove	[3] 14.15	[3] 13.68	[3] 14.45
Chestnut	[3] 13.85	[3] 13.42	[3] 14.15
Bituminous:			
Prepared sizes:			
High volatile	[3] 8.29	[3] 8.25	[3] 8.33
Low volatile	[3] 9.86	[3] 9.84	[3] 9.97
Run of mine:			
Mixed	[3] 7.50	[3] 7.62	[3] 7.70

[2] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.
[3] Per ton of 2,240 pounds.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, 1913 to September 1933

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1932, inclusive, and by months from January 1932 to date:

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	93.3	134.4	131.3
1919	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2	97.6
1922	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8	96.7
1923	98.6	92.7	104.2	111.3	97.3	109.3	108.7	101.1	108.9	99.7	100.6
1924	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1932:											
January	52.8	64.7	79.3	59.6	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February	50.6	62.5	78.3	59.5	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March	50.2	62.3	77.3	58.0	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April	49.2	61.0	75.0	56.1	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May	46.6	59.3	72.5	54.3	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June	45.7	58.8	70.8	52.7	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3	64.5
August	49.1	61.8	69.7	52.7	72.1	80.1	69.6	73.3	73.6	64.6	65.2
September	49.1	61.8	72.2	55.6	70.8	80.1	70.5	72.9	73.7	64.7	65.3
October	46.9	60.5	72.8	55.0	71.1	80.3	70.7	72.7	73.7	64.1	64.4
November	46.7	60.6	71.4	53.9	71.4	79.6	70.7	72.4	73.7	63.7	63.9
December	44.1	58.3	69.6	53.0	69.3	79.4	70.8	72.3	73.6	63.4	62.6
1933:											
January	42.6	55.8	68.9	51.9	66.0	78.2	70.1	71.6	72.9	61.2	61.0
February	40.9	53.7	68.0	51.2	63.6	77.4	69.8	71.3	72.3	59.2	59.8
March	42.8	54.6	68.1	51.3	62.9	77.2	70.3	71.2	72.2	58.9	60.2
April	44.5	56.1	69.4	51.8	61.5	76.9	70.2	71.4	71.5	57.8	60.4
May	50.2	59.4	76.9	55.9	60.4	77.7	71.4	73.2	71.7	58.9	62.7
June	53.2	61.2	82.4	61.5	61.5	79.3	74.7	73.7	73.4	60.8	65.0
July	60.1	65.5	86.3	68.0	65.3	80.6	79.5	73.2	74.8	64.0	68.9
August	57.6	64.8	91.7	74.6	65.5	81.2	81.3	73.1	77.6	65.4	69.5
September	57.0	64.9	92.3	76.9	70.4	82.1	82.7	72.7	79.3	65.1	70.8

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES

[1926=100]

Year	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods	Month	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods
1913	68.8	74.9	69.4	69.0	70.0	1932:					
1914	67.6	70.0	67.8	66.8	66.4	January	58.3	63.1	72.1	70.3	71.7
1915	67.2	81.2	68.9	68.5	68.0	February	56.9	61.9	71.4	69.6	71.3
1916	82.6	118.3	82.3	85.3	88.3	March	56.1	60.8	71.5	69.3	70.9
1917	122.6	150.4	109.2	113.1	114.2	April	55.5	59.6	71.1	68.9	70.9
1918	135.8	153.8	124.7	125.1	124.6	May	53.9	58.1	70.3	68.1	70.4
1919	145.9	157.9	130.6	131.6	128.8	June	53.2	57.6	70.0	67.8	70.1
1920	151.8	198.2	149.8	154.8	161.3	July	54.7	55.5	70.5	68.0	69.7
1921	88.3	96.1	103.3	100.1	104.9	August	55.7	57.9	70.7	68.5	70.1
1922	96.0	98.9	96.5	97.3	102.4	September	56.2	60.7	70.4	68.7	70.4
1923	98.5	118.6	99.2	100.9	104.3	October	54.6	60.7	69.6	68.1	70.2
1924	97.6	108.7	96.3	97.1	99.7	November	54.2	58.9	69.3	67.5	69.8
1925	106.7	105.3	100.6	101.4	102.6	December	52.1	57.7	68.4	66.5	69.0
1926	100.0	100.0	100.0	100.0	100.0	1933:					
1927	96.5	94.3	95.0	94.6	94.0	January	50.2	56.9	66.7	64.9	67.3
1928	99.1	94.5	95.9	94.8	92.9	February	48.4	56.3	65.7	63.7	66.0
1929	97.5	93.9	94.5	93.3	91.6	March	49.4	56.9	65.7	63.8	65.8
1930	84.3	81.8	88.0	85.9	85.2	April	50.0	57.3	65.7	63.7	65.3
1931	65.6	69.0	77.0	74.6	75.0	May	53.7	61.3	67.2	65.4	66.5
1932	55.1	59.3	70.3	68.3	70.2	June	56.2	65.3	69.0	67.4	68.9
						July	61.8	69.1	72.2	70.7	72.2
						August	60.6	71.7	73.4	72.0	74.1
						September	61.7	72.9	74.8	73.7	76.1

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of September 1933 will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR WEEKS OF SEPT. 2, 9, 16, 23, AND 30, 1933

[1926=100]

Group	Week ending—				
	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30
All commodities	69.7	69.7	70.5	71.5	71.1
Farm products	57.1	56.6	55.9	59.3	58.0
Foods	65.3	65.0	65.1	65.9	64.9
Hides and leather products	92.9	92.8	92.0	92.0	91.9
Textile products	74.2	73.9	75.5	76.4	76.3
Fuel and lighting materials	67.2	67.6	72.5	72.8	72.6
Metals and metal products	81.4	81.7	81.7	81.8	82.0
Building materials	81.0	81.4	82.0	82.3	83.2
Chemicals and drugs	72.2	72.3	72.1	72.1	72.1
House-furnishing goods	77.0	78.6	78.7	78.8	79.4
Miscellaneous	65.2	64.9	64.8	65.1	65.1

Purchasing Power of the Dollar, 1913 to September 1933

CHANGES in the buying power of the dollar expressed in terms of wholesale prices from 1913 to September 1933 are shown in the following table. The figures in this table are reciprocals of the index numbers. To illustrate, the index number representing the level of all commodities at wholesale in September 1933 with average prices for the year 1926 as the base, is shown to be 70.8. The reciprocal of this index number is 0.01412 which, translated into dollars, and cents becomes $1.412. The table shows that the dollar expanded so much in its buying value that $1 of 1926 had increased in value to $1.412 in September 1933 in the purchase of all commodities at wholesale.

PURCHASING POWER OF THE DOLLAR EXPRESSED IN TERMS OF WHOLESALE PRICES

[1926=$1]

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	$1.399	$1.558	$1.468	$1.745	$1.631	$1.101	$1.764	$1.247	$1.776	$1.074	$1.433
1914	1.404	1.546	1.410	1.832	1.767	1.247	1.898	1.229	1.761	1.112	1.468
1915	1.399	1.529	1.325	1.848	1.931	1.159	1.869	.893	1.786	1.151	1.439
1916	1.185	1.321	1.071	1.420	1.346	.858	1.479	.622	1.629	.994	1.170
1917	.775	.957	.808	1.013	.949	.664	1.134	.606	1.348	.819	.851
1918	.676	.840	.796	.729	.916	.733	1.014	.549	1.072	.744	.762
1919	.635	.772	.574	.739	.959	.764	.865	.637	.944	.719	.722
1920	.664	.728	.584	.607	.611	.669	.666	.607	.705	.597	.648
1921	1.131	1.104	.916	1.058	1.033	.851	1.027	.870	.885	.916	1.025
1922	1.066	1.142	.956	.998	.932	.972	1.028	.997	.966	1.078	1.034
1923	1.014	1.079	.960	.898	1.028	.915	.920	.989	.918	1.003	.994
1924	1.000	1.099	.985	.937	1.087	.941	.978	1.011	.953	1.068	1.019
1925	.911	.998	.950	.923	1.036	.969	.983	.982	970	.917	.966
1926	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1927	1.006	1.034	.929	1.046	1.133	1.038	1.056	1.033	1.026	1.099	1.048
1928	.944	.990	.824	1.047	1.186	1.031	1.063	1.046	1.052	1.171	1.034
1929	.953	1.001	.917	1.106	1.205	.995	1.048	1.062	1.060	1.211	1.049
1930	1.133	1.105	1.000	1.245	1.274	1.086	1.112	1.122	1.079	1.287	1.157
1931	1.543	1.340	1.161	1.508	1.481	1.183	1.263	1.261	1.178	1.433	1.370
1932	2.075	1.639	1.372	1.821	1.422	1.247	1.401	1.361	1.332	1.553	1.543
1932: January	1.894	1.546	1.261	1.678	1.473	1.222	1.337	1.321	1.287	1.524	1.486
February	1.976	1.600	1.277	1.681	1.464	1.236	1.362	1.325	1.290	1.546	1.508
March	1.992	1.605	1.294	1.724	1.473	1.238	1.366	1.328	1.297	1.546	1.515
April	2.033	1.639	1.333	1.783	1.425	1.245	1.379	1.344	1.311	1.546	1.527
May	2.146	1.686	1.379	1.842	1.414	1.248	1.399	1.359	1.337	1.553	1.553
June	2.188	1.701	1.412	1.898	1.397	1.252	1.412	1.368	1.339	1.558	1.565
July	2.088	1.642	1.458	1.942	1.383	1.263	1.435	1.370	1.351	1.555	1.550
August	2.037	1.618	1.435	1.898	1.387	1.248	1.437	1.364	1.359	1.548	1.534
September	2.037	1.618	1.385	1.799	1.412	1.248	1.418	1.372	1.357	1.546	1.531
October	2.132	1.653	1.374	1.818	1.406	1.245	1.414	1.376	1.357	1.560	1.553
November	2.141	1.650	1.401	1.855	1.401	1.256	1.414	1.381	1.357	1.570	1.565
December	2.268	1.715	1.437	1.887	1.443	1.259	1.412	1.383	1.359	1.577	1.597
1933: January	2.347	1.792	1.451	1.927	1.515	1.279	1.427	1.397	1.372	1.634	1.639
February	2.445	1.862	1.471	1.953	1.572	1.292	1.433	1.403	1.383	1.689	1.672
March	2.336	1.832	1.468	1.949	1.590	1.295	1.422	1.404	1.385	1.698	1.661
April	2.247	1.783	1.441	1.931	1.626	1.300	1.425	1.401	1.399	1.730	1.656
May	1.992	1.684	1.300	1.789	1.656	1.287	1.401	1.366	1.395	1.698	1.595
June	1.880	1.634	1.214	1.626	1.626	1.261	1.339	1.357	1.362	1.645	1.538
July	1.664	1.527	1.159	1.471	1.531	1.241	1.258	1.366	1.337	1.563	1.451
August	1.736	1.543	1.091	1.340	1.527	1.232	1.230	1.368	1.289	1.529	1.439
September	1.754	1.541	1.083	1.300	1.420	1.218	1.209	1.376	1.261	1.536	1.412

16487°—33——17

Wholesale Price Trends During September 1933

THE rise in the general level of wholesale commodity prices which began in March of this year continued unbroken during the month of September according to an announcement made by the Bureau of Labor Statistics of the United States Department of Labor. The index number for the month showed an advance of nearly 2 percent. This index which includes 784 commodities or price series weighted according to their relative importance in the markets and based on the average prices for the year 1926 as 100, rose from 69.5 for August to 70.8 for September.

The index for September averaged above 70 for the first time since November 1931, and is higher than for any month since October 1931 when the index was 70.3. As compared with September 1932, with an index number of 65.3, the present index shows an increase of nearly 8½ percent over that of 1 year ago. As compared with the low point reached in February of the present year, when the index was 59.8, September prices were more than 18 percent higher. The corresponding index for March was 60.2.

For the fourth consecutive time in the past 3 years prices for the current month have averaged higher than in the corresponding month of the year before. The all-commodities index, which indicates the trend in the general level of wholesale prices, shows that prices in September were 25½ percent below the level of June 1929 when the index stood at 95.2.

Between August and September increases were reported in 294 instances, decreases in 152 instances, while in 338 instances no change in price was shown.

The largest price advance was shown by the fuel and lighting group, which increased by almost 7½ percent over the previous month. Increases took place in the average prices of coal, coke, and petroleum products. Wholesale prices of electricity and gas, however, decreased slightly.

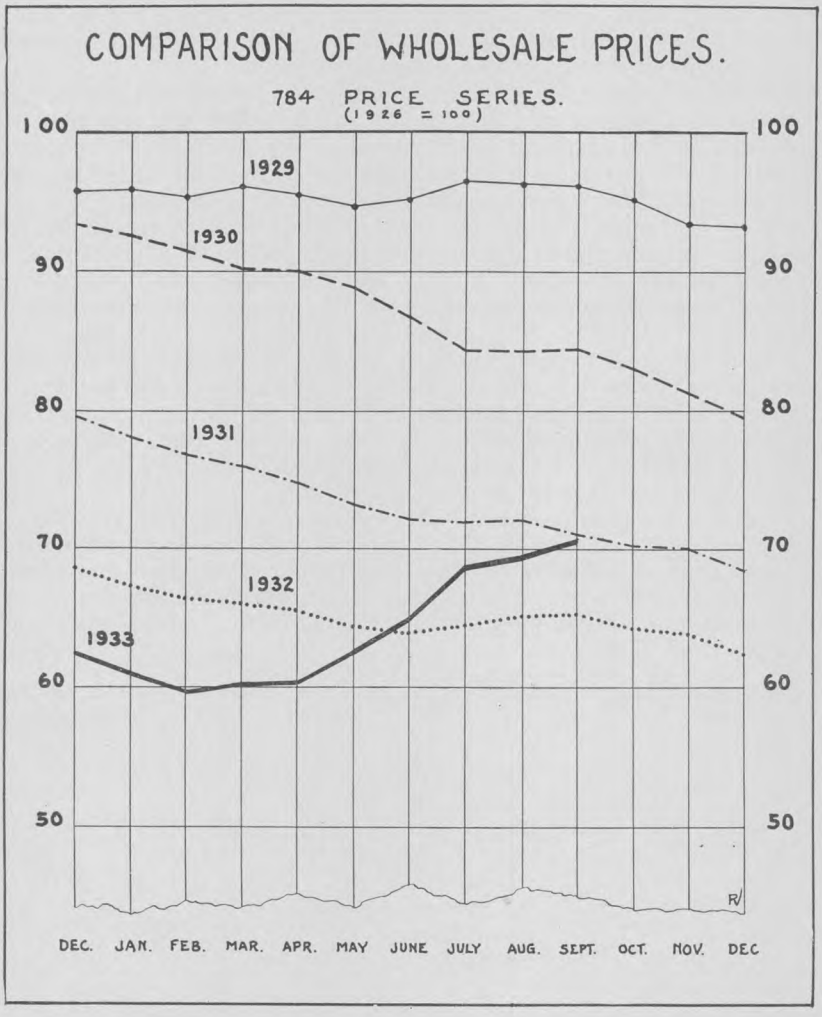
The second largest advance occurred in the textile products group, which showed a rise of 3 percent from August to September. This increase was due largely to advances in the prices of clothing, knit goods, and woolen and worsted goods. Cotton goods, silk and rayon, and other textile products registered slight declines in prices during the month of September.

Wholesale prices of farm products, which advanced steeply for 6 months, showed a reaction in September and dropped by 1 percent as compared with August, although still 39 percent above February, the low point reached during the present year, and 16 percent over the corresponding month of last year. Corn, wheat, cows, steers, lambs, cotton, oranges, hops, and potatoes were mainly responsible for the decline. Barley, oats, rye, calves, hogs, eggs, lemons, hay, tobacco, and wool showed increases in prices between the 2 months.

Among manufactured food products which showed price increases during the month were butter, macaroni, rice, canned fruits and vegetables, fresh pork, veal, dressed poultry, fish, lard, salt, and raw sugar. On the other hand, cheese, flour, cured beef, lamb, mutton, cured pork, granulated sugar, and most vegetable oils averaged lower than in the month before. The group as a whole showed a fractional

increase in September as compared with August, and remained nearly 21 percent above the low of February of this year and 5 percent higher than September a year ago.

Boots and shoes, leather, and other leather products showed advances in average prices, causing the group of hides and leather products to increase by seven tenths of 1 percent over the previous month. Hides and skins declined from August to September.



Metals and metal products as a whole continued upward during September due to advancing prices of agricultural implements, iron and steel, nonferrous metals, and plumbing and heating fixtures. Motor vehicles showed no change between August and September. The index for this group was over 1 percent higher than for the month before.

In the group of building materials the average prices of brick and tile, cement, lumber, structural steel, and other building materials moved upward during the month, while paint and paint materials decreased slightly. The group as a whole recorded an increase of 1¾ percent.

Chemicals and drugs registered a decrease of one half of 1 percent during September. Declining prices for chemicals, drugs and pharmaceuticals, and fertilizer materials outweighed advancing prices of mixed fertilizers. The housefurnishing goods group as a whole increased over 2 percent from the previous month. Both furniture and furnishings showed a strengthening of prices.

The miscellaneous group of commodities declined one half of 1 percent between August and September due to sharp declines in cattle feed. Paper and pulp and other miscellaneous commodities increased slightly, while automobile tires and tubes and crude rubber showed little or no change in average prices between the 2 months.

Among the remaining groups raw-material prices increased by 1⅞ percent. Semimanufactured articles advanced by 1⅞ percent to a level of 20 percent above a year ago. Finished products moved upward by nearly 2 percent and were 6¼ percent over September of last year.

The nonagricultural-commodities group, which includes all commodities except farm products, advanced by about 2⅓ percent during the month. When manufactured foods and farm products are excluded, the combined index number for all remaining groups showed an increase of 2⅞ percent during the month and a rise of more than 7 percent over September a year ago.

From the low point reached in February, raw materials were higher in September by more than 27 percent and semimanufactured articles by more than 29 percent. In the same period finished products have advanced by nearly 14 percent, nonagricultural commodities by nearly 16 percent, and all commodities eliminating farm products and foods by more than 15 percent.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100]

Groups and subgroups	September 1932	August 1933	September 1933	Purchasing power of the dollar, September 1933
All commodities	65.3	69.5	70.8	$1.412
Farm products	49.1	57.6	57.0	1.754
Grains	37.4	64.6	63.9	1.565
Livestock and poultry	51.2	45.9	46.7	2.141
Other farm products	52.1	62.5	61.2	1.634
Foods	61.8	64.8	64.9	1.541
Butter, cheese, and milk	60.6	65.7	65.8	1.520
Cereal products	65.8	84.8	84.7	1.181
Fruits and vegetables	52.5	71.1	66.8	1.497
Meats	60.9	51.0	51.5	1.942
Other foods	64.6	62.6	64.5	1.550
Hides and leather products	72.2	91.7	92.3	1.083
Boots and shoes	84.4	96.1	98.9	1.011
Hides and skins	48.2	91.5	84.1	1.189
Leather	63.2	82.5	85.4	1.171
Other leather products	81.5	81.2	84.6	1.182

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES—Continued

Groups and subgroups	September 1932	August 1933	September 1933	Purchasing power of the dollar, September 1933
Textile products	55.6	74.6	76.9	$1.300
Clothing	61.8	74.4	81.1	1.233
Cotton goods	57.9	93.5	91.3	1.095
Knit goods	50.4	69.4	74.8	1.337
Silk and rayon	32.6	34.6	34.5	2.899
Woolen and worsted goods	56.7	78.9	82.7	1.209
Other textile products	68.6	77.8	76.5	1.307
Fuel and lighting materials	70.8	65.5	70.4	1.420
Anthracite	87.7	79.2	82.0	1.220
Bituminous coal	81.1	83.6	84.7	1.181
Coke	76.7	77.4	79.7	1.255
Electricity	103.4	88.8	[1]	
Gas	107.6	99.5	[1]	
Petroleum products	46.7	40.9	49.6	2.016
Metals and metal products	80.1	81.2	82.1	1.218
Agricultural implements	84.9	83.2	83.2	1.202
Iron and steel	79.7	78.6	80.3	1.245
Motor vehicles	92.7	90.4	90.4	1.106
Nonferrous metals	51.6	68.2	68.5	1.460
Plumbing and heating	66.8	70.3	74.7	1.339
Building materials	70.5	81.3	82.7	1.209
Brick and tile	75.4	81.5	82.6	1.211
Cement	79.0	90.3	90.8	1.101
Lumber	56.3	79.4	82.0	1.220
Paint and paint materials	68.2	77.5	77.3	1.294
Plumbing and heating	66.8	70.3	74.7	1.339
Structural steel	81.7	81.7	82.4	1.214
Other building materials	79.9	85.0	85.9	1.164
Chemicals and drugs	72.9	73.1	72.7	1.376
Chemicals	79.8	79.6	78.8	1.269
Drugs and pharmaceuticals	56.6	57.6	56.8	1.761
Fertilizer materials	63.6	69.0	66.6	1.502
Mixed fertilizers	66.9	64.4	67.8	1.475
House-furnishing goods	73.7	77.6	79.3	1.261
Furnishings	74.7	78.6	80.5	1.242
Furniture	72.7	76.8	78.4	1.276
Miscellaneous	64.7	65.4	65.1	1.536
Automobile tires and tubes	42.7	43.2	43.2	2.315
Cattle feed	45.9	78.0	64.2	1.558
Paper and pulp	75.5	81.0	82.2	1.217
Rubber, crude	8.2	14.9	14.9	6.711
Other miscellaneous	83.2	77.8	78.1	1.280
Raw materials	56.2	60.6	61.7	1.621
Semimanufactured articles	60.7	71.7	72.9	1.372
Finished products	70.4	73.4	74.8	1.337
Nonagricultural commodities	68.7	72.0	73.7	1.357
All commodities other than farm products and foods	70.4	74.1	76.1	1.314

[1] Data not yet available.

PUBLICATIONS RELATING TO LABOR

Official—United States

CALIFORNIA.—Highway Patrol. *Study of salaries paid in police departments throughout the United States. Sacramento, January 10, 1933. 16 pp. (Mimeographed.)*

ILLINOIS.—Emergency Relief Commission. *First annual report, for the year ending February 5, 1933, issued jointly with a report of the Illinois Emergency Relief Commission (Federal) covering the period July 27, 1932, through February 5, 1933. Chicago, 10 South La Salle Street, 1933. 141 pp.*

MASSACHUSETTS.—Department of Industrial Accidents. *Annual report for the year ending June 30, 1932. Boston, 1933. 89 pp. (Public Document No. 105.)*

Reviewed in this issue.

—— Department of Public Welfare. *Annual report, for the year ending November 30, 1932. Boston, [1933?]. Parts I and II, 139 pp; Part III, 29 pp. (Public Document No. 17.)*

Parts I and II contain data on welfare work, including mothers' aid, old-age assistance, child care, homes for the aged, etc. Part III is devoted to city and town infirmaries and statistics of poor relief.

NEW YORK.—Commission on Pensions. *Sixth report, March 15, 1933. Albany, 1933. 84 pp., chart. Legislative Document (1933) No. 111.*

This report gives a brief history of the policies of the State in regard to the retirement of public employees, with an outline of the steps still to be taken in order to complete the program of putting all public employees in New York under sound pension systems. It contains also a digest of the pension systems operated by the State and by the city of New York, and of the retirement provisions of other cities, counties, towns, and villages throughout the State.

—— Department of Labor. *Industrial Code Bulletin No. 21: Rules as amended relating to window cleaning. New York, 80 Centre Street, [1932?]. 13 pp., diagrams.*

Reviewed in this issue.

UTAH.—Industrial Commission. *Biennial report, July 1, 1930, to June 30, 1932. [Salt Lake City, 1933?] Bulletin No. 1: Synopsis of decisions rendered by the Industrial Commission in workmen's compensation cases, and digest of supreme court rulings. 232 pp. Bulletin No. 2: Financial statements of the State Insurance Fund, the Industrial Commission of Utah, Firemen's Pension Fund, and the Employees' Combined Injury Benefit Fund. 18 pp. Bulletin No. 4: Coal and metal mines reports, including report of factory and labor inspections, building inspections, and wage collections. 167 pp. Bulletin No. 5: Utah agricultural statistics, compiled by the U.S. Department of Agriculture, Bureau of Agricultural Economics. 24 pp.*

Bulletin No. 3 of this series, the industrial accident statistics report, has not been printed.

UNITED STATES.—Congress. Senate. Committee on Agriculture and Forestry. *The United Communities. Hearing before a subcommittee (73d Cong., 1st sess.) on S. 1142, a bill for the purpose of providing industrial and agricultural communities for the absorption of unemployed citizens of the United States and for issuance of self-liquidating bonds for the establishment thereof, May 10, 1933. Washington, 1933. 47 pp.*

UNITED STATES—Department of Agriculture. *Yearbook of agriculture, 1933. Washington, 1933. 789 pp., maps, charts, illus.*

An article on the effect of depression conditions on farm-labor productivity, in this issue of the Monthly Labor Review, is based on information contained in the above yearbook.

—— Department of Commerce. Bureau of Mines. *Information Circular 6743: Safety practices and achievements at the Columbia Mine of the Columbia Steel Co. (subsidiary of the United States Steel Corporation), by D. J. Parker. Washington, 1933. 10 pp. (Mimeographed.)*

—— —— Bureau of the Census. *Distribution No. R-81: Employment and wages in the retail industry. Washington, 1933. 45 pp., map, charts. (Fifteenth Census of the United States, Census of Distribution, 1930—Retail Distribution, Special Series.)*

Reviewed in this issue.

—— Department of Labor. *Letter from the Secretary of Labor transmitting in response to Senate Resolution No. 351 (72d Cong.) a report of all functions of the Department of Labor and the annual cost thereof. Washington, 1933. 10 pp. (Senate Doc. No. 47, 73d Cong., 1st sess.)*

—— —— Bureau of Labor Statistics. *Bulletin No. 596: Laws relating to prison labor in the United States as of July 1, 1933. Washington, 1933. 146 pp.*

—— —— ——. *Bulletin No. 539: What are labor statistics for? A series of pictorial charts prepared by the Bureau of Labor Statistics for the United States Department of Labor exhibit at the Century of Progress Exposition, Chicago, 1933. Washington, 1933. 12 pp.*

—— —— Children's Bureau. *A handbook of statistical reporting in the field of medical social service. Washington, 1933. 39 pp.*

The handbook was compiled by a joint committee of the American Association of Hospital Social Workers and the Children's Bureau. The material presented includes a definition of the field of medical social service, the determination of units of count, and the construction of statistical-record forms in the field of medical social service.

Official—Foreign Countries

CHINA.—Ministry of Industries. Bureau of Statistics. *The Industrial Statistics, Vol. 1, No. 1. Nanking, February 1933. [Various paging.]*

Data on labor unions from this report are given in this issue of the Monthly Labor Review. Part of the volume is printed in English as well as Chinese.

CZECHOSLOVAKIA.—Assemblée Nationale. *Exposé sommaire des travaux législatifs, session d'automne 1932–33. Prague, 1933. 36 pp.*

Includes labor laws enacted by the Czechoslovakian Parliament during the fall session of 1932–33, including laws relating to civil service pensions, protection of inventions, creation of a committee on economic control, etc.

DENMARK.—[Socialministeriet.] *Beretning om arbejds- og fabriktilsynets virksomhed i aaret 1932. Copenhagen, 1933. 114 pp., folders, diagrams, illus. (Særtryk af Socialt Tidsskrift, July–August 1933.)*

Annual report on factory inspection in Denmark in 1932. Some table heads are in French as well as Danish.

FRANKFURT-AM-MAIN (Germany).—Statistisches Amt. *Statistische Jahresübersichten 1931–32. Frankfurt-am-Main, 1933. 64 pp.*

Contains statistical information in regard to welfare work, social insurance, unemployment and unemployment relief, housing, etc., in the city of Frankfurt-am-Main during the fiscal year 1931–32.

GREAT BRITAIN.—Home Office. Committee on Compensation for Industrial Diseases. *Report, London, 1932, 16 pp.; second report, London, 1933, 21 pp.*

These reports deal with proposed extensions of the schedule of industrial diseases to which the Workmen's Compensation Act, 1925, applies.

GREAT BRITAIN.—Mines Department. Safety in Mines Research Board. *Eleventh annual report, 1932. London, 1933. 112 pp., diagrams, illus.*

The report covers various safety research projects carried out during the year and includes an account of the studies of the health advisory committee of the Mines Department.

INDIA.—Department of Commercial Intelligence and Statistics. *Statistical abstract for British India, with statistics, where available, relating to certain Indian States, from 1921–22 to 1930–31. Delhi, 1933. 854 pp.*

Contains data on cooperative societies, wholesale and retail prices, employment, and production in cotton mills, etc.

ITALY.—Istituto Centrale di Statistica. *Annuario statistico Italiano, 1933. Rome, 1933. 507 pp., maps, charts.*

This statistical yearbook includes data on employment, wages, prices and cost of living, social insurance, etc.

NETHERLANDS.—Rijksverzekeringsbank. *Ongevallenstatistiek betreffende het kalenderjaar 1929. Deel II. Amsterdam, 1933. 224 pp., charts.*

Contains statistics of industrial accidents in the Netherlands in 1929, classified by industry, occupation, and establishment; insurance against accidents by the State Insurance Bank, by trade associations, and by employers; wages of the insured, etc.

NORWAY.—Chefinspektøratet for Fabrikktilsynet. *Årsberetninger, 1932. Oslo, [1933?]. 81 pp., diagrams.*

Annual report on factory inspection in Norway in 1932, including information on personnel of the inspection administration, industrial accidents and diseases, welfare work, working hours, woman and child labor regulations, law violations, and steamship inspection. The table of contents and some table heads are in both Norwegian and French and there is a résumé in French.

OSLO (NORWAY).—Trygdekasse. *Årsberetning, 1932. Oslo, 1933. 53 pp.*

Report of the Oslo Sickness Insurance Fund in 1932, including financial statements and information on legislation, healing and preventive measures, and personnel and organization.

SOVIET UNION (U.S.S.R.).—Council of People's Commissars. State Planning Commission. *Summary of the fulfillment of the first five-year plan for the development of the national economy of the U.S.S.R. Moscow, 1933. 296 pp.*

Data on yearly wages and on number of workers employed in the Soviet Union in 1932, taken from the above publication, are given in this issue of the Monthly Labor Review.

SWEDEN.—[Socialdepartementet.] Socialstyrelsen. *Arbetstidsförhållandena inom detaljhandeln. Stockholm, 1933. 160 pp.*

Deals with hours of labor in the retail stores in Sweden, including conditions influencing hours of labor, inherent peculiarities of certain establishments, nature of occupations, legislation regarding hours of labor, etc. Includes French table of contents and résumé.

Unofficial

AMERICAN COUNTRY LIFE ASSOCIATION. *Adult education and rural life. Proceedings of the Fifteenth American Country Life Conference, Wheeling, W.Va., October 14–16, 1932. New York, 105 E. 22d Street, 1933. 153 pp.*

Among the subjects discussed at this conference were: Statesmanship in rural adult education, rural social trends, the crisis in American education, economic education needed today, training rural recreation leaders, and extension of the cultural arts.

AMERICAN FOUNDRYMEN'S ASSOCIATION. *Good housekeeping conference. Presented at the A.F.A. annual convention, Chicago, June 21, 1933. Chicago, 222 W. Adams Street, 1933. 30 pp.*

The subjects covered in the conference included the dust problem in foundries, employers' liability in connection with occupational diseases; and keeping a clean and orderly foundry, particularly from the standpoint of the elimination of dust.

BRAYSHAW, SHIPLEY N. *Unemployment and plenty. London, George Allen and Unwin, Ltd., 1933. 146 pp.*

This review of economic conditions which result in unemployment at the same time that there is great overproduction was delivered as the annual Swarthmore lecture before the Society of Friends. The principles of the Quakers as regards luxury and peace, therefore, enter largely into the discussion.

BURNHAM, GRACE M. *Dangerous jobs. New York, International Pamphlets (No. 34), 799 Broadway, 1933. 23 pp.*

CHINA YEAR BOOK, 1933. *Edited by H. G. W. Woodhead. Shanghai, North-China Daily News & Herald, Ltd., 1933. 787 pp. (University of Chicago Press, Chicago, Ill., agents for United States.)*

Chapter XIV deals with labor in agriculture, in handicrafts, in mining, and in modern industry; labor disputes; wages, hours, and cost of living; woman and child labor; factory legislation; and the International Labor Organization.

COPPIN, GUIDO. *L'Istituto Nazionale per l'Assistenza ai Grandi Invalidi del Lavoro nel decennale della rivoluzione Fascista. Milan, Arte Grafica Ambrosiana, 1933. 356 pp., maps, diagrams, illus.*

This report on the Italian National Institute of Insurance Against Invalidity of Labor contains a short history of the organization of the institute and describes its healing and preventive measures, its rehabilitation work, etc.

DE PORTE, JOSEPH V. *Guides to vital statistics in the United States. Ann Arbor, Mich., Edwards Brothers, Inc., 1933. 38 pp.*

This is one of the reports made to the President's [Hoover] Research Committee on Social Trends. The volume attempts to present in comprehensive and at the same time condensed form the statistics of births, deaths, marriages, and divorces as published by the United States Census Bureau.

FLÜGGE, LUDWIG. *Wie ist von den Errungenschaften der Technik ein weiser Gebrauch zu machen? Berlin, 1932. 108 pp. (Selbstverlag des Verfassers.)*

Deals with the question of how to make wiser use of technical achievements, especially of labor-saving machines.

GIVENS, MEREDITH B., AND WILKE, ERNESTINE. *A guide to statistical series relating to wages in the United States. Ann Arbor, Mich., Edwards Bros., Inc., 1933. 55 pp.*

HARVARD UNIVERSITY. Graduate School of Business Administration. Bureau of Business Research. *Business Research Studies, No. 3: The behavior of consumption in business depression, by Arthur R. Tebbutt. Boston, 1933. 21 pp.*

Reviewed in this issue.

HODGSON, VIOLET H. *Public health nursing in industry. New York, Macmillan Co., 1933. xxii, 249 pp., charts.*

The purpose of this book is to show the need for public health nursing in industry, that is, the need for effective preventive services including the prevention of physical, mental, and social maladjustments among the workers, instead of the provision of strictly curative services which is now so general.

HOFFMAN, FREDERICK L. *Lead-poisoning legislation and statistics. Newark, N.J., Prudential Press, 1933. 40 pp.*

A reduction in the number of deaths from lead poisoning in the United States is shown for 1930 and 1931 as compared with the average for the years 1925–29, but the returns for 1931 were not complete so that the figures for that year are subject to correction. The report includes statistics of cases of lead poisoning in a number of foreign countries.

INTERNATIONAL UNION OF WOODWORKERS. *Report on activities for the years 1929–1932, submitted to the Eighth Ordinary International Woodworkers' Congress, Brussels, August 1933 [with financial report, January 1, 1929, to July 15, 1933]. Brussels, 1933. 42 pp. (Mimeographed.)*

LEAGUE OF VIRGINIA MUNICIPALITIES. Bureau of Public Administration. *Report No. 120: Salaries and living costs in the municipal service in Virginia. Richmond, Travelers' Building, 1933. 21 pp. (Mimeographed.)*

MINNESOTA, UNIVERSITY OF. *Land settlement as a relief measure, by R. W. Murchie. Minneapolis, 1933. 32 pp.*

—— Employment Stabilization Research Institute. *Impact of the depression on business activity and real income in Minnesota. Minneapolis, 1933. 59 pp., charts.*

Reviewed in this issue.

NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES. *Proceedings of the seventieth annual meeting, held at Atlantic City, N.J., June 25–July 1, 1932. Washington, D.C., 1201 Sixteenth Street NW. [1933?] 992 pp.*

Includes various contributions on vocational and adult education, a report of the committee on social-economic objectives, and a section on social studies.

PROSPECT UNION EDUCATIONAL EXCHANGE. *Educational opportunities of Greater Boston: A selective list of day and evening classes and home-study courses for adults, 1933–1934. Cambridge, Mass., 678 Massachusetts Ave., 1933. 157 pp.*

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 120: Family budgets and costs and standards of living—a selected list of recent material. New York, 130 East 22d Street, August 1933. 4 pp.*

SECRÉTARIAT DES PAYSANS SUISSES. *Publication No. 106: Trente-cinquième rapport annuel du comité directeur de l'union suisse des paysans et du secrétariat des paysans suisses, 1932. Brugg, 1933. 185 pp.*

—— *Recherches relatives à la rentabilité de l'agriculture pendant l'exercice 1931–32, 1re partie. Rapport au Département fédéral de l'Économie publique. Berne, 1933. (Tirage à part de l'Annuaire agricole de la Suisse, 1933, pp. 343–391, map, charts.)*

Regular yearly report on the cost of production (including the labor cost) of farm products.

TAYLOR, MORRIS P. *Common sense about machines and unemployment. Philadelphia, John C. Winston Co., 1933. 173 pp.*

VALENSTEIN, LAWRENCE, and WEISS, E. B. *Business under the Recovery Act. New York and London, McGraw-Hill Book Co., Inc., 1933. 314 pp.*

The authors discuss the various phases of the recovery legislation and the effects that the realignment of hours of labor, hours of machine operation, wage rates, production and price control, and the establishing of fair-trade practices must have on merchandising, selling, and advertising programs.