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Monthly Labor Review

Hugh S. Hanna, Editor



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This Issue in Brief

Company unions existed in 593, or 4 percent, of the 14,725 establishments which reported to the Bureau of Labor Statistics in a survey conducted in April 1935. In 97 of these establishments regular trade unions were also functioning. Of a total of 1,935,556 workers employed in the 14,725 establishments covered, 385,954 workers, or approximately 20 percent, were employed in establishments which had company unions only, and 144,434, or 7.5 percent, in establishments dealing with both company unions and trade unions. Almost 15 percent of the company unions covered in the study were established during the war period, and 64 percent were established during the period of the N. R. A. Page 865.

Average annual earnings of police-department employees ranged from \$1,293 to \$3,107 in 1934, according to a survey recently completed by the Bureau of Labor Statistics. The annual salary of patrolmen—the occupational group which comprised approximately three-fourths of the employees covered—averaged \$2,175. The average number of hours on duty per day for police-department employees during the year was between 8 and 9 in most of the important cities. Page 857.

Weekly earnings of employees in the drilling and production branch of the petroleum industry averaged \$28.22 in August 1934, and the wage rates then existing in the industry represented, in general, substantial increases over those in force prior to code adoption. Average full-time hours of labor, on the other hand, decreased during this period. Page 877.

Wage earners in 35 manufacturing industries worked an average of 165.1 hours per month during 1933. The average ranged from 140.9 in the machine-tools industry to 220.8 in the beet-sugar refining industry. Data for individual industries, for earnings as well as hours of labor, are given in a study based upon unpublished data of the 1933 census. Page 904.

High silicosis and tuberculosis rates were found among a group of anthracite miners examined in different sections of the anthracite field in Pennsylvania in a study of anthraco-silicosis made by the United States Public Health Service. Physical examinations of 2,711 active workers showed that 616, or 22.7 percent, had anthraco-silicosis, 106 being in the more advanced stages of the disease. Tuberculosis as a complication was found in 124 cases. The disease developed most

rapidly in workers exposed to high concentrations of the dust, about 13 percent of the rock workers having stage 1 anthraco-silicosis when the working period was less than 15 years, while 9 out of 10 of these workers who had been employed more than 25 years had the disease. Page 979.

Allotments for 22 Federal and 7 limited-dividend housing projects were reported as having been made by the Housing Division of the Federal Emergency Administration of Public Works as of August 1, 1935, in connection with the program for low-rent housing. Construction had been started on 5 of the Federal housing projects, and 5 of the limited-dividend projects were either partly or wholly finished when the report was made. Page 968.

Tests of lighting conditions in Connecticut clothing factories, made by the Women's Bureau of the Department of Labor, showed that facilities for both daylight and artificial light are inadequate in most cases to meet the minimum requirements of the American Standards Association lighting code, particularly as applied to sewing on dark materials. Page 972.

National income increased by 11 percent, or 5 billion dollars, between 1933 and 1934, according to estimates made by the Division of Economic Research of the United States Bureau of Foreign and Domestic Commerce. The total income in 1934 was 49.4 billion dollars as compared with 44.4 billion in 1933 and 48 billion in 1932. In 1934 all types of income payments increased except interest, and all of 12 industry groups studied reflected the gain with the exception of the electric light and power and gas group. The index of labor income in 1934, including wages and salaries, was 64.8 based on the total for 1929, as compared with 57 in 1933 and 60 in 1932. Page 947.

Shortly after the passage of the Ontario Industrial Standards Act, making collective agreements enforceable as law, the building trades of the Toronto area secured legalized schedules establishing hourly wage rates of 50 and 60 cents for unskilled labor and 75 cents to \$1 for journeymen. A 5-day, 40-hour week, 8 legal holidays in addition to Saturdays and Sundays, and definite provisions for increased rates for overtime work were also established for skilled workers. Page 1008.

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Salaries and Working Conditions in Police Departments, 1934¹

AN OUTSTANDING feature of the post-war era is the increase in jobs in the service industries, professions, and public work. In the field of public service, a most spectacular gain has been registered in the personnel for law enforcement. The number of policemen (excluding detectives, marshals and constables, probation and truant officers, and sheriffs) in the United States increased from 82,120 in 1920 to 131,687 in 1930.² Thus, while the population of the country increased only about 16 percent, the number of police officers increased more than 60 percent. No doubt since 1930, due to mounting State and municipal deficits, the police force of the country has been reduced to some extent, but there is little evidence of drastic retrenchment. This is especially true of the larger cities. In fact, in New York City the number of police-department employees in 1934 was actually greater than in 1929.

Because of the growing importance of law administration as a gainful occupation, the Bureau of Labor Statistics in recent years has made occasional surveys of the salaries of police-department employees in the principal cities. The present article summarizes the results of the fifth general survey and covers conditions prevailing in 1934.³

The survey for 1934 was much more comprehensive than the preceding studies of this series, all cities with a population of 25,000 or over being canvassed. Reports were received from 377 cities and the number of employees covered totaled 88,985. Moreover, in addition to the details concerning salaries, information was also collected regarding supplementary payments, hours on duty, and hazards of the service. Only a summary of the outstanding results of the survey is contained in the present article, but detailed information by cities can be obtained by addressing the Bureau of Labor Statistics.

¹ Prepared under the direction of J. Perlman, Chief of the Division of Wages, Hours, and Working Conditions, by G. H. Loudenslager and H. O. Rogers, of the Bureau of Labor Statistics.

² U. S. Bureau of the Census, Fifteenth Census of the United States: 1930, Occupation Statistics, United States Summary, p. 16.

³ For results of previous studies see Monthly Labor Review, October 1919 (p. 147), October 1924 (pp. 68-77), January 1930 (pp. 118-138), and May 1933 (pp. 1116-1150).

Annual Salaries

NOT MANY years ago the salaries of police officers in almost all cities in the country were generally regarded as inadequate, considering the nature of the work and the type of personnel required. In recent years, however, due to the urgent need for a higher type of personnel, salaries have been raised appreciably. Today the salaries of patrolmen average considerably above \$2,000 annually in nearly all the important cities of the country. On the other hand, in the smaller cities with a population of between 25,000 and 50,000 the average salary of patrolmen in 1934 was \$1,702 and in one case a salary of only \$600 was reported.

Superintendents and chiefs of police, of course, receive the highest salaries. For all cities covered the annual earnings of superintendents or chiefs in 1934 averaged \$3,107. Other police-department employees with high annual incomes were inspectors. For this group the average was \$3,027. Salaries of assistant or deputy chiefs averaged \$2,991, captains of police averaged \$2,806, and the average salaries of lieutenants of police was \$2,729.

The lowest average earnings of police-department employees in 1934 were those of matrons, \$1,293. In addition to matrons, other employees with low earnings were telephone operators, the clerical workers (stenographers, typists, and bookkeepers), identification clerks, and secretaries. The average salaries for employees in these occupations ranged from \$1,505 to \$1,902 in 1934. The salaries of the 66,545 patrolmen included in the survey averaged \$2,175 during the year. The average annual salary of sergeants was \$2,393.

As in other occupations, the salaries of police-department employees depend in large measure upon the size and location of the city in which they are employed. The relationship between earnings and size of city is illustrated by table 1 which classifies the salaries of police-department employees by size of cities. From this table it will be seen that for virtually all ranks (or occupations) annual earnings decrease with the size of the cities. In cities with a population of 1,000,000 or over, 14 occupational groups received less than \$3,000 and only 4 groups received less than \$2,000; in cities of 500,000 and under 1,000,000, 20 occupational groups received less than \$3,000 and 7 groups less than \$2,000. This contraction of average annual incomes of each class continued with the decrease in size of city, until in cities with a population of from 25,000 to 50,000 none of the occupational groups had an annual wage in excess of \$3,000 and 20 groups received less than \$2,000.

The highest annual income in all cities was received by the chief or superintendent of police. The average salaries of employees of this rank ranged from a high of \$7,563 in cities with a population of 1,000,000 or over to a low of \$2,521 in cities of from 25,000 to 50,000.

The lowest annual wage in all sizes of cities, with the exception of those of 1,000,000 or over, was reported for matrons. The annual salaries for employees in this group ranged from \$1,721 in cities of 1,000,000 or over to somewhat less than \$1,000 in cities of 25,000 and less than 50,000.

The occupational groups which were consistently in the higher income brackets were chiefs of police, inspectors, captains of police, assistant or deputy chiefs, lieutenants of police, and chiefs of detectives. Those falling within the low-earnings brackets include matrons, telephone operators, clerical help, identification clerks, and policewomen. It is interesting to note that secretaries who received incomes of \$3,380 in cities of 500,000 and under 1,000,000, averaged only \$1,602 in cities of 50,000 and under 100,000.

Although for all cities the salaries of patrolmen averaged \$2,175 in 1934, the average in cities of 1,000,000 or more amounted to \$2,509. The average for patrolmen declined as the size of the cities decreased and in cities of 25,000 and under 50,000 the average was only \$1,702.

In only one group of cities did the salaries of policewomen approximate those of patrolmen. Their average annual wages in all cities was \$2,113, and in cities of over 1,000,000 they received \$2,481. In all other classifications but one the annual wage for policewomen was under \$2,000. The lowest average for this group was \$1,418 in cities of 25,000 and under 50,000.

Table 1.—Average Annual Salaries of Police-Department Employees in 1934, by Size of Cities

Rank or occupation	All cities		Cities of 1,000,000 or more		Cities of 500,000 and under 1,000,000	
	Number of employees	Average annual salary	Number of employees	Average annual salary	Number of employees	Average annual salary
Chiefs or superintendents of police.....	377	\$3, 107	5	\$7, 563	8	\$5, 788
Assistant or deputy chiefs.....	133	2, 991	15	5, 707	6	4, 255
Chiefs of detectives.....	98	2, 558	5	5, 273	5	3, 877
Inspectors.....	342	3, 027	83	4, 370	93	2, 718
Captains of detectives.....	114	2, 591	15	3, 611	3	2, 931
Captains of police.....	967	2, 806	226	3, 849	112	3, 132
Lieutenants of detectives.....	472	2, 603	187	2, 973	48	2, 664
Lieutenants of police.....	2, 122	2, 729	712	3, 441	432	2, 433
Sergeants of detectives.....	792	2, 192	90	2, 688	165	2, 391
Sergeants of police.....	5, 057	2, 393	1, 945	2, 851	798	2, 337
Detectives.....	3, 734	2, 256	1, 065	3, 005	361	2, 152
Patrolmen.....	66, 545	2, 175	30, 158	2, 509	9, 255	2, 045
Policewomen.....	484	2, 113	244	2, 481	56	1, 829
Matrons.....	381	1, 293	42	1, 721	86	1, 333
Identification chiefs.....	88	2, 136	1	3, 859	4	2, 754
Identification clerks.....	125	1, 637	2	2, 700	6	1, 938
Fingerprint operators.....	115	1, 832	7	1, 946	5	2, 525
Superintendents of telephone or radio.....	75	2, 041	3	4, 680	4	2, 535
Electricians or linemen.....	237	2, 249	71	2, 872	59	1, 962
Telephone operators.....	503	1, 505	93	1, 608	137	1, 431
Machinists or mechanics.....	393	1, 968	112	2, 331	80	1, 882
Secretaries.....	155	1, 902	11	3, 286	7	3, 380
Assistant secretaries.....	14	2, 284	2	2, 400	10	2, 265
Chief clerks.....	79	1, 991	3	2, 803	5	2, 876
Clerical (stenographers, typists, bookkeepers, etc.).....	1, 226	1, 673	482	1, 840	228	1, 687

Table 1.—Average Annual Salaries of Police-Department Employees in 1934, by Size of Cities—Continued

Rank or occupation	Cities of 250,000 and under 500,000		Cities of 100,000 and under 250,000		Cities of 50,000 and under 100,000		Cities of 25,000 and under 50,000	
	Number of employees	Average annual salary	Number of employees	Average annual salary	Number of employees	Average annual salary	Number of employees	Average annual salary
Chiefs or superintendents of police.....	23	\$4, 598	57	\$3, 653	102	\$3, 082	182	\$2, 521
Assistant or deputy chiefs.....	18	3, 693	23	3, 019	27	2, 409	44	1, 949
Chiefs of detectives.....	12	3, 300	23	2, 586	28	2, 099	25	1, 884
Inspectors.....	59	3, 144	28	2, 448	50	2, 168	29	1, 973
Captains of detectives.....	26	2, 630	29	2, 449	22	2, 243	19	2, 220
Captains of police.....	136	2, 835	198	2, 440	143	2, 264	152	1, 973
Lieutenants of detectives.....	88	2, 387	71	2, 181	37	2, 345	41	2, 268
Lieutenants of police.....	321	2, 633	232	2, 318	243	2, 174	182	2, 081
Sergeants of detectives.....	159	2, 067	210	2, 040	98	2, 109	70	1, 945
Sergeants of police.....	643	2, 195	663	2, 049	490	2, 010	518	1, 806
Detectives.....	846	2, 146	619	1, 872	525	1, 792	318	1, 676
Patrolmen.....	8, 899	1, 989	7, 766	1, 829	5, 818	1, 775	4, 649	1, 702
Policewomen.....	63	2, 011	58	1, 604	35	1, 583	28	1, 418
Matrons.....	74	1, 422	90	1, 191	51	1, 106	38	973
Identification chiefs.....	15	2, 588	29	2, 003	24	2, 042	15	1, 814
Identification clerks.....	61	1, 576	30	1, 619	19	1, 661	7	1, 617
Fingerprint operators.....	15	1, 867	19	2, 098	38	1, 803	31	1, 552
Superintendents of telephone or radio.....	13	2, 307	23	1, 927	22	1, 764	10	1, 581
Electricians or linemen.....	40	2, 193	28	2, 005	28	1, 789	11	1, 757
Telephone operators.....	94	1, 649	73	1, 333	69	1, 541	37	1, 480
Machinists or mechanics.....	68	1, 785	60	1, 735	45	2, 056	28	1, 561
Secretaries.....	18	2, 391	30	1, 825	54	1, 602	35	1, 449
Assistant secretaries.....	2	2, 263	0	—	0	—	0	—
Chief clerks.....	10	2, 605	18	2, 095	20	1, 684	23	1, 613
Clerical (stenographers, typists, bookkeepers, etc.).....	277	1, 598	114	1, 430	81	1, 522	44	1, 162

¹ For all men in this group except a very few for whom data were not reported.

The study indicates that although the average annual salary received by patrolmen in all cities was \$2,175, this average was exceeded in 4 of the 5 cities with a population of 1,000,000 or over. The highest average earnings received in cities of this size was \$2,733 in New York. Patrolmen in Detroit averaged \$2,504; in Los Angeles, \$2,389; and in Philadelphia, \$2,190. The lowest salaries in cities of this class were paid in Chicago where patrolmen averaged \$2,119 in 1934.

The highest salary paid to the head of a police department in 1934 in cities of 1,000,000 or over was \$8,575, received by the chief of police in Chicago. Ranking next with respect to earnings in the cities of 1,000,000 or over was the inspector of police in New York City with an annual salary of \$8,240. The highest yearly income in cities of 500,000 and under 1,000,000 was received by the chief of police in Boston (\$7,000) and the lowest in cities of this size was reported by Baltimore (\$4,625). It is interesting to note that Jersey City, with a population of 319,900, was paying its chief of police \$9,000 annually, the highest salary recorded for all cities covered.

In contrast with the established practice in many European cities, supplementary allowances for police officers are not common in this country. Supplements to salaries were reported, however, by a few of the cities covered. In cities which did provide supplementary

allowances, the type and kind differed greatly. In Philadelphia, for example, the police officers are allowed \$50 a year for uniforms. Aside from Philadelphia, only seven of the cities canvassed granted supplementary cash allowances. In some places the city contributed toward the cost of uniform and equipment. A few cities gave the members nearly a complete complement of equipment and others supplied part of the equipment. The additional items furnished varied greatly and included such equipment as pistols, badges, whistles, night sticks, belts, stripes, hats, street guides, ammunition, gold braid, handcuffs, puttees, uniforms, and overcoats. A few cities provided meals and sleeping quarters for certain classes of employees.

Working Time

CONFORMING with the general post-war movement in industry and commerce towards a shorter working day, the personnel of police departments have been successful in having the number of hours on duty considerably shortened. The current survey indicates that for all cities canvassed the average number of hours on duty per day was between 8 and 9. The average for superintendents or chiefs of police, however, was 9.4 hours per day. On the other hand, assistant secretaries and clerical workers averaged 7.9 hours a day. The average working day for patrolmen was 8.1 hours.

In cities of 1,000,000 population or over, the average working day for all occupational groups except two was exactly 8 hours. The two exceptions were chief clerks who averaged 7.3 hours and clerical workers with an average of 7.9 hours. For the most part, hours on duty per day tended to increase as the size of city declined. In cities with a population of from 25,000 to 50,000, for example, the working time for employees in virtually all occupational groups was substantially higher than in the larger cities (table 2). With two exceptions—captains of detectives and matrons in cities of 50,000 and under 100,000 population—the number of hours on duty per day averaged less than 10. Patrolmen in cities except those of 25,000 and under 100,000 worked an average of 8.2 hours or less per day. In a few of the smaller cities, police chiefs reported 24 hours of duty per day. This meant, of course, that they were always subject to call, not that the actual working time was 24 hours a day.

For all cities the highest average number of hours and days worked per week was reported for the police chiefs (or superintendents). Employees in this group averaged 6.6 days and 61.9 hours per week. Assistant secretaries and clerical workers, in showing an average of 6, worked the least number of days per week; assistant secretaries also had the low of 47.7 for average weekly hours.

As the size of city declined, a marked increase was shown in the working time. As against an average of 6.1 days and 49.1 hours weekly for patrolmen in cities of 1,000,000 or over, in cities of 25,000 and under 50,000 the working time averaged 6.5 days (55.5 hours) per week. Chiefs or superintendents of police in cities of 1,000,000 or over averaged 48 hours weekly; in cities of 25,000 and under 50,000 they marked 65.8 hours per week.

In cities of 1,000,000 or over the general practice was a 6-day week of 48 working hours. The only occupations which had more hours or a longer week were sergeants of police, detectives, patrolmen, matrons, fingerprint operators, and telephone operators. Those having fewer hours included the clerical workers, machinists, and mechanics. In only one instance was the average number of days per week worked greater than 6.3 and no occupation had more than 54.9 hours per week.

Table 2.—Average Number of Hours on Duty Per Day of Police-Department Employees in 1934, by Size of Cities

Rank or occupation	All cities		Cities of 1,000,000 or more		Cities of 500,000 and under 1,000,000	
	Number of employees	Average hours on duty per day	Number of employees	Average hours on duty per day	Number of employees	Average hours on duty per day
Chiefs or superintendents of police.....	377	19.4	5	18.0	8	18.0
Assistants or deputy chiefs.....	133	18.6	15	18.0	6	8.0
Chiefs of detectives.....	98	18.7	5	18.0	5	18.0
Inspectors.....	342	18.2	83	18.0	93	18.0
Captains of detectives.....	114	18.8	15	18.0	3	8.0
Captains of police.....	967	18.4	226	18.0	112	18.0
Lieutenants of detectives.....	472	18.3	187	18.0	48	9.0
Lieutenants of police.....	2,122	18.1	712	8.0	432	8.0
Sergeants of detectives.....	792	18.2	90	8.0	165	8.3
Sergeants of police.....	5,057	18.1	1,945	8.0	798	8.0
Detectives.....	3,734	18.4	1,065	18.0	361	8.5
Patrolmen.....	66,545	18.1	30,158	8.0	9,255	8.0
Policewomen.....	484	18.0	244	8.0	56	8.0
Matrons.....	381	18.6	42	18.0	86	8.8
Identification chiefs.....	88	18.4	1	8.0	4	8.0
Identification clerks.....	125	8.0	2	8.0	6	8.0
Fingerprint operators.....	115	18.5	7	8.0	5	8.0
Superintendents of telephone or radio.....	75	18.6	3	8.0	4	8.0
Electricians or linemen.....	237	18.0	71	8.0	59	8.0
Telephone operators.....	503	8.0	93	8.0	137	8.0
Machinists or mechanics.....	393	8.1	112	8.0	80	8.0
Secretaries.....	155	18.1	11	8.0	7	8.0
Assistant secretaries.....	14	7.9	2	8.0	10	8.0
Chief clerks.....	79	8.1	3	7.3	5	8.0
Clerical (stenographers, typists, bookkeepers, etc.).....	1,226	17.9	482	7.9	228	8.0

¹ For all men in this group except a very few for whom data were not reported.

Table 2.—Average Number of Hours on Duty Per Day of Police-Department Employees in 1934, by Size of Cities—Continued

Rank or occupation	Cities of 250,000 and under 500,000		Cities of 100,000 and under 250,000		Cities of 50,000 and under 100,000		Cities of 25,000 and under 50,000	
	Number of employees	Average hours on duty per day	Number of employees	Average hours on duty per day	Number of employees	Average hours on duty per day	Number of employees	Average hours on duty per day
Chiefs or superintendents of police.....	23	18.4	57	18.4	102	19.5	182	19.9
Assistants or deputy chiefs.....	18	18.1	23	18.0	27	18.4	44	19.5
Chiefs of detectives.....	12	8.2	23	18.3	28	18.5	25	19.8
Inspectors.....	59	18.1	28	8.0	50	8.6	29	8.7
Captains of detectives.....	26	8.2	29	8.6	22	10.2	19	9.0
Captains of police.....	136	18.2	198	8.2	143	8.6	152	9.1
Lieutenants of detectives.....	88	8.5	71	8.1	37	18.4	41	19.1
Lieutenants of police.....	321	18.2	232	8.1	243	8.4	182	18.3
Sergeants of detectives.....	159	8.1	210	8.1	98	18.6	70	18.8
Sergeants of police.....	643	18.2	663	8.1	490	8.2	518	18.6
Detectives.....	846	18.2	619	18.6	525	18.7	318	19.0
Patrolmen.....	8,899	18.1	7,766	8.0	5,818	18.2	4,649	8.6
Policewomen.....	63	8.0	58	7.9	35	18.0	28	18.0
Matrons.....	74	8.1	90	18.2	51	10.7	38	17.7
Identification chiefs.....	15	18.4	29	8.0	24	8.6	15	8.9
Identification clerks.....	61	8.0	30	8.1	19	7.9	7	8.0
Fingerprint operators.....	15	18.4	19	8.0	38	8.5	31	18.9
Superintendents of telephone or radio.....	13	18.4	23	8.0	22	9.3	10	19.4
Electricians or linemen.....	40	18.0	28	8.0	28	8.2	11	8.5
Telephone operators.....	94	8.0	73	7.7	69	8.0	37	8.1
Machinists or mechanics.....	68	8.1	60	8.1	45	8.3	28	8.7
Secretaries.....	18	8.0	30	18.0	54	8.2	35	8.2
Assistant secretaries.....	2	7.3	0	-----	0	-----	0	-----
Chief clerks.....	10	8.2	18	7.8	20	8.2	23	8.2
Clerical (stenographers, typists, book-keepers, etc.).....	277	8.0	114	7.9	81	8.0	44	18.0

¹ For all men in this group except a very few for whom data were not reported.

Vacations With Pay

NEARLY all cities reported a policy of granting annual vacations with pay. For all cities the longest average annual leave was 16.7 days, given to lieutenants of police; and the shortest 10.6 days, given to patrolmen. The annual vacations of superintendents or chiefs of police in cities of 1,000,000 or over ranged from 30 days in New York to 14 days in Philadelphia; of the cities of 500,000 and under 1,000,000, Baltimore allowed 30 days and Buffalo gave 12 days. In cities of more than 1,000,000 the vacations of patrolmen ranged from 14 days in Philadelphia to 20 days in Detroit.

Hazards of the Service

DURING the year ended June 30, 1934, a total of 5,661 police-department employees were injured in the 370 cities which supplied information on this point. (See table 3.) This means that for each 100 police-department employees on the pay rolls of the reporting cities during the year, 7 were injured.

Of the 5,661 disabling injuries reported for the year, 95 were fatal. Nearly a third of the fatal accidents were accounted for by the 5 cities (Los Angeles, Chicago, Detroit, New York, and Philadelphia) with a population of 1,000,000 or over.

Table 3.—Number of Police-Department Employees in 370 Cities With Population of 25,000 or Over Injured During Year Ended June 30, 1934¹

Size of city	Total number of employees	Number of employees injured		
		Total	Fatal	Nonfatal
All cities.....	87, 965	5, 661	95	5, 566
Cities of 1,000,000 or more.....	36, 831	2, 485	29	2, 456
Cities of 500,000 and under 1,000,000.....	12, 927	1, 038	8	1, 030
Cities of 250,000 and under 500,000.....	12, 209	793	21	772
Cities of 100,000 and under 250,000.....	10, 828	598	12	586
Cities of 50,000 and under 100,000.....	8, 288	406	18	388
Cities of 25,000 and under 50,000.....	6, 882	341	7	334

¹ Including 1 city which reported for year ending Dec. 1, 1933, and 1 for year ending Mar. 31, 1934.

The greatest number of fatalities in proportion to the number of employees—1 out of approximately 472—was reported by the group of cities with a population of 50,000 and under 100,000. Cities with a population of 500,000 and under 1,000,000 had the lowest ratio of fatalities to number employed, 1 out of approximately 1,616. The ratio of total injured to number of employees indicated that cities of 500,000 and under 1,000,000 had the highest proportion, 1 to 12; the lowest proportion of 1 to 21 was reported by the cities with a population of 50,000 and under 100,000. The ratio of fatalities for all cities was 1 to 927 and the ratio of total injured was 1 to 15.

Chicago, with 14 fatal injuries, accounted for the largest number of fatalities. The other fatalities reported by cities with a population of over 1,000,000 were accounted for by New York (9), Philadelphia (4), and Los Angeles (2). Detroit had no fatalities and only a comparatively small number (86) injured.

Although employees in most of the smaller cities escaped with few fatalities, in many cities a relatively large number were injured. Among the smaller cities, Grand Rapids, Omaha, Chattanooga, Poughkeepsie, Dayton, Charlotte, N. C., and Quincy, Mass., reported relatively large numbers of disabling injuries. In New York City, aside from the 9 police-department employees killed during the year, 1,082 nonfatal accidents occurred.

Extent and Characteristics of Company Unions: Preliminary Report ^a

COMPANY unions existed in 593 or 4 percent of the 14,725 establishments which reported to the Bureau of Labor Statistics in a survey conducted in April 1935. In 97 of these establishments regular trade unions were also functioning. Of a total of 1,935,556 workers employed in the 14,725 establishments covered, 385,954 workers or approximately 20 percent were employed in establishments which had company unions only, and 144,434 or 7.5 percent in establishments dealing with both company unions and trade unions. Hereafter in this article, unless specifically noted, the data relate to all the 593 establishments having company unions, irrespective of other types of dealing which they may have.

The term "company union" is used generically in this study to describe that type of organization called variously "employee representation plan", "industrial association", "industrial democracy", "company union", etc. The Bureau adopted the term "company union", since this seemed to be the one most commonly used in public discussion and in Government legislation.¹

Membership in company unions does not always indicate formal application by choice of the individual members. In 35 percent of the establishments covered, employment automatically included membership in the association. The company-union membership included 93.6 percent of all the workers in establishments having only this type of employee representation and 81.1 percent of the employees in establishments dealing with both company unions and trade unions. For many employees in the latter type of establishment there is a dual membership in the company union and some trade union.

Almost 15 percent of the company unions covered in the study were established during the war period; and 64 percent were established during the period of the N. R. A. Reports of trade-union membership show that these two periods were also times of rapid growth in union membership.

Thirty percent of the establishments with company unions, employing 50 percent of the workers in the 593 plants, reported that they had discussed general wage changes, types of wage payment,

^a Prepared by Division of Industrial Relations, Florence Peterson, chief.

¹ The term "company union" is used in the Bankruptcy Acts of 1933 and 1934; National Industrial Recovery Act of 1933, and Bituminous Coal Conservation Act of 1935. It also appears in the index of Decisions of the National Labor Relations Board, vol. II, pp. 530-531.

and hours of employment with representatives of the company unions in the period since January 1, 1933. About 13 percent of the establishments, employing 12 percent of the workers, reported that they had not discussed any of these major matters.

Ten company unions were reported as possessing simultaneously the attributes of dues, regular membership meetings, written agreements, contacts with other workers' organizations, and the right to demand arbitration of differences whereby the management relinquishes its absolute veto power.² The total number of workers in these establishments was 6,515, or 1.2 percent of all workers in the establishments with company unions. On the other hand, 76 of the company unions, or 12.8 percent of the total, exhibited none of these features; the plants in which they were found employed 17.6 percent of the total number of workers in establishments with company unions.

Method and Scope of Study

THIS study was pursued along two lines:

Questionnaires were mailed to approximately 43,000 establishments reporting monthly employment statistics to the Bureau, and 14,725 usable replies were received. These replies present a quantitative picture of the extent of the various methods of employer-employee dealings, as well as of certain major characteristics of that form of group dealing referred to as company unionism. Data based on this part of the study were supplied by employers,³ and were necessarily limited to matters which could be readily tabulated with a minimum of interpretation. In general the sample is adequate for manufacturing, mining, and public-utility industries. In addition a portion of the service and trade groups are covered. The building industry, because of its peculiar nature, was not covered. Railroads and telephone and telegraphs will be treated separately in the final report. An inadequate number of replies for tabulation was received for car building, canning, turpentine and rosin, and crude petroleum production.

In addition, members of the Bureau's staff visited 126 firms, interviewing employers, personnel directors, officers and members of the company unions, trade-union members, and local citizens who were interested in and had some knowledge of the situation. No company union was studied by field investigators without first obtaining the company's permission to make the study. Copies of minutes of meetings, constitutions, agreements, and other pertinent literature were obtained. Information obtained in the field study will be treated in detail in a bulletin to be issued shortly.

² This is a preliminary figure. Further correspondence is necessary in several cases since different establishments apparently dealing through the same organization gave contradictory replies, particularly regarding arbitration and written agreements.

³ Except that in 121 cases in which establishments were included in both questionnaire and field studies, a check on the replies was possible.

Age of Company Unions

BY FAR the largest number of company unions are relatively young. Most of them were organized during the N. R. A. period of 1933 to 1935 (table 1). During these years 377 company unions, or 63.5 percent of the total number studied, were established. These included 306,134 or 57.7 percent of the total workers employed in the establishments covered that had company unions.

Only 3 of the 593 company unions were reported to have been established prior to 1900. The period from 1900 to 1914 showed but a slight increase in the formation of company unions. During this period 8 unions or 1.3 percent of the total, in establishments employing 6,033 or 1.1 percent of the workers, were started. The succeeding period, 1915-19, during which the World War occurred, accounted for the formation of 87 or 14.7 percent of the company unions covered, in establishments employing 129,866 or 24.5 percent of the workers.

The next three periods shown in table 1 witnessed a material decline in the formation of company unions. Between 1920 and 1922, 31 company unions or 5.2 percent of the total number, with 5.6 percent of the workers, were formed; during the 1923 to 1929 period 35 or 5.9 percent were formed, with 33,484 or 6.3 percent of the workers; during the first depression years, 1930 through 1932, only 29 or 4.9 percent of the total were formed, with 10,453 or 2.0 percent of the workers employed in the plants surveyed.

Table 1.—Distribution of Company Unions by Period of Formation

Period	Company unions only				Company unions and trade unions				Total with company unions			
	Establishments		Workers		Establishments		Workers		Establishments		Workers	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Before 1900.....	3	0.6	1,295	0.3					3	0.5	1,295	0.2
1900-14.....	7	1.4	5,260	1.4	1	1.0	773	0.5	8	1.3	6,033	1.1
1915-19.....	68	13.7	103,948	26.9	19	19.6	25,918	17.9	87	14.7	129,866	24.5
1920-22.....	26	5.2	24,571	6.4	5	5.2	5,306	3.7	31	5.2	29,877	5.6
1923-29.....	29	5.9	17,785	4.6	6	6.2	15,699	10.9	35	5.9	33,484	6.3
1930-32.....	26	5.2	9,431	2.5	3	3.1	1,022	.7	29	4.9	10,453	2.0
1933-35.....	318	64.0	211,244	54.7	59	60.8	94,890	65.7	377	63.5	306,134	57.7
Indefinite information.....	2	1.6	6,499	1.7	3	1.0	650	.4	4	1.5	7,149	1.4
No information.....	12	2.4	5,921	1.5	3	3.1	176	.2	15	2.5	6,097	1.2
Total.....	5497	100.0	385,954	100.0	97	100.0	144,434	100.0	594	100.0	530,388	100.0

¹ These 3 differ from the later forms of company unions: 2 are in plants of shoe manufacturers dealing through the Joint Board of Arbitration in Philadelphia, an employer-employee body which, following a lockout in Philadelphia in 1887, succeeded a similar arrangement with the Knights of Labor. The third is an incorporated union whose membership is limited to the workers of a particular county.

² 2 reported "several years ago"; 1, "2 or 3 years ago"; 1, "years ago"; 1, "prior to N. R. A."; 1, "before 1929"; 1 indicated that it had been reorganized in May 1934 but did not report the date of the original organization; 1 was a lumber company which reported dealing through the Loyal Legion of Loggers and Lumbermen, but did not indicate when this method of procedure was initiated.

³ This establishment reported dealing through the Loyal Legion of Loggers and Lumbermen, but did not indicate when this method of procedure was initiated.

⁴ See footnotes 2 and 3.

⁵ 1 public utility company reported having 8 company unions which had been organized at various times between 1924 and 1932; this establishment appears in both the 1923-29 and 1930-32 classifications. The number of workers is divided between the two classifications.

Membership in Company Unions

COMPANY unions are generally open to all the workers in the shop or factory, and in many cases they include office workers as well.⁴ In 13 cases, however, the company union was either limited to a single section or department of the plant or certain sections or departments were definitely excluded.⁵

Taking the company-union group as a whole, 53.6 percent of the establishments covered, with 54.1 percent of the workers, had plans in which membership was optional; and 35.3 percent of the establishments, employing 39.3 percent of the workers, had plans in which membership was automatic, either immediately upon employment or after having worked in the establishment for a certain length of time (table 2). For the remainder no information was available.

Table 2.—Membership Provisions of Company Unions, in All Establishments with Company Unions

Type of union	Establishments with company unions				Workers involved							
	Total	Number providing for—		Mem-ber-ship provision not re-ported	Total		In company unions providing for—				Member-ship provision not reported	
		Auto-matic mem-ber-ship	Op-tional mem-ber-ship		Num-ber	Per-cent	Automatic membership		Optional membership			
							Num-ber	Per-cent	Num-ber	Per-cent			Num-ber	Per-cent
	Establishments with— Company unions only	496	196	243	57	385,954	100.0	185,211	48.0	171,404	44.4	29,339	7.6
Company unions and trade unions.....	97	13	75	9	144,434	100.0	23,128	16.0	115,537	80.0	5,769	4.0
Total.....	593	209	318	66	530,388	100.0	208,339	39.3	286,941	54.1	35,108	6.6

Of the 496 establishments with company unions only, 196 or 39.5 percent reported that employees became members of the plan automatically. These establishments included 48.0 percent of the workers. A considerably larger number of plants reported functioning under optional membership, but the number of workers covered by this group of establishments was less than the total under automatic membership.⁶ This would suggest that the larger plants in this group tend somewhat toward automatic rather than optional membership.

⁴ One company union which was limited to office workers only is excluded from consideration here, since this study does not include office workers.

⁵ "Molders only"; "polishers and buffers only"; "foundry"; "one department only" (3 cases); "outside sales force"; "all save sales and office"; "bus operators"; "managers, butchers, and executives"; "operating department employees only"; "machine division only"; "male workers only."

⁶ The remaining establishments for which membership provision was not reported involved 11.5 percent of the establishments and 7.6 percent of the workers.

In establishments having both a company union and a trade union, the percentage of plans with optional membership was considerably greater. Thirteen plants, with 16.0 percent of the workers, had plans involving automatic membership. In these 13 plants, therefore, trade-union members would also automatically become members of the company union.

Dues and Benefit Provisions of Company Unions

OF THE total of 593 company unions studied 411, covering 411,053 workers, reported that they had no provision for dues or any other means of raising funds from the membership, while 27, with 14,258 workers, did not reply to the question, "Do members pay dues?" Some provision for payment by the members was made in 155 plants, covering 105,077 or 19.8 percent of the workers (table 3). Of these 155 establishments 140 had optional membership; 127 of these reported company-union membership extending to 71.2 percent of their employees (table 4).

Sixty-nine percent of the establishments charging dues charged less than 40 cents a month (table 3); these establishments employed 80.2 percent of all the workers. Only 7 plants, employing 5.3 percent of the workers, reported dues of more than 80 cents a month. Two plans relied on assessments only, while 10 others had various provisions for raising funds.

Table 3.—Monthly Dues of Company Unions

Monthly dues	Company union only			Company union and trade union			Total with company unions		
	Estab-lish-ments	Workers		Estab-lish-ments	Workers		Estab-lish-ments	Workers	
		Num-ber	Per-cent		Num-ber	Per-cent		Num-ber	Per-cent
Under 20 cents.....	31	31,118	42.2	14	15,122	48.1	45	46,240	44.0
21-40 cents.....	48	25,578	34.7	14	12,473	39.7	62	38,051	36.2
41-80 cents.....	19	11,079	15.1	1	236	.8	20	11,315	10.8
81-100 cents.....	3	761	1.0	2	3,381	10.8	5	4,142	3.9
Over 100 cents.....	2	1,435	2.0	-----	-----	-----	2	1,435	1.4
Assessments only.....	2	392	.5	-----	-----	-----	2	392	.4
Other provision.....	10	1,889	2.6	-----	-----	-----	10	1,889	1.8
Amount not stated.....	8	1,414	1.9	1	199	.6	9	1,613	1.5
Total.....	123	73,666	100.0	32	31,411	100.0	155	105,077	100.0
No dues charged.....	360	306,776	-----	51	104,277	-----	411	411,053	-----
No reply as to dues.....	13	5,512	-----	14	8,746	-----	27	14,258	-----
Grand total.....	496	385,954	-----	97	144,434	-----	593	530,388	-----

¹ In 9 of these, dues varied with wages. One establishment reported that 1 cent per hour had been added to the base rate of all factory workers and then paid over to the employees' association.

Dues provisions were found almost exclusively in company unions in which membership was optional. However, in 13 establishments, employing 11,315 workers, dues were required even though member-

ship was automatic; in 11 of these, the worker received for his dues the right of participation in certain insurance and loan benefits, but in the other 2 establishments, both small, no benefits were provided.

In 90 plans with optional membership and dues provisions, payment of the dues entitled the member to benefit features (table 4). These plants covered 62,767 workers. Fifty plans, covering 30,603 workers, provided no health, loan, or life-insurance benefits. Table 4 indicates that the reported proportion of the employees who were members of optional company-union plans was smaller where no benefits were provided than where right to benefits accompanied membership. This difference, however, was accounted for by the group of establishments dealing through both a trade union and a company union. In such establishments the company unions providing benefit features had an average membership of 87.7 percent of the employees; where no such features were provided, the average membership was only 43.3 percent.

Table 4.—Benefit Provisions and Reported Membership in Company Unions Having Optional Membership and Charging Dues

Provision for benefits	Company unions with optional membership and dues					
	Estab-lish-ments	Work-ers	Company unions for which membership was reported			
			Estab-lish-ments	Workers		
				Total	Members of company union	
					Num-ber	Percent of total
Company unions with benefits.....	90	62,767	86	48,179	37,224	77.3
Establishments with company unions only.....	66	43,268	64	36,762	27,212	74.0
Establishments with company unions and trade unions.....	24	19,499	22	11,417	10,012	87.7
Company unions without benefits.....	50	30,603	41	26,786	16,117	60.2
Establishments with company unions only.....	42	18,690	34	15,523	11,238	72.4
Establishments with company unions and trade unions.....	8	11,913	7	11,263	4,879	43.3
All company unions.....	140	93,370	127	74,965	53,341	71.2
Establishments with company unions only.....	108	61,958	98	52,285	38,450	73.5
Establishments with company unions and trade unions.....	32	31,412	29	22,680	14,891	65.7

General Membership Meetings

OF THE 593 company unions covered by the Bureau's questionnaire, 86 had no provision for general membership meetings, either by plant or department (table 5). In 97 cases there was no answer to the question, "How frequently are general membership meetings held?" These two groups combined included 50.3 percent of the total number of workers in the establishments with company unions. An additional 14.3 percent of the workers were in the 135 establishments that reported general membership meetings held on call only.

The 275 company unions reporting provision for regular meetings embrace 35.4 percent of the employees. On the whole these establishments were smaller than those whose plans made no provision for a regular meeting time or for which no data were made available. Monthly or annual intervals between meetings were most common, monthly meetings being provided for by 158 company unions with 19.8 percent of the workers and annual meetings by 52 company unions with 9.0 percent of the workers. Quarterly meetings were reported for 14 company unions in relatively small establishments. In 10 establishments, with a total of 10,323 workers, the members of the company union met weekly.

Comparison of frequency of meetings as between establishments with company unions only and those with company unions and trade unions shows some differences. In the group having both types of collective dealing, 49 of 97 establishments had no reported provision for regular meetings of the company union. These 49 establishments included nearly three-fourths of the workers employed in the 97 plants. It should be noted, however, that in 40 of the 48 establishments reporting regular meetings and dealing also with trade unions, meetings were held at least monthly. These 40 establishments employed about 90 percent of the workers in this group. Among the 227 establishments with regular meetings but with company-union dealings alone, quarterly or less frequent meetings are held in 78 establishments with about two-fifths of the workers in such establishments.

Table 5.—Frequency of Company-Union General Membership Meetings

Frequency of meetings	Company unions only			Company unions and trade unions			Total with company unions		
	Estab-lish-ments	Workers		Estab-lish-ments	Workers		Estab-lish-ments	Workers	
		Number	Per-cent		Number	Per-cent		Number	Per-cent
Provision for regular meeting	227	150, 121	38. 9	48	38, 104	26. 4	275	188, 225	35. 4
Weekly	9	9, 716	2. 5	1	607	. 4	10	10, 323	1. 9
Semimonthly	10	4, 981	1. 3	11	4, 821	3. 4	21	9, 802	1. 8
Monthly	130	76, 289	19. 8	28	28, 915	20. 0	158	105, 204	19. 8
Quarterly	12	4, 284	1. 1	2	325	. 2	14	4, 609	. 9
Semiannually	20	10, 418	2. 7				20	10, 418	2. 0
Annually	46	44, 433	11. 5	6	3, 436	2. 4	52	47, 869	9. 0
No provision for regular meeting	192	178, 959	46. 4	29	86, 779	60. 1	221	265, 738	50. 1
On call	117	62, 853	16. 3	18	13, 163	9. 1	135	76, 016	14. 3
No provision	75	116, 106	30. 1	11	73, 616	51. 0	86	189, 722	35. 8
Not reported	77	56, 874	14. 7	20	19, 551	13. 5	97	76, 425	14. 5
Total	496	385, 954	100. 0	97	144, 434	100. 0	593	530, 388	100. 0

Matters Discussed with Company Unions

AN ANALYSIS of the matters reported discussed between management and company unions is presented in table 6. Of the 593 establishments, all but 42 reported the subjects which had been discussed in conference with representatives of the company unions during the period since January 1, 1933. Ten leading subjects were listed for checking in the Bureau's questionnaire and only 12 companies reported discussion of other matters.

The number of establishments (and the number of employees) in which these matters were discussed is shown in table 6. It must be borne in mind that the frequency with which such subjects are discussed is influenced by the trend of business activity. A study made in the declining phase of a business cycle might reveal a different order of importance. Furthermore, the questionnaire related only to subject matter and shed no light on methods of presentation. The field study revealed that in some instances such discussions involved actual negotiation, but in many instances little more than an announcement of company policy was involved.

Based upon the percentage of all establishments which have company unions, the subjects ranked as follows:

1. Individual grievances and complaints.
2. Health and safety.
3. General wage increase or decrease.
4. Wage rates for specific occupations.
5. Changes in weekly or daily hours.
6. General rules and regulations.
7. Methods of sharing or rotating work.
8. Discharge of an employee or employees.
9. Rules of seniority.
10. Type of wage payment.

Table 6.—Matters Reported Discussed Since Jan. 1, 1933, by Establishments With Company Unions

[Numbers in parentheses indicate order of frequency by number of establishments]

Matter negotiated	Company unions only				Company unions and trade unions				Total company unions			
	Establishments		Workers		Establishments		Workers		Establishments		Workers	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Individual grievances and complaints.....	378	76.2 (1)	343,749	89.1	78	80.4 (1)	125,883	87.2	456	76.9 (1)	469,632	88.5
Health and safety.....	332	66.9 (2)	314,449	81.5	55	56.7 (4)	108,145	74.9	387	65.3 (2)	422,594	79.7
General wage increases or decreases.....	318	64.1 (3)	284,176	73.6	66	68.0 (3)	87,298	60.4	384	64.7 (3)	371,474	70.0
Wage rates for specific occupations.....	303	61.1 (4)	313,660	81.3	74	76.3 (2)	113,235	78.4	377	63.6 (4)	426,895	80.5
Changes in weekly or daily hours.....	303	61.1 (5)	282,918	73.3	54	55.7 (6)	85,250	59.0	357	60.2 (5)	368,168	69.4
General rules and regulations.....	286	57.7 (6)	283,056	73.3	48	49.5 (7)	91,754	63.5	334	56.3 (6)	374,810	70.7
Methods of sharing or rotating work.....	284	57.3 (7)	288,403	74.7	34	35.1 (9)	79,043	54.7	318	53.6 (7)	367,446	69.3
Discharge of an employee or employees.....	234	47.2 (8)	284,996	73.8	54	55.7 (5)	92,558	64.1	288	48.6 (8)	377,554	71.2
Rules of seniority.....	214	43.1 (10)	267,378	69.3	39	40.2 (8)	81,224	56.2	253	42.7 (9)	348,602	65.7
Type of wage payment (piecework, bonus, etc.)..	219	44.1 (9)	258,663	67.0	25	25.8 (10)	64,178	44.4	244	41.1 (10)	322,841	60.9
Other.....	8	1.6 (11)	8,372	2.2	4	4.1 (11)	26,140	18.1	12	2.0 (11)	34,512	6.5
3 principal matters ¹	159	32.1	203,689	52.8	19	19.6	56,873	39.4	178	30.0	260,562	49.1
None of 3 principal matters ¹	72	14.5	32,324	8.4	7	7.2	31,578	21.9	79	13.3	63,902	12.0
All establishments with company unions.....	496	-----	385,954	-----	97	-----	144,434	-----	593	-----	530,388	-----

¹ General wage changes, type of wage payment, changes in hours.

When a comparison is made of the relative prevalence and ranking of the matters discussed with their employees by establishments dealing with company unions only and by establishments dealing with both company and trade unions, marked differences in emphasis are revealed. Thus, while individual grievances and complaints ranked first for both groups, the percentage of establishments with only company unions in which such matters were discussed with their employees was 76.2 percent. In establishments with both company unions and trade unions, 80.4 percent reported that individual grievances were handled. Likewise, while health and safety ranked second with the group having company union dealings alone (66.9 percent of such establishments), it ranked fourth with the group with mixed dealings (56.7 percent). General wage increases and decreases ranked third with both categories, but was reported as discussed in a somewhat larger proportion in the establishments with dual dealings. Wage rates for specific occupations was fourth in order of prevalence for company unions alone and second for establishments dealing with trade unions also. The matter of sharing or rotating work ranked seventh with 57.3 percent of the establishments dealing with company unions alone and ninth with 35.1 percent of the establishments dealing also with trade unions. The discharge of employees was subject of conference with company unions in 47.2 percent of the establishments dealing with company unions alone and with 55.7 percent of the establishments also dealing with trade unions. Types of wage payment were discussed with company unions in a larger proportion of establishments dealing with company unions alone than of those dealing also with trade unions—44.1 percent and 25.8 percent, respectively.

Since general wage changes, type of wage payment, and changes in hours of employment are fundamental matters involved in employer-employee dealing, it was deemed desirable to ascertain the frequency with which employers discussed all three matters or failed to discuss any one of them with company unions. Thirty percent of all the establishments with company unions, employing 49.1 percent of the workers covered, reported that they conferred with company unions on these three important matters. On the other hand, 13.3 percent of all the establishments, employing 12.0 percent of the workers, did not discuss any of the three subjects. In general these matters were more frequently discussed with company unions in establishments dealing with company unions alone than they were in establishments dealing also with trade unions.

Company-Union Agreements

OF THE 593 establishments dealing in part or whole with their workers through company unions, 77 or 13 percent had written agreements. These 77 establishments employed 52,994 workers or 10

percent of the total number of workers employed by the 593 establishments. Copies of the written agreements were submitted by 36 of the 77 establishments. Nineteen of these agreements followed closely along trade-union agreement lines. They contained provisions almost identical with those generally found in union agreements in regard to wage scales, hours, working conditions, arbitration clauses, and special industrial problems. Of these 19 company-union agreements, 4 were identical with the agreements that these same establishments had with trade unions. Three of these were entered into with American Federation of Labor unions and one with a local of the Industrial Workers of the World.

Of the 36 companies which submitted agreements, 9 had agreements limited to the affirmation of the N. R. A. codes under which the particular establishment operated. Eight contained declarations of mutual good will and an enumeration of how the workers can organize for conference with the employer—matters ordinarily incorporated in the company-union constitution. No mention was made in these agreements of wages, hours, and working conditions.

Outside Contacts of Company Unions

BETWEEN one-fourth and one-fifth of all the company unions were reported as having contacts with company unions in other plants of the same company (table 7). The proportion of workers covered by these cases was, however, markedly larger than this figure. The contacts ranged through all degrees of formality and regularity. One large company with more than 15 company unions in as many establishments, and employing more than 38,000 workers, stated that—

Each works council is a self-governed unit, and although the council plan provides for general councils comprised of representatives of the various works councils, there has been no recent need for such joint meetings of representatives of the councils, nor has there been any occasion where a meeting of our representatives with those of another company would have been necessary or of particular advantage to either group.

Another company reported that the bylaws provided for meetings of representatives of the different plants when necessary, but no such meetings have been held to date. On the other hand, a number of companies reported that formal contacts between the company unions in their different establishments were consistently maintained. In a few cases the establishments so connected were widely separated geographically. Annual joint meetings of employee representatives were the general rule in such cases.

Contacts with company unions in other companies were relatively much less frequent than contacts within the same company. This is the more striking because the number of possible contacts within the same company was restricted by the fact that many of the companies had only one establishment. The total of company unions

with external contacts includes 15 companies dealing through the Loyal Legion of Loggers and Lumbermen, which is here classed as a company union. Four companies were connected with the American Guild of the Printing Industry in Baltimore and one with a federation of printing shops in Boston. Two others handled their labor relations through the Joint Board of Arbitration in the shoe industry in Philadelphia. These 22 company unions are the only ones with clearly defined contacts with other company unions in companies not financially affiliated with the establishments in question. In addition, 6 establishments reported that their employees had some loose contact with employees and organizations in other companies through correspondence or plant visitation, but these cases are not included here.

Table 7.—Contacts of Company Unions with Company Unions Outside of Own Establishment

Type of union	Total		Contact with other company unions in same company				Contact with company unions in other companies			
	Estab-lish-ments	Workers	Estab-lish-ments		Workers		Estab-lish-ments		Workers	
			Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Establishments with— Company unions only	496	385,954	1 101	20.4	1 116,619	30.2	41	8.3	34,002	8.8
Company unions and trade unions	97	144,434	30	30.9	43,897	30.4	9	9.3	11,350	7.9
Total	593	530,388	1 131	22.1	1 160,516	30.3	50	8.4	45,352	8.6

¹ In addition, one company with 19 company unions in as many establishments, embracing a total of 21,880 workers, reported for all these company unions that "in some instances, employee representatives of 1 plant have contact with those of another", but it was impossible to determine from the reply to which of the establishments the statement had reference. The entire chain is, therefore, excluded from the group reporting contacts.

Wages and Hours of Labor in the Drilling and Production Branch of the Petroleum Industry¹

IN AUGUST 1934 drilling and production employees had average weekly earnings amounting to \$28.22. From 1929 to 1933 average wage rates per hour declined in the majority of occupations, and in general the full-time weekly hours also declined. After the adoption of the petroleum code, however, in August 1933, average rates per hour for workers paid on a time basis and average full-time hours per week moved in opposite directions. Decreases in average full-time hours per week from May 1933 to July 1934 were general. Average rates of wages per hour, on the other hand, increased substantially.

Changes in average time rates of pay and average full-time hours per week during five periods since 1929 and average hourly earnings, average weekly hours of labor, and average weekly earnings in August 1934 are presented in this article. It is the third of a series covering the results of a survey of wages and hours of labor in the petroleum industry, made by the Bureau of Labor Statistics for the Petroleum Administration.²

The firms which supplied figures covering rates of pay and full-time hours per week employed 69,883³ workers in July 1934 in the 18 States covered by this survey. It is estimated that this number of employees embraced at least 50 percent of all those working in drilling and production at that time. The five pay-roll periods for which the above information was secured were May 1929, May and November 1933, and May and July 1934. The reasons for selecting the above dates were adequately discussed in the article dealing with wages and hours of pipe-line employees, as were also the methods followed in obtaining the average hourly rates and average full-time hours for leading occupations. For drilling and production, averages for 19 important occupations⁴ were derived.

¹ Prepared by E. K. Frazier, under the direction of J. Perlman, chief of Division of Wages, Hours, and Working Conditions.

² The first of these articles, giving the general findings for all of the three branches of the industry—drilling and production, pipe lines, and refining—appeared in the Monthly Labor for July 1935 (p. 13); and the second, dealing in detail with the pipe-line branch, in the September issue (p. 559).

³ Arkansas, 1,182; California, 14,171; Colorado, Montana, New Mexico, and Wyoming, 2,270; Illinois, Indiana, Michigan, and Ohio, 1,470; Kansas, 3,409; Kentucky and West Virginia, 1,562; Louisiana, 4,987; New York and Pennsylvania, 2,819; Oklahoma, 16,690; and Texas, 21,323.

⁴ 57,455 workers were employed in these occupations in the States where there was a sufficient number to present occupational averages. The remaining 12,428 were either in other occupations which had too few reported to present representative State or regional averages or not enough in any one of the 19 specific occupations to justify showing such averages.

The frequency distributions and averages of hourly earnings (as contrasted with hourly rates), of hours worked per week (as contrasted with nominal full-time hours), and of weekly earnings are based on records of 38,372 employees in 514 plants located in the 18 States⁵ for which the oil administrator set up production quotas. The reports for each worker included total hours worked and total earnings for the selected pay-roll period,⁶ and total hours worked for 1 week within the pay-roll period.

As the number of female workers engaged in drilling and production is small,⁷ no separate figures are presented by sex. In the study of earnings, as contrasted with rates, the employees have been classified into 14 specific occupations and 6 occupational groups.

The Bureau made similar surveys covering wages and hours in this industry branch in 1920 and 1929. It is therefore possible to make some comparisons between the 1934 data and those for these years. The 1920 survey was quite extensive, including 35,255 employees engaged in operations in 16 States, and may be compared directly with the results shown for 1934. However, as the 1929 survey covered only four States,⁸ it was necessary to make a special tabulation of the 1934 data to include only the States covered in 1929 before making direct comparisons.

Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week

AVERAGE wage rates per hour for workers paid on a time basis and average full-time hours per week moved in opposite directions after the adoption of the oil code. Wage rates increased considerably in each occupation and region included in table 1 with the exception of air and gas lift engineers in California, whose average wage rates per hour in July 1934 were about 9 percent lower than they had been in May 1933 but even so were only 1 percent below the level of 1929. Full-time hours declined in all occupations except those of air and gas lift engineers, drilling derrickmen, machinists, and pumpers in California. For these particular groups average full-time hours per week were the same as, or slightly higher than, in May 1933.

Between May 1929 and May 1933 average wage rates per hour declined in all occupations in each State except those of air and gas lift engineers and machinists in California, drilling derrickmen, rotary drillers, rotary drillers' helpers, drilling firemen, firemen other than drilling, gagers, repair mechanics, and pumpers in Texas, clean-out drillers' helpers in Kentucky and West Virginia, laborers and pumpers in Colorado, Montana, New Mexico, and Wyoming, pumpers and

⁵ See footnote 3, p. 877 for a list of the States covered.

⁶ Most of the pay-roll periods covered were in August 1934.

⁷ Only 234 female workers were reported.

⁸ California, Louisiana, Oklahoma, and Texas.

roustabouts in Indiana, Illinois, Michigan, and Ohio, and truck drivers in Louisiana. The reduction in wage rates ranged from 0.2 percent for roustabouts in Texas to 34.4 percent for clean-out drillers' helpers in Oklahoma, as during this period of depression firms readjusted not only the actual working time of their operations but also the full-time hours per week of the individuals in the various occupations. The range of increase in average wage rates was from 0.8 percent for repair mechanics in Texas to 28.3 percent for drilling derrickmen in the same State. Almost half of the 15 instances of wage-rate increases between May 1929 and May 1933 were for employees in Texas. This was due in some measure to the bringing in of the East Texas field.

Between May and November 1933 all occupations, except air and gas lift engineers in California, had a marked increase in average wage rates per hour. These gains varied from 3.4 percent for drilling derrickmen and rotary drillers' helpers in California to 75.9 percent for clean-out drillers' helpers in Oklahoma. As this range is very wide, a clearer idea may be gained by stating that out of the 97 gains reported in table 1 during the above period, 5 were under 5 percent, 9 were 5 and under 10 percent, 9 were 10 and under 20 percent, 24 were 20 and under 30 percent, 19 were 30 and under 40 percent, 17 were 40 and under 50 percent, and 14 were 50 percent or over. These increases in average wage rates in the great majority of the cases are to be attributed to the code, which not only increased minimum rates but also limited the maximum hours per week, thus resulting in higher hourly rates for employees working on a daily, weekly, or monthly basis.

Due to further adjustments in wage rates after November 1933, many of which resulted from the Oil Administrator's order of May 21, 1934, providing for "an equitable adjustment of the differentials between the rates for skilled jobs and the minimum rates established for common labor" in the code, most of the occupations in the various States had a higher average wage rate in July 1934 than they had in November 1933. It should be noted, however, that 7 occupations in California had slightly lower average wage rates in July 1934 than they had in November 1933.

When the July 1934 wage rates are compared with those in effect in May 1929, it will be seen that the losses suffered during the depression have been more than overcome in every occupation in each State with the exception of some in California, Kansas, Oklahoma, and Texas. In Kansas cable drillers and tool dressers were receiving wage rates in July 1934 that were slightly below those being paid in 1929. This was also true for rig builders in Oklahoma and Texas. In California a majority of the occupations were receiving a slightly lower average wage rate per hour in July 1934 than in May 1929.

The lowest actual average wage rate paid in 1934 was 47.8 cents for unskilled laborers in Kentucky and West Virginia. This rate is 12.5 percent over that paid in 1929 and almost 26 percent over the rate paid in May 1933. The highest average wage rate paid in July 1934 was \$1.369 for the skilled job of rotary driller in Louisiana which exceeded that for California by only one-tenth of a cent and those for the other two great producing States—Oklahoma and Texas—by about 1 and 8 cents, respectively. The rate in Louisiana represented an advance of 46.4 percent over the 1929 rate and slightly over 52 percent above what was paid during May 1933.

Full-time hours per week followed the same general downward trend as wage rates between May 1929 and May 1933. There were declines in all occupations in all States with the exception of air and gas lift engineers in New York and Pennsylvania; cable drillers; laborers and tool dressers in Illinois, Indiana, Michigan, and Ohio; laborers and roustabouts in Kansas; laborers and rotary drillers' helpers in Louisiana; and clean-out drillers' helpers and truck drivers in Oklahoma. For most occupations and regions full-time hours were decreased by amounts ranging from 0.2 percent for clean-out drillers in Kentucky and West Virginia and laborers in New York and Pennsylvania to 44.3 percent for tool dressers in Colorado, Montana, New Mexico, and Wyoming. Of the 88 reductions in full-time hours reported between May 1929 and May 1933, there were 13 under 5 percent, 16 of 5 and under 10 percent, 35 of 10 and under 20 percent, 20 of 20 and under 30 percent, and 4 of 30 percent or over. The reductions between these two periods were made largely to meet the changing industrial conditions prevailing during the latter part of 1932 and the early part of 1933. Upon the adoption of the oil code in August 1933, full-time hours were further reduced to bring them more or less into line with those specified by the code, i. e., an average maximum of 40 per week for clerical employees and 36 for all employees other than clerical.⁹ The reductions between May and November 1933 were quite large in most cases, as 28 of them were 20 and under 30 percent, 23 were 30 and under 40 percent, and 21 were 40 percent or over, while only 13 were less than 10 percent. Between November 1933 and May 1934, on the other hand, there were 47 instances of an increase in full-time hours. These advances in most cases were comparatively small, as 26 of them were less than 2 percent, 12 were 2 and under 4 percent, and 9 were 4 percent or over. There were 38 reductions during the same period, of which 22 were less than 2 percent, 9 were 2 and under 4 percent, and 7 were 4 percent or over. There were 13 cases which showed no change.

⁹ Executives, supervisors and their immediate staffs and pumpers on "stripper" wells and employees on isolated properties were excepted.

Between May and July 1934 there was little change in the full-time hours per week. The hours of drilling derrickmen and of firemen other than drilling in Oklahoma declined 7.6 and increased 5.3 percent, respectively. Gagers' hours in Louisiana increased 7 percent. Laborers' hours in Illinois, Indiana, Michigan, and Ohio declined by 6.5 percent—about the same rate as the decrease in the hours of roustabouts in these States. The hours of repair mechanics and tool dressers in California decreased approximately 6 percent. The hours of pumpers in Kentucky and West Virginia were reduced by 7.5 percent, while in Texas the hours of repair mechanics increased 6 percent and tool dressers' hours declined by 10.2 percent.

In July 1934 no occupation in any State had full-time hours equaling 85 percent of the full-time hours of 1929. In almost three-fourths of the cases shown in table 1 full-time hours averaged less than 70 percent of the 1929 figure. In spite of these great reductions in full-time hours between 1929 and 1934, however, the average full-time hours per week in certain occupations in many States exceeded 36. The higher hours were generally found in drilling operations which, at best, are irregular; because of this irregularity over a period of time the actual working time would not necessarily equal the average maximum hours permitted by the code even in these occupations.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per- cent of change	Index numbers	Number	Per- cent of change	Index numbers
Air and gas lift engineers:							
California:							
May 1929.....	445	\$0.895	-----	100.0	49.0	-----	100.0
May 1933.....	437	.973	+8.7	108.7	34.4	-29.8	70.2
November 1933.....	432	.882	-9.4	98.5	33.9	-1.5	69.2
May 1934.....	422	.887	+6.6	99.1	35.9	+5.9	73.3
July 1934.....	443	.885	-2	98.9	35.9	(1)	73.3
Kentucky and West Virginia:							
May 1929.....	11	.597	-----	100.0	49.8	-----	100.0
May 1933.....	67	.487	-18.4	81.6	48.0	-3.6	96.4
November 1933.....	122	.611	+25.5	102.3	39.7	-7.3	79.7
May 1934.....	124	.661	+8.2	110.7	39.4	-.8	79.1
July 1934.....	117	.674	+2.0	112.9	39.7	+8	79.7
New York and Pennsylvania:							
May 1929.....	168	.627	-----	100.0	49.0	-----	100.0
May 1933.....	57	.474	-24.4	75.6	51.8	+5.7	105.7
November 1933.....	77	.655	+38.2	104.5	39.4	-23.9	80.4
May 1934.....	82	.684	+4.4	109.1	39.4	(1)	80.4
July 1934.....	74	.697	+1.9	111.2	39.5	+3	80.6
Oklahoma:							
May 1929.....	376	.574	-----	100.0	62.8	-----	100.0
May 1933.....	192	.572	-.4	99.6	49.9	-20.5	79.5
November 1933.....	230	.748	+30.8	130.3	36.3	-27.3	57.8
May 1934.....	261	.804	+7.5	140.1	36.4	+3	58.0
July 1934.....	271	.811	+9	141.3	36.4	(1)	58.0

¹ No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Percent of change	Index numbers	Number	Percent of change	Index numbers
Derrickmen, drilling:							
California:							
May 1929	1,776	\$0.983	-----	100.0	49.1	-----	100.0
May 1933	281	.933	-5.1	94.9	35.2	-28.3	71.7
November 1933	433	.965	+3.4	98.2	34.9	-0.9	71.1
May 1934	546	.952	-1.3	96.8	35.8	+2.6	72.9
July 1934	587	.962	+1.1	97.9	35.2	-1.7	71.7
Louisiana:							
May 1929	157	.530	-----	100.0	68.2	-----	100.0
May 1933	66	.509	-4.0	96.0	64.7	-6.5	93.5
November 1933	156	.795	+56.2	150.0	37.5	-42.0	54.2
May 1934	370	.787	-1.0	148.5	37.5	(1)	54.2
July 1934	303	.809	+2.8	152.6	37.9	+1.1	54.8
Oklahoma:							
May 1929	142	.634	-----	100.0	83.4	-----	100.0
May 1933	35	.493	-22.2	77.8	68.7	-17.6	82.4
November 1933	180	.725	+47.1	114.4	48.2	-29.8	57.8
May 1934	157	.775	+6.9	122.2	49.8	+3.3	59.8
July 1934	162	.810	+4.5	127.8	46.0	-7.6	55.2
Texas:							
May 1929	491	.487	-----	100.0	56.6	-----	100.0
May 1933	363	.625	+28.3	128.3	52.2	-7.8	92.2
November 1933	639	.807	+29.1	165.7	36.8	-29.5	65.0
May 1934	718	.856	+6.7	175.8	36.9	+3	65.2
July 1934	757	.848	-0.9	174.1	36.6	-0.8	64.7
Drillers, cable:							
Colorado, Montana, New Mexico, and Wyoming:							
May 1929	45	.949	-----	100.0	83.0	-----	100.0
May 1933	25	.819	-13.7	86.3	49.4	-40.5	59.5
November 1933	51	.973	+18.8	102.5	45.1	-8.7	54.3
May 1934	55	1.099	+12.9	115.8	45.3	+4	54.6
July 1934	62	1.081	-1.6	113.9	44.3	-2.2	53.4
Illinois, Indiana, Michigan, and Ohio:							
May 1929	81	.731	-----	100.0	69.6	-----	100.0
May 1933	24	.634	-13.3	86.7	70.5	+1.3	101.3
November 1933	113	.908	+43.2	124.2	45.6	-35.3	65.5
May 1934	98	.943	+3.9	129.0	46.0	+9	66.1
July 1934	96	.971	+3.0	132.8	45.5	-1.1	65.4
Kansas:							
May 1929	80	.980	-----	100.0	82.6	-----	100.0
May 1933	39	.784	-20.0	80.0	73.4	-11.1	88.9
November 1933	60	.969	+23.6	98.9	43.6	-40.6	52.8
May 1934	72	.995	+2.7	101.5	45.9	+5.3	55.6
July 1934	63	.978	-1.7	99.8	45.6	-7	55.2
New York and Pennsylvania:							
May 1929	151	.691	-----	100.0	71.9	-----	100.0
May 1933	34	.520	-24.7	75.3	64.6	-10.2	89.8
November 1933	124	.769	+47.9	111.3	42.0	-35.0	58.4
May 1934	150	.880	+14.4	127.4	41.9	-2	58.3
July 1934	152	.887	+3	126.9	42.0	+2	58.4
Oklahoma:							
May 1929	260	1.030	-----	100.0	77.5	-----	100.0
May 1933	61	.846	-17.9	82.1	63.1	-18.6	81.4
November 1933	144	.955	+12.9	92.7	45.3	-28.2	58.5
May 1934	155	1.013	+6.0	98.3	44.3	-2.2	57.2
July 1934	169	1.073	+5.9	104.2	44.6	+7	57.5
Texas:							
May 1929	188	.890	-----	100.0	80.8	-----	100.0
May 1933	85	.845	-5.1	94.9	74.3	-8.0	92.0
November 1933	150	1.111	+31.5	124.8	43.7	-41.2	54.1
May 1934	249	1.120	+8	125.8	42.2	-3.4	52.2
July 1934	266	1.225	+9.4	137.6	41.9	-7	51.9
Drillers, clean-out:							
Kentucky and West Virginia:							
May 1929	87	.733	-----	100.0	48.1	-----	100.0
May 1933	29	.542	-26.1	73.9	48.0	-2	99.8
November 1933	42	.730	+34.7	99.6	40.0	-16.7	83.2
May 1934	58	.762	+4.4	104.0	39.9	-3	83.0
July 1934	50	.763	+1	104.1	39.8	-3	82.7

1 No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per- cent of change	Index num- bers	Number	Per- cent of change	Index num- bers
Drillers, clean-out—Continued.							
Oklahoma:							
May 1929	325	\$0.787	---	100.0	72.3	---	100.0
May 1933	167	.540	-31.4	68.6	70.6	-2.4	97.6
November 1933	240	.912	+68.9	115.9	40.4	-42.8	55.9
May 1934	352	.952	+4.4	121.0	37.8	-6.4	52.3
July 1934	337	.997	+4.7	126.7	38.5	+1.9	53.3
Texas:							
May 1929	136	.740	---	100.0	74.8	---	100.0
May 1933	64	.658	-11.1	88.9	64.3	-14.0	86.0
November 1933	78	.996	+51.4	134.6	37.7	-41.4	50.4
May 1934	102	1.022	+2.6	138.1	37.1	-1.6	49.6
July 1934	105	1.105	+8.1	149.3	37.8	+1.9	50.5
Drillers, clean-out, helpers:							
Kentucky and West Virginia:							
May 1929	153	.444	---	100.0	49.2	---	100.0
May 1933	34	.462	+4.1	104.1	47.6	-3.3	96.7
November 1933	56	.584	+26.4	131.5	40.4	-15.1	82.1
May 1934	61	.616	+5.5	138.7	41.1	+1.7	83.5
July 1934	68	.623	+1.1	140.3	40.2	-2.2	81.7
Oklahoma:							
May 1929	359	.619	---	100.0	73.3	---	100.0
May 1933	98	.406	-34.4	65.6	75.0	+2.3	102.3
November 1933	208	.714	+75.9	115.3	42.7	-43.1	58.3
May 1934	283	.758	+6.2	122.9	38.9	-8.9	53.1
July 1934	295	.804	+6.1	129.9	38.5	-1.0	52.5
Texas:							
May 1929	124	.541	---	100.0	77.2	---	100.0
May 1933	60	.440	-18.7	81.3	70.3	-8.9	91.1
November 1933	106	.723	+64.3	133.6	41.4	-41.1	53.6
May 1934	124	.725	+3	134.0	41.9	+1.2	54.3
July 1934	92	.769	+6.1	142.1	40.6	-3.1	52.6
Drillers, rotary:							
California:							
May 1929	1,865	1.421	---	100.0	48.9	---	100.0
May 1933	385	1.283	-9.7	90.3	35.7	-27.0	73.0
November 1933	532	1.364	+6.3	96.0	34.8	-2.5	71.2
May 1934	652	1.368	+3	96.3	35.3	+1.4	72.2
July 1934	715	1.368	(¹)	96.3	35.0	-8	71.6
Louisiana:							
May 1929	161	.935	---	100.0	70.5	---	100.0
May 1933	90	.899	-3.9	96.1	66.5	-5.7	94.3
November 1933	232	1.316	+46.4	140.7	37.4	-43.8	53.0
May 1934	325	1.338	+1.7	143.1	39.3	+5.1	55.7
July 1934	322	1.369	+2.3	146.4	38.7	-1.5	54.9
Oklahoma:							
May 1929	232	1.167	---	100.0	78.3	---	100.0
May 1933	59	.936	-19.8	80.2	60.7	-22.5	77.5
November 1933	196	1.170	+25.0	100.3	44.9	-26.0	57.3
May 1934	237	1.235	+5.6	105.8	43.6	-2.9	55.7
July 1934	199	1.285	+4.0	110.1	42.6	-2.3	54.4
Texas:							
May 1929	433	.972	---	100.0	68.5	---	100.0
May 1933	425	1.044	+7.4	107.4	54.9	-19.9	80.1
November 1933	814	1.312	+25.7	135.0	39.6	-27.9	57.8
May 1934	969	1.339	+2.1	137.8	39.9	+8	58.2
July 1934	999	1.357	+1.3	139.6	40.4	+1.3	59.0
Drillers, rotary, helpers:							
California:							
May 1929	4,849	.902	---	100.0	49.3	---	100.0
May 1933	887	.831	-7.9	92.1	37.0	-24.9	75.1
November 1933	1,385	.859	+3.4	95.2	37.5	+1.4	76.1
May 1934	1,779	.862	+3	95.6	35.3	-5.9	71.6
July 1934	1,956	.877	+1.7	97.2	35.3	(¹)	71.6
Louisiana:							
May 1929	276	.494	---	100.0	65.6	---	100.0
May 1933	171	.456	-7.7	92.3	72.7	+10.8	110.8
November 1933	425	.710	+55.7	143.7	39.3	-45.9	59.9
May 1934	663	.749	+5.5	151.6	41.8	+6.3	63.7
July 1934	682	.776	+3.6	157.1	42.5	+1.7	64.8

¹ No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per cent of change	Index numbers	Number	Per cent of change	Index numbers
Drillers, rotary, helpers—Continued.							
Oklahoma:							
May 1929	608	\$0.615	-----	100.0	75.9	-----	100.0
May 1933	163	.544	-11.5	88.5	57.6	-24.1	75.9
November 1933	553	.672	+23.5	109.3	42.5	-26.2	56.0
May 1934	765	.749	+11.5	121.8	44.2	+4.0	58.2
July 1934	600	.789	+5.3	128.3	44.2	(1)	58.2
Texas:							
May 1929	1,139	.520	-----	100.0	66.8	-----	100.0
May 1933	1,240	.525	+1.0	101.1	56.9	-14.8	85.2
November 1933	2,486	.717	+36.6	137.9	40.6	-28.6	60.8
May 1934	2,823	.760	+6.0	146.2	40.6	(1)	60.8
July 1934	2,851	.784	+3.2	150.8	41.7	+2.7	62.4
Firemen, drilling:							
California:							
May 1929	513	.765	-----	100.0	49.8	-----	100.0
May 1933	83	.701	-8.4	91.6	37.5	-24.7	75.3
November 1933	122	.753	+7.4	98.4	34.4	-8.3	69.1
May 1934	156	.732	-2.8	95.7	35.9	+4.4	72.1
July 1934	194	.721	-1.5	94.2	35.1	-2.2	70.5
Louisiana:							
May 1929	163	.486	-----	100.0	78.1	-----	100.0
May 1933	127	.450	-7.4	92.6	62.7	-19.7	80.3
November 1933	332	.691	+53.6	142.2	36.6	-41.6	46.9
May 1934	263	.766	+10.9	157.6	37.5	+2.5	48.0
July 1934	337	.772	+8	158.8	37.1	-1.1	47.5
Texas:							
May 1929	198	.509	-----	100.0	72.4	-----	100.0
May 1933	277	.620	+21.8	121.8	53.8	-25.7	74.3
November 1933	497	.757	+22.1	148.7	36.8	-31.6	50.8
May 1934	586	.866	+14.4	170.1	37.0	+5	51.1
July 1934	610	.818	-5.5	160.7	36.8	-5	50.8
Firemen, other than drilling:							
California:							
May 1929	403	.784	-----	100.0	49.7	-----	100.0
May 1933	163	.749	-4.5	95.5	35.9	-27.8	72.2
November 1933	192	.790	+5.5	100.8	34.2	-4.7	68.8
May 1934	266	.777	-1.6	99.1	34.9	+2.0	70.2
July 1934	233	.787	+1.3	100.4	34.8	-3	70.0
Oklahoma:							
May 1929	102	.523	-----	100.0	72.0	-----	100.0
May 1933	53	.442	-15.5	84.5	64.1	-11.0	89.0
November 1933	81	.672	+52.0	128.5	39.7	-38.1	55.1
May 1934	160	.739	+10.0	141.3	37.7	-5.0	52.4
July 1934	143	.775	+4.9	148.2	39.7	+5.3	55.1
Texas:							
May 1929	141	.517	-----	100.0	66.3	-----	100.0
May 1933	64	.533	+3.1	103.1	49.5	-25.3	74.7
November 1933	98	.729	+36.8	141.0	37.1	-25.1	56.0
May 1934	103	.777	+6.6	150.3	36.5	-1.6	55.1
July 1934	119	.784	+9	151.6	36.4	-3	54.9
Gagers:							
California:							
May 1929	123	.856	-----	100.0	48.1	-----	100.0
May 1933	125	.843	-1.5	98.5	39.4	-18.1	81.9
November 1933	149	.910	+7.9	106.3	37.3	-5.3	77.5
May 1934	143	.908	-2	106.1	37.4	+3	77.8
July 1934	177	.904	-4	105.6	37.2	-5	77.3
Louisiana:							
May 1929	25	.632	-----	100.0	61.8	-----	100.0
May 1933	34	.519	-17.9	82.1	56.0	-9.4	90.6
November 1933	57	.698	+34.5	110.4	36.7	-34.5	59.4
May 1934	60	.765	+9.6	121.0	36.9	+5	59.7
July 1934	62	.756	-1.2	119.6	39.5	+7.0	63.9
Texas:							
May 1929	101	.520	-----	100.0	69.6	-----	100.0
May 1933	219	.598	+15.0	115.0	42.9	-38.4	61.6
November 1933	283	.749	+25.3	144.0	37.6	-12.4	54.0
May 1934	332	.800	+6.8	153.8	37.6	(1)	54.0
July 1934	378	.820	+2.5	157.7	36.8	-2.1	52.9

1 No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Percent of change	Index numbers	Number	Percent of change	Index numbers
Laborers:							
Arkansas:							
May 1929	76	\$0.433	-----	100.0	64.2	-----	100.0
May 1933	32	.375	-13.4	86.6	53.1	-17.3	82.7
November 1933	33	.632	+68.5	145.0	35.6	-33.0	55.5
May 1934	80	.611	-3.3	141.1	36.0	+1.1	56.1
July 1934	78	.647	+5.9	149.4	36.0	(1)	56.1
California:							
May 1929	1,118	.640	-----	100.0	48.7	-----	100.0
May 1933	294	.533	-16.7	83.3	42.7	-12.3	87.7
November 1933	264	.597	+12.0	93.3	35.4	-17.1	72.7
May 1934	467	.581	-2.7	90.8	36.5	+3.1	74.9
July 1934	355	.598	+2.9	93.4	36.4	-.3	74.7
Colorado, Montana, New Mexico, and Wyoming:							
May 1929	31	.430	-----	100.0	59.8	-----	100.0
May 1933	46	.449	+4.4	104.4	48.3	-19.2	80.8
November 1933	134	.508	+13.1	118.1	36.1	-25.3	60.4
May 1934	145	.565	+11.2	131.4	37.5	+3.9	62.7
July 1934	146	.557	-1.4	129.5	36.2	-3.5	60.5
Illinois, Indiana, Michigan, and Ohio:							
May 1929	46	.377	-----	100.0	57.5	-----	100.0
May 1933	30	.350	-7.2	92.8	57.7	+3	100.3
November 1933	72	.492	+40.6	130.5	40.5	-29.8	70.4
May 1934	72	.547	+11.2	145.1	40.2	-.7	69.9
July 1934	82	.517	-5.5	137.1	37.6	-6.5	65.4
Kansas:							
May 1929	216	.445	-----	100.0	59.3	-----	100.0
May 1933	146	.389	-12.6	87.4	62.1	+4.7	104.7
November 1933	326	.495	+27.2	111.2	35.0	-43.6	59.0
May 1934	167	.501	+1.2	112.6	36.1	+3.1	60.9
July 1934	186	.511	+2.0	114.8	36.2	+3	61.0
Kentucky and West Virginia:							
May 1929	329	.425	-----	100.0	48.2	-----	100.0
May 1933	81	.380	-10.5	89.4	48.0	-.4	99.6
November 1933	254	.466	+22.6	109.6	39.4	-17.9	81.7
May 1934	184	.480	+3.0	112.9	39.4	(1)	81.7
July 1934	171	.478	-.4	112.5	39.3	-.3	81.5
Louisiana:							
May 1929	210	.424	-----	100.0	60.9	-----	100.0
May 1933	181	.371	-12.5	87.5	62.3	+2.3	102.3
November 1933	372	.518	+39.6	122.2	36.9	-40.8	60.6
May 1934	328	.536	+3.5	126.4	36.5	-1.1	59.9
July 1934	413	.543	+1.3	128.1	36.3	-5	59.6
New York and Pennsylvania:							
May 1929	298	.502	-----	100.0	49.0	-----	100.0
May 1933	7	.376	-25.1	74.9	48.9	-.2	99.8
November 1933	277	.551	+46.5	109.8	37.7	-22.9	76.9
May 1934	180	.536	-2.7	106.8	38.3	+1.6	78.2
July 1934	257	.570	+6.3	113.5	37.8	-1.3	77.1
Oklahoma:							
May 1929	1,733	.448	-----	100.0	63.3	-----	100.0
May 1933	559	.390	-12.9	87.1	60.3	-4.7	95.3
November 1933	1,100	.525	+34.6	117.2	36.2	-40.0	57.2
May 1934	1,173	.539	+2.7	120.3	36.6	+1.1	57.8
July 1934	1,180	.551	+2.2	123.0	36.8	+5	58.1
Texas:							
May 1929	842	.464	-----	100.0	60.9	-----	100.0
May 1933	470	.436	-6.0	94.0	56.7	-6.9	93.1
November 1933	1,302	.564	+29.4	121.6	37.1	-34.6	60.9
May 1934	1,292	.579	+2.7	124.8	36.8	-.8	60.4
July 1934	1,458	.596	+2.9	128.4	36.6	-5	60.1
Machinists:							
California:							
May 1929	322	.888	-----	100.0	49.2	-----	100.0
May 1933	114	.951	+7.1	107.1	34.8	-29.3	70.7
November 1933	132	.987	+3.8	111.1	36.1	+3.7	73.4
May 1934	149	1.008	+2.1	113.5	36.0	-.3	73.2
July 1934	147	1.005	-.3	113.2	36.0	(1)	73.2

1 No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per- cent of change	Index numbers	Number	Per- cent of change	Index numbers
Machinists—Continued.							
New York and Pennsylvania:							
May 1929	31	\$0.643	---	100.0	48.4	---	100.0
May 1933	29	.611	-5.0	95.0	47.0	-2.9	97.1
November 1933	40	.781	+27.8	121.5	36.3	-22.8	75.0
May 1934	52	.769	-1.5	119.6	36.2	- .3	74.8
July 1934	45	.780	+1.4	121.3	36.3	+ .3	75.0
Oklahoma:							
May 1929	66	.798	---	100.0	54.4	---	100.0
May 1933	75	.756	-5.3	94.7	48.7	-10.5	89.5
November 1933	91	.897	+18.7	112.4	36.3	-25.5	66.7
May 1934	102	.940	+4.8	117.8	36.3	(1)	66.7
July 1934	97	.969	+3.1	121.4	36.3	(1)	66.7
Texas:							
May 1929	40	.909	---	100.0	56.2	---	100.0
May 1933	42	.770	-15.3	84.7	49.9	-11.2	88.8
November 1933	56	.931	+20.9	102.4	36.0	-27.9	64.1
May 1934	59	.956	+2.7	105.2	36.0	(1)	64.1
July 1934	83	.927	-13.0	102.0	36.0	(1)	64.1
Mechanics, repair:							
California:							
May 1929	559	.900	---	100.0	48.2	---	100.0
May 1933	369	.858	-4.7	95.3	37.1	-23.0	77.0
November 1933	395	.903	+5.2	100.3	35.3	-4.9	73.2
May 1934	453	.883	-2.2	98.1	38.2	+8.2	79.3
July 1934	446	1.106	+25.3	122.9	36.0	-5.8	74.7
Oklahoma:							
May 1929	277	.635	---	100.0	59.2	---	100.0
May 1933	204	.583	-8.2	91.8	54.1	-8.6	91.4
November 1933	231	.748	+28.3	117.8	36.8	-32.0	62.2
May 1934	243	.787	+5.2	123.9	37.0	+ .5	62.5
July 1934	229	.810	+2.9	127.6	37.1	+ .3	62.7
Texas:							
May 1929	150	.637	---	100.0	61.5	---	100.0
May 1933	135	.642	+ .8	100.8	55.0	-10.6	89.4
November 1933	183	.805	+25.4	123.4	36.6	-33.5	59.5
May 1934	169	.827	+2.7	129.8	35.2	-3.8	57.2
July 1934	176	.847	+2.4	133.0	37.3	+6.0	60.7
Pumpers:							
Arkansas:							
May 1929	399	.487	---	100.0	76.5	---	100.0
May 1933	224	.449	-7.8	92.2	64.7	-15.4	84.6
November 1933	405	.704	+56.8	144.6	36.0	-44.4	47.1
May 1934	408	.731	+3.8	150.1	36.1	+ .3	47.2
July 1934	409	.740	+1.2	152.0	36.2	+ .3	47.3
California:							
May 1929	2,529	.794	---	100.0	46.8	---	100.0
May 1933	2,102	.747	-5.9	94.1	35.1	-25.0	75.0
November 1933	2,255	.789	+5.6	99.4	37.2	+6.0	79.5
May 1934	2,267	.800	+1.4	100.8	35.2	-5.4	75.2
July 1934	2,284	.797	- .4	100.4	35.2	(1)	75.2
Colorado, Montana, New Mexico, and Wyoming:							
May 1929	250	.499	---	100.0	73.9	---	100.0
May 1933	438	.496	-5.8	105.8	58.1	-21.4	78.6
November 1933	514	.676	+36.3	144.1	38.5	-33.7	52.1
May 1934	526	.683	+1.0	145.6	39.0	+1.3	52.8
July 1934	548	.716	+4.8	152.7	40.3	+3.3	54.5
Indiana, Illinois, Michigan, and Ohio:							
May 1929	830	.436	---	100.0	64.6	---	100.0
May 1933	630	.457	+4.8	104.8	56.8	-12.1	87.9
November 1933	883	.599	+31.1	137.4	39.7	-30.1	61.5
May 1934	744	.600	+ .1	137.6	39.6	- .3	61.3
July 1934	718	.590	-1.7	135.3	39.5	- .3	61.1
Kansas:							
May 1929	567	.402	---	100.0	74.5	---	100.0
May 1933	701	.357	-11.2	88.8	70.1	-5.9	94.1
November 1933	961	.627	+75.6	156.0	37.7	-46.2	50.6
May 1934	1,040	.659	+5.1	163.9	37.3	-1.1	50.1
July 1934	1,069	.676	+2.6	168.2	37.3	(1)	50.1

1 No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per- cent of change	Index numbers	Number	Per- cent of change	Index numbers
Pumpers—Continued.							
Kentucky and West Virginia:							
May 1929.....	461	\$0.542	-----	100.0	50.1	-----	100.0
May 1933.....	394	.429	-20.8	79.2	48.7	-2.8	97.2
November 1933.....	407	.578	+34.7	106.6	39.9	-18.1	79.6
May 1934.....	416	.606	+4.8	111.8	39.9	(1)	79.6
July 1934.....	416	.604	-3	111.4	36.9	-7.5	73.7
Louisiana:							
May 1929.....	583	.546	-----	100.0	65.4	-----	100.0
May 1933.....	488	.538	-1.5	98.5	55.6	-15.0	85.0
November 1933.....	673	.688	+27.9	126.0	37.4	-32.7	57.2
May 1934.....	775	.698	+1.5	127.8	37.1	-8	56.7
July 1934.....	741	.745	+6.7	136.4	37.1	(1)	56.7
New York and Pennsylvania:							
May 1929.....	820	.556	-----	100.0	51.8	-----	100.0
May 1933.....	780	.454	-19.8	80.2	49.3	-4.8	95.2
November 1933.....	992	.640	+41.0	113.1	36.7	-25.6	70.8
May 1934.....	1,031	.663	+3.6	117.1	35.7	-2.7	68.9
July 1934.....	1,025	.665	+3	117.5	36.1	+1.1	69.7
Oklahoma:							
May 1929.....	3,223	.451	-----	100.0	68.2	-----	100.0
May 1933.....	3,212	.421	-6.7	93.3	63.6	-6.7	93.3
November 1933.....	4,342	.652	+54.9	144.6	37.1	-41.7	54.4
May 1934.....	4,652	.696	+6.7	154.3	37.1	(1)	54.4
July 1934.....	4,807	.727	+4.5	161.2	36.8	-8	54.0
Texas:							
May 1929.....	2,710	.461	-----	100.0	76.1	-----	100.0
May 1933.....	3,277	.474	+2.8	102.8	62.4	-18.0	82.0
November 1933.....	4,282	.671	+41.6	145.6	37.9	-39.3	49.8
May 1934.....	4,600	.724	+7.9	152.0	37.2	-1.8	48.9
July 1934.....	4,783	.755	+4.3	163.8	36.9	-8	48.5
Rig builders:							
California:							
May 1929.....	177	1.165	-----	100.0	47.9	-----	100.0
May 1933.....	98	1.005	-13.7	86.3	36.6	-23.6	76.4
November 1933.....	104	1.040	+3.5	89.3	36.0	-1.6	75.2
May 1934.....	153	1.040	(1)	89.3	36.0	(1)	75.2
July 1934.....	152	1.041	+1	89.4	36.0	(1)	75.2
Kentucky and West Virginia:							
May 1929.....	30	.615	-----	100.0	48.2	-----	100.0
May 1933.....	20	.489	-20.5	79.5	47.9	-6	99.4
November 1933.....	28	.607	+24.1	98.7	39.9	-16.7	82.8
May 1934.....	48	.620	+2.1	100.8	40.3	+1.0	83.6
July 1934.....	48	.624	+6	101.5	40.1	-5	83.2
Oklahoma:							
May 1929.....	169	1.170	-----	100.0	62.0	-----	100.0
May 1933.....	44	.859	-26.6	73.4	59.6	-3.9	96.1
November 1933.....	90	1.020	+18.7	87.2	35.3	-40.8	56.9
May 1934.....	69	.927	-9.1	79.2	36.4	+3.1	58.7
July 1934.....	75	.975	+5.2	83.3	36.4	(1)	58.7
Texas:							
May 1929.....	53	1.195	-----	100.0	64.2	-----	100.0
May 1933.....	163	.926	-22.5	77.5	50.0	-22.1	77.9
November 1933.....	270	1.012	+10.9	84.7	37.0	-26.0	57.6
May 1934.....	261	1.091	+7.8	91.3	39.0	+5.4	60.7
July 1934.....	296	1.105	+1.3	92.5	39.9	+2.3	62.1
Routabouts:							
Arkansas:							
May 1929.....	509	.504	-----	100.0	64.3	-----	100.0
May 1933.....	303	.444	-11.9	88.1	58.1	-9.6	90.4
November 1933.....	414	.655	+47.5	130.0	35.8	-38.4	55.7
May 1934.....	411	.690	+5.3	136.9	36.0	+6	56.0
July 1934.....	407	.694	+6	137.7	36.0	(1)	56.0
California:							
May 1929.....	3,005	.715	-----	100.0	47.0	-----	100.0
May 1933.....	1,333	.689	-3.6	96.4	36.8	-21.7	78.3
November 1933.....	1,523	.726	+5.4	101.5	35.5	-3.5	75.5
May 1934.....	1,718	.715	-1.5	100.0	36.2	+2.0	77.0
July 1934.....	1,756	.709	-8	99.2	35.9	-8	76.4

(1) No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per- cent of change	Index num- bers	Num- ber	Per- cent of change	Index num- bers
Roustabouts—Continued.							
Colorado, Montana, New Mexico, and Wyoming:							
May 1929.....	300	\$0.505	-----	100.0	62.1	-----	100.0
May 1933.....	327	.482	-4.6	95.4	48.5	-21.9	78.1
November 1933.....	360	.612	+27.0	121.2	37.0	-23.7	59.6
May 1934.....	538	.618	+1.0	122.4	35.6	-3.8	57.3
July 1934.....	493	.650	+5.2	128.7	36.3	+2.0	58.5
Illinois, Indiana, Michigan, and Ohio:							
May 1929.....	425	.437	-----	100.0	62.4	-----	100.0
May 1933.....	261	.452	+3.4	103.4	53.5	-14.3	85.7
November 1933.....	117	.601	+33.0	137.5	41.9	-21.7	67.1
May 1934.....	269	.641	+6.7	146.7	40.3	-3.8	64.6
July 1934.....	300	.617	-3.7	141.2	37.9	-6.0	60.7
Kansas:							
May 1929.....	737	.462	-----	100.0	61.2	-----	100.0
May 1933.....	677	.406	-12.1	87.9	62.5	+2.1	102.1
November 1933.....	1,035	.574	+41.4	124.2	36.7	-41.3	60.0
May 1934.....	1,125	.623	+8.5	134.8	36.6	-3	59.8
July 1934.....	1,132	.633	+1.6	137.0	36.5	-3	59.6
Kentucky and West Virginia:							
May 1929.....	368	.443	-----	100.0	52.3	-----	100.0
May 1933.....	324	.388	-12.4	87.6	50.1	-4.2	95.8
November 1933.....	385	.518	+33.5	116.9	39.8	-20.6	76.1
May 1934.....	402	.542	+4.6	122.3	39.9	+3	76.3
July 1934.....	416	.541	-2	122.1	39.7	-5	75.9
Louisiana:							
May 1929.....	698	.535	-----	100.0	61.5	-----	100.0
May 1933.....	473	.521	-2.6	97.4	52.4	-14.8	85.2
November 1933.....	828	.675	+29.6	126.2	36.9	-29.6	60.0
May 1934.....	987	.699	+3.6	130.7	36.6	-8	59.5
July 1934.....	986	.707	+1.1	132.1	36.8	+5	59.8
New York and Pennsylvania:							
May 1929.....	685	.559	-----	100.0	51.6	-----	100.0
May 1933.....	412	.449	-19.7	80.3	48.8	-5.4	94.6
November 1933.....	637	.598	+33.2	107.0	37.1	-24.0	71.9
May 1934.....	876	.622	+4.0	111.3	36.6	-1.3	70.9
July 1934.....	800	.625	+5	111.8	36.6	(¹)	70.9
Oklahoma:							
May 1929.....	5,414	.500	-----	100.0	58.7	-----	100.0
May 1933.....	2,976	.444	-11.2	88.8	54.8	-6.6	93.4
November 1933.....	4,055	.610	+37.4	122.0	36.7	-33.0	62.5
May 1934.....	4,293	.663	+8.7	132.6	36.3	-1.1	61.8
July 1934.....	4,430	.658	-8	131.6	35.9	-1.1	61.2
Texas:							
May 1929.....	3,307	.508	-----	100.0	62.1	-----	100.0
May 1933.....	2,773	.507	-2	99.8	53.1	-14.5	85.5
November 1933.....	3,535	.647	+27.6	127.4	36.3	-31.6	58.5
May 1934.....	4,169	.673	+4.0	132.5	37.2	+2.5	59.9
July 1934.....	4,104	.689	+2.4	135.6	36.6	-1.6	58.9
Stillmen and dehydrators:							
California:							
May 1929.....	258	.835	-----	100.0	49.3	-----	100.0
May 1933.....	243	.779	-6.7	93.3	40.5	-17.8	82.2
November 1933.....	270	.875	+12.3	104.8	35.8	-11.6	72.6
May 1934.....	251	.873	-2	104.6	36.5	+2.0	74.0
July 1934.....	269	.873	(¹)	104.6	35.6	-2.5	72.2
Colorado, Montana, New Mexico, and Wyoming:							
May 1929.....	22	.668	-----	100.0	60.0	-----	100.0
May 1933.....	52	.573	-14.2	85.8	52.5	-12.5	87.5
November 1933.....	59	.757	+32.1	113.3	36.0	-31.4	60.0
May 1934.....	63	.765	+1.1	114.5	36.0	(¹)	60.0
July 1934.....	82	.816	+6.7	122.2	34.7	-3.6	57.8
Louisiana:							
May 1929.....	46	.638	-----	100.0	59.6	-----	100.0
May 1933.....	26	.587	-8.0	92.0	53.3	-10.6	89.4
November 1933.....	35	.849	+44.6	133.1	36.2	-32.6	60.7
May 1934.....	36	.859	+1.2	134.6	36.2	(¹)	60.7
July 1934.....	39	.863	+5	135.3	36.2	(¹)	60.7

¹ No change.

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Percent of change	Index numbers	Number	Percent of change	Index numbers
Stillmen and dehydrators—Continued.							
Oklahoma:							
May 1929	434	\$0.545	-----	100.0	63.8	-----	100.0
May 1933	344	.503	-7.7	92.3	54.9	-13.9	86.1
November 1933	461	.710	+41.2	130.3	36.6	-33.3	57.4
May 1934	459	.733	+3.2	134.5	36.9	+1.8	57.8
July 1934	478	.752	+2.6	138.0	36.7	-.5	57.5
Texas:							
May 1929	183	.531	-----	100.0	70.0	-----	100.0
May 1933	94	.493	-7.2	92.8	62.0	-11.4	88.6
November 1933	185	.727	+47.5	136.9	36.2	-41.6	51.7
May 1934	195	.763	+5.0	143.7	35.7	-1.4	51.0
July 1934	200	.772	+1.2	145.4	36.4	+2.0	52.0
Tool dressers:							
California:							
May 1929	378	.999	-----	100.0	50.0	-----	100.0
May 1933	155	.918	-8.1	91.9	34.8	-30.4	69.6
November 1933	152	.984	+7.2	98.5	34.6	-.6	69.2
May 1934	187	.978	-.6	97.9	35.1	+1.4	70.2
July 1934	220	.932	-4.7	93.3	33.1	-5.7	66.2
Colorado, Montana, New Mexico, and Wyoming:							
May 1929	49	.740	-----	100.0	83.0	-----	100.0
May 1933	29	.713	-3.6	96.4	46.2	-44.3	55.7
November 1933	53	.748	+4.9	101.1	45.8	-.9	55.2
May 1934	71	.855	+14.3	115.5	43.8	-4.4	52.8
July 1934	61	.885	+3.5	119.6	45.0	+2.7	54.2
Illinois, Indiana, Michigan, and Ohio:							
May 1929	84	.622	-----	100.0	68.3	-----	100.0
May 1933	28	.547	-12.1	87.9	70.9	+3.8	103.8
November 1933	115	.779	+42.4	125.2	45.8	-35.4	67.1
May 1934	103	.827	+6.2	133.0	46.0	+1.4	67.3
July 1934	100	.838	+1.3	134.7	45.8	-.4	67.1
Kansas:							
May 1929	78	.889	-----	100.0	83.6	-----	100.0
May 1933	53	.647	-27.2	72.8	72.5	-13.3	86.7
November 1933	83	.787	+21.6	88.5	41.1	-43.3	49.2
May 1934	109	.818	+3.9	92.0	42.7	+3.9	51.1
July 1934	100	.813	-.6	91.5	41.4	-3.0	49.5
New York and Pennsylvania:							
May 1929	183	.589	-----	100.0	70.0	-----	100.0
May 1933	45	.427	-27.5	72.5	60.0	-14.3	85.7
November 1933	137	.620	+45.2	105.3	42.5	-29.2	60.7
May 1934	161	.765	+23.4	129.9	42.2	-.7	60.3
July 1934	178	.764	-.1	129.7	42.1	-.2	60.1
Oklahoma:							
May 1929	424	.790	-----	100.0	77.8	-----	100.0
May 1933	77	.661	-16.3	83.7	63.2	-18.8	81.2
November 1933	245	.742	+12.3	93.9	45.0	-28.8	57.8
May 1934	207	.820	+10.5	103.8	43.9	-2.4	56.4
July 1934	251	.869	+6.0	110.0	44.3	+1.9	56.9
Texas:							
May 1929	369	.664	-----	100.0	77.4	-----	100.0
May 1933	90	.636	-4.2	95.8	62.1	-19.0	81.0
November 1933	187	.855	+34.4	128.8	41.9	-33.2	54.1
May 1934	316	.867	+1.4	130.6	46.0	+9.8	59.4
July 1934	306	.947	+9.2	142.6	41.3	-10.2	53.4
Truck drivers:							
Arkansas:							
May 1929	51	.499	-----	100.0	64.4	-----	100.0
May 1933	27	.413	-17.2	82.8	59.6	-7.5	92.5
November 1933	25	.658	+69.2	131.9	36.0	-39.6	55.9
May 1934	24	.717	+9.0	143.7	35.9	-.3	55.7
July 1934	27	.770	+7.4	154.3	35.8	-.3	55.6
California:							
May 1929	795	.845	-----	100.0	48.4	-----	100.0
May 1933	263	.769	-9.0	91.0	39.8	-17.8	82.2
November 1933	278	.823	+7.0	97.4	35.1	-11.8	72.5
May 1934	319	.819	-.5	96.9	35.7	+1.7	73.8
July 1934	354	.823	+5	97.4	35.8	+1.3	74.0

Table 1.—Changes in Average Wage Rates Per Hour and Average Full-Time Hours Per Week in 19 Occupations for Five Selected Periods—Continued

Occupation, State or region, and period	Number of employees	Average rate per hour			Average full-time hours per week		
		Amount	Per cent of change	Index numbers	Number	Per cent of change	Index numbers
Truck drivers—Continued.							
Colorado, Montana, New Mexico, and Wyoming:							
May 1929	70	\$0.593	-----	100.0	63.3	-----	100.0
May 1933	65	.565	-4.7	95.3	49.5	-21.8	78.2
November 1933	73	.688	+21.8	116.0	38.7	-21.8	61.1
May 1934	86	.708	+2.9	119.4	38.7	(¹)	61.1
July 1934	86	.736	+4.0	124.1	38.7	(¹)	61.1
Kansas:							
May 1929	138	.511	-----	100.0	63.1	-----	100.0
May 1933	118	.434	-15.1	84.9	58.6	-7.1	92.9
November 1933	161	.669	+54.1	130.9	36.9	-37.0	58.5
May 1934	173	.670	+1	131.1	37.0	+3	58.6
July 1934	182	.687	+2.5	134.4	37.0	(¹)	58.6
Louisiana:							
May 1929	89	.502	-----	100.0	61.7	-----	100.0
May 1933	81	.523	+4.2	104.2	49.5	-19.8	80.2
November 1933	110	.689	+31.7	137.3	37.7	-23.8	61.1
May 1934	135	.742	+7.7	147.8	37.1	-1.6	60.1
July 1934	137	.745	+4	148.4	37.3	+5	60.5
New York and Pennsylvania:							
May 1929	84	.612	-----	100.0	51.1	-----	100.0
May 1933	86	.501	-18.1	81.9	48.5	-5.1	94.9
November 1933	104	.712	+42.1	116.3	36.5	-24.7	71.4
May 1934	112	.735	+3.2	120.1	36.8	+8	72.0
July 1934	110	.744	+1.2	121.6	36.7	-3	71.8
Oklahoma:							
May 1929	994	.548	-----	100.0	60.0	-----	100.0
May 1933	541	.483	-11.9	88.1	68.3	+13.8	113.8
November 1933	629	.691	+43.1	126.1	38.2	-44.1	63.7
May 1934	657	.726	+5.1	132.5	37.2	-2.6	62.0
July 1934	677	.740	+1.9	135.0	37.4	+5	62.3
Texas:							
May 1929	589	.727	-----	100.0	63.1	-----	100.0
May 1933	548	.604	-16.9	83.1	53.8	-14.7	85.3
November 1933	711	.754	+24.8	103.7	39.5	-26.6	62.6
May 1934	794	.779	+3.3	107.2	36.7	-7.1	58.2
July 1934	808	.806	+3.5	110.9	36.4	-8	57.7

¹ No change.

Average Hourly Earnings

THE 38,372 employees covered by the survey, in establishments engaged in drilling and the production of petroleum, earned an average of 77.9 cents per hour in 1934. In the pipe-line branch of the industry the hourly earnings during the same period averaged 77.4 cents. When compared with the average hourly earnings for other nonmanufacturing industries, the average for drilling and production employees ranks high, as the average hourly earnings¹⁰ in anthracite mining in August 1934 were 83.0 cents; in bituminous coal mining, 71.8 cents; in metalliferous mining, 55.7 cents; in the telephone and telegraph industry, 71.9 cents; and in the electric light and power and manufactured-gas industry, 77.2 cents.

The extent to which average hourly earnings varied among the workers covered is shown in the frequency distribution in table 2.

¹⁰ Computed by the Bureau's Employment Division from monthly employment reports.

Only 1.3 percent of the total number of employees earned less than 42.5 cents per hour; and 5.4 percent received 42.5 and under 52.5 cents per hour, the range which includes the minima for common labor set in the code.¹¹ Those earning 52.5 and under 72.5 cents per hour included 26.7 percent or slightly more than one-fourth of the total.

Almost one-half (46.9 percent) earned an average of 72.5 and under 87.5 cents. Nearly one-fifth (19.7 percent) earned 87.5 cents or over per hour, and of these almost half received \$1 or over per hour.

Table 2.—Number and Percent of Drilling and Production Employees Receiving Classified Average Hourly Earnings, 1934

Average hourly earnings	Number of employees	Simple percentage	Cumulative percentage
Under 42.5 cents.....	496	1.3	1.3
42.5 and under 47.5 cents.....	351	.9	2.2
47.5 and under 52.5 cents.....	1,741	4.5	6.7
52.5 and under 57.5 cents.....	997	2.6	9.3
57.5 and under 62.5 cents.....	2,030	5.3	14.6
62.5 and under 67.5 cents.....	2,960	7.7	22.3
67.5 and under 72.5 cents.....	4,256	11.1	33.4
72.5 and under 77.5 cents.....	8,821	23.1	56.5
77.5 and under 82.5 cents.....	5,146	13.4	69.9
82.5 and under 87.5 cents.....	3,987	10.4	80.3
87.5 and under 92.5 cents.....	2,042	5.3	85.6
92.5 cents and under \$1.....	1,834	4.8	90.4
\$1 and under \$1.10.....	1,355	3.5	93.9
\$1.10 and over.....	2,356	6.1	100.0

Among the 14 specific occupations covered in this part of the survey, roustabouts and laborers received on the average the least, 66.4 cents per hour, and rotary drillers the most, \$1.321.¹² Cable drillers earned an average of \$1.017¹² per hour, and clean-out drillers 94.6 cents. Rig builders received an average of \$1.003 per hour, while tool dressers' earnings amounted to 85.8 cents per hour. The hourly earnings of pumpers were 71 cents, or approximately 7 cents less than the average for the industry branch as a whole. Truck drivers received on the average 74.3 cents per hour. The average hourly earnings of the remaining occupations ranged from 78.7 to 81.2 cents per hour.¹³

A distribution of employees by average earnings per hour for eight of the leading occupations—cable drillers, rotary drillers, rotary drillers' helpers, pumpers, rig builders, roustabouts and laborers, tool dressers, and truck drivers—is shown in table 3, which permits

¹¹ Code rates for common labor ranged from 45 to 52 cents per hour according to geographical division, but did not apply to "substandard" workers.

¹² Code rates for rotary tool drillers and cable tool drillers were \$1.25 and \$1 per hour, respectively, and for rotary tool helpers and cable tool helpers 75 and 87.5 cents per hour, respectively. In certain approved cases a 15-percent reduction could be permitted in areas not exceeding 2,500 feet in depth and a 25-percent reduction in areas not exceeding 1,000 feet in depth.

¹³ The actual average earnings per hour for these occupations were 79.0 cents for clean-out drillers' helpers, 79.5 cents for air and gas lift engineers, 79.9 cents for casing pullers, 81.2 cents for rotary drillers' helpers, 81.1 cents for gagers, and 78.7 cents for stillmen and dehydrators.

of a more detailed comparison than can be secured from general occupational averages.

Employees earning less than 42.5 cents per hour were concentrated in four occupations, namely rotary drillers' helpers, pumpers, roustabouts and laborers, and truck drivers, but in none of these occupations did they form more than a very small proportion of the total. In the group receiving 42.5 and under 52.5 cents per hour were found 0.2 percent of the rotary drillers' helpers, 5.1 percent of the pumpers, 2.3 percent of the rig builders, 14.6 percent of the roustabouts and laborers, 0.1 percent of the tool dressers, and 4.9 percent of the truck drivers. The percentage for roustabouts and laborers indicates that only a small proportion even of the unskilled workers were paid the minimum rates set by the code. There were no employees receiving less than 52.5 cents per hour among the cable drillers and rotary drillers.

The majority of all employees in these occupations, with the exception of cable drillers, rotary drillers, rig builders, and roustabouts and laborers, earned 72.5 cents and under \$1 per hour. These percentages in the various occupations were 38.8 for cable drillers, 1.8 for rotary drillers, 91.5 for rotary drillers' helpers, 58.2 for pumpers, 31.9 for rig builders, 35.5 for roustabouts and laborers, 78.3 for tool dressers, and 66.8 for truck drivers.

Very few employees other than cable drillers, rotary drillers, and rig builders made \$1 or over per hour. In the case of cable drillers, over one-half or 59 percent earned \$1 or over per hour, and 34.8 percent earned \$1 and under \$1.10 per hour. Nearly 90 percent of the rotary drillers earned between \$1.20 and \$1.50 per hour, the largest group, 38.8 percent, earning between \$1.30 and \$1.40 per hour. Forty-five percent of all rig builders earned between \$1 and \$1.30 per hour, with 18.9 percent earning between \$1.20 and \$1.30 per hour.

The average hourly earnings among the remaining groups were 86 cents for skilled construction, maintenance, and power employees, 74.3 cents for semiskilled construction, maintenance, and power employees, 82.5 cents for supervisory field employees, 95.3 cents for supervisory office employees, 81.2 cents for nonsupervisory office employees, and 69.2 cents for miscellaneous labor.

Table 3.—Distribution of Employees in 8 Important Occupations in Oil Drilling and Production by Average Hourly Earnings, 1934

Average hourly earnings	Drillers, cable		Drillers, rotary		Drillers, rotary, helpers		Pumpers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 42.5 cents					(1)	(1)	2.8	2.8
42.5 and under 47.5 cents					(1)	(1)	1.5	4.3
47.5 and under 52.5 cents					0.2	0.2	3.6	7.9
52.5 and under 57.5 cents					.3	.5	2.0	9.9
57.5 and under 62.5 cents	0.2	0.2			.5	1.0	7.1	17.0
62.5 and under 67.5 cents		.2			1.6	2.6	8.6	25.6
67.5 and under 72.5 cents	2.0	2.2			2.4	5.0	15.0	40.6
72.5 and under 77.5 cents	4.2	6.4	0.2	0.2	36.9	41.9	27.5	68.1
77.5 and under 82.5 cents	1.4	7.8	.2	.4	17.4	59.3	19.0	87.1
82.5 and under 87.5 cents	12.8	20.6	.4	.8	18.9	78.2	9.7	96.8
87.5 and under 92.5 cents	8.4	29.0	.1	.9	11.0	89.2	.9	97.7
92.5 cents and under \$1	12.0	41.0	.9	1.8	7.3	96.5	1.1	98.8
\$1 and under \$1.10	34.8	75.8	2.1	3.9	3.0	99.5	.7	99.5
\$1.10 and under \$1.20	7.9	83.7	3.0	6.9	.3	99.8	.2	99.7
\$1.20 and under \$1.30	8.1	91.8	29.7	36.6	.1	99.9	.1	99.8
\$1.30 and under \$1.40	1.6	98.2	38.8	75.4	(1)	99.9	.1	99.9
\$1.40 and under \$1.50	1.6	99.8	19.7	95.1	(1)	100.0	(1)	99.9
\$1.50 and over	.2	100.0	4.9	100.0	(1)	100.0	.1	100.0

Average hourly earnings	Rig builders		Roustabouts and laborers		Tool dressers		Truck drivers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 42.5 cents			1.3	1.3			0.6	0.6
42.5 and under 47.5 cents	0.6	0.6	1.3	2.6			.9	1.5
47.5 and under 52.5 cents	1.7	2.3	13.3	15.9	0.1	0.1	4.0	5.5
52.5 and under 57.5 cents	1.5	3.8	5.8	21.7	.4	.5	1.8	7.3
57.5 and under 62.5 cents	2.9	6.7	9.9	31.6	2.6	3.1	5.7	13.0
62.5 and under 67.5 cents	3.7	10.4	15.4	47.0	4.0	7.1	10.1	23.1
67.5 and under 72.5 cents	4.6	15.0	17.5	64.5	1.3	8.4	9.3	32.4
72.5 and under 77.5 cents	4.4	19.4	25.5	90.0	20.0	28.4	24.7	57.1
77.5 and under 82.5 cents	.4	19.8	5.5	95.5	7.9	36.3	17.0	74.1
82.5 and under 87.5 cents	1.9	21.7	3.8	99.3	11.3	47.6	15.7	89.8
87.5 and under 92.5 cents	1.5	23.2	.6	99.9	25.6	73.2	6.2	96.0
92.5 cents and under \$1	23.7	46.9	.1	100.0	13.5	86.7	3.2	99.2
\$1 and under \$1.10	12.4	59.3	(1)	100.0	11.3	98.0	.3	99.5
\$1.10 and under \$1.20	13.7	73.0	(1)	100.0	1.9	99.9	.2	99.7
\$1.20 and under \$1.30	18.9	91.9		100.0	.1	100.0	.1	99.8
\$1.30 and under \$1.40	6.0	97.9		100.0			.1	99.9
\$1.40 and under \$1.50	.4	98.3	(1)	100.0				99.9
\$1.50 and over	1.7	100.0					.1	100.0

¹ Less than 1/10 of 1 percent.

Average hourly earnings were lowest in the States east of the Mississippi River. This area is commonly known as "stripper" territory. The average earnings per hour for employees in these States were as follows: Illinois, Indiana, Michigan, and Ohio, 66.5 cents; Kentucky and West Virginia, 56.5 cents; and New York and Pennsylvania, 68.5 cents. The highest average hourly earnings other than those of workers in what has been termed the "Other Texas"

region ¹⁴ (96.2 cents), practically all of whom were doing rig building and rotary drilling work, were 85.6 cents for employees in California. The average earnings per hour for other important producing States or regions were 78.5 cents for Louisiana, 75.2 cents for Oklahoma, 81.6 cents for east Texas, and 84.6 cents for Gulf Coast Texas. The average earnings per hour for the remaining regions were: Arkansas, 70.8 cents; Colorado, Montana, New Mexico, and Wyoming, 77.5 cents; Kansas, 70.4 cents; central Texas, 77.1 cents; north Texas, 72.1 cents; Panhandle Texas, 74.3 cents; southwest Texas, 78.5 cents; and west Texas, 81.4 cents.

The average hourly earnings for specific occupations and occupational groups by States or regions are shown in table 4. It may be seen from this table that the average earnings of pumpers, an occupation found in all States and regions except one, ranged from a low of 53.7 cents per hour for Kentucky and West Virginia to a high of 79.1 cents in California. The earnings per hour of this occupation in the other eastern States were 58.0 cents for Illinois, Indiana, Michigan, and Ohio, and 67.2 cents for New York and Pennsylvania. The latter average is slightly higher than the earnings for this occupation in Kansas and central Texas and not far below the average of 70.5 cents for pumpers in Colorado, Montana, New Mexico, and Wyoming, 69.9 cents for Oklahoma, 69.3 cents for north Texas, and 68.3 cents for Panhandle Texas. The averages for the other States or regions were 73.2 cents for Arkansas, 72.6 cents for Louisiana, 76.9 cents for east Texas, 78.3 cents for Gulf Coast Texas, 74.9 cents for southwest Texas, and 74.1 cents for west Texas.

Roustabouts and laborers earned an average of 49.3 cents per hour in Kentucky and West Virginia as compared to 55.7 cents for Illinois, Indiana, Michigan, and Ohio. These averages are influenced by the wage provisions of the code, which set the minimum common-labor rate at 45 cents in Kentucky and West Virginia and 52 cents in Illinois, Indiana, Michigan, and Ohio. The highest hourly earnings for this occupation were found in Louisiana and Gulf Coast Texas, where they were 74.1 cents and 73.6 cents respectively.

¹⁴ I. e., employees working in various parts of the State who could not be allocated to any one district. The districts in Texas as used in this report, with the exception of "Other Texas," are those used in the Bureau of Mines reports.

Table 4.—Average Hourly Earnings by Occupations and by Regions, 1934

Occupation or occupational group	Arkansas	California	Colorado, Montana, New Mexico, and Wyoming	Illinois, Indiana, Michigan, and Ohio	Kansas	Kentucky and West Virginia	Louisiana	New York and Pennsylvania
All occupations.....	\$0.708	\$0.856	\$0.775	\$0.665	\$0.704	\$0.565	\$0.785	\$0.685
Air and gas lift engineers.....	(1)	.847	.820	(1)	(1)	.644	(1)	.660
Casing pullers.....	(1)	.803	(1)	(1)	(2)	(1)	(2)	(2)
Drillers, cable.....	(1)	(1)	1.040	.971	1.018	(1)	(1)	.861
Drillers, clean-out.....	(1)	(2)	(1)	(1)	(1)	.736	(1)	.861
Drillers, clean-out, helpers.....	(1)	(1)	(1)	(1)	(1)	.645	(1)	(2)
Drillers, rotary.....	(1)	1.329	1.259	(2)	1.280	(2)	1.326	(2)
Drillers, rotary, helpers.....	.669	.885	.778	(1)	.750	(2)	.770	(2)
Gagers.....	(2)	.912	(1)	(2)	(1)	(1)	(1)	(1)
Pumpers.....	.732	.791	.705	.580	.666	.537	.726	.672
Rig builders.....	(2)	1.040	(1)	(2)	(1)	(1)	(1)	(1)
Roustabouts and laborers.....	.669	.689	.672	.557	.606	.493	.741	.626
Stillmen and dehydrators.....	(1)	.860	.676	(1)	(1)	.675	.794	(1)
Tool dressers.....	(1)	.958	.897	.852	.873	(1)	(1)	.746
Truck drivers.....	.623	.807	.712	.597	.662	(1)	.691	.722
Construction, maintenance, and power employees, skilled.....	(1)	.892	.857	(1)	(1)	(1)	.902	.850
Construction, maintenance, and power employees, semiskilled.....	(1)	.768	.788	(2)	(1)	(1)	.685	(1)
Supervisory employees, field.....	.735	.973	.887	.774	.664	.671	.809	.668
Supervisory employees, office.....	(1)	1.025	(1)	(1)	(1)	(1)	(2)	(1)
Nonsupervisory employees, office.....	(1)	.838	(1)	(1)	.646	(1)	.823	.650
Miscellaneous labor.....	(1)	.722	(1)	(1)	.696	(1)	.688	(1)

Occupation or occupational group	Oklahoma	Central Texas	East Texas	Gulf Coast Texas	North Texas	Panhandle Texas	Southwest Texas	West Texas	Other Texas
All occupations.....	\$0.752	\$0.771	\$0.816	\$0.846	\$0.721	\$0.743	\$0.785	\$0.814	\$0.962
Air and gas lift engineers.....	.800	(1)	(1)	(1)	.812	.764	(1)	(2)	(2)
Casing pullers.....	(1)	(2)	(2)	(2)	(1)	(2)	(1)	(1)	(1)
Drillers, cable.....	1.040	(1)	(1)	(2)	.993	1.082	(2)	1.209	(2)
Drillers, clean-out.....	1.005	(2)	(1)	(2)	(1)	.990	(1)	(1)	(2)
Drillers, clean-out, helpers.....	.820	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Drillers, rotary.....	1.280	1.383	1.347	1.353	1.259	(1)	1.243	(1)	(2)
Drillers, rotary, helpers.....	.784	.811	.812	.794	.740	.753	.751	.792	.750
Gagers.....	(1)	(1)	.708	.822	(2)	(2)	(1)	(1)	(2)
Pumpers.....	.699	.668	.769	.783	.693	.683	.749	.741	(2)
Rig builders.....	.986	(1)	1.272	.872	(2)	(1)	(1)	(1)	1.098
Roustabouts and laborers.....	.676	.614	.690	.736	.639	.650	.666	.686	(1)
Stillmen and dehydrators.....	.770	(2)	(1)	(2)	(2)	(2)	(2)	(1)	(2)
Tool dressers.....	.881	(1)	(2)	(2)	.825	.905	(2)	.965	(2)
Truck drivers.....	.731	.801	.788	.825	.729	.721	.685	.801	(1)
Construction, maintenance, and power employees, skilled.....	.854	.955	.857	.887	.824	.690	(1)	.856	(1)
Construction, maintenance, and power employees, semiskilled.....	.747	(1)	.718	(1)	.731	(1)	(1)	.757	(2)
Supervisory employees, field.....	.757	.825	.861	.899	.741	.748	.877	.796	(1)
Supervisory employees, office.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Nonsupervisory employees, office.....	.866	.759	.769	.760	(1)	(1)	(1)	.893	(2)
Miscellaneous labor.....	.697	(1)	.612	.690	.574	.617	(1)	.777	(1)

¹ Not a sufficient number reported to present averages.

² None reported.

During the period 1920 to 1934 the average earnings per hour of all employees in this industry branch increased 13.4 percent, rising from 68.7 cents to 77.9 cents. In the four States ¹⁵ included in the 1929 survey, average hourly earnings rose from 64.7 ¹⁶ to 80.2 cents, an increase of 24 percent.

A distribution of all employees, by average earnings per hour for the years 1920 and 1934, is shown in table 5. The class intervals in this table are those used in the 1920 study and are broader than those

¹⁵ California, Louisiana, Oklahoma, and Texas.

¹⁶ This figure includes certain allowances for payments in kind, such as use of company houses, board, etc.

shown in earlier tables for 1934 alone. When the 1934 figures are compared with those for 1920 they show that there was little change during the 15-year period in the percentage of employees earning less than 40 cents per hour. However, if the amount is raised to include those earning under 50 cents per hour it can be seen that the percentage decreased by slightly over 60 percent between 1920 and 1934. While this shift may have taken place between 1920 and 1929, it is more likely that it occurred later as a result of the minimum rates established by the code, as all of the larger producing States other than California are located in geographical regions which had code minimum wage rates of 48 cents. Fifty-eight percent of all employees in 1920 earned 50 and under 70 cents per hour, while in 1934 slightly over that proportion earned 70 and under 90 cents per hour. There was very little change between the two periods in the proportion of workers earning \$1 or over per hour, the percentages being 11.9 in 1920 and 9.7 in 1934.

Table 5.—Distribution of Employees in Oil Drilling and Production According to Average Hourly Earnings in 1920 and 1934

Average hourly earnings	1920		1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 30 cents.....	0.1	0.1	0.2	0.2
30 and under 35 cents.....	.1	.2	.3	.5
35 and under 40 cents.....	1.3	1.5	.5	1.0
40 and under 45 cents.....	5.2	6.7	.7	1.7
45 and under 50 cents.....	4.0	10.7	2.5	4.2
50 and under 60 cents.....	26.9	37.6	7.0	11.2
60 and under 70 cents.....	31.1	68.7	14.0	25.2
70 and under 80 cents.....	11.6	80.3	37.5	62.7
80 and under 90 cents.....	6.1	86.4	20.9	83.6
90 cents and under \$1.....	1.7	88.1	6.7	90.3
\$1 and under \$1.25.....	7.3	95.4	5.4	95.7
\$1.25 and under \$1.50.....	4.1	99.5	3.9	99.6
\$1.50 and over.....	.5	100.0	.4	100.0

Average Weekly Hours

IN THE pay-roll period in August 1934 for which reports were received the average weekly hours of all employees in this industry branch were 36.2. Table 6 shows the distribution of these workers according to the hours worked during the pay-roll period covered.

In examining this table the labor provisions of the code should be kept in mind. As applied to drilling and production employees, the code stated: "The maximum hours for clerical workers shall not exceed 48 hours in any 1 week nor more than 80 hours in any 2 weeks." It also declared: "Employees on drilling operations other than clerical employees may work not more than 8 hours in any 1 day nor more than 48 hours in any 1 week, nor more than an average of 36 hours per week for any 26 consecutive calendar weeks; provided that such employees may work more than 8 hours in any 1 day, but not more

than 16 hours in any 2 days, if the conditions are such that relief is impracticable." It further stated: "All other employees * * * except executives, supervisors and their immediate staffs, and pumpers on 'stripper' wells and employees on isolated properties, shall work not more than 40 hours in any 1 week, nor more than 72 hours in any 2 weeks nor more than 16 hours in any 2 days."¹⁷

Table 6 shows that 13.3 percent of all employees worked a week of less than 32 hours. It may also be seen that almost one-third, or 30.5 percent, worked a week of 36 and under 40 hours. The greater part of the latter group worked the 36-hour week which was common in many of the larger firms. Likewise, a large proportion of the 18.9 percent included in the group working 32 and under 36 hours had a 32-hour week, and a considerable part of the 24.6 percent in the 40 and under 44-hour group had a 40-hour week. This is explained by the practice in some firms of operating their plants on the basis of 32 hours 1 week and 40 hours the next, instead of a straight 36-hour week. Almost 13 percent of all the employees worked a week of 44 hours or over. This class of workers was composed mostly of members of drilling crews, pumpers, roustabouts, and field supervisory employees.

The 14 occupations covered in the table may be classified into 3 general groups on the basis of the average hours worked per week. The first group embraces those below 34 hours, the second those above 35 and below 37 hours, and the third those 37 hours and above.

In the first group were found rig builders (30.4 hours), clean-out drillers' helpers (33.6 hours), and roustabouts and laborers (33.8 hours). These low averages are explained by the fluctuations in the amount of work available for these employees. The second group consisted of casing pullers (35.1 hours), stillmen and dehydrators (35.9 hours), truck drivers (36.1 hours), air and gas lift engineers and pumpers (36.5 hours), and rotary drillers' helpers (36.6 hours). The third group consisted mainly of occupations in drilling operation—clean-out drillers (37.2 hours), gaggers (37.8 hours), rotary drillers and tool dressers (38.2 hours), and cable drillers (39.3 hours). The drilling crews, being permitted to work up to 48 hours a week under the code, naturally had the highest average.

Table 6.—Distribution of Drilling and Production Employees According to Weekly Hours, 1934

Weekly hours	Number of employees	Simple percentage	Cumulative percentage
Under 16 hours.....	1,510	3.9	3.9
16 and under 32 hours.....	3,592	9.4	13.3
32 and under 36 hours.....	7,241	18.9	32.2
36 and under 40 hours.....	11,683	30.5	62.7
40 and under 44 hours.....	9,457	24.6	87.3
44 hours and over.....	4,889	12.7	100.0

¹⁷ Executives and supervisors receiving less than \$35 per week were later included under this provision but, on the other hand, "substandard workers" were exempted.

The distribution of employees by average weekly hours for the eight leading occupations are shown in table 7. With the exception of pumpers and rig builders, there was considerable uniformity in the distribution among the various occupations. As would be expected, in view of the prevalence of the straight 36-hour week and the continuity of pumping operations, a large proportion (49.4 percent) of the pumpers worked a week of 36 and under 40 hours. Among the rig builders, 22.5 percent worked a week of 16 and under 32 hours, this percentage reflecting the intermittent character of this type of work.

The average hours worked per week by the remaining occupational groups were 36.1 for skilled construction, maintenance, and power employees; 34.5 for semiskilled construction, maintenance, and power employees; 41.7 for field supervisory employees; 39.6 for office supervisory employees; 38.6 for nonsupervisory office workers; and 37 for miscellaneous labor.

The greater number of hours for supervisory field and supervisory and nonsupervisory office employees reflects the higher minimum hours permitted this class of employees under the code.

Table 7.—Distribution of Drilling and Production Employees in 8 Important Occupations by Weekly Hours, 1934

Weekly hours	Drillers, cable		Drillers, rotary		Drillers, rotary, helpers		Pumpers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 16 hours.....	4.7	4.7	3.5	3.5	6.7	6.7	1.2	1.2
16 and under 32 hours.....	11.2	15.9	11.1	14.6	13.3	20.0	6.2	7.4
32 and under 36 hours.....	8.9	24.8	18.6	33.2	16.5	36.5	17.5	24.9
36 and under 40 hours.....	13.1	37.9	13.7	46.9	13.8	50.3	49.4	74.3
40 and under 44 hours.....	24.1	62.0	27.6	74.5	27.0	77.3	18.4	92.7
44 hours and over.....	38.0	100.0	25.5	100.0	22.7	100.0	7.3	100.0

Weekly hours	Rig builders		Roustabouts and laborers		Tool dressers		Truck drivers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 16 hours.....	17.8	17.8	6.3	6.3	4.1	4.1	3.2	3.2
16 and under 32 hours.....	22.5	40.3	11.7	18.0	14.3	18.4	9.0	12.2
32 and under 36 hours.....	12.4	52.7	19.9	37.9	11.7	30.1	23.1	35.3
36 and under 40 hours.....	12.9	65.6	34.3	72.2	12.5	42.6	28.0	63.3
40 and under 44 hours.....	20.7	86.3	21.9	94.1	24.1	66.7	24.5	87.8
44 hours and over.....	13.7	100.0	5.9	100.0	33.3	100.0	12.2	100.0

While there was a tendency for the States in the "stripper" territory to have the highest average weekly hours, there was not a great amount of variation among the several States and regions. The averages were as follows: Arkansas, 36.4 hours; California, 35.4 hours; Colorado, Montana, New Mexico, and Wyoming, 38.9 hours;

Illinois, Indiana, Michigan, and Ohio, 38.4 hours; Kansas, 36.3 hours; Kentucky and West Virginia, 36.9 hours; Louisiana, 36.2 hours; New York and Pennsylvania, 36.9 hours; Oklahoma, 35.6 hours; central Texas, 37.5 hours; east Texas, 36.0 hours; Gulf Coast Texas, 36.3 hours; north Texas, 36.4 hours; Panhandle Texas, 38.7 hours; southwest Texas, 36.8 hours; west Texas, 36.1 hours, and "Other Texas", 35.2 hours.

As among the several occupations, the highest average weekly hours were 50.1 for supervisory field employees in Kansas and the lowest were 22.5 for rig builders in Oklahoma. The averages by occupations and occupational groups for each of the States and regions covered are presented in table 8.

The average weekly hours of all employees in this branch of the petroleum industry are not available for 1920, as the Bureau did not attempt in that survey to secure the hours worked in 1 week from plants that paid at less frequent intervals.¹⁸ In 1929, however, the Bureau secured actual hours worked in 1 week from all plants covered. The average shown in that year was 58.0 hours and may be compared with 36.0 hours for the same States in 1934—a decline of 37.9 percent.¹⁹

Table 8.—Average Weekly Hours of Drilling and Production Employees by Occupations and Regions, 1934

Occupation or occupational group	Arkansas	California	Colorado, Montana, New Mexico, and Wyoming	Illinois, Indiana, Michigan, and Ohio	Kansas	Kentucky and West Virginia	Louisiana	New York and Pennsylvania
All occupations.....	36.4	35.4	38.9	38.4	36.3	36.9	36.2	36.9
Air and gas lift engineers.....	(1)	35.8	36.1	(1)	(1)	38.7	(1)	40.0
Casing pullers.....	(1)	35.1	(1)	(1)	(2)	(1)	(2)	(2)
Drillers, cable.....	(1)	(1)	42.3	40.3	40.7	(1)	(1)	36.5
Drillers, clean-out.....	(1)	(2)	(1)	(1)	(1)	39.7	(1)	39.7
Drillers, clean-out, helpers.....	(1)	(1)	(1)	(1)	(1)	37.0	(1)	(2)
Drillers, rotary.....	(1)	35.1	48.8	(2)	38.3	(2)	38.0	(2)
Drillers, rotary, helpers.....	33.9	34.5	44.5	(1)	39.3	(2)	36.2	(2)
Gagers.....	(2)	37.3	(1)	(2)	(1)	(1)	(1)	(1)
Pumpers.....	36.6	35.2	39.7	38.4	36.2	37.4	36.2	36.8
Rig builders.....	(2)	34.2	(1)	(2)	(1)	(1)	(1)	(1)
Roustabouts and laborers.....	32.9	35.1	33.7	37.1	32.4	33.7	33.7	36.3
Stillmen and dehydrators.....	(1)	34.9	44.5	(1)	(1)	40.0	36.9	(1)
Tool dressers.....	(1)	36.3	43.3	40.2	40.4	(1)	(1)	36.5
Truck drivers.....	37.8	36.0	38.9	32.9	35.8	(1)	34.6	36.8
Construction, maintenance, and power employees, skilled.....	(1)	35.6	38.1	(1)	(1)	(1)	37.0	37.5
Construction, maintenance, and power employees, semiskilled.....	(1)	35.4	35.3	(2)	(1)	(1)	35.5	(1)
Supervisory employees, field.....	48.2	36.6	40.0	45.3	50.1	40.3	43.9	43.9
Supervisory employees, office.....	(1)	40.0	(1)	(1)	(1)	(1)	(2)	(1)
Nonsupervisory employees, office.....	(1)	38.8	(1)	(1)	40.3	(1)	39.5	39.0
Miscellaneous labor.....	(1)	35.6	(1)	(1)	39.6	(1)	36.7	(1)

¹ Not sufficient number reported to present averages.

² None reported.

¹⁸ For plants that had pay-roll periods of more than 1 week the Bureau secured from such plants only the hours worked and earnings made by each individual for the pay-roll period covered, regardless of whether it was 10 days, 2 weeks, one-half month, or 1 month.

¹⁹ See March 1930 issue of Monthly Labor Review for the 1929 average weekly hours by State or region.

Table 8.—Average Weekly Hours of Drilling and Production Employees by Occupations and Regions, 1934—Continued

Occupation or occupational group	Oklahoma	Central Texas	East Texas	Gulf Coast Texas	North Texas	Panhandle Texas	Southwest Texas	West Texas	Other Texas
All occupations.....	35.6	37.5	36.0	36.3	36.4	38.7	36.8	36.1	35.2
Air and gas lift engineers.....	35.2	(1)	(1)	(1)	36.8	36.8	(1)	(2)	(2)
Casing pullers.....	(1)	(2)	(2)	(2)	(1)	(2)	(1)	(1)	(2)
Drillers, cable.....	39.1	(1)	(1)	(2)	43.5	43.8	(2)	35.6	(2)
Drillers, clean-out.....	36.3	(2)	(1)	(2)	(1)	35.4	(1)	(1)	(2)
Drillers, clean-out, helpers.....	34.0	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
Drillers, rotary.....	42.3	35.8	37.3	38.0	40.4	(1)	43.3	(1)	(2)
Drillers, rotary, helpers.....	39.0	37.1	36.5	35.7	38.4	44.9	38.9	46.9	41.1
Gagers.....	(1)	(1)	41.0	35.5	(2)	(1)	(1)	(1)	(2)
Pumpers.....	36.3	39.5	35.4	36.7	37.1	37.1	35.1	35.9	(2)
Rig builder.....	22.5	(1)	24.2	34.5	(2)	(1)	(1)	(1)	30.8
Roustabouts and laborers.....	32.6	35.7	34.2	34.5	32.3	35.4	33.4	33.5	(1)
Stillmen and dehydrators.....	34.8	(2)	(1)	(2)	(2)	(2)	(2)	(1)	(2)
Tool dressers.....	37.0	(1)	(2)	(2)	37.7	42.0	(2)	35.2	(2)
Truck drivers.....	34.9	35.4	37.1	36.9	36.0	39.3	36.4	36.6	(1)
Construction, maintenance, and power employees, skilled.....	35.1	35.7	35.1	39.9	36.8	43.5	(1)	34.2	(1)
Construction, maintenance, and power employees, semiskilled.....	34.2	(1)	33.8	(1)	35.2	(1)	(1)	31.5	(2)
Supervisory employees, field.....	43.3	39.9	40.6	41.5	43.1	45.4	36.3	41.8	(1)
Supervisory employees, office.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Nonsupervisory employees, office.....	36.3	39.5	41.1	41.5	(1)	(1)	(1)	39.0	(2)
Miscellaneous labor.....	36.3	(1)	38.1	38.4	44.0	39.9	(1)	36.3	(2)

¹ Not a sufficient number reported to present averages.

² None reported.

Average Weekly Earnings

EMPLOYEES during the period covered by this survey earned an average of \$28.22 per week. This figure compares with \$27.44 for pipe-line employees during the same period. The distribution of these employees by weekly earnings can be found in table 9. The earnings shown are what the employees made during the week covered and include part-time as well as full-time workers.

An examination of this table shows that 8.1 percent of all employees earned under \$16 during the week. The number earning \$16 and under \$24 constituted 19.8 percent, making a total of 27.9 percent receiving less than \$24 per week. The largest single group, or 26.9 percent, earned \$24 and under \$28. Almost 30 percent earned \$28 and under \$36 per week, while those earning \$36 and over amounted to nearly 16 percent. In the latter group are to be found most of the cable and rotary drillers, as well as a goodly number of rotary drillers' helpers, rig builders, and tool dressers. As the code shortened the hours per week in many instances, average weekly earnings do not reflect fully the increases which took place in average hourly earnings.

Table 9.—Distribution of Drilling and Production Employees According to Weekly Earnings, 1934

Weekly earnings	Number of employees	Simple percentage	Cumulative percentage
Under \$8.....	1,222	3.2	3.2
\$8 and under \$16.....	1,895	4.9	8.1
\$16 and under \$20.....	2,253	5.9	14.0
\$20 and under \$24.....	5,327	13.9	27.9
\$24 and under \$28.....	10,354	26.9	54.8
\$28 and under \$32.....	7,137	18.6	73.4
\$32 and under \$36.....	4,098	10.7	84.1
\$36 and under \$40.....	2,216	5.8	89.9
\$40 and under \$48.....	2,155	5.6	95.5
\$48 and over.....	1,715	4.5	100.0

Table 10, which shows the distribution of employees in 8 important occupations according to their weekly earnings, ends with the class of \$72 and over, while table 9 extends to only \$48 and over. The extra classes were added in order to show in greater detail the weekly earnings of cable and rotary drillers; of the employees in these two occupations 37.4 and 61.6 percent, respectively, earned \$48 or over per week.

When the several other occupations are considered, it will be seen that slightly over one-half of all roustabouts and laborers earned less than \$24 per week and that 83.2 percent of all pumpers earned \$20 and under \$32 per week.

The greatest percentage in any occupation earning under \$16 per week was 21.2 for rig builders, a skilled group with considerable numbers employed for short hours. The smallest percentage earning under \$16 was 3.4 percent for rotary drillers.

Table 10.—Distribution of Drilling and Production Employees in 8 Important Occupations by Weekly Earnings, 1934

Weekly earnings	Drillers, cable		Drillers, rotary		Drillers, rotary, helpers		Pumpers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under \$8.....	1.1	1.1	0.6	0.6	5.5	5.5	1.1	1.1
\$8 and under \$16.....	4.7	5.8	2.8	3.4	6.2	11.7	2.7	3.8
\$16 and under \$20.....	2.9	8.7	1.2	4.6	4.7	16.4	4.5	8.3
\$20 and under \$24.....	2.3	11.0	2.5	7.1	4.5	20.9	18.7	27.0
\$24 and under \$28.....	6.4	17.4	1.1	8.2	12.5	33.4	44.7	71.7
\$28 and under \$32.....	5.4	22.8	2.3	10.5	23.4	56.8	19.8	91.5
\$32 and under \$36.....	14.2	37.0	3.6	14.1	16.0	72.8	7.0	98.5
\$36 and under \$40.....	7.5	44.5	2.5	16.6	13.5	86.3	.9	99.4
\$40 and under \$48.....	18.1	62.6	21.8	38.4	11.8	98.1	.5	99.9
\$48 and under \$56.....	26.1	88.7	24.5	62.9	1.6	99.7	-.1	100.0
\$56 and under \$64.....	10.0	98.7	20.1	83.0	.3	100.0	(¹)	100.0
\$64 and under \$72.....	.5	99.2	12.0	95.0	(¹)	100.0	(¹)	100.0
\$72 and over.....	.8	100.0	5.0	100.0	(¹)	100.0	(¹)	100.0

¹ Less than 1/10 of 1 percent.

Table 10.—Distribution of Drilling and Production Employees in 8 Important Occupations by Weekly Earnings, 1934—Continued

Weekly earnings	Rig builders		Roustabouts and laborers		Tool dressers		Truck drivers	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under \$8.....	7.1	7.1	6.0	6.0	3.0	3.0	2.6	2.6
\$8 and under \$16.....	14.1	21.2	8.4	14.4	6.7	9.7	4.6	7.2
\$16 and under \$20.....	5.0	26.2	12.0	26.4	2.4	12.1	5.1	12.3
\$20 and under \$24.....	8.7	34.9	24.3	50.7	7.0	19.1	15.5	27.8
\$24 and under \$28.....	8.9	43.8	33.2	83.9	8.6	27.7	31.2	59.0
\$28 and under \$32.....	9.1	52.9	11.8	95.7	21.0	48.7	20.7	79.7
\$32 and under \$36.....	10.8	63.7	3.0	98.7	11.1	59.8	13.3	93.0
\$36 and under \$40.....	9.5	73.2	.7	99.4	11.3	71.1	4.0	97.0
\$40 and under \$48.....	15.4	88.6	.5	99.9	17.9	89.0	2.3	99.3
\$48 and under \$56.....	6.0	94.6	.1	100.0	10.0	99.0	.6	99.9
\$56 and under \$64.....	1.7	96.3	(¹)	100.0	1.0	100.0	.1	100.0
\$64 and under \$72.....	3.3	99.6	-----	-----	(¹)	100.0	(¹)	100.0
\$72 and over.....	.4	100.0	-----	-----	(¹)	100.0	(¹)	100.0

¹ Less than 1/10 of 1 percent.

The average weekly earnings for each of the 8 important occupations were \$39.95 for cable drillers, \$50.44 for rotary drillers, \$29.70 for rotary drillers' helpers, \$25.89 for pumpers, \$30.49 for rig builders, \$22.45 for roustabouts and laborers, \$32.79 for tool dressers, and \$26.81 for truck drivers. Among the remaining occupations and occupational groups, the average weekly earnings were \$29 for air and gas lift engineers, \$28 for casing pullers, \$35.19 for clean-out drillers, \$26.53 for clean-out drillers' helpers, \$30.70 for gaggers, \$28.24 for stillmen and dehydrators, \$31.05 for skilled and \$25.66 for semiskilled construction, maintenance, and power employees, \$34.39 for supervisory field employees, \$37.72 for supervisory office employees, \$31.31 for nonsupervisory office employees, and \$25.61 for miscellaneous labor.

No data are available as to average weekly earnings for 1920. The 1929 average for the four States covered in that survey was \$36.47, which may be compared with the 1934 average of \$28.82 in the same States. This is a reduction of \$7.65, or 21 percent.²⁰

Average weekly earnings amounted to only \$20.88 in the region comprising Kentucky and West Virginia. In the other eastern areas they were \$25.52 for Illinois, Indiana, Michigan, and Ohio and \$25.24 for New York and Pennsylvania. In all other States and regions average weekly earnings varied from \$25.56 for Kansas to \$33.83 for "Other Texas." This latter average cannot be accepted as really representative of conditions, as most of the workers in this area were on rig building and drilling operations. Hence, the better comparison would be with \$30.31 and \$30.12, respectively, for California, and the region made up of Colorado, Montana, New Mexico, and Wyoming.

²⁰ See pp. 898-899 for changes in weekly hours.

Table 11 shows the average weekly earnings by occupations and occupational groups for the various States and regions.

Table 11.—Average Weekly Earnings of Drilling and Production Employees by Occupations and Regions, 1934

Occupation or occupational group	Arkansas	California	Colorado, Montana, New Mexico, and Wyoming	Illinois, Indiana, Michigan, and Ohio	Kansas	Kentucky and West Virginia	Louisiana	New York and Pennsylvania
All occupations.....	\$25.76	\$30.31	\$30.12	\$25.52	\$25.56	\$20.88	\$28.43	\$25.24
Air and gas lift engineers.....	(1)	30.32	29.61	(1)	(1)	24.94	(1)	26.37
Casing pullers.....	(1)	28.19	(1)	(1)	(2)	(1)	(2)	(2)
Drillers, cable.....	(1)	(1)	43.99	39.12	41.41	(1)	(1)	31.43
Drillers, clean-out.....	(1)	(2)	(1)	(1)	(1)	29.23	(1)	34.15
Drillers, clean-out, helpers.....	(1)	(1)	(1)	(1)	(1)	23.84	(1)	(2)
Drillers, rotary.....	(1)	46.66	61.39	(2)	49.06	(2)	50.47	(2)
Drillers, rotary, helpers.....	22.68	30.55	34.63	(1)	29.47	(2)	27.89	(2)
Gagers.....	(2)	34.06	(1)	(2)	(1)	(1)	(1)	(1)
Pumpers.....	26.75	27.88	28.00	22.29	24.10	20.11	26.29	24.69
Rig builders.....	(2)	35.80	(1)	(2)	(1)	(1)	(1)	(1)
Roustabouts and laborers.....	22.00	24.20	22.66	20.68	19.61	16.63	24.09	22.72
Stillmen and dehydrators.....	(1)	30.02	30.05	(1)	(1)	27.02	29.31	(1)
Tool dressers.....	(1)	34.73	38.79	34.24	35.29	(1)	(1)	27.21
Truck drivers.....	23.55	29.08	27.65	19.64	23.67	(1)	23.92	26.57
Construction, maintenance, and power employees, skilled.....	(1)	31.78	32.64	(1)	(1)	(1)	33.42	31.84
Construction, maintenance, and power employees, semiskilled.....	(1)	27.21	27.83	(2)	(1)	(1)	24.33	(1)
Supervisory employees, field.....	35.48	35.62	35.54	35.07	33.27	27.02	35.54	29.31
Supervisory employees, office.....	(1)	40.98	(1)	(1)	(1)	(1)	(2)	(1)
Non-supervisory employees, office.....	(1)	32.50	(1)	(1)	26.06	(1)	32.53	25.34
Miscellaneous labor.....	(1)	25.70	(1)	(1)	27.59	(1)	25.22	(1)

Occupation or occupational group	Oklahoma	Central Texas	East Texas	Gulf Coast Texas	North Texas	Panhandle Texas	Southwest Texas	West Texas	Other Texas
All occupations.....	\$26.80	\$28.92	\$29.40	\$30.71	\$26.22	\$28.72	\$28.91	\$29.37	\$33.83
Air and gas lift engineers.....	28.11	(1)	(1)	(1)	29.88	28.09	(1)	(2)	(2)
Casing pullers.....	(1)	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(2)
Drillers, cable.....	40.67	(1)	(1)	(2)	43.30	47.39	(2)	43.07	(2)
Drillers, clean-out.....	36.42	(2)	(1)	(2)	(1)	35.05	(1)	(1)	(2)
Drillers, clean-out, helpers.....	27.87	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(2)
Drillers, rotary.....	54.18	49.48	50.27	51.39	50.91	(1)	53.85	(1)	(1)
Drillers, rotary, helpers.....	30.59	30.08	29.64	28.34	28.44	33.79	29.23	37.13	30.84
Gagers.....	(1)	(1)	29.02	29.19	(2)	(1)	(1)	(1)	(2)
Pumpers.....	25.40	26.37	27.24	28.72	25.70	25.39	26.33	26.63	(2)
Rig builders.....	22.16	(1)	30.75	30.10	(2)	(1)	(1)	(1)	33.83
Roustabouts and laborers.....	22.01	21.94	23.62	25.40	20.63	22.97	22.22	22.99	(1)
Stillmen and dehydrators.....	26.75	(2)	(1)	(2)	(2)	(2)	(1)	(1)	(2)
Tool dressers.....	32.54	(1)	(2)	(2)	31.10	38.05	(2)	33.97	(2)
Truck drivers.....	25.49	28.36	29.25	30.45	26.28	28.31	24.92	29.30	(1)
Construction, maintenance, and power employees, skilled.....	30.02	34.10	30.11	35.40	30.34	29.97	(1)	29.26	(1)
Construction, maintenance, and power employees, semiskilled.....	25.51	(1)	24.30	(1)	25.71	(1)	(1)	23.86	(2)
Supervisory employees, field.....	32.75	32.94	35.01	37.33	31.95	33.97	31.78	33.24	(1)
Supervisory employees, office.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Non-supervisory employees, office.....	31.42	29.99	31.59	31.56	(1)	(1)	(1)	34.85	(2)
Miscellaneous labor.....	25.30	(1)	23.28	26.53	25.25	24.59	(1)	28.18	(1)

¹ Not a sufficient number reported to present average.
² None reported.

Man-Hours of Employment in 35 Manufacturing Industries in 1933

By ARTHUR F. BEAL, of the BUREAU OF LABOR STATISTICS

WAGE earners in 35 manufacturing industries worked an average of 165.1 hours per month during 1933. This was shown by an analysis recently made by the Bureau of Labor Statistics of reports to the Bureau of the Census by 7,365 manufacturing establishments employing 1,638,306 wage earners. The average monthly hours worked per wage earner ranged from 140.9 in the machine-tools industry to 220.8 in the beet-sugar refining industry.

The year 1933, from the standpoint of hours of labor, had three important phases: (1) Restriction of industrial activity during the banking crisis of February and March; (2) a rapid rise of industrial activity during the spring and early summer months, which culminated in the peak of July and August; and (3) introduction of the President's Reemployment Agreement and the industrial codes under the auspices of the National Recovery Administration resulting in extensive reductions in the customary or full-time hours of labor. These general developments are reflected in the month-by-month man-hour data.

Scope of Study

THIS study is based upon data secured by the Bureau of the Census, at the request of the Bureau of Labor Statistics, in the 1933 census of manufactures. Of the many industries canvassed by the census through special questionnaires, 38 were requested to furnish man-hours for each month.¹

Of the industries originally selected, it proved impossible to use the man-hour reports for three dairy-product industries—butter, cheese, and condensed and evaporated milk.² The remaining 35 industries, which are covered by these tabulations, employed about one-fourth of all the wage earners in manufacture as reported by the census of manufactures.

The census data on man-hours for 1933 are more extensive than any formerly available. Heretofore the most extensive sources of information on man-hours have generally related to a single pay-roll

¹ These 38 industries, except machine tools and machine-tool accessories, were selected because the detail products were believed to be sufficiently uniform to make possible the computation of a weighted index of production which, together with the man-hours, would permit further productivity studies. Machine tools and machine-tool accessories were included because similar man-hour data had previously been collected for these in the censuses of 1929 and 1931.

² So many of the reports showed full-time hours rather than the hours actually worked that it was impossible to obtain an adequate sample of the industry.

period, which for a large proportion of the establishments covers a week in each month; and in only a few industries had so large a proportion of the industry been covered as in these census returns.³ The census data cover man-hours throughout each of the 12 months of 1933 for 83.2 percent of the workers in these 35 industries. Furthermore in the census returns man-hour information is accompanied by other data, such as wages, value of products, value added by manufacture and physical units of product, which usually are not available for identical firms reporting man-hour data.

On some of the reports submitted by manufacturers, man-hour data were either lacking or defective.⁴ All such reports were necessarily rejected from this study,⁵ which therefore represents only a large sample for each industry. The industries covered are listed in table 1, and the percentage of coverage of employees reported by the census⁶ is given for each in column 3 of the table. For only two relatively small industries—rayon yarns and cane-sugar refining, with 34 and 19 establishments, respectively—was man-hour information secured for all wage earners, but for every industry except manufactured ice the coverage was in excess of 50 percent. Satisfactory replies were received from plants representing 83.2 percent of all the wage earners employed in these 35 industries. The coverage for some of the large industries was as follows: Motor vehicles, 99.4 percent; steel works and rolling mills, 98.5 percent; petroleum refining, 97.2 percent; motor-vehicle bodies and parts, 88.4 percent; meat packing, 88.1 percent; and cotton goods, 78.8 percent.

For some of the industries, especially those with many establishments, a much larger percentage of wage earners than of establishments was covered by the sample. This was partly due to the fact that many of the smaller plants were not supplied with the regular questionnaire, but with a general "short-form" schedule which did not carry the man-hour inquiry.

³ Since 1932 in connection with its trend of employment data, the Bureau of Labor Statistics has been collecting man-hour information for 90 manufacturing industries. In January 1933, the Bureau secured man-hour information on 1,399,653 wage earners, or 32.9 percent of the total number employed by the 90 industries; by December 1933, the sample had been improved to include 41.6 percent of the total number in the 90 industries; and by December 1934, the coverage for the 90 industries was 60.4 percent.

In evaluating the census data, therefore, it may be noted that with reference to a list of 35 industries the coverage of the census man-hour sample in 1933, 83.2 percent, was unusually comprehensive, though by December 1934 the Bureau of Labor Statistics had a 70-percent coverage of this list of 35 industries.

⁴ Dividing the number of man-hours reported for a given month by the number of wage earners for that month, the results obtained for defective schedules were: (a) Grossly excessive, including instances showing several hundred hours per wage earner during the latter months of the year while under the restrictions of the N. R. A. codes; or (b) reported on the basis of exactly 40 hours per week, i. e., full-time hours, for months while under N. R. A. codes. Such schedules obviously did not portray the number of hours actually worked.

⁵ The reports were satisfactory for the ordinary purposes for which the census of manufactures is taken. Because only the man-hour figures were defective, these reports were excluded from only the man-hour tabulations.

⁶ The census itself does not cover establishments with less than \$5,000 value of products, and to that extent, especially for certain industries such as baking and ice making, does not provide complete coverage; any such omissions, however, are in all cases a small percentage of the total.

Data for Individual Industries

TABLE 1 gives for each of the 35 industries summary figures as to the number of establishments covered in this man-hour tabulation; number of wage earners included, and the percent of the entire industry; aggregate number of man-hours worked and average hours per wage earner per month; and aggregates in dollars, together with rates per man-hour, for wages, value of products, cost of materials,⁷ and value added by manufacture.⁸

The 35 industries covered fall more or less naturally into 5 general classes or groups of products. Though the individual industries are sufficiently distinctive to render group totals of doubtful significance, and though in certain respects classification is quite arbitrary, nevertheless, these groupings are referred to occasionally for convenience, with the primary purpose of indicating similarity or dissimilarity between the more or less related several industries. The groupings are as follows: (1) Food products (including ice), 8 industries; (2) tobacco, 3 industries; (3) textiles, 12 industries; (4) chemicals, 6 quite diverse industries—leather tanning, petroleum refining, rayon yarn, and soap, and also paper and pulp; and (5) metals and machinery, 6 industries (including motor vehicles and motor-vehicle bodies and parts).

⁷ The item "cost of materials" includes not only the materials used in manufacture, but also fuel, electric energy purchased, containers for products, and processing taxes, and, for the tobacco industries, all internal revenue stamp taxes.

⁸ The value added by manufacture is obtained by subtracting the cost of materials from the value of products, and represents the amount available to cover wages, salaries, depreciation of machinery, interest on investment, taxes, other than excise taxes, other overhead expenses, and profit.

Table 1.—Total Man-Hours Worked, Wages Paid, and Value Produced in Each of 35 Selected Manufacturing Industries in 1933

Industry	Number of establishments	Wage earners ¹		Man-hours worked		Wages paid		Value of products		Cost of materials, fuel, processing and excise taxes, etc.		Value added by manufacture		Ratio of wages to value added by manufacture
		Number	Percent of industry	Number	Average per wage earner per month	Total	Average per man-hour	Total	Average per man-hour	Total	Average per man-hour	Total	Average per man-hour	
35 selected industries.....	7,365	1,638,306	83.2	3,245,323,067	165.1	\$1,401,969,592	\$0.432	\$10,763,693,242	\$3.32	\$7,186,029,171	\$2.22	\$3,577,664,071	\$1.10	Percent 39.2
<i>Food industries (8)</i>														
Meat packing.....	372	99,671	88.1	228,275,079	190.9	97,271,084	.426	1,313,822,161	5.76	1,078,983,975	4.73	234,838,186	1.03	41.4
Flour milling.....	531	17,158	73.9	39,061,776	189.7	17,324,110	.444	476,495,398	12.20	371,916,786	9.52	104,578,612	2.68	16.6
Sugar refining, cane.....	19	11,495	100.0	25,423,516	184.3	12,237,321	.481	337,075,225	13.26	281,535,947	11.08	55,539,278	2.18	22.0
Ice, manufactured.....	1,181	9,243	43.3	23,879,399	215.3	10,409,789	.436	62,902,183	2.63	11,973,976	.50	50,928,207	2.13	20.4
Sugar, beet.....	66	8,627	80.6	22,857,190	220.8	9,023,151	.395	109,865,983	4.81	66,362,821	2.91	43,503,162	1.90	20.7
Feeds, prepared.....	263	5,916	67.3	12,558,877	176.9	5,335,964	.425	117,361,305	9.34	91,348,092	7.27	26,013,213	2.07	20.5
Cereal preparations.....	70	5,130	72.1	9,888,242	160.6	5,045,764	.510	83,653,397	8.46	44,485,347	4.50	39,168,050	3.96	12.9
Malt.....	27	724	85.4	1,625,244	187.1	1,068,360	.657	24,270,613	14.93	18,014,076	11.08	6,256,537	3.85	17.1
<i>Tobacco industries (3)</i>														
Cigars.....	158	35,875	65.8	66,147,457	153.7	19,802,596	.299	104,203,819	1.57	56,416,709	.85	47,787,110	.72	41.4
Cigarettes.....	19	22,296	98.9	37,885,746	141.6	13,671,710	.361	635,837,301	16.78	502,070,945	13.25	133,766,356	3.53	10.2
Snuff, and chewing and smoking tobacco.....	26	8,445	82.6	15,113,597	149.1	6,078,974	.402	122,709,022	8.12	78,501,008	5.19	44,208,014	2.93	13.8
<i>Textile industries (12)</i>														
Cotton goods.....	659	298,949	78.8	624,210,303	174.0	174,451,551	.279	690,650,255	1.11	367,879,454	.59	322,770,801	.52	54.0
Hosiery.....	268	71,065	60.3	142,670,700	167.3	53,099,695	.372	164,627,497	1.16	70,953,569	.50	93,673,928	.66	56.7
Worsted goods.....	141	67,689	86.0	137,938,354	169.8	55,058,066	.399	261,605,025	1.90	153,576,113	1.12	108,028,912	.78	51.0
Silk and rayon goods:														
Regular weaving.....	229	48,234	71.9	95,884,997	165.7	35,367,652	.369	160,681,637	1.68	97,450,483	1.02	63,231,154	.66	55.9
Regular throwing.....	34	5,437		10,740,824	164.6	3,393,150	.316	18,334,933	1.71	11,378,629	1.06	6,956,304	.66	48.8
Commission weaving.....	63	6,434		13,024,706	168.7	4,078,216	.313	6,568,192	.51	588,205	.05	5,979,987	.46	68.2
Commission throwing.....	106	19,262		36,461,776	157.7	10,125,963	.278	19,910,882	.55	3,574,398	.10	16,336,484	.45	62.0

¹ Average for year.

Table 1.—Total Man-Hours Worked, Wages Paid, and Value Produced in Each of 35 Selected Manufacturing Industries in 1933—Con.

Industry	Number of establishments	Wage earners ¹		Man-hours worked		Wages paid		Value of products		Cost of materials, fuel, processing and excise taxes, etc.		Value added by manufacture		Ratio of wages to value added by manufacture
		Number	Per cent of industry	Number	Average per wage earner per month	Total	Average per man-hour	Total	Average per man-hour	Total	Average per man-hour	Total	Average per man-hour	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<i>Textile industries—Continued</i>														
Woolen goods.....	218	38,943	80.2	80,544,206	172.4	\$31,836,788	\$0.395	\$122,625,660	\$1.52	\$66,308,643	\$0.82	\$56,317,017	\$0.70	56.5
Knit underwear.....	113	25,057	69.8	49,556,698	164.8	15,816,907	.319	6,289,068	1.34	32,684,774	.66	33,604,294	.68	47.1
Carpets and rugs, wool.....	41	19,972	93.8	36,454,579	152.1	16,924,703	.464	66,848,308	1.83	28,172,440	.77	38,675,868	1.06	43.8
Knit outerwear.....	163	14,009	52.1	27,785,891	165.3	9,956,341	.358	43,000,350	1.55	22,263,503	.80	20,826,847	.75	47.8
Cotton small wares.....	80	9,128	69.0	18,633,330	170.1	7,038,263	.378	26,410,199	1.42	11,873,034	.64	14,537,165	.78	48.4
Felt goods, wool, hair, or jute.....	41	4,530	89.7	9,304,707	171.2	4,542,430	.488	24,293,823	2.61	10,497,659	1.13	13,796,164	1.48	32.9
Knit cloth.....	60	4,501	50.3	8,690,335	160.9	3,596,066	.414	27,684,525	3.19	19,093,319	2.20	8,591,206	.99	41.9
Wool shoddy.....	29	1,064	71.6	2,397,232	182.7	887,633	.370	7,000,569	2.96	4,273,011	1.78	2,817,558	1.18	31.5
<i>Chemical industries (6)</i>														
Paper.....	445	73,328	84.1	154,234,854	175.3	68,639,985	.445	484,916,086	3.14	276,821,784	1.79	208,094,302	1.35	33.0
Petroleum refining.....	273	67,097	97.2	135,831,413	168.7	87,363,622	.643	1,342,224,095	9.88	1,040,889,169	7.66	301,334,926	2.22	29.0
Rayon yarns.....	34	44,306	100.0	91,771,817	172.6	38,612,632	.421	156,931,519	1.71	44,031,316	.48	112,900,203	1.23	34.2
Leather tanning.....	211	32,483	73.5	67,927,185	174.3	31,894,601	.470	172,695,466	2.54	103,009,958	1.51	69,685,508	1.03	45.8
Pulp.....	157	17,647	87.9	36,911,536	174.3	15,913,193	.431	119,863,061	3.25	74,013,601	2.01	45,849,460	1.24	34.7
Soap.....	70	12,871	90.0	26,415,542	171.0	12,724,442	.482	186,278,432	7.05	86,404,336	3.27	99,874,096	3.78	12.7
<i>Metal and machinery (6)</i>														
Steel works and rolling mills.....	361	272,562	98.5	491,956,182	150.4	255,290,161	.519	1,132,015,560	2.30	686,153,813	1.39	445,861,747	.91	57.3
Motor-vehicle bodies and parts.....	219	128,821	88.4	233,951,265	151.4	131,266,472	.561	696,685,379	2.98	406,858,261	1.74	289,827,118	1.24	45.3
Motor vehicles.....	113	97,285	99.4	169,234,005	145.0	103,225,025	.610	1,095,284,834	6.47	767,244,646	4.53	328,040,188	1.94	31.5
Blast furnaces.....	62	11,389	94.1	22,561,971	165.1	11,004,234	.488	209,355,908	9.28	180,637,726	8.01	28,718,182	1.27	38.3
Machine tools.....	126	11,333	89.1	19,167,914	140.9	11,205,619	.585	36,144,712	1.89	9,028,773	.47	27,115,939	1.42	41.3
Machine-tool accessories.....	317	10,300	80.7	18,344,622	148.4	11,387,359	.621	36,390,860	1.98	8,758,872	.48	27,631,988	1.50	41.2

¹ Average for year.

The industries are arranged in table 1 according to these general groupings. Within each group, they are listed according to the number of wage earners covered by the tabulation, which happens also to be identical with a listing according to the total number of man-hours tabulated.⁹

In this report, only a summary is given for each industry. In detailed tabulations, which are being published by the Bureau of the Census, the reports for each industry have been tabulated according to (1) the State in which the plant is located; (2) the size of the plant, as measured by the average number of wage earners employed during the year; and (3) the population of the city in or near which the plant was located. The second and third classifications were divided into seven groups each, in compliance with the procedure agreed upon by the Census Bureau in collaboration with the National Recovery Administration.

Of the 35 industries listed in table 1, the industry which showed the largest average number of hours worked per wage earner per month in 1933 was beet sugar (220.8), while the industry with the smallest number was machine tools (140.9). The food-product industries, in general, showed the highest figures for the number of hours worked. In fact, the only 2 industries in the entire list which showed hours worked per wage earner in excess of 200 per month—beet sugar and manufactured ice—are in the food-products group. Also, 6 of the 8 food industries reported average hours in excess of 184 per month, whereas all except 1 of the 6 metal and machinery industries tabulated reported fewer than 152 hours per month.

The three tobacco industries also reported few hours per wage earner per month. Cigarettes, with only 141.6, is the second lowest in the entire list of 35, while the highest of the tobacco group—cigars—reported 153.7 hours per month.

The number of hours reported by the textile and miscellaneous chemical industries approximate the average for all manufacturing industries. Average hours per month per wage earner ranged from 152.1 for carpets and rugs, the only textile industry of the list under 160 hours, to 182.7 for wool shoddy. In 10 of the 12 textile industries the average hours lie between 160 and 174 hours. The 6 industries designated as "chemicals" also showed a small range, from 168.7 hours for petroleum refining to 175.3 hours for paper.

Three columns of table 1 are of particular interest—average wages per man-hour, average value added by manufacture per man-hour, and the ratio of wages to value added. In these three respects, the

⁹ The silk and rayon goods industry is treated as having 4 distinct sections. Some establishments do throwing only while others do weaving only. Either of these types may operate on the commission basis without owning the materials or on the "regular" basis, owning the materials. As is shown by this and other tables, these 4 branches of the industry differ from one another as regards wages, man-hours per worker, etc.

textile industries are perhaps the most outstanding, showing very low hourly wages, very low value added by manufacture per man-hour, and a very high ratio of wages to value added. The average wage for cotton goods, the largest industry shown in the table, was 27.9 cents per man-hour, being only 0.1 cent higher than the lowest (27.8 cents in commission silk throwing) in the entire list. Of the textiles only 3 small industries showed an average hourly wage in excess of 40 cents. Each of the 5 textile industries with more than 30,000 wage earners had an average wage of less than 40 cents per hour for the year 1933, a value added of less than 79 cents per hour, and a ratio of wages to value added in excess of 50 percent. The ratio of wages to value added by manufacture was particularly high for these larger textile industries, for among the entire list of 35 industries only one other, steel works and rolling mills, reported wages as more than 50 percent of the value added. The only industries of the 35 listed paying an average wage of less than 30 cents per man-hour in 1933 are cotton goods and commission silk throwing, already mentioned, and cigars, the largest industry in the tobacco group.

When the industries within each group in table 1 are considered, departures from the general norm of the group are revealed. For example, the value added by manufacture per man-hour for meat packing was little more than half that for the other food-product industries. That industry also paid as wages a sum equal to 41.4 percent of the value added, whereas the second highest ratio shown in the food-product group was only 22.0 percent.

Another sharp contrast is afforded by the tobacco industries. In the production of cigars, the value added by manufacture was 72 cents per man-hour, and 41.4 percent of this was paid out as wages, while in the cigarette industry the value added amounted to \$3.53 per man-hour and 10.2 percent of this was paid as wages.¹⁰

One of the most significant approaches to these relationships is that of ranking the several industries according to average hourly earnings. Table 2 shows the industries listed, in descending order, according to the average wage per hour. The industries paying the highest average hourly wages are petroleum refining, the metal and machinery industries, and a few small food-specialty industries. These high-wage industries in general show high value added per hour. In contrast the low-wage industries for the most part have a low value added per man-hour and a high ratio of wages to value added.

¹⁰ The stamp tax had already been deducted as a portion of the cost of materials; see footnote 7, p. 906.

Table 2.—Rank of 35 Selected Manufacturing Industries by Average Wage per Man-Hour, 1933

[Each of the four branches of the silk-and-rayon-goods industry is ranked separately in this table; see table 1]

Rank	Industry	Number of establishments	Number of wage earners ¹	Average wage per man-hour	Value added per man-hour	Ratio of wages to value added
	35 selected industries ²	7,365	1,638,306	\$0.432	\$1.10	Percent 39.2
	<i>Average hourly wage of 60 cents or over</i>					
1	Malt.....	27	724	.657	3.85	17.1
2	Petroleum refining.....	273	67,097	.643	2.22	29.0
3	Machine-tool accessories.....	317	10,300	.621	1.50	41.2
4	Motor vehicles.....	113	97,285	.610	1.94	31.5
	<i>Average hourly wage of under 60 but over 50 cents</i>					
5	Machine tools.....	126	11,333	.585	1.42	41.3
6	Motor-vehicle bodies and parts.....	219	128,821	.561	1.24	45.3
7	Steel works.....	361	272,562	.519	.91	57.3
8	Cereal preparations.....	70	5,130	.510	3.96	12.9
	<i>Average hourly wage of under 50 but over 40 cents</i>					
9	Felt goods.....	41	4,530	.488	1.48	32.9
10	Blast furnaces.....	62	11,389	.488	1.27	38.3
11	Soap.....	70	12,871	.482	3.78	12.7
12	Sugar refining, cane.....	19	11,495	.481	2.18	22.0
13	Leather tanning.....	211	32,483	.470	1.03	45.8
14	Carpets and rugs, wool.....	41	19,972	.464	1.06	43.8
15	Paper.....	445	73,328	.445	1.35	33.0
16	Flour milling.....	531	17,158	.444	2.68	16.6
17	Ice, manufactured.....	1,181	9,243	.436	2.13	20.4
18	Pulp.....	157	17,647	.431	1.24	34.7
19	Meat packing.....	372	99,671	.426	1.03	41.4
20	Feeds, prepared.....	263	5,916	.425	2.07	20.5
21	Rayon yarns.....	34	44,306	.421	1.23	34.2
22	Knit cloth.....	60	4,501	.414	.99	41.9
23	Snuff, and chewing and smoking tobacco.....	26	8,445	.402	2.93	13.8
	<i>Average hourly wage of under 40 but over 30 cents</i>					
24	Worsted goods.....	141	67,689	.399	.78	51.0
25	Sugar, beet.....	66	8,627	.395	1.90	20.7
26	Woolen goods.....	218	38,943	.395	.70	56.5
27	Cotton small wares.....	80	9,128	.378	.78	48.4
28	Hosiery.....	268	71,065	.372	.66	56.7
29	Wool shoddy.....	29	1,094	.370	1.18	31.5
30	Silk and rayon goods: Regular weaving.....	229	48,234	.369	.66	55.9
31	Cigarettes.....	19	22,296	.361	3.53	10.2
32	Knit outerwear.....	163	14,009	.358	.75	47.8
33	Knit underwear.....	113	25,057	.319	.68	47.1
34	Silk and rayon goods: Regular throwing.....	34	5,437	.316	.65	48.8
35	Silk and rayon goods: Commission weaving.....	63	6,434	.313	.46	68.2
	<i>Average hourly wage of under 30 cents</i>					
36	Cigars.....	158	35,875	.299	.72	41.4
37	Cotton goods.....	659	298,949	.279	.52	54.0
38	Silk and rayon goods: Commission throwing.....	106	19,262	.278	.45	62.0

¹ Average for year.² In the case of silk and rayon goods, 4 subdivisions of the industry are shown.

The figures shown in tables 1 and 2 are intimately related to the problem of wage increases. The item "value added by manufacture" must, of course, cover a number of expenses in addition to wages. These other expenses vary greatly from industry to industry, especially between industries in different groups, such as cotton goods and cigarettes. Likewise there are large differences between plants in respect to the size of the margin remaining after wages and raw material costs have been met. Nevertheless, the comparisons between

industries of the average amount of this margin per man-hour are suggestive in connection with the problems of wage changes. In those cases in which labor costs are relatively small, the opportunity to effect economies in other expenses, or to absorb the added cost in the profit margin, are greater, in general, than in those cases in which labor costs are relatively large. In the latter cases, rising hourly earnings create a more intense pressure to reduce labor costs through attempts to increase the physical output per worker or to offset the increase through raising selling prices.

Man-Hours Worked in 1933, by Months

AN APPROXIMATE measure of the total volume of production in each of the various industries is given by the total number of man-hours worked in each industry during each month of a year. Such totals are given in table 3 for each of the 35 selected industries. These figures reveal quite plainly the industrial peak which occurred during June, July, and August of 1933. The extent of this increase in employment over that for the earlier months of the year varied greatly among the several industries. It was quite pronounced, 40 percent or more, for some, notably the malt, ice, cigar, woolen, cotton, knit-underwear, knit-cloth, paper, pulp, iron and steel, and motor-vehicle industries. The extent of the rise was relatively small in meat packing, flour milling, prepared feeds, cigarettes, snuff and chewing and smoking tobacco, silk and rayon goods, hosiery, knit outerwear, rayon yarns, and petroleum refining. The machine-tool and machine-tool-accessory industries showed little or no pick-up prior to June but a well sustained rise from then to the end of the year. The iron and steel industries also maintained much of their summer volume of employment until the end of the year.

Table 3.—Aggregate Man-Hours Worked Each Month of 1933¹

Industry	January	February	March	April	May	June	July	August	September	October	November	December	Total
35 selected industries.....	236,074,196	226,577,599	219,756,904	231,877,670	278,140,121	318,971,614	323,019,136	320,525,466	291,923,872	281,730,657	264,970,630	251,755,202	3,245,323,067
<i>Food industries (8)</i>													
Meat packing.....	17,037,496	17,758,664	16,426,047	17,292,273	19,518,470	19,724,123	19,867,257	20,883,671	20,316,918	19,677,954	20,700,534	19,071,672	228,275,079
Flour milling.....	3,189,819	2,991,510	3,361,528	3,453,462	3,448,570	3,482,593	3,497,432	3,138,960	3,085,378	3,183,714	3,205,740	3,023,070	39,061,776
Sugar refining, cane.....	1,712,848	1,785,483	2,376,816	2,129,070	2,639,462	2,335,482	2,308,720	2,562,007	1,982,327	1,979,312	1,995,459	1,616,470	25,423,516
Ice, manufactured.....	1,352,975	1,325,388	1,492,255	1,727,076	2,154,763	2,658,614	2,899,054	2,825,327	2,539,932	1,979,154	1,502,085	1,392,786	23,879,399
Sugar, beet.....	975,175	397,616	486,652	543,681	670,151	737,974	893,090	1,452,550	1,867,648	5,341,240	5,411,057	4,080,956	22,857,190
Feeds, prepared.....	970,546	912,000	1,050,822	1,057,298	1,141,523	1,144,569	1,121,659	1,088,704	1,015,973	1,024,755	1,036,009	995,019	12,558,877
Cereal preparations.....	805,815	723,479	822,066	776,185	838,869	812,396	914,007	964,868	860,812	841,749	802,971	725,025	9,888,242
Malt.....	89,933	77,549	81,395	111,808	145,899	145,981	161,493	165,731	164,220	162,740	156,070	159,335	1,625,244
<i>Tobacco industries (3)</i>													
Cigars.....	4,332,437	4,980,001	4,841,894	4,579,165	5,694,483	6,319,637	6,127,625	6,331,144	6,165,374	6,287,330	6,021,421	4,466,946	66,147,457
Cigarettes.....	3,470,528	2,923,896	2,914,798	2,863,672	3,612,621	3,486,924	3,070,443	3,498,792	3,156,907	3,278,170	2,925,440	2,683,555	37,885,746
Snuff and chewing and smoking tobacco.....	1,327,112	1,193,160	1,246,600	1,238,242	1,406,506	1,371,926	1,246,400	1,345,458	1,212,899	1,315,497	1,119,579	1,090,218	15,113,597
<i>Textile industries (12)</i>													
Cotton goods.....	46,605,164	45,317,087	49,007,191	47,335,729	56,379,997	65,998,238	61,693,445	56,857,263	52,869,267	52,024,102	49,731,156	40,391,664	624,210,303
Hosiery.....	11,426,170	11,603,155	12,354,575	12,128,972	13,205,093	14,097,269	11,642,617	10,930,332	11,993,595	12,138,014	11,485,946	9,664,962	142,670,700
Worsted goods.....	10,792,369	10,684,919	8,105,063	7,562,766	11,677,287	15,470,035	15,056,388	14,161,528	12,356,151	11,357,286	10,782,562	9,932,000	137,938,354
<i>Silk and rayon goods:</i>													
Regular weaving.....	8,468,599	7,914,593	6,891,998	7,140,710	8,270,692	9,251,607	9,197,398	9,108,929	8,198,005	7,372,258	7,340,795	6,729,413	95,884,997
Regular throwing.....	804,559	797,338	726,388	732,708	993,293	1,136,940	1,142,033	1,092,058	992,213	948,856	778,908	595,530	10,740,824
Commission weaving.....	1,152,355	1,186,435	1,113,992	1,122,915	1,277,302	1,311,564	1,228,475	1,167,339	841,970	635,083	944,392	1,042,884	13,024,706
Commission throwing.....	3,407,031	3,074,063	2,491,254	2,871,788	3,233,977	3,513,932	3,690,376	3,400,182	2,879,483	2,975,516	2,687,307	2,236,867	36,461,776
<i>Woolen goods:</i>													
Knit underwear.....	5,666,458	6,241,326	4,504,208	4,987,194	6,619,589	9,216,818	9,688,975	9,066,474	7,332,867	6,130,679	5,676,760	5,512,858	80,544,206
Carpets and rugs, wool.....	3,608,704	3,710,055	3,911,544	4,107,573	4,243,826	4,976,997	5,134,094	4,301,502	4,292,479	4,100,828	3,872,144	3,296,952	49,556,698
Knit outerwear.....	2,132,814	2,126,191	2,174,502	2,203,930	2,811,588	3,695,530	3,633,521	3,788,459	3,777,357	3,777,357	3,398,525	2,926,629	36,454,579
Cotton small wares.....	2,225,021	1,995,309	1,921,130	2,154,802	2,578,668	2,811,941	2,687,675	2,637,623	2,655,221	2,356,423	1,981,162	1,780,916	27,785,891
Felt goods, wool, hair, or jute.....	1,361,718	1,382,811	1,380,755	1,407,079	1,558,090	1,786,744	1,892,611	1,806,409	1,733,838	1,597,875	1,439,903	1,285,497	18,633,330
Knit cloth.....	524,288	580,242	617,534	615,418	818,083	955,811	981,682	1,007,801	898,083	819,488	768,211	718,066	9,304,707
Wool shoddy.....	614,243	538,781	551,295	640,075	759,976	852,663	986,431	893,911	918,444	784,569	613,467	536,480	8,690,335
	127,259	143,444	102,092	129,297	230,427	273,328	301,125	258,956	234,090	210,414	177,523	209,277	2,397,232

¹ For the number of reporting establishments in each industry, see table 1, pp. 907-908.

Table 3.—Aggregate Man-Hours Worked Each Month of 1933—Continued

Industry	January	February	March	April	May	June	July	August	September	October	November	December	Total
<i>Chemical industries (6)</i>													
Paper.....	10,686,201	10,708,885	11,503,546	11,396,129	12,825,658	14,115,075	14,964,798	15,439,274	14,432,764	13,627,536	12,611,267	11,923,721	154,234,854
Petroleum refining.....	10,992,251	10,089,345	11,365,407	11,368,671	11,598,308	11,493,835	11,700,840	12,120,324	10,968,562	11,523,962	11,278,604	11,331,304	135,831,413
Rayon yarns.....	7,497,745	6,911,596	6,978,081	6,147,970	7,338,306	7,791,899	8,467,469	8,484,435	8,329,493	8,208,527	7,887,145	7,729,151	91,771,817
Leather tanning.....	5,006,852	5,046,003	4,997,397	4,609,395	5,600,778	6,426,591	6,752,557	6,575,650	5,813,227	5,856,153	5,550,930	5,691,652	67,927,185
Pulp.....	2,636,441	2,527,945	2,732,648	2,709,395	2,961,159	3,307,595	3,379,766	3,568,935	3,451,207	3,386,745	3,244,955	3,004,745	36,911,536
Soap.....	1,900,007	2,041,790	2,154,620	1,998,335	2,268,456	2,334,343	2,282,352	2,584,375	2,346,266	2,435,163	2,244,054	1,825,781	26,415,542
<i>Metal and machinery (6)</i>													
Steel works and rolling mills.....	26,138,027	25,085,594	24,392,492	28,723,164	38,703,437	48,699,604	56,991,169	59,295,947	50,067,239	48,696,880	41,516,474	43,646,155	491,956,182
Motor-vehicle bodies and parts.....	18,923,870	17,337,354	12,671,339	18,082,572	21,240,602	24,333,570	24,433,008	24,118,840	20,723,906	16,375,082	15,372,871	20,338,251	233,951,265
Motor vehicles.....	14,351,737	11,215,925	8,982,392	13,105,303	16,139,590	18,209,971	17,249,377	17,226,364	15,108,368	12,818,373	11,870,889	12,955,716	169,234,005
Blast furnaces.....	1,160,301	1,109,881	1,166,446	1,134,538	1,464,745	2,029,475	2,638,120	2,814,730	2,495,914	2,397,607	2,057,267	2,092,947	22,561,971
Machine tools.....	1,344,909	1,149,257	969,751	843,166	1,052,487	1,376,353	1,568,031	1,835,599	1,944,907	2,198,953	2,394,830	2,489,671	19,167,914
Machine-tool accessories...	1,224,419	989,529	888,391	846,144	1,014,310	1,284,267	1,527,563	1,725,015	1,892,392	1,905,313	2,486,218	2,561,061	18,344,622

It must be emphasized that man-hours per month are not always comparable with production figures. Thus, in the automobile industry there is a relatively larger volume of employment than of output of finished cars in the fall months, due to tooling operations.

These monthly data on man-hours introduce a most significant refinement of our knowledge of the volume of employment and, by inference, of production. The number of wage earners employed is relatively a crude measure. Marked differences exist between variations in the number of wage earners and in the number of man-hours worked. For example, it has been customary for the Bureau of the Census to indicate variation in employment in an industry, whether purely seasonal or otherwise, by the percentage relationship which the minimum number of wage earners for any month bears to the maximum. The figures in table 4 represent differences between the months of maximum and minimum employment and man-hours worked as percentages of the maximum. Employment and man-hours in the 7,365 establishments shown in the earlier tables are shown for each of the 35 industries. The figures in column 1 based on number of wage earners and in column 2 on man-hours show these percentage differences for the first 7 months of 1933. Columns 3 and 4 similarly refer to differences between maximum and minimum months for the year as a whole.

Table 4.—Maximum Variation in Employment and in Man-Hours Worked in 35 Selected Industries, January to July, and the year, 1933

Industry	Maximum variation during January to July, inclusive		Maximum variation during entire year	
	Based on wage earners	Based on man-hours	Based on wage earners	Based on man-hours
	(1)	(2)	(3)	(4)
35 selected industries.....	Percent 25.1	Percent 32.0	Percent 29.4	Percent 32.0
<i>Food industries (8)</i>				
Meat packing.....	12.5	17.3	26.9	21.3
Flour milling.....	7.8	14.5	15.9	14.5
Sugar refining, cane.....	11.5	35.1	19.6	38.8
Ice, manufactured.....	45.7	54.3	48.7	54.3
Sugar, beet.....	51.1	59.2	89.8	92.7
Feeds, prepared.....	9.8	20.3	15.2	20.3
Cereal preparations.....	9.7	20.8	17.8	25.0
Malt.....	49.8	52.0	59.3	53.2
<i>Tobacco industries (3)</i>				
Cigars.....	14.6	31.4	21.0	31.6
Cigarettes.....	10.0	20.7	14.5	25.7
Snuff, chewing and smoking tobacco.....	7.6	15.2	7.6	22.5
<i>Textile industries (12)</i>				
Cotton goods.....	28.0	31.3	29.5	38.8
Hosiery.....	6.6	18.9	13.6	31.4
Worsted goods.....	43.4	51.1	43.8	51.1
Silk and rayon goods:				
Regular weaving.....	28.9	25.5	31.5	27.3
Regular throwing.....	35.1	36.4	39.8	47.9
Commission weaving.....	21.4	15.1	22.7	51.6
Commission throwing.....	34.5	32.5	36.6	43.5
Woolen goods:				
Knit underwear.....	48.6	53.5	51.4	53.5
Knit underwear.....	21.4	29.7	21.4	35.8
Carpets and rugs, wool.....	33.0	42.5	41.5	43.9
Knit outerwear.....	29.0	31.7	33.5	36.7
Cotton small wares.....	26.5	28.1	30.6	32.1
Felt goods, wool, hair, or jute.....	24.7	46.6	33.6	48.0
Knit cloth.....	38.4	45.4	44.2	45.6
Wool shoddy.....	52.0	66.1	50.3	66.1
<i>Chemical industries (6)</i>				
Paper.....	13.2	28.6	23.6	30.8
Petroleum refining.....	3.8	13.8	16.6	16.8
Rayon yarns.....	20.2	27.4	27.6	27.5
Leather tanning.....	23.8	31.7	28.1	31.7
Pulp.....	9.8	25.2	23.9	29.2
Soap.....	8.8	18.6	20.7	29.4
<i>Metal and machinery industries (6)</i>				
Steel works and rolling mills.....	34.5	57.2	39.6	58.9
Motor-vehicle bodies and parts.....	28.5	48.1	33.4	48.1
Motor vehicles.....	27.5	50.7	29.9	50.7
Blast furnaces.....	39.1	57.9	45.9	60.6
Machine tools.....	25.5	46.2	52.1	66.1
Machine-tool accessories.....	27.2	44.6	57.3	67.0

In every industry, except silk and rayon goods, there was greater variation in the volume of employment (man-hours) than in the number of wage earners employed. For example, in meat packing 12.5 percent fewer workers were employed in the month of minimum than in the month of maximum employment between January and July, but 17.3 percent fewer man-hours were worked. The differences in the extent of these variations as between industries (for example, 12.5 percent difference in number of wage earners for meat packing and 7.8 percent for flour milling), will be discussed later. At this point it need merely be pointed out that there are marked contrasts between industries as regards fluctuations in employment and in man-hours. For example, in the woolen-goods industry during the first 7 months of 1933 there was relatively little difference between the ratio of the minimum number of man-hours to the maximum number and the ratio for wage earners. In each case the minimum was about half of the maximum. In automobiles, on the other hand, while the minimum number of man-hours in any month was only half the maximum for the first 7 months of 1933, employment in the minimum month was only 27.5 percent under the maximum.

These differences throw light on the employment policies of industries prior to the N. R. A. and on the relationship of employment, man-hours, and production in various stages of the business cycle. The forces affecting the various industries are too numerous to warrant generalization in the space here available. There were 15 industries in which, for the first 7 months of 1933, man-hours in the minimum month (usually March or April) were more than 40 percent below the hours in the maximum month (in most cases July). The number of wage earners fluctuated more or less in proportion to man-hours in 7 cases—malt, woolen goods, worsted goods, knit goods, carpets, ice, and beet sugar. In 7 cases—blast furnaces, steel works and rolling mills, motor vehicles, motor-vehicle bodies and parts, felt goods, etc., machine tools, and machine-tool accessories—the increases in man-hours were effected more largely by lengthening the number of hours of work per worker.

For the year 1933 as a whole it is impossible to use the figures for the number employed as indicative of volume of production or volume of employment, because of the influence of the President's Reemployment Agreement and the industrial codes. The percentage differences for the year in number employed and in man-hours as between minimum and maximum months are presented in columns 3 and 4 of table 4. For 9 of the 35 industries the months of minimum and maximum man-hours are the same whether we consider the year as a whole or the first 7 months (columns 2 and 4). These industries are flour milling, ice manufacture, feeds, worsted goods, woolen goods, wool shoddy, leather, motor vehicles, and motor-vehicle bodies and

parts. In none of these cases, however, does the variation from the month of maximum employment for the first 7 months and for the year as a whole correspond. In some cases—for example, flour milling, feeds, and leather—the difference is large.

Table 5 gives the average number of man-hours worked per wage earner each month of the year, and also a weighted average¹¹ for the entire year. These monthly averages reflect: (1) The industrial restriction that took place during February and March; (2) the expansion occurring during the summer; and (3) the work sharing that took place in certain industries during the later months of the year under the influence of the President's Reemployment Agreement and the industrial codes. The figures for the later months of the year are also affected somewhat by industrial contraction from the summer peak. Work sharing is particularly conspicuous in such industries as meat packing and petroleum refining which, as indicated by table 3, suffered no serious contraction in aggregate number of man-hours.¹²

The figures in table 5 for the cotton-goods industry illustrate very well the influence of the industrial codes. The code for that industry went into effect on July 17. The month of July, therefore, as far as this industry is concerned, represents neither the precode era nor the code era, but about half of each. The average number of hours worked per wage earner that month (182) is about midway between that for June (212) and that for August (164). The figure for the cotton-goods industry for December (127), however, is especially low in comparison with the previous months, reflecting not only the seasonal decline and the effect of the holidays, but also the results of an administrative order, approved on December 2, curtailing for the remainder of the month the rate of operations by an amount equal to 25 percent of capacity.

¹¹ The monthly man-hour averages were obtained by dividing the aggregate number of man-hours for each month (table 3) by the number of wage earners employed in that month. The weighted average for the year for each industry was obtained by dividing the total man-hours for the 12 months by the sum of the wage earners reported for each of the 12 months; this average is the same as that in column 5 of table 1.

¹² Relatives expressing the aggregate number of man-hours (table 3), and of man-hours per wage earner (table 5), for these two industries during the last 6 months of the year, with July as the base, are as follows:

1933	Meat packing		Petroleum refining	
	Indexes of total man-hours	Indexes of man-hours per wage earner	Indexes of total man-hours	Indexes of man-hours per wage earner
July.....	100	100	100	100
August.....	105	94	104	97
September.....	102	86	94	84
October.....	99	84	98	86
November.....	104	93	96	84
December.....	96	86	97	84

Table 5.—Average Monthly Man-Hours per Wage Earner Employed in Specified Month, 1933

Industry	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average for year ¹
35 selected industries.....	165	159	165	169	187	195	182	171	155	151	148	140	165.1
<i>Food industries (8)</i>													
Meat packing.....	191	202	191	200	215	208	202	190	173	169	188	174	190.9
Flour milling.....	199	189	212	211	211	210	203	183	167	170	170	164	189.7
Sugar refining, cane.....	167	167	223	196	230	202	210	214	159	156	171	133	184.3
Ice, manufactured.....	215	204	217	221	232	236	245	225	213	195	176	181	215.3
Sugar, beet.....	201	163	205	204	211	212	221	223	227	231	234	209	220.8
Feeds, prepared.....	177	168	194	191	197	192	187	176	159	161	166	161	176.9
Cereal preparations.....	170	150	168	162	171	166	174	173	149	153	154	137	160.6
Malt.....	192	182	209	192	202	206	208	180	171	177	172	178	187.1
<i>Tobacco industries (3)</i>													
Cigars.....	134	143	147	147	167	176	168	164	159	160	152	121	153.7
Cigarettes.....	154	136	143	141	166	159	141	152	134	138	123	111	141.6
Snuff, and chewing and smoking tobacco.....	151	138	147	152	167	163	153	162	143	153	133	126	149.1
<i>Textile industries (12)</i>													
Cotton goods.....	187	182	200	191	207	212	182	164	156	152	151	127	174.0
Hosiery.....	171	172	184	179	191	195	172	148	159	157	152	131	167.3
Worsted goods.....	174	177	174	165	186	211	186	174	157	142	148	146	169.8
<i>Silk and rayon goods:</i>													
Regular weaving.....	178	172	179	176	182	187	170	162	156	151	148	134	165.7
Regular throwing.....	177	163	174	165	187	202	178	158	151	145	147	131	164.6
Commission weaving.....	192	184	190	190	199	199	165	161	136	128	146	137	168.7
Commission throwing.....	176	167	170	178	185	188	165	147	139	143	132	117	157.7
<i>Woolen goods:</i>													
Woolen goods.....	178	178	179	177	187	213	198	175	153	144	147	141	172.4
Knit underwear.....	165	167	175	179	180	189	185	156	156	148	147	134	164.8
Carpets and rugs, wool.....	131	131	148	139	167	192	166	165	158	150	143	129	152.1
Knit outerwear.....	166	166	176	177	180	185	174	160	162	148	146	145	165.3
Cotton small wares.....	175	171	181	180	185	198	183	165	163	155	150	146	170.1
Felt goods, wool, hair, or jute.....	142	154	167	163	197	204	200	181	162	158	161	154	171.2
Knit cloth.....	162	148	170	171	182	188	187	155	158	144	138	130	160.9
Wool shoddy.....	168	177	163	180	208	225	231	181	169	157	151	166	182.7
<i>Chemical industries (6)</i>													
Paper.....	166	165	177	174	191	201	202	191	172	164	156	148	175.3
Petroleum refining.....	176	163	182	180	183	180	182	176	152	156	152	153	168.7
Rayon yarns.....	189	176	186	167	188	188	184	168	164	162	156	156	172.6
Leather tanning.....	178	172	176	175	189	198	196	180	159	162	156	157	174.3
Pulp.....	169	161	176	172	183	198	197	195	172	166	160	148	174.3
Soap.....	163	173	184	170	189	185	178	184	160	165	164	139	171.0
<i>Metal and machinery (6)</i>													
Steel works and rolling mills.....	123	116	122	133	165	183	186	180	151	147	133	140	150.4
Motor-vehicle bodies and parts.....	151	157	123	168	182	189	170	156	139	126	120	135	151.4
Motor vehicles.....	154	122	116	153	177	180	162	157	137	129	120	126	145.0
Blast furnaces.....	143	133	146	141	167	189	201	191	169	163	148	156	165.1
Machine tools.....	140	117	115	107	125	148	149	150	146	152	152	152	140.9
Machine-tool accessories.....	143	126	126	123	137	154	161	153	147	151	165	159	148.4

¹ Weighted.

Let us now consider further the significance of the figures in table 5. Some men were employed for a larger number of hours than the average given in that table, whereas others worked fewer hours. The average for each month in each industry does, however, give a general picture of the opportunity for work in that month. A man who has been employed in each of the 12 months for this average time will not have enjoyed full time, but his shortage of time is not due to seasonal swings. In the manufacture of cigars, the average number of hours worked by each man employed during January was only 134 hours, which was much less than the customary full time. This was, however, the average effective time, and the sum of the 12 monthly averages would be the average effective working time during the year. Such a total is shown for each of the 35 industries in table 6 (column 2). It varied from a maximum of 2,560 hours in the manufacture of ice to a minimum of 1,653 hours in the manufacture of machine tools; for cigars, it was 1,838. A total obtained in this manner for any specific industry generally agrees quite closely (but not for all industries, especially those with large seasonal variations) with the weighted average number of man-hours per year, arrived at by dividing the aggregate man-hours for the year by the average number of wage earners. For cigars, the sum of the 12 monthly averages was 1,838 hours, whereas the weighted average for the year was 1,844 hours.¹³ For totals for the several industries computed by either of these methods, differences between industries reflect variations in the length of the working week.

These figures showing the work opportunity of a man employed 12 months give an indication of the average amount of work-time available for all persons in an industry at one time or another during the year. It also allows of a measure of the irregularity of the demands of the industries on the labor market. If the largest number of workers employed in any month had shared equally the aggregate number of man-hours utilized by the industries during the year, the resulting number of man-hours per year per man would have been those shown in column 3 of table 6. The ice industry, as previously shown, offered 2,560 hours on the average to those individuals able to secure 12 months' employment, but only 1,904 hours¹⁴ would have been available had the maximum number of workers been held throughout the year. In other words, each man who worked the average amount of time throughout the year would have had his annual working hours reduced by 656 hours if the total quantity of work had been equally distributed among the maximum number of workers, or (as shown in column 4 of table 6), he would have received only 74 percent as much work as he did obtain.

¹³ Computed by dividing 66,147,457 man-hours (table 3) by 35,875 wage earners (table 1).

¹⁴ Computed by dividing the total man-hours, 23,879,399 (table 3), by 12,539, the number of employees for August, the month showing the maximum employment.

Table 6.—Reduction in Hours per Wage Earner by Distributing Available Work Among Maximum Number Employed

Industry	Number of establishments	Average hours per wage earner, based on figures for entire year			Average hours per wage earner based on figures for 7 months (January to July) converted to annual equivalent				
		Sum of 12 monthly averages	Average hours based on wage earners in maximum month		Reduction per wage earner (col. 2 minus col. 3)	12/7 times sum of 7 monthly averages	12/7 times average hours based on wage earners in maximum month		Reduction per wage earner (col. 6 minus col. 7)
			Number	Percent of 12-month sum			Number	Percent (of col. 6)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
35 selected industries.....	7,365	1,987	1,725	87	262	2,095	1,773	85	322
<i>Food industries (8)</i>									
Meat packing.....	372	2,303	1,943	84	360	2,415	2,229	92	186
Flour milling.....	531	2,289	2,073	91	216	2,460	2,342	95	118
Sugar refining, cane.....	19	2,228	1,938	90	230	2,391	2,265	95	126
Ice, manufactured.....	1,181	2,560	1,904	74	656	2,691	1,973	73	718
Sugar, beet.....	66	2,541	1,988	39	1,553	2,429	1,493	61	936
Feeds, prepared.....	263	2,129	1,968	92	161	2,239	2,114	94	125
Cereal preparations.....	70	1,927	1,715	89	212	1,990	1,860	93	130
Malt.....	27	2,269	1,697	75	572	2,385	1,803	76	582
<i>Tobacco industries (3)</i>									
Cigars.....	158	1,838	1,675	91	163	1,855	1,731	93	124
Cigarettes.....	19	1,698	1,594	94	104	1,783	1,697	95	86
Snuff, and chewing and smoking tobacco.....	26	1,788	1,719	96	69	1,836	1,761	96	75
<i>Textile industries (12)</i>									
Cotton goods.....	659	2,111	1,800	88	311	2,333	1,881	81	452
Hosiery.....	268	2,011	1,850	92	161	2,167	2,078	96	89
Worsted goods.....	141	2,040	1,692	83	348	2,182	1,677	77	505
Silk and rayon goods:									
Regular weaving.....	229	1,995	1,709	86	286	2,133	1,812	85	321
Regular throwing.....	34	1,978	1,553	79	425	2,136	1,690	79	446
Commission weaving.....	63	2,027	1,717	85	310	2,261	1,927	85	334
Commission throwing.....	106	1,907	1,574	80	333	2,107	1,704	81	403
Woolen goods.....	218	2,070	1,554	75	516	2,246	1,642	73	604
Knit underwear.....	113	1,981	1,786	90	195	2,126	1,834	86	292
Carpets and rugs, wool.....	41	1,819	1,452	80	367	1,841	1,469	80	372
Knit outerwear.....	163	1,985	1,689	85	296	2,098	1,821	87	277
Cotton small wares.....	80	2,052	1,698	83	354	2,182	1,783	82	399
Felt goods, wool, hair, or jute.....	41	2,043	1,674	82	369	2,103	1,779	85	324
Knit cloth.....	60	1,933	1,491	77	442	2,071	1,606	78	465
Wool shoddy.....	29	2,176	1,674	77	502	2,318	1,718	74	600
<i>Chemical industries (6)</i>									
Paper.....	445	2,107	1,835	87	272	2,187	1,999	91	188
Petroleum refining.....	273	2,035	1,827	90	208	2,136	2,091	98	45
Rayon yarns.....	34	2,084	1,807	87	277	2,191	1,901	87	290
Leather tanning.....	211	2,098	1,858	89	240	2,201	1,910	87	291
Pulp.....	157	2,097	1,813	86	284	2,153	2,023	94	130
Soap.....	70	2,054	1,796	87	258	2,129	2,007	94	122
<i>Metal and machinery industries (6)</i>									
Steel works and rolling mills.....	361	1,779	1,480	83	299	1,762	1,392	79	370
Motor-vehicle bodies and parts.....	219	1,816	1,518	84	298	1,954	1,637	84	317
Motor vehicles.....	113	1,733	1,534	89	199	1,824	1,594	87	230
Blast furnaces.....	62	1,947	1,527	78	420	1,920	1,399	73	521
Machine tools.....	126	1,653	1,170	71	483	1,545	1,353	88	192
Machine-tool accessories.....	317	1,745	1,136	65	609	1,663	1,407	85	256

In the beet-sugar industry, the number of working hours per man in 1933 would have been reduced by considerably more than half; that is, from 2,541 to 988. This is due to the fact that the industry is very seasonal; the number of wage earners ranged from a minimum of 2,369 in March to 23,136 in November. While these figures refer only to the sample covered, they are probably representative of the entire industry.

The greatest stability of working hours was shown by two tobacco industries—snuff and chewing and smoking tobacco, and cigarettes.

In interpreting the data for these 35 industries, it is well to keep in mind that most of them are makers of consumers' goods, and even during the worst of the depression have enjoyed a good volume of business compared with that for capital-goods industries.

These statements with regard to equal distribution of the available work are applicable to the entire year 1933, but certain events of the year influence that showing. For example, the introduction of the industrial codes and the President's Reemployment Agreement at about the time of the summer industrial peak caused a number of industries to show increased monthly employment for sometime after the aggregate monthly man-hours had begun to decline. It is worth while, therefore, to ascertain the results of an equal distribution of the total work of the first 7 months of the year (January to July, inclusive) among the maximum number of workers employed during that period. The figures for the 7 months have been reduced to an annual basis through multiplication by twelve-sevenths, and the results (shown in columns 6 to 9 of table 6) are similar to those for the whole year (columns 2 to 5).

The differences between the figures for the entire year and those for only 7 months may be summarized somewhat as follows: The figures for the 7 months are, in general, larger than the corresponding ones for the entire year in the cases of those industries, such as the textiles, which experienced large increases in activity; but the reverse is generally true in the cases of those industries, such as food products and petroleum refining, which operated fairly free from a large seasonal increase.

SOCIAL SECURITY

Railroad Employees' Retirement Act of 1935

DURING the closing days of the first session of the Seventy-fourth Congress, a new retirement act for the benefit of railroad employees (Public Act No. 399) was passed and was approved August 29, 1935. This act takes the place of a law¹ enacted at the Seventy-third session of the Congress, and which was declared unconstitutional by the United States Supreme Court.² In addition to the act creating a retirement system, a companion law (Public Act No. 400) was passed providing for the raising of revenues to pay the necessary pensions. The retirement act covers employees of any express, sleeping-car, or railroad company subject to the Interstate Commerce Act. The administration of the law is placed in a board of 3 members representing the employees, the railroad companies, and the public. The act becomes effective March 1, 1936, and provides a maximum of \$120 a month to employees 65 years of age, or who have completed 30 years' service. While retirement is compulsory at this age, the railroad company and the employee may agree to extend the retirement age for yearly periods but not beyond 70 years of age.

The amount of the annuity that a retired railroad employee may receive under the law is based upon his period of service. It is determined by multiplying the first \$50 of the monthly compensation by 2 percent, the next \$100 by 1½ percent, and all in excess of \$150 up to \$300 by 1 percent. The total then is multiplied by the number of years of service, not to exceed 30.

The fund to be created for the payment of the pensions provides for the levying of an excise tax of 3½ percent on the pay rolls of employers and an equal amount on the employees.

¹ See Monthly Labor Review, August 1934 (pp. 363-367).

² Idem, June 1935 (pp. 1511-1522).

Old-Age Pensions in California, Massachusetts, New Jersey, and New York in 1935

MORE than \$13,500,000 was spent for old-age allowances during the first 6 months of 1935 in the four States, California, Massachusetts, New Jersey, and New York. These allowances were being paid to over 111,000 needy aged at the end of June in an average amount of \$20.50 per person per month. The importance of these States in the pension field is indicated by the fact that in 1934 they accounted for 44 percent of the pensioners and more than 75 percent of the pension disbursements made in the 25 States in which pension systems were then in effect. They are also the States in which systems of practically State-wide effect have been in operation for the longest period of time.¹

The number of pensioners and amount of disbursements in each of these four States during January-June 1934, are shown in table 1.

Table 1.—Operations Under Old-Age Pension Acts, First Half of 1935, by States

State	Number of pensioners, June 30, 1935	Disbursements, first half of 1935	
		Total	Average per pensioner, per month
California.....	21,310	\$2,472,116	\$20.08
Massachusetts.....	22,661	1,300,000	24.31
New Jersey.....	13,229	1,151,701	15.29
New York.....	54,079	6,758,290	21.30
Total.....	111,279	13,682,107	20.50
Total, excluding Massachusetts, ² first half of:			
1935.....	88,618	10,382,107	20.13
1934.....	78,096	9,119,089	19.87

¹ Estimated on basis of average allowance.

² Data are not available for the first half of 1934.

Pension payments were begun in California on January 1, 1930, in New York on January 1, 1931, in Massachusetts on July 1, 1931, and in New Jersey on January 2, 1932. Although the California system has now been in operation 5½ years, the pension roll has not yet reached its peak. The monthly reports show that the number of pensioners is still increasing at the rate of 300 per month. The same is true in New Jersey and New York. In Massachusetts the pension list increased at the rate of about 400 per month from March to June 1935.

The operations by months, in California, New Jersey, and New York, the three States for which monthly reports are received by the Bureau of Labor Statistics, are shown in table 2.

¹ No report is available for Delaware, whose State-wide system has been in effect since 1931.

Table 2.—Operations Under Old-Age Pension Act, by Months, January to June 1935, and by States

Month	California			New Jersey ²			New York		
	Pensioners, end of month	Disbursements ¹	Average pension ¹	Pensioners, end of month	Disbursements	Average pension	Pensioners, end of month	Disbursements	Average pension
January.....	19,805	\$396,473	\$20.02	11,750	\$177,297	\$15.08	51,964	\$1,103,400	\$21.23
February.....	20,076	402,213	20.04	12,053	183,830	15.25	52,128	1,109,115	21.28
March.....	20,345	408,638	20.08	12,426	190,812	15.35	52,434	1,115,500	21.27
April.....	20,605	414,177	20.10	12,749	195,026	15.29	53,039	1,128,785	21.28
May.....	20,983	421,546	20.08	13,094	200,663	15.32	53,600	1,146,383	21.39
June.....	21,310	429,069	20.14	13,229	204,073	15.42	54,079	1,155,107	21.36
Total.....	20,521	2,472,116	20.08	12,550	1,151,701	15.29	52,874	6,758,290	21.30

¹ Computed on basis of monthly reports of State aid (approximately one-half).

² Data cover 20 counties; the remaining county had not yet put the system into force.

Old-Age Pension Law of District of Columbia

WITH the enactment of Public Act No. 319, the District of Columbia became the thirty-eighth jurisdiction providing assistance to the aged needy, 35 States and 2 Territories already having such laws.¹ As the District law was passed subsequent to the Federal Social Security Act, its provisions were made to conform to that act.

Under the law assistance may be granted to a citizen of the United States who is 65 years of age or more, who has had 5 years' residence or more in the District of Columbia within the 9 years immediately preceding the application for assistance, and 1 year's continuous residence immediately preceding application. He is disqualified for benefits (1) if he is, at the time of making application, an inmate of a prison, workhouse, insane asylum, or any other correctional institution; (2) if he is a habitual tramp or beggar; (3) if he has relatives able to support him and legally responsible for his support; (4) if he has made a voluntary transfer of his property in order to qualify for assistance.

The Board of Commissioners of the District of Columbia is to administer the act or designate an agency to do so. The amount of assistance is to be determined with regard to the conditions in each case, and the Board is empowered to pay reasonable funeral expenses on the death of a beneficiary.

All cases in which relief is granted shall be reviewed every 6 months, and assistance may be withdrawn or the amount varied if changed circumstances warrant it. If an application for relief or modification of relief is denied, an appeal may be made for hearing and review.

Upon the death of a recipient of old-age assistance, or the last survivor of a recipient married couple, the total amount of assistance with simple interest at 3 percent shall be a preferred claim against the estate of the person assisted.

¹ Subsequent to the preparation of this article two laws have been adopted, that of Alabama on Sept. 14, and of Oklahoma on Sept. 24, 1935.

Sufficient sums to carry out the provisions of the act are to be provided by the Congress, and the Board of Commissioners shall cooperate with the Federal Social Security Board, accepting the sums apportioned by it.

District of Columbia Unemployment Compensation Act

ON AUGUST 28, 1935, the President signed the unemployment compensation law for the District of Columbia (Public, No. 386). Including the laws of Alabama and Massachusetts (which have not been published in the Monthly Labor Review) 10 States have laws upon this subject.¹ A summary of the principal provisions of the law of the District of Columbia follows:

Coverage.—Employees of every employer employing 1 or more persons under any contract of hire, including employees of the District of Columbia and of common carriers in interstate commerce, providing the greater part of the work is performed in the District of Columbia. The act excludes domestic service in private homes, casual labor not in the course of employer's trade or business, minors employed by parents, persons employed by child or spouse, employees of the United States Government or any instrumentality thereof, employees assisting in the legislative duties of a Senator, Representative, Delegate or Resident Commissioner, persons employed by the District as school officers, teachers, policemen, and firemen, and services by individuals subject to the Civil Service Retirement Act of May 22, 1920, as amended.

Contributions.—Payable by every employer subject to the act, beginning with January 1936, equal to the following percentages of total wages payable: 1 percent for 1936; 2 percent for 1937; 3 percent for the years 1938, 1939, and 1940.

Beginning with 1941 and thereafter the Board shall segregate employers into classes on the basis of the hazard of unemployment attached to the respective classes and determine the rate of contribution for each class, which rate shall not be less than 1½ percent nor more than 4 percent. However, any employer's rate of contribution shall be 3 percent unless there shall have been 3 calendar years throughout which benefits were payable to persons in his employ who became unemployed and eligible for compensation. The estimated total contributions payable by all employers during any such calendar year shall not be less than 3 percent of the estimated wages on which such contributions are payable.

Benefits.—Payable weekly to every eligible individual commencing with the week beginning January 2, 1938. For total unemployment, an amount, computed to the nearest half-dollar, equal to 40 percent of weekly wages, plus 10 percent of weekly wage for a dependent spouse, and an additional 5 percent for each dependent relative. This sum shall not exceed \$15 per week or 65 percent of weekly wage, whichever is less. For partial unemployment, an amount which when added to the total remuneration received for service during the week, will be \$2 more than the benefit to which he would be entitled if totally unemployed.

Duration of benefits.—For unemployment occurring within any period of 52 weeks, benefits shall be paid to every eligible unemployed person in the ratio of one-third of a week's benefit to each credit week which occurred within 104 weeks ending with the week in which he was last employed, until a total equal to 16

¹ For the unemployment compensation laws of 7 States, see the following issues of the Monthly Labor Review: New York, Utah, Washington, and Wisconsin, May 1935 (p. 1195); New Hampshire, July 1935 (p. 38); California (and reference to North Carolina), August 1935 (p. 335).

times a week's benefit has been paid. After this the ratio shall be one-twentieth of a week's benefit to each credit week which occurred within 260 weeks, ending with the week in which he was last employed.

Credit week.—Defined as a week in which the individual performed some employment against which no benefits have been charged and in respect to which no benefits were paid. All payments of benefits shall be charged against the earliest credit week, or part thereof, available. Any week of employment occurring within the usual school vacation shall not be counted as a credit week.

Eligibility.—An unemployed person shall be eligible to receive benefits for any week if (1) he has filed a claim in the form, at the time and office designated, (2) he has been employed in at least 13 weeks within the 52 weeks ending with the week in which he was last employed, (3) he is physically able to work, (4) he is available for work, has registered and inquired for work with the frequency prescribed, (5) he has been totally unemployed and otherwise eligible for a waiting period of 3 weeks prior to the week for which he claims benefits, and (6) total or partial unemployment is not due to a labor dispute still in active progress in the establishment where he is partially employed or was last employed.

An employee discharged for misconduct is ineligible for benefits for the week in which discharged, and for such additional weeks immediately following (not less than 1 nor more than 6) as the Board may decide. An employee who voluntarily leaves work without good cause, or fails to apply for new work when notified, or to accept such work when offered to him, is ineligible for benefits for the week of such failure and for the 3 weeks immediately following.

District unemployment fund.—The fund consists of all contributions received or collected and all benefits shall be paid from it. The Board controls the fund and makes an annual report to the Congress. In addition to its contributions to the fund as an employer, the District of Columbia shall, for the calendar year 1936, contribute \$100,000; for 1937, \$125,000; and for 1938, \$175,000. All money received in the fund other than that from the Unemployment Trust Fund shall be paid to the Secretary of the Treasury to the credit of the Unemployment Trust Fund to be held in trust for the District under the terms of section 904 of the Social Security Act. The Board shall requisition from the Unemployment Trust Fund the money necessary to pay benefits for each week. The requisitioned amount shall be deposited as a part of the District Unemployment Fund as a special deposit and used solely to pay benefits.

Administration.—The District Unemployment Compensation Board is established, composed of the Commissioners of the District as members ex officio, and 1 representative of employees and 1 of employers to be appointed by the Commissioners. The Board may enter into reciprocal agreements with the authorities of States having unemployment compensation laws. An executive officer appointed and employed by the Board will act as secretary of the Board and administer the act.

Claims.—Claims shall be decided as soon as possible. Upon determining the amount of benefits and the week payment begins, the employee and his most recent employer shall be notified.

If either party appeals to the Board within 10 days, benefit payments shall be withheld until the appeal is finally decided. Appeals from the decision of the Board may be made to the Supreme Court of the District of Columbia and then to the United States Court of Appeals for the District.

Effective date.—Contributions begin January 1, 1936. Benefit payments begin January 2, 1938.

Family Allowances for Municipal Employees in Santiago, Chile ¹

IN ADDITION to fixed salaries or weekly wages, municipal employees in Santiago, Chile, are granted monthly allowances (paid quarterly) for dependent children. For single children under 18 years of age with no other income the employee receives 30 pesos ² per month for the first child, 40 pesos for the second child, 50 pesos for the third, 60 pesos for the fourth, and 70 pesos for the fifth and subsequent children. Grants are given only for children who are physically and mentally unable to earn their living or who are pursuing their studies regularly.

Family allowances for children under 16 years of age are also payable to municipal laborers who have been employed for 1 year or longer. The amounts of the allowances and some of the regulations differ from those for the higher-class employees. Grants for dependent children of laborers are subject to a deduction of 10 percent, which will be deposited in the Chilean Bank of Pensions and Savings for municipal laborers.

The bank receives the 10-percent deductions from family allowances under specified conditions, which constitute a system of family savings. The savings bear interest of not less than 3 percent annually. When a child completes his sixteenth year he receives the savings in the form of assistance for his industrial, commercial, or professional training. The children's savings are subject to withdrawal upon the father's death or upon his retirement or resignation as a municipal worker, but only in case he has been employed at least 2 years in the city's service. Funds not withdrawn within 2 years of the time during which they may be withdrawn revert to the general fund for such purpose. Funds deposited by reason of deductions made from family allowances will be invested in State or municipal bonds or in first-class mortgage notes or in real estate.

Employees' Retirement Systems in Great Britain

ALTHOUGH the basic provision for the retirement of older workers in Great Britain is found in the State system of contributory and noncontributory pensions, private pension systems have continued to develop since the war with a marked increase in the number of new schemes during the depression. An account of this development is given in an article in the July 1935 issue of the *International Labor Review*.

¹ Data are from report of Edward A. Dow, American consul general, at Santiago, Feb. 5, 1935.

² Average exchange rate of peso in January 1935 was 5.06 cents.

Public System

THE State system of old-age pensions consists of a contributory scheme, based on employment, which covers all workers insured under the Widows', Orphans', and Old-Age Contributory Pensions Acts, 1925-29, and a noncontributory system covering all persons not included in the contributory scheme. The first system provides a pension of 10s. a week for insured persons at the age of 65 who have made the required contributions and a similar pension for the wives of pensioners upon reaching the age of 65. The noncontributory system provides a pension of 10s. a week at the age of 70, subject, however, to a means and nationality test.

The number of persons who were in receipt of old-age pensions under these two systems according to the census of 1931 and the proportion they formed of the total population over 65 in that year are shown in the following table.

Number of Persons in Great Britain Aged 65 and Over and Number and Percent Receiving Old-Age Pensions in 1931

Sex and age group	Total population aged 65 and over (census of 1931)	Persons receiving old-age pensions (contributory and noncontributory), Mar. 31, 1931	Percent of population in specified age group
Men:		<i>Number</i>	
65 to 69 years.....	646, 085	415, 833	64. 4
70 years and over.....	778, 720	588, 151	75. 5
Total.....	1, 424, 805	1, 003, 984	70. 4
Women:			
65 to 69 years.....	773, 393	249, 161	32. 2
70 years and over.....	1, 118, 255	844, 001	75. 5
Total.....	1, 891, 648	1, 093, 162	57. 8
Both sexes:			
65 to 69 years.....	1, 419, 478	664, 994	46. 8
70 years and over.....	1, 896, 975	1, 432, 152	75. 5
Total.....	3, 316, 453	2, 097, 146	63. 2

The table shows that less than half of the persons between the ages of 65 and 70 and approximately three-quarters of those over 70 were in receipt of pensions in 1931.

It is pointed out by the writer that although the social value of the present system cannot be questioned it falls short of being entirely satisfactory in several respects. Thus, it does not provide retirement pensions in the strict sense of the word, since a contributory old-age pensioner may receive a pension while continuing to work and a noncontributing pensioner may earn up to £52 10s. a year without affecting his right to a full pension. As a result many

pensioners continue to work, often at reduced wages, so that the pension acts as a concealed subsidy to wages and to a certain extent discourages retirement. A further point to be noted is that in most cases the pension scale is probably too low for retirement unless other resources are available. In the census year 1931 persons in Great Britain over the age of 65 who were actually working in gainful employment numbered 693,624 and on March 31, 1934, 214,845 old-age pensioners were receiving supplementary poor relief.

Private Pension Systems

NO GENERAL study which would show the actual number of private pension systems has been made, but it is estimated that there were between 2,500 and 3,000 at the end of 1934. The writer secured information concerning somewhat more than a hundred schemes, in addition to securing general information from individuals familiar with the movement. The tendency in the systems established in recent years has been toward contributory systems, with increasing attention to actuarial soundness. This has resulted in the employment of the services of insurance companies in the establishment and management of the systems. Four or five years ago there were only a few pension systems operated through insurance companies, but it is estimated that there are now over a thousand in existence. An important recent development is the establishment of pension schemes by two joint industrial (Whitley) councils for all the manual workers in their respective industries. These schemes are contributory, but allow the employees of one firm to take employment with any other contributing firm within the industry without loss of pension rights.

Examination of the provisions of the various schemes shows that administrative and clerical staffs are most frequently covered but that it is quite common for firms to provide separate systems for salaried employees and wage earners and in a few cases both classes of workers are included in one system. Male employees are more frequently provided for than female workers. In the case of contributory schemes new employees are usually required to join upon employment, although it may for a time be optional with the older employees. In noncontributory schemes the pension is usually based on the salary or wage grade and the length of service of the employee, while under the contributory systems it is usually related to the amount and number of contributions and in some instances to the age at entry into the scheme. In the systems covering salaried workers, contributions and benefits generally vary according to the salary and in cases in which they are fixed as a percentage of salary the contributions range between $1\frac{1}{4}$ and 5 percent. For wage earners

the contribution is more often fixed at a flat rate, the amount of the pension depending upon the number of contributions. For the latter class of workers benefits range from small pensions of 2s. or 3s. per week to those of £2 or more per week. The usual age of retirement is 65, with a few plans providing for retirement at 60, while in some instances an earlier retirement age is allowed for women than for men. In the more recent schemes operated by insurance companies a group life-insurance policy is taken out providing for a lump-sum payment on the death of the employee.

The number of persons covered by the various schemes is not known but it is believed not to exceed 500,000, a number representing only a small fraction of the total number of persons employed in private enterprises in Great Britain. The number of persons actually in receipt of pensions is also believed to be small, as the majority of the schemes have been established recently.

In summing up the study, the author points out that well-planned and well-administered pension schemes give a degree of security to the workers and tend to improve the relations between capital and labor. They do, on the other hand, have a tendency to reduce the mobility of labor. Also, the individual firm is not a satisfactory economic unit for the basis of a pension scheme and in case of industrial mergers the existence of such schemes raises serious difficulties, such as occurred in connection with the railway employees' pensions after the 1921 amalgamations. It seems clear, the author states, "that if employees' pension schemes are to be relied upon to supplement the State system of old-age pensions as part of a comprehensive industrial retirement policy, the Government will have to be prepared to give financial assistance to a large number of schemes, and possibly to introduce some measure of compulsion in the case of firms refusing either to establish schemes of their own or to join with others." This possibility, it is said, raises other questions, particularly the question as to whether the extension of the existing State provisions for elderly workers would not be the most satisfactory solution of the problem of retirement.

Liberalization of British Health Insurance Act

THE provisions of the British health insurance and compulsory contributory pension system¹ affecting insured workers out of employment were considerably liberalized by the revised National Health Insurance and Contributory Pensions Act passed in 1935, which is summarized in the August 1935 issue of the Ministry of Labor Gazette.

¹ See Monthly Labor Review, October 1934 (p. 823).

Under the law as enacted and interpreted prior to 1935, an insured worker continued in insurance for a period of about 21 months after he ceased to be insurably employed. During this "free insurance period", as it is called, the full right to medical and maternity benefit was retained, but the right to cash benefit for sickness and disability was restricted, the amount of cash payment being reduced in proportion to the extent of his arrears. At the expiration of this free insurance period he lost all rights and privileges under the system if he continued to be unemployed. All administrative extensions of the free insurance period which have been granted because of continued unemployment were to have expired on December 31, 1935.

The act of 1935, however, retains the free insurance period, averaging 21 months, and adds a new provision which protects indefinitely certain features of the insurance scheme for any worker who had been continuously insured for 10 years previous to the time he became unemployed, regardless of the duration of his unemployment. He will retain his pension rights, his right to medical and maternity benefit, and to any additional treatment benefit to which, as a member of an approved society, he would be entitled. He will not be entitled, under free insurance, to sick or disability benefits, which are cash payments. His right to these may be restored by 26 weeks of insurable employment and 26 contributions over a period of not more than 4 consecutive half-years.

Under the law as it previously stood, arrears of contributions due to unemployment were excused to the extent of half the amount due, leaving the insured worker or his approved society responsible for refunding the other half, in order to remain in full insurance. The new law, by excusing in full all arrears due to genuine unemployment, assures full benefit during the free insurance period to those who are out of work 21 months or less, and to casual and part-time workers who cannot, by reason of unemployment, meet the requirement of remaining in insurance throughout the contribution year. This provision restores the terms of the insurance system as it operated before 1928, when wide-spread unemployment made it necessary to relieve the drain on the funds.

Amendment of Swedish Invalidity and Old-Age Insurance Law

AN ACT amending the Swedish law of June 30, 1913, which established a system of compulsory insurance against old age and invalidity, was passed by the Riksdag June 6, 1935, and becomes effective January 1, 1937.¹

¹ International Labor Office. Industrial and Labor Information (Geneva), July 29, 1935. (For a detailed account of the provisions of the earlier act see Bureau of Labor Statistics Bul. No. 561, p. 337.)

Under the earlier law all Swedish citizens between the ages of 16 and 66, with the exception of civil servants having pension rights, were required to pay the prescribed contribution. The new law requires the payment of contributions by persons between the ages of 18 and 65 and revokes the exemption of civil servants who have acquired pension rights under the special systems. However, although the compulsory contribution ceases at age 65, because of financial reasons the pensionable age will continue to be 67 as at present.

Pensions consist of a contributory fraction (the contributory pension) calculated on the basis of the number of contributions paid and a noncontributory fraction (the pension bonus) payable out of public funds. Under the former law the basic annual pension was calculated on the number of contributions paid, ranging from 70 percent for men entering the system at ages 16 to 19 years to 15 percent for those entering at 55 to 66 years. The basic pension for women was 20 percent less for each age group. The new law abolishes the discrimination between men and women in the calculation of the pension and establishes a basic annual pension of 70 crowns² plus 10 percent of the aggregate amount of contributions paid. This is to the advantage of insured persons, particularly those who on reaching the pensionable age have paid only a small number of contributions or whose contributions have been based on a small income. However, if at the time the pension becomes payable contributions have been paid for fewer than 7 years, the basic pension is reduced 10 crowns for each year short of 7.

The pension bonus which is paid from public funds is not payable even at reaching the pensionable age under the law now in force, unless the insured person is permanently unfit for work; under the new law the pension will be payable at age 67 regardless of the insured person's physical condition. At present the payments from public funds to persons whose annual income falls below a certain sum—425 kronor for men and 400 kronor for women—amount to 225 kronor for men and 210 kronor for women, minus six-tenths of the amount by which the annual income exceeds 50 kronor. The new law fixes the rate of the supplementary pension at 250 kronor for insured persons of both sexes subject to the deduction of seven-tenths of the amount by which the annual income of the insured person exceeds 100 kronor.

The minimum contribution paid under the law now in force is 3 kronor per year, plus an additional contribution, based on the taxable income during the preceding year, varying from 2 kronor for incomes between 600 and 800 kronor to 30 kronor for incomes of 10,000 kronor and over. The minimum contribution under the new act is 6 kronor and the additional contribution for the different income classes

² Krona at par=26.80 cents; exchange rate varies.

reaches a maximum of 20 kronor for incomes of 10,000 kronor and over. At present the State pays three-quarters of the pension bonus and the local and departmental authorities pay the remainder, but under the new law the local authorities will pay one-eighth of the pensions, the departmental authorities one-sixth of the pensions granted prior to January 1, 1937, and the remaining expenditure will be borne by the State.

The existing scheme by which contributions are paid into a special fund—the Pension Insurance Fund—is maintained under the new law but while the law of 1913 provided that the competent authorities were responsible only for establishing rules for the management and investment of the fund the new law authorizes the Crown and Parliament to establish rules governing the increase of the fund and to fix the maximum amount of such increase.

The payment of old-age pensions is at present limited to Swedish citizens, but the new law authorizes the Crown to conclude agreements with other States providing for the payment of pensions to nationals of States providing for reciprocal treatment.

Estimates of the expense of the new scheme place the cost to the public authorities at 93,000,000 kronor in 1937, as compared with 70,000,000 kronor in 1933, at 109,000,000 kronor in 1940, and 139,000,000 kronor in 1950. The increased expenditures, however, will not be due entirely to the increase in the amount of the pensions but will be the result in some part of the increase in the number of persons attaining the age at which pension rights are acquired.

EMPLOYMENT CONDITIONS

Restriction Upon Closing of Industrial Establishments in Czechoslovakia

A DECREE restricting the closing of factories and shops and the wholesale discharges of workers became effective in Czechoslovakia on June 30, 1935.¹ The decree applies to employers who intend to shut down their plants for a period of 14 days or more or to discharge a number of workers at one time. Written notice of 14 days must be given to the respective district office and trade supervising office, giving the reasons for the contemplated action; such notice is obligatory when 15 percent of all workers in establishments employing up to 700 employees are to be discharged, or 10 percent in establishments with more than 700 workers.

No further steps can be taken by the employer toward carrying out his plan for 15 days. During that time the district office is to arrange for a conference between the employer and the workers' organizations in order to attempt to arrive at an agreement which would make either the closing of the plant or the discharge of the workers unnecessary. If no agreement can be arrived at and the factory owner receives no adverse decision from the district office within 15 days, he may consider his contemplated action as officially approved.

When a factory owner intends to resume operations within 3 months' time, intervention on the part of the district office is limited to an attempt to induce the parties concerned to arrive at an agreement. If the factory is to be closed for more than 3 months, the owner must give written notice to the Ministry of Social Welfare and the respective ministry under whose jurisdiction the establishment operates, giving the reasons for his contemplated action. After both ministries have investigated the matter, the competent ministry is to make a final decision. If no decision is received within 6 weeks from the date of filing of the announcement with the ministries, the owner of the establishment may consider his contemplated action as officially approved. In the interval, however, he is not allowed to effect any discharges unless he pays full wages to the discharged employees for the entire period during which his case is under consideration.

¹ Data are from report of Orme Wilson, American consul general at Prague, July 19, 1935.

When a factory owner fails to make the prescribed written announcement, the competent official bureau will investigate his case on its own account. The competent ministry may also, upon approval by the Ministry of Social Welfare, instruct the district office to investigate any factory where, during the calendar year, the number of workers has decreased by 40 percent, in order to determine whether any further dismissals in excess of 6 percent of all workers during a 4-week period are justified. If the district office decides against the factory owner, he must pay full wages to workers for 14 days (3 weeks if the plant was shut down), but in no case for a longer period than that during which operations were actually discontinued.

When a factory is to be discontinued, the district office must be notified and the owner must give adequate notice to all employees, such notice to commence on the day on which the official decision was made, or, in the absence of such a decision, on the first day after 3 weeks from the date on which the owner's written notice reached the respective ministries. Workers must be given 2 weeks' notice after service of 5 years or less and 1 week's notice for every additional period of 5 years' service, the entire term of notice not to exceed 6 weeks in any case. For salaried employees the term of notice is 2 months for service up to 15 years, 3 months for service of 15 to 20 years, and 5 months after 20 years' service.

The new decree does not apply to temporary employees if they and the district office were notified by the employer at the time of employment that the employment would not exceed 4 weeks. Such employees are covered, however, if the employer reports such temporary employment more than three times during any year.

If a new factory is about to be started, or an established factory reopened after being idle for at least 15 months, the competent ministry, on approval of the Ministry of Social Welfare, may exempt such enterprise from the provisions of the decree upon petition by the employer. Such petitions must be filed both with the competent ministry and the Ministry of Social Welfare. If the employer receives no reply within 6 weeks after he has filed his petition, he may consider it as a favorable decision.

No rights given to workers by the new decree may be curtailed or canceled by agreement made between employees and employers.

Repatriation of Foreign Workers in France¹

TO ASSIST in eliminating surplus foreign workers from the French labor market the Ministry of Labor of France has adopted the policy of furnishing free transportation for foreign workers whose requests for work permits have been refused.

¹ Data are from report by Robert D. Murphy, American consul at Paris, July 9, 1935.

Every foreign worker in France is required to have in his possession a valid working permit issued by the Labor Ministry. Such permit is granted for a specific period and its renewal depends upon the circumstances in the individual case. Many foreign workers whose applications for working cards have been rejected remain in France because of financial inability to leave. Some employers have been "willing to wink at the labor regulations", and foreign workers without permits will often take employment at wages lower than those acceptable to natives or to aliens with working cards.

It is planned to transport to the French border, at the expense of the French State, unemployed foreign workers who are nationals of countries such as Luxemburg, Belgium, Germany, Italy, Spain, Portugal, and Russia. The aliens to be transported will be required to have in their possession certificates from their respective consular officers stating that these workers are in possession of adequate means to get from the French border to their places of origin. The Ministry of Labor of France will also provide similar jobless workmen who are nationals of certain central and Eastern European countries (Austria, Czechoslovakia, Poland, Rumania, and Yugoslavia) with free transportation to the borders of their respective countries.

"Labor Book" System Introduced in Germany ¹

UNDER a system established in Germany in the early part of 1935, all workers are required, as a condition of employment, to be in possession of a "labor book" (*Arbeitsbuch*), which is, in essence, a book of identification.

The system was established by a law of February 26, 1935, supplemented by administrative orders issued in May. The Minister of Labor is made responsible for the execution of the law, but the duty of issuing the labor books is placed upon the State Employment and Unemployment Insurance Office. Actual issuance began on June 1, 1935.

The labor book contains a rather complete personal description of its possessor, such as date and place of birth, citizenship, family relations, and residence address; description of training, when and where, in what concern and school, training in other occupations, knowledge of agriculture, special knowledge, such as driving a power vehicle or a tractor for plowing; description of past employment lasting the longest time, by whom employed, where, in what occupa-

¹ Data are from the following sources: Germany, Reichsgesetzblatt for Mar. 1 and May 17, 1935; Reichsarbeitsblatt for May 25, 1935: Announcement by Minister of Labor, pt. I, pp. 154 to 156; Order by the president of the Employment and Unemployment Insurance Office, pt. I, p. 157; Das Arbeitsbuch, by Dr. A. Wende, Counselor of the Ministry of Labor, pt. II, pp. 132 to 134; and Soziale Praxis for May 30, 1935: Das Arbeitsbuch, by Dr. Fr. Syrup, president of Employment and Unemployment Insurance Office, cols. 626-631.

tion, and on what dates; description of the present or current occupation, such as title and address of the employing concern, department of the concern, or occupation, date of beginning of employment, nature of occupation as exact as possible, date of ending of the employment, and signature of the employer.

All local employment service offices are to keep a complete card index of all labor books issued in their districts. Each book that is issued has a corresponding index card in the file of the issuing office, each card containing a brief summary of all contents of the book. This system enables the authorities to keep a complete and strict check on the movements and the earning opportunities of all wage earners and salaried employees in the country.

The regulations specify the classes of workers to which the labor books are to be issued and make it clear that eventually all workers, including apprentices and volunteer workers, will be required to have a labor book in order to obtain employment or hold their present jobs. Civil officials (*Beamte*), soldiers, prisoners, public wards, and other persons who, according to the labor laws in effect, appear not to be wage earners or salaried employees are exempted, as are also persons having a monthly income over 1,000 marks, workers residing abroad, home workers, and children not having completed the compulsory term in the public schools.

The importance of the plan is emphasized by the president of the Employment and Unemployment Insurance Office. He points out that the system will permit the compilation of statistics on a nationwide scale and enable the Government authorities better to distribute labor, to ascertain the branches of industries that show remediable weaknesses, and to control changes of occupation, migration from country to city, and the ratio of employment regarding sex and age. The indexes can also be utilized by the vocational guidance offices for the benefit of boys and girls leaving school, in order to direct them to occupations in which their work is needed. In addition, the authorities claim, the index will enable them to ascertain many other facts which are of great importance for the population, social, and economic policies of Germany.

Upon entering employment the worker must turn over his labor book to the employer who will keep it during the period of employment. When a worker or employee leaves his position, the book must be returned to him by the employer. No worker subject to the act of February 26, 1935, may be employed who is not in possession of a labor book.

Age Distribution of Unemployed in Great Britain, May 1935

STATISTICS showing the age distribution of persons 18 years of age and over, registered for work at the British public employment offices have been compiled from the records of the employment exchanges. This analysis is published in the Ministry of Labor Gazette of July 1935.

The data refer to conditions on May 13, 1935, when 1,938,636 persons 18 years of age and over were on the registers. Of these, 1,544,915 were registered as wholly unemployed, 305,363 were working part time or were temporarily laid off, and 88,358 were normally casual workers. Table 1 gives the age distribution of the men and women in each of these groups.

Table 1.—Age Distribution of Unemployed Persons in Great Britain, May 13, 1935, by Sex and Degree of Unemployment

Sex and age group	Wholly unemployed		Temporarily unemployed		Seeking casual employment	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
Men.....	1,334,052	100.0	218,463	100.0	86,606	100.0
18-20 years of age.....	75,430	5.7	16,048	7.3	1,590	1.8
21-24 years of age.....	178,631	13.4	31,615	14.5	7,410	8.6
25-34 years of age.....	341,022	25.5	62,403	28.6	21,258	24.5
35-44 years of age.....	254,119	19.0	46,402	21.3	18,564	21.4
45-54 years of age.....	241,776	18.1	37,162	17.0	19,963	23.1
55-59 years of age.....	130,392	9.8	15,825	7.2	10,720	12.4
60-64 years of age.....	109,004	8.2	9,008	4.1	7,101	8.2
65 years of age and over.....	3,678	.3				
Women.....	210,863	100.0	86,900	100.0	1,752	100.0
18-20 years of age.....	31,122	14.8	12,231	14.1	97	5.5
21-24 years of age.....	42,972	20.4	19,013	21.9	174	9.9
25-34 years of age.....	57,202	27.1	26,507	30.5	422	24.1
35-44 years of age.....	35,585	16.9	15,897	18.3	422	24.1
45-54 years of age.....	26,738	12.7	8,996	10.3	411	23.5
55-59 years of age.....	10,210	4.8	2,905	3.3	138	7.9
60-64 years of age.....	6,856	3.2	1,351	1.6	88	5.0
65 years of age and over.....	178	.1				

As the table shows, the proportion of women in the lower age groups is much greater than that of men. This, according to the Gazette, is mainly due to the effects of marriage and other causes in reducing the number of older women who are seeking work. Further analysis of the data showed that of the total number of unemployed women on the registers, 61 percent were single or widowed and 39 percent were married. A high percentage of the married women seeking employment, however, was found in the older group, 61 percent being between 25 and 45 years of age. Detailed analysis of the age and marital status of women registered for work at the exchanges is given in table 2.

Table 2.—Age and Marital Status of Unemployed Women in Great Britain, May 13, 1935

Age group	Single women and widows		Married women	
	Number	Percent of total	Number	Percent of total
Total women.....	182,627	100.0	116,888	100.0
18-20 years of age.....	40,389	22.1	3,061	2.6
21-24 years of age.....	43,426	23.8	18,733	16.0
25-34 years of age.....	40,622	22.2	43,509	37.2
35-44 years of age.....	24,399	13.4	27,505	23.6
45-54 years of age.....	19,819	10.8	16,326	14.0
55-59 years of age.....	8,197	4.5	5,056	4.3
60-64 years of age.....	5,635	3.1	2,660	2.3
65 years of age and over.....	140	.1	38	.0

An analysis of the figures by geographical distribution showed little variation with regard to the men except in the Midlands, where only 39 percent were under 35, as compared to 44.9 percent for Great Britain as a whole, and in Scotland, where over 50 percent of the unemployed men were under 35. In the country as a whole, 35.2 percent of the unemployed women were between the ages of 18 and 25, and 63.3 percent were under 35. The percentage of younger women in the 18-25 year age group, was much higher (58.2 percent) in Wales and Monmouth than for the country as a whole and lower (28.0 percent) in the Northwestern administrative division. In the London area 64.4 percent of the women and 45.7 percent of the men were under 35 years of age.

NATIONAL RECOVERY PROGRAM

Work of Petroleum Labor Policy Board

WAGES and pay rolls increased and compliance with the terms established by agreement was fairly satisfactory in the period of code operation for the petroleum industry under the National Industrial Recovery Act, according to a recently published survey on the work of the Petroleum Policy Board.¹ Up to the time the United States Supreme Court rendered its adverse decision in the *Schechter case*, holding the code-making powers in the Recovery Act unconstitutional, the Petroleum Labor Policy Board had acted on 2,862 out of 3,945 complaints filed alleging violations of the wages and hours provisions of the petroleum code; of those handled 1,458 were adjusted and in 922 no violation was found. Complaints under section 7 (a) numbered 77, of which 7 were withdrawn. No evidence of coercion was found in 22 cases, 35 were settled, and 13 remained unadjusted when the Board's work was brought to a close.

The work of the Board was varied in nature and included action upon complaints of alleged violations of code wages and hours provisions and section 7 (a), interpretation of code provisions, research, handling requests for exemptions from labor provisions, measurement of the effects of the code on labor, and compliance and litigation cases. In outlining its activities the Board stated that this was done in order to guide administrative procedure in the event that Congress enacted legislation to carry out the purposes of the Recovery Act and also to clarify its labor policy.

Membership and Duties

AS ORIGINALLY set up, the Petroleum Labor Policy Board was bipartisan. However, because of the refusal of the representative chosen for labor to serve, a reorganization was effected on December 19, 1933, establishing an impartial board of three members. Based on oral instructions from the Administrator the Board formulated its duties and functions to include: (1) Advising the Administrator in determining policies affecting labor and in interpreting and applying code labor provisions; (2) acting on compliance cases and recommend-

¹ U. S. Department of the Interior. Petroleum Labor Policy Board. Report to the Petroleum Administrator, Aug. 17, 1935. (Mimeographed.)

ing appropriate enforcement measures; (3) investigating labor disputes and acting in mediation, conciliation, and arbitration cases (the latter only upon joint request of parties to a dispute); (4) handling cases arising under section 7 (a) dealing with collective bargaining, holding elections for employee representation, and related work; and (5) carrying out research in order to advise on labor policies and the effects of the code on employment, wages, and purchasing power.

Activities of the Board

Wages and hours complaints.—From the date the Board was organized in January 1934 to the end of May 1935 the number of complaints alleging violation of the code wages and hours provisions totaled 3,945. By May 17, 1935, 2,862 of these cases had been closed. Adjustments were made in 1,458 cases; 922 showed no violations; and in 482 compliance had not been secured. The 1,083 cases that were pending were closed by notifying the respective complainants that, in view of the action of the Supreme Court, the Board had no further jurisdiction.

On the basis of experience it was decided that the best procedure would be to send complaints as to hours and wages to the planning and coordinating committee for adjustment in the first instance. Section 7 (a) cases were reserved for personal attention and action of the Board. Cases that could not be adjusted in this way next went to the Division of Investigations to be prepared for action of the Attorney General. Section 7 (a) cases were prepared for the Attorney General by the Board's staff or were referred to the Division of Investigations in the first instance when it was deemed desirable. On the basis of reports received it was decided whether cases should be sent to the Department of Justice at once or held in an attempt to obtain adjustment.

Section 7 (a) cases.—Of the 77 cases brought under section 7 (a) in which employees charged discrimination or coercion against union men or that company unions were forced upon the employees, 7 were withdrawn, 22 showed no evidence of such coercion, 35 were settled, and 13 remained unadjusted. A total of 6,613 men were involved. Formal hearings were held in 23 cases and there were 22 formal decisions. One decision had been formulated but was not issued before the work was brought to a close.

The Board acted in 20 strikes involving 9,278 men and 15 threatened strikes involving 17,862 men. Of the 14 strike settlements effected, 8 resulted in written agreements. There were 5 cases in which settlement was not secured. Of the 15 strikes averted, written agreements were obtained in the settlement of 7.

The Board acted as arbitrator in 12 cases involving 4,680 men.

In the 15 contracts entered into for the purpose of settling disputes arising between employers and employees the Board was named as final arbitrator or mediator. The agreements were all established for 1-year periods and cover about 14,000 workers.

Disputes over choice of representatives for collective bargaining numbered 64. The Board held 33 elections to determine such representatives; in 17 cases the choice was made by checking the petitioners' names against the company pay roll, and in 12 cases no election was necessary as the employers recognized the workers' choice.²

Discrimination and intimidation cases were most difficult to settle, as it was not always possible to determine the cause of a lay-off or discharge. Because of the importance of securing the opinion of a mediator, and not only that of an investigator, it came to be the policy of the Board to handle such cases directly rather than refer them to the Division of Investigations.

Interpretations.—About half of the Board's time was devoted to such problems as code interpretation, modification, exception, and amendment. Among the major questions was that of determining differentials between wage rates of various skill classes, the code having provided for maintenance of differentials as of July 1, 1929, for certain occupations. The clause as written was modified by Executive order and there were subsequent administrative orders on differentials requiring current and retroactive payments. The major companies complied with the requirements but there was a recalcitrant group. On the whole the orders resulted in raising the wage rates of skilled workers.

The definition of stripper wells was left to individual regional committees by code amendment, and it is the belief of the Board that this was a mistake that might have been avoided had the Petroleum Administration been functioning when the matter was settled.

It was necessary in the course of the life of the code to make distinctions between employees and independent retailers so that owning or leasing companies would be responsible for maintaining labor provisions. There were complications involved in maintaining code provisions where industries overlapped and operated either under different labor provisions or entirely without codes. It was concluded that related industries should be subject to the same standards.

Exemptions.—Upon request of the Petroleum Administrator the Board considered 28 petitions requesting exemption from one or more code provisions. In 20 cases the exemptions sought were approved but in 4 approval was denied, and the remaining 4 had not been acted on when the work was discontinued. In all, 14 petitions for reducing minimum wages of drillers were considered. It was possible to grant some ameliorative action in 11 of these. The Board held formal

² For an account of elections held under the auspices of the Board, see p. 951 of this issue.

hearings on 6 major subjects involving interpretations and changes in the code. These included: (1) The determination of differentials in pay rates for skilled labor; (2) definition of "employee", including determination of the legal position of lessees of stations; (3) application of code to stripper wells and definition of the term; (4) exemption of filling stations from code terms in towns of 2,500 population or less; (5) minimum-wage rates for rig builders in several States; and (6) proposals of organized workers for changes in code labor provisions.

Litigation.—Of the 357 cases arising under the petroleum code that were handled by the Department of Justice, 50 percent involved violations of the marketing provisions. When the Schechter decision was handed down 45 actions had been instituted in the Federal courts of which 8 had been closed and 32 were pending.

Post-code activities.—The Board has undertaken a survey of the petroleum industry since removal of the code work. A field study of employment, pay rolls, hours of labor, and weekly earnings is contemplated. It is expected to collect new data and analyze that already available in the studies of the Bureau of Labor Statistics.

Cabinet Committee's Recommendations for Cotton-Textile Industry

CONTROL of excess capacity, retirement of obsolescent machinery, and the maintenance of code labor provisions are among the recommendations offered by the Cabinet committee appointed by the President on April 26, 1935, to investigate conditions in the cotton-textile industry.¹ The committee submitted its recommendations and a report on conditions and problems in the industry, covering such questions as international trade, Government purchases of cotton, the cotton-loan policy, processing tax, and merchandising and marketing. Specific suggestions were made for better control of the industry. The formation of a continuing committee, made up of representatives of Government, employers, employees, and other affected groups, was recommended, to formulate in more concrete terms the recommendations made and to study and report on long-time problems in the cotton-textile industry, including its interrelation with other phases of national and international economy. The Cabinet committee consisted of the Secretaries of Commerce, State, Agriculture, and Labor. A fact-finding subcommittee was appointed consisting of a representative of each of the respective secretaries and of the United States Tariff Commission. Those parts of the

¹ United States Senate Doc. No. 126 (74th Cong., 1st sess.): Cotton textile industry—message of the President of the United States transmitting a report on the conditions and problems of the cotton textile industry, made by the Cabinet committee appointed by him. Washington, 1935.

factual report and of the recommendations having a direct labor interest are summarized below.

A number of measures were suggested, designed to lessen the adverse effects of the excess capacity and obsolescence of machinery that are serious problems in the cotton-textile industry. Such legislative or administrative action as may be necessary should be taken, the committee stated, to limit the hours of machine operation, to establish a leasing system for retiring surplus equipment and to purchase and retire the most obsolete units after a probationary period under the leasing system. The withdrawal of equipment at the expense of the industry itself should be subject to adequate regulation in the public interest, always observing the objectives of eliminating inefficient units and caring for displaced workers.

If the capacity of mills is measured on a single-shift basis (which understates the position, owing to the existing practice in the South of operating two shifts) production could be increased by about two-thirds. Because of the presence of extra equipment there is a constant tendency to build up stocks of goods, with the result of almost chronic depressions.

Obsolescence is stated to include not only machinery but the mills themselves and to some extent the methods of buying raw materials and selling finished goods. It is pointed out that obsolescence in staple-goods industries may be more important from the point of view of intercompany competition on narrow margins than from the point of view of high cost to consumers. With cotton mills drifting southward, obsolescence thus becomes more serious for New England owners than for others.

To preserve the labor standards of the code established under the National Industrial Recovery Act, the Government is urged to supplement the voluntary efforts of those in the industry by such measures as may be feasible. Therefore, further study is recommended of such questions as regional wage differentials. Under the code hourly rates of 32½ cents in the North and 30 cents in the South were established; these rates were a compromise, since the North asked that there be no differential and the South that it be made larger. The effect is stated to have been to increase wages in the South relatively more than in the North. However, code provisions raised hourly wages in all branches of the industry and resulted in increased employment but with little increase in total annual income per worker except where continuous employment could be furnished. After the Supreme Court decision on the N. I. R. A. it was not possible (in August 1935) to measure in actual figures the extent of observance of code terms, but it was understood that the industry was making a successful effort to continue the code standards on a voluntary basis.

Study of the statistics for the industry showed that the number of wage earners employed declined from an annual average of 468,000 in 1927 to 330,000 in 1931, but increased by 50,000 in 1933. Average employment in the first half of 1935 was 408,000. New England showed a great loss in cotton-textile workers, from 195,000 in 1923 to 90,000 in 1933; in this period the average number of employees in the South increased from 220,000 to 257,000. Wages which averaged \$14 to \$16 a week in pre-depression years declined to \$11 in 1932. In the first 6 months of 1935 the weekly wage was about \$13. Annual earnings were \$700 to \$800 in 1929 and \$570 in 1933, compared with general averages for all manufacturing ranging from as high as \$1,200 to \$1,300 a year to as low as about \$870.

Restrictive legislation is cited as being important in maintaining high standards by controlling the employment of adult and child labor in the cotton-textile industry. For example, the Massachusetts law that restricts hours of labor to 48 per week for women during specified daytime hours is commended, as well as the 14-year minimum age requirement for the employment of minors in most of the cotton-manufacturing States.

NATIONAL INCOME

National Income in 1934

NATIONAL income increased by 5 billion dollars, or 11 percent, between 1933 and 1934, according to estimates published recently by the Division of Economic Research, Bureau of Foreign and Domestic Commerce, United States Department of Commerce.¹ In 1933 income payments in the form of wages, salaries, and other labor income, interest, dividends, entrepreneurial withdrawals, and net rents and royalties to individuals for economic services rendered totaled 44.4 billion dollars and in the year following, 49.4 billion dollars. The 1934 total was higher than in 1932 (48 billion dollars) but 37 percent below 1929 (78.6 billion dollars).

All types of income rose in 1934 except "other labor income" and interest payments. The highest proportionate gain occurred in the types of income payment that declined most during the depression.

The estimate for 1934 includes work-relief payments, such as pay rolls and maintenance received by members of the Civilian Conservation Corps, the pay rolls on Civil Works Administration and Federal Emergency Relief Administration work projects, and administrative pay rolls of State, county, and other local public-relief administrative agencies. If the income from relief were excluded the rise in national income would be only 4.2 billion dollars, or 10 percent in excess of the 1933 level. Disbursements for pay rolls on P. W. A. projects are shown in the estimates for the construction industry if carried on under contract and appear under the proper industrial classification if carried on by a particular industry. The pay rolls for P. W. A. projects aggregated 302 million dollars in 1934 as compared with 33 million dollars in 1933. Public and private funds disbursed for direct relief are excluded from the estimates as not being income payments for economic services rendered.

The study of income in 1934 was in continuation of previous studies carried on by the Department of Commerce in cooperation with the National Bureau of Economic Research.² In the study here reviewed

¹ Reprint from Survey of Current Business, August 1935: National Income Increased by Five Billion Dollars in 1934, by Robert R. Nathan.

² See Monthly Labor Review, March 1934 (p. 584), National Income, 1929-32; and Monthly Labor Review, April 1935 (p. 921), National Income in 1933 and 1934.

some revision of the 1933 figures previously published is made. It is stated that both the 1933 and 1934 estimates are preliminary and that the property-income estimates in particular are subject to revision when the statistics of corporate income-tax returns become available.

Table 1 shows national income paid out, by types of payment, for the years 1929 to 1934, inclusive, in dollar value and with index numbers based on income paid out in 1929.

Table 1.—National Income Paid Out, by Types of Payment

Type of payment	1929	1930	1931	1932	1933	1934
	Amount (in millions of dollars)					
Total income paid out.....	78,576	72,973	61,433	47,964	44,431	49,440
Labor income.....	51,088	46,844	39,444	30,643	29,121	33,109
Salaries (selected industries) ¹	5,664	5,551	4,606	3,387	2,997	3,196
Wages (selected industries) ¹	17,197	14,251	10,608	7,017	7,189	8,944
Salaries and wages (all other industries).....	27,291	26,052	23,148	19,141	17,325	18,675
Work-relief wages ²	-----	-----	-----	-----	637	1,394
Other labor income.....	936	990	1,082	1,098	973	900
Property income ³	11,632	11,719	10,076	8,189	6,995	7,143
Dividends.....	5,963	5,794	4,312	2,749	2,042	2,307
Interest.....	5,104	5,310	5,228	5,048	4,569	4,509
Net rents and royalties.....	3,432	2,763	1,847	1,153	950	1,085
Entrepreneurial withdrawals.....	12,424	11,647	10,066	7,979	7,365	8,103
	Index numbers (1929=100.0)					
Total income paid out.....	100.0	92.9	78.2	61.0	56.5	62.9
Labor income.....	100.0	91.7	77.2	60.0	57.0	64.8
Salaries (selected industries) ¹	100.0	98.0	81.3	59.8	52.9	56.4
Wages (selected industries) ¹	100.0	82.9	61.7	40.8	41.8	52.0
Salaries and wages (all other industries).....	100.0	95.5	84.8	70.1	63.5	68.4
Other labor income.....	100.0	105.8	115.6	117.3	104.0	96.2
Property income ³	100.0	100.7	86.6	70.4	60.1	61.4
Dividends.....	100.0	97.2	72.3	46.1	34.2	38.7
Interest.....	100.0	104.0	102.4	98.9	89.5	88.3
Net rents and royalties.....	100.0	80.5	53.8	33.6	27.7	31.6
Entrepreneurial withdrawals.....	100.0	93.7	81.0	64.2	59.3	65.2

¹ Includes mining, manufacturing, construction, steam railroads, Pullman, railway express, and water transportation.

² Includes pay rolls and maintenance of Civilian Conservation Corps enrollees and pay rolls of Civil Works Administration and Federal Emergency Relief Administration work projects plus administrative pay rolls outside of Washington.

³ Includes net balance of international flow of property incomes.

Income paid out as used in table 1 is defined as the compensation paid to or received by individuals for their productive services, whether labor, management, or the furnishing of capital. The estimate is limited in general to services entering into "the market place of our economy." Services of housewives and other members of the family in the home are excluded as are also services of durable goods owned and possessed for personal use such as dwellings, furniture, and automobiles. Earnings from odd jobs, changes in the value of assets, and direct relief are also omitted as being unproductive, impossible to estimate accurately, etc. The report states that the increase in odd jobs during the depression may result in overstating

the decline in income paid out. Another item tending to reduce the income total is the probable expansion of services in the home which were formerly bought in the market.

It should also be pointed out that, because of the price changes that took place, real income did not vary to the extent indicated in dollar value. Income paid out declined 43 percent between 1929 and 1933 and the Bureau of Labor Statistics indexes of cost of living and wholesale prices declined 23 and 31 percent, respectively. The original report states that although price indexes "are not sufficiently representative to warrant their use in deflating the income figures in order to determine the drop in real income," the greater decline in income payments as compared with prices does indicate a marked decline in real income during the depression.

According to the estimates in table 1 the tendency was for all classes of income to decline annually from 1929 through 1933 and to rise in 1934. Labor income in 1933 was 43 percent lower than in 1929; the increase between 1933 and 1934 was 14 percent. Property income decreased 40 percent between 1929 and 1933 and only increased 2 percent in 1934 as compared with the previous year. If the change in labor income, exclusive of work-relief payments, is considered, the rise between 1933 and 1934 is 11 percent. In the industries for which wages and salaries could be separated there was an increase in wage payment of 24 percent in 1934 over 1933 as compared with a 7-percent increase in salaries during this same year.

The report states that net rents and royalties declined sharply during the depression because of the severe reduction in gross rental income and also because items such as taxes, insurance, interest, and depreciation were rigidly fixed. Evidence available points to a reduction in rents and royalties between 1929 and 1933 of nearly three-fourths of the total and a 14-percent increase between 1933 and 1934.

Labor income bore practically the same relation to total income in each of the years 1929 to 1934. In the earliest year the percentage of total income paid to labor was 65.0; it dropped to 63.9 in 1932 and stood at 67.0 in 1934. Thus, even if work-relief income (2.8 percent of the total in 1934) is excluded from the labor income, this classification maintained approximately the same share of national income as in 1929.

Income payments are shown by 12 industrial groups in table 2 and index numbers are given with 1929 used as a base.

Table 2.—National Income Paid Out, by Industrial Divisions

Industry	1929	1930	1931	1932	1933	1934
	Amount (in millions of dollars)					
All industries.....	\$78, 576	\$72, 973	\$31, 433	\$47, 964	\$14, 431	\$49, 440
Agriculture.....	6, 157	5, 495	4, 271	3, 192	2, 993	3, 299
Mining.....	2, 080	1, 733	1, 206	813	772	1, 008
Electric light and power and gas.....	1, 304	1, 475	1, 408	1, 275	1, 164	1, 143
Manufacturing.....	18, 014	15, 942	12, 363	8, 544	8, 273	10, 000
Construction.....	3, 257	2, 939	1, 939	948	781	869
Transportation.....	6, 592	6, 129	5, 169	4, 083	3, 747	3, 993
Communication.....	913	946	894	801	727	749
Trade.....	11, 385	10, 839	9, 555	7, 538	6, 620	7, 177
Finance.....	8, 415	7, 540	6, 296	4, 925	3, 998	4, 130
Government.....	6, 809	7, 048	7, 193	7, 153	7, 377	8, 404
Excluding work-relief payments.....	6, 809	7, 048	7, 193	7, 153	6, 740	7, 010
Work-relief payments ¹					637	1, 394
Service.....	8, 459	7, 079	6, 939	5, 442	4, 884	5, 412
Miscellaneous.....	5, 191	4, 908	4, 170	3, 250	3, 095	3, 256
	Index numbers (1929=100.0)					
All industries.....	100.0	92.9	78.2	61.0	56.5	62.9
Agriculture.....	100.0	89.2	69.4	51.8	48.6	53.6
Mining.....	100.0	83.3	58.0	39.1	37.1	48.5
Electric light and power and gas.....	100.0	113.1	108.0	97.8	89.3	87.7
Manufacturing.....	100.0	88.5	68.6	47.4	45.9	55.5
Construction.....	100.0	90.2	60.5	29.1	24.0	26.7
Transportation.....	100.0	93.0	78.4	61.9	56.8	60.6
Communication.....	100.0	103.6	97.9	87.7	79.6	82.0
Trade.....	100.0	95.2	83.9	66.2	58.1	63.0
Finance.....	100.0	89.6	74.8	58.5	47.5	49.1
Government.....	100.0	103.5	105.6	105.1	103.3	123.4
Excluding work-relief payments.....	100.0	103.5	105.6	105.1	99.0	103.0
Work-relief payments ¹						
Service.....	100.0	94.3	82.0	64.3	57.7	64.0
Miscellaneous.....	100.0	94.5	80.3	62.6	59.6	62.7

¹ Includes pay rolls and maintenance of Civilian Conservation Corps enrollees and pay rolls of Civil Works Administration and Federal Emergency Relief Administration work projects plus administrative pay rolls outside of Washington.

In the industries where the decline in income paid out was in excess of 50 percent between 1929 and 1933 the increases in the following year were generally the greatest. For example the increase between 1933 and 1934 was 31 percent in mining, 21 percent in manufacturing, and 11 percent in the construction industry. Income payments by governmental agencies (excluding work relief) were 3 percent above the 1929 level in 1934. This is attributed to the increase in number of employees, restoration of full pay schedules, and the continued increase in interest charges on an expanding Government debt.

Income paid out in agriculture was 10 percent greater in 1934 than in 1933 but it is stated that there is evidence that income produced increased to a much greater extent. Higher prices for agricultural products and the Federal Government disbursements under the Agricultural Adjustment Act, which form a part of the gross-income estimates, contributed to the gain in this industry. The report states that there is evidence that the large business losses in agriculture that were characteristic in 1932 have been eliminated and that business savings were enjoyed in 1934.

INDUSTRIAL RELATIONS

Employee Elections Conducted by Petroleum Labor Policy Board

By DAVID A. MOSCOVITZ, CHIEF COUNSEL, PETROLEUM LABOR POLICY BOARD ¹

THE Petroleum Labor Policy Board was established on October 10, 1933, without formal order, by the Secretary of the Interior who was also Administrator of the Code of Fair Competition for the Petroleum Industry, for the purpose of aiding him in the enforcement and supervision of the labor provisions of the code.² The Board was authorized to act in all matters arising under section 7 (a) of the National Industrial Recovery Act, as embodied in section 7, article II of the petroleum code. It immediately formulated and adopted rules of procedure to be followed in election cases. These rules provided for elections by secret ballot or the checking of the names of petitioning employees against company pay rolls.

The aforementioned principle was first enunciated officially by the Board in the *Magnolia Petroleum Co. case*.³ In this case the Board decided that where there was a dispute as to who properly represented the employees for the purpose of collective bargaining, an election should be held under the supervision of the Board to determine by secret ballot the free choice of the employees. The company appealed to the Administrator on the ground that it was willing to bargain collectively with the International Association of Oil Field, Gas Well, and Refinery Workers of America which had filed the complaint, and, therefore, an election was not necessary. The Administrator ruled that an election was not the only method of ascertaining the choice of representatives by employees, and authorized the Board to check petitions of employees against pay rolls and to certify the choice of the majority of the employees by this method.

This decision laid the groundwork for the peaceful settlement, within the industry, of the subsequent cases submitted to the Board involving questions of the employees' rights of self-organization for the purpose of collective bargaining. The foregoing procedure was

¹ Duncan Campbell, statistician, Petroleum Labor Policy Board, prepared the statistical data contained in this article.

² For a general account of the work of the Board, see p. 943 of this issue.

³ Decided Feb. 6, 1934.

finally incorporated in an administrative order ⁴ which authorized the Board to conduct elections by secret ballot (including primary elections when deemed advisable) in order to determine by what person, persons, or organization the employees desired to be represented, and further provided that: "After each such election, the Board shall certify the results to all concerned and the person, persons or organization certified as the choice of the majority of those voting shall be accepted as the representative or representatives of said employees for the purpose of collective bargaining without thereby denying to any individual employee or group of employees the right to present grievances, to confer with their employer or otherwise to associate themselves or act for mutual aid or protection."

The Board dealt with 62 disputes involving the sole question of representation. In 34 of these cases elections were held with the cooperation of the companies and the men, and in 16 cases the choice of the employees was determined by checking the petitioners' names against the company pay roll. The Board certified the results in each instance to the interested parties. These 50 cases involved 11,834 men. In addition, 12 cases involving 5,464 men came before the Board in which the designated representatives of the employees were recognized by the companies without the necessity of an election.

Table 1 summarizes the total number of representation disputes settled (1) without the necessity of a certification (i. e., upon receipt by the company of the employees' petition as transmitted to it by the Board), (2) by pay-roll checks, or (3) by elections.

Table 1.—Method of Settlement of Representation Disputes in Petroleum Industry, Mar. 1, 1934, to Feb. 28, 1935

Method of settlement	Number of cases	Men involved
All disputes.....	62	17,298
Without certification ¹	12	5,464
Certifications based on—		
Pay-roll checks.....	16	5,796
Elections.....	34	6,038

¹ Cases in which employees' choice was recognized by company without certification but only after intervention by Petroleum Labor Policy Board.

Table 2 gives an analysis of certifications issued on the basis of pay-roll checks.

⁴ Order No. 97365 of the Petroleum Administrator, approved and promulgated Mar. 8, 1935.

Table 2.—Analysis of Certifications Issued by Petroleum Labor Policy Board Based On Pay-Roll Checks, Mar. 1, 1934, to Feb. 28, 1935

Company	Date of pay-roll check, 1934	Number of employees in unit	Employees signing petition		Name not identified		Employees not signing petition	
			Number	Per cent of total	Number	Per cent of total	Number	Per cent of total
All pay-roll checks.....		5,796	3,750	65	122	2	1,924	33
Magnolia Petroleum Co., Fort Worth, Tex..	Mar. 7	117	83	70	-----	-----	34	30
Magnolia Petroleum Co., Beaumont, Tex. . .	Apr. 2	2,299	1,234	54	118	5	947	41
Col-Tex Refining Co., Colorado, Tex.	Apr. 11	106	85	94	-----	-----	21	6
Yount Lee Oil Co., Spindle Top, Tex.	Apr. 15	176	90	51	-----	-----	86	49
Empire Oil & Refining Co., East Chicago, Ind.	Apr. 19	327	316	97	-----	-----	11	3
Standard Oil Co. of Indiana, Denver, Colo. . .	May 1	83	50	60	1	1	32	39
Phillips Petroleum Co., Denver, Colo.	May 3	69	41	59	-----	-----	28	41
Texas Co., Denver, Colo.	May 7	47	31	66	1	2	15	32
Empire Oil & Refining Co., Okmulgee, Okla. .	May 11	86	71	82	-----	-----	15	17
Empire Oil & Refining Co., Ponca City, Okla. .	May 18	284	224	79	2	1	58	20
Louisiana Oil & Refining Co., Shreveport, La. .	May 26	384	213	55	-----	-----	171	45
Indian Territory Illuminating Oil Co., Seminole and Osage, Okla.	June 2	1,265	912	72	-----	-----	353	28
National Refining Co., Coffeyville, Kans. . . .	June 16	286	192	67	-----	-----	94	33
Yount Lee Oil Co., High Island, Tex.	July 4	249	190	76	-----	-----	59	24
Merrick Bristow Oil Co., Big Spring, Tex. . .	Aug. 24	12	12	100	-----	-----	-----	-----
Continental Oil Co., Wink, Tex.	Sept. 30	6	6	100	-----	-----	-----	-----

It should be pointed out that all certifications issued on the basis of a check of employees' signatures against company pay rolls were on behalf of affiliates of the American Federation of Labor. All except four of these were issued to the International Association of Oil Field, Gas Well, and Refinery Workers of America. The three Denver certifications were issued to the Gasoline Filling Station Employees' Union, and the National Refining Co. certification, Coffeyville, Kans., was issued to a joint representation group of various American Federation of Labor organizations.

An analysis of certifications issued on the basis of elections, showing the distribution of votes for the various types of representation, is given in table 3.

Table 3.—Analysis of Certifications Issued by Petroleum Labor Policy Board Based on Elections, Mar. 1, 1934, to Feb. 28, 1935

Company	Date of election, 1934	Total votes cast	Valid votes cast								
			Total	For trade union		For employee-representation plan		For individual bargaining		For others	
				Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All elections.....		6,038	5,787	3,470	60	1,951	34	254	4	114	2
Texas Co., Lockport, Ill.....	Apr. 27	431	425	344	81	26	6	55	13		
Texas Co., West Tulsa, Okla....	May 17	266	266	196	74	43	16	26	8	1	2
Texas Co., Casper, Wyo.....	July 5	91	90	83	92	7	8				
White Eagle Refining Co., Casper, Wyo.....	do.....	55	55	27	49	28	51				
Continental Oil Co., Baltimore, Md.....	July 6	65	64	16	25	9	14	2	3	37	58
Latonia Refining Corporation, Latonia, Ky.....	July 10	157	157	61	39	93	59	2	1	1	1
Latonia Refining Corporation, Latonia, Ky. (office).....	do.....	14	14			13	93			1	7
Continental Oil Co.: Glenrock, Wyo.....	July 14	80	80	54	67	26	33				
Parkerton, Wyo.....	do.....	31	31	26	84	4	13	1	3		
Stanolind Oil & Gas Co., Midwest, Wyo.....	July 17	597	597	290	49	307	51				
Continental Oil Co., Columbine, Wyo.....	July 19	42	42	9	21	33	79				
Ohio Oil Co., Columbine, Wyo.....	July 20	30	30	18	60	12	40				
Paso-Tex Pipe Line Co., El Paso, Tex.....	Aug. 14	54	52	30	56	17	31	5	9	2	4
White Eagle Refining Co., Augusta, Kans.....	Aug. 22	278	276	200	72	67	25	9	3		
White Eagle Refining Co., Augusta, Kans. (office).....	do.....	18	18	1	6	10	55	6	33	1	6
Lion Oil Refining Co., El Dorado, Ark.....	Aug. 27	93	93	57	61	34	37	2	2		
Crown Central Petroleum Corporation, Pasadena, Tex.....	Sept. 8	162	159	150	94	3	2	6	4		
Republic Oil Refining Co., Texas City, Tex.....	do.....	82	81	77	94	2	3	2	3		
Marathon Oil Co., Iraan, Tex.....	Sept. 26	154	154	83	54	59	38			12	8
Continental Oil Co., McCamey, Tex.....	Sept. 27	15	15	15	100						
Group No. 1 Oil Corporation, Texon-Rita, Tex.....	Sept. 30	28	28	26	93	2	7				
Reagan County Purchasing Corporation, Texon-Rita, Tex.....	do.....	14	14	14	100						
G. W. James, El Dorado, Ark.....	do.....	7	7	7	100						
Lion Oil Refining Co., El Dorado, Ark.....	Oct. 1	194	194	34	18	158	81	2	1		
Barnsdall Oil Co.: Avant, Okla.....	Oct. 19	15	15			15	100				
Osage, Okla.....	do.....	4	4			4	100				
Flatrock, Okla.....	do.....	5	5	4	80	1	20				
Wiser Oil Co., Alluwe, Okla.: Gasoline plant.....	Oct. 24	10	10	8	80	1	10	1	10		
Drilling department.....	do.....	6	6	5	83			1	17		
Production and machinery departments.....	do.....	48	48	32	67	5	10	11	23		
Schermerhorn Oil Co., Big Spring, Tex.....	Oct. 27	12	12	12	100						
Continental Oil Co., Big Spring, Tex.....	do.....	27	26	20	77			6	23		
American Petroleum Co., Houston, Tex.....	Oct. 21	137	137	116	85	12	9	9	6		
Shell Oil Co., Los Angeles, Calif.....	Dec. 12	2,816	2,582	1,455	57	960	37	108	4	59	2

Table 4 summarizes the number and percent of certifications by the Board, by type of organization to which issued.

Table 4.—Number and Percent of Certifications by Petroleum Labor Policy Board, by Type of Organization, Mar. 1, 1934, to Feb. 28, 1935

Organization	Certifications issued	
	Number	Percent of total
Total certifications.....	50	100
American Federation of Labor affiliates.....	40	80
International Association of Oil Field, Gas Well and Refinery Workers of America.....	35	70
Filling Station Employees' Union.....	3	6
Joint Representation of Oil Workers' Union and/or various A. F. of L. craft organizations.....	2	4
Employee-representation plans.....	9	18
Other organizations.....	1	2

It is interesting to note that the analysis discloses only 9 certifications out of 50 in which the employees chose employee-representation plans in preference to American Federation of Labor affiliates, the total number of votes being 1,951 for the former and 7,220 for the latter.

In answer to the early contention of the companies that they had a right under the law to bargain collectively with representatives of the minority group for terms and conditions of employment covering the same class of employees for which a majority had chosen other representation, the Board held that a majority of any craft or class of employees shall have the right to determine who shall be the representative of that class or craft for collective bargaining. Although developing this principle, the Board recognized the rights of individuals or groups to represent themselves or be represented by counsel or other representatives in cases of grievances or other matters not affecting the collective bargain for the whole class or craft of employees.

In accordance with this principle the Board whenever necessary determined the appropriate unit for the purpose of collective bargaining, conducting investigations and hearings when the facts and circumstances of the case warranted. Certifications have, therefore, been on the basis of that unit which best served to effectuate the purposes of the National Industrial Recovery Act and the petroleum code. The result has been certifications ranging from separate units within the same plant to certifications on a company State-wide basis. The question of the homogeneity of a unit for the purpose of collective bargaining was held to be one to be determined in the light of the facts and circumstances of each particular case.

Although the Board at this time has no complete record of the number of agreements actually entered into subsequent to certification of the duly authorized representatives for collective bargaining, its files indicate that all but a small percentage were followed by agreements, both written and verbal. It should be noted that in each case consent to the holding of an election or the checking of names

against pay rolls was given by the company involved and that in only four cases did the employers proceed to disregard the certifications by attempting to impose upon their employees the type of bargaining organization preferred by them.

Employee Elections Conducted by National Labor Relations Board, up to June 16, 1935

By GEORGE SHAW WHEELER, NATIONAL LABOR RELATIONS BOARD

UNDER authority granted it by Congress (Public Res. No. 44, 73d Cong.) the National Labor Relations Board and the 17 regional boards conducted 154 elections from July 1, 1934, to June 16, 1935, to determine employee representatives. An analysis of the first 103 elections (up to Jan. 9, 1935) was given in the Monthly Labor Review for May 1935. The present article gives similar data for the grand total of 154 elections covering the whole of the period referred to. Text comment on the tables is omitted, as it would be almost identical with that in the earlier article.

Altogether 56,814 employees were eligible to vote in these 154 elections and 45,287 valid votes were cast. Of the 45,287 votes, 26,478 or 58.5 percent were for trade unions and 15,060 or 33.2 percent were for company unions or employee-representation plans.

The results of the elections, by districts, are summarized in table 1.

Table 1.—Employees, Votes Cast, and Number and Percent of Valid Votes Received, by Type of Organization, July 10, 1934, to June 16, 1935

Board conducting election	Number of employees eligible to vote	Valid votes cast—						
		Total	For trade union		For company union		Other ¹	
			Number	Percent of total	Number	Percent of total	Number	Percent of total
All elections.....	56,814	45,287	26,478	58.5	15,060	33.2	3,749	8.3
National Labor Relations Board....	4,713	3,556	1,819	51.1	1,681	47.3	56	1.6
Regional labor boards.....	52,101	41,731	24,659	59.1	13,379	32.1	3,693	8.8
First district.....	2,658	2,217	945	42.6	939	42.3	333	15.0
Second district.....	3,264	2,019	1,009	50.0	339	16.8	671	33.2
Third district.....	2,940	2,258	1,582	70.0	627	27.8	49	2.2
Fourth district.....	2,540	1,982	1,066	53.8	726	36.6	190	9.6
Fifth district.....	898	866	90	10.4	776	89.6	—	—
Sixth district.....	1,500	1,274	853	67.0	344	27.0	77	6.0
Seventh district.....	1,276	454	432	95.2	22	4.8	—	—
Eighth district.....	4,807	4,187	1,787	42.7	1,739	41.5	661	15.8
Ninth district.....	1,446	1,278	923	72.2	40	3.1	315	24.6
Tenth district.....	7,355	6,617	4,456	67.3	1,725	26.1	436	6.6
Eleventh district.....	5,383	3,512	2,052	58.4	1,362	38.8	98	2.8
Twelfth district.....	397	258	170	65.9	65	25.2	23	8.9
Thirteenth district.....	376	299	196	65.6	103	34.4	—	—
Fourteenth district.....	—	—	—	—	—	—	—	—
Fifteenth district.....	7,610	6,901	3,776	54.7	2,541	36.8	584	8.5
Sixteenth district.....	1,090	737	511	69.3	—	—	226	30.7
Seventeenth district.....	8,561	6,872	4,811	70.0	2,031	29.6	30	.4

¹ Votes for individuals with no affiliation indicated and votes cast against trade-union representation with no alternative indicated. Also includes 300 votes cast for the losing unions in the 9 elections involving jurisdictional disputes between rival trade unions. Other votes do not include votes cast which were not counted, e. g., contested or blank ballots.

Table 2 gives the same information as table 1, in terms of units.

Table 2.—Elections Held, Units Involved, and Number and Percent of Units Won, by Type of Organization, July 10, 1934, to June 16, 1935

Board conducting election	Number of elections	Total units involved	Units won by trade union		Units won by company union		Other units	
			Number	Per-cent of total	Number	Per-cent of total	Number	Per-cent of total
All elections.....	154	579	337	58.2	169	29.2	73	12.6
National Labor Relations Board.....	3	6	4	66.7	2	33.3	-----	-----
Regional labor boards:								
First district.....	13	17	10	58.8	4	23.5	3	17.6
Second district.....	25	25	13	52.0	3	12.0	9	36.0
Third district.....	3	3	3	100.0	-----	-----	-----	-----
Fourth district.....	10	11	6	54.5	2	18.2	3	27.3
Fifth district.....	1	1	-----	-----	1	100.0	-----	-----
Sixth district.....	8	12	10	83.3	1	8.3	1	8.3
Seventh district.....	2	6	6	100.0	-----	-----	-----	-----
Eighth district.....	11	12	7	58.3	4	33.3	1	8.3
Ninth district.....	3	3	2	66.6	-----	-----	1	33.3
Tenth district.....	18	26	22	84.6	3	11.5	1	3.8
Eleventh district.....	9	345	165	47.8	139	40.3	41	11.9
Twelfth district.....	3	3	2	66.6	1	33.3	-----	-----
Thirteenth district.....	2	2	1	50.0	-----	-----	1	50.0
Fourteenth district.....	-----	-----	-----	-----	-----	-----	-----	-----
Fifteenth district.....	16	69	55	79.7	8	11.6	6	8.7
Sixteenth district.....	4	15	9	60.0	-----	-----	6	40.0
Seventeenth district.....	23	23	22	95.7	1	4.3	-----	-----

The results of elections, classified by size of establishment, are shown in table 3.

Table 3.—Number and Percent of Units and of Votes Won by Trade Unions, Classified by Size of Establishment, July 10, 1934, to June 16, 1935

Number of employees in establishment	Units involved			Number of employees eligible to vote	Valid votes cast		
	Number	Units won by unions			Number	Votes for union	
		Number	Per-cent			Number	Per-cent
All establishments.....	579	337	58.2	56,814	45,287	26,478	58.5
1 to 250 employees.....	507	285	56.2	15,635	11,687	7,034	60.2
251 to 500 employees.....	23	16	69.6	7,951	6,024	3,989	66.2
501 to 1,000 employees.....	36	27	75.0	14,714	12,742	7,527	59.1
Over 1,000 employees.....	13	9	69.2	18,514	14,834	7,928	53.4

The number of employees eligible to vote, the number of units involved, and the results of elections in terms of number and percent of units and votes won by unions affiliated and not affiliated with the American Federation of Labor are shown in table 4.

Table 4.—Number and Percent of Units and of Votes Won By Unions, Classified by Affiliation of Unions, July 10, 1934, to June 16, 1935

Union	Units involved			Number of employees eligible to vote	Valid votes cast		
	Number	Units won by union			Number	Votes for union	
		Number	Percent			Number	Percent
All elections.....	579	337	58.2	56,814	45,287	26,478	58.5
Unions affiliated with American Federation of Labor.....	534	302	56.6	52,186	41,683	23,961	57.4
International unions.....	495	270	54.5	38,405	30,889	17,161	55.6
Federal labor unions.....	39	32	82.1	13,781	10,794	6,800	63.0
Independent unions.....	45	35	77.8	4,628	3,604	2,517	69.8

The elections are classified in table 5 according to whether the employer had recognized the elected representatives, whether the employer had bargained with such representatives, whether a written agreement had resulted, and whether the election had resulted in a harmonious solution of the representation problem.

Table 5.—Subsequent Results, by Units, of Elections During Period July 10, 1934, to June 16, 1935

[According to latest reports available, Mar. 9, 1935, and June 11, 1935]

Board	Total number of units involved	Number of units								Result not reported
		Recognition by company		Bargaining with company		Written agreement		Harmonious relations		
		Yes	No	Yes	No	Yes	No	Yes	No	
All elections.....	579	306	203	295	205	225	259	278	211	24
National Labor Relations Board.....	6	6	—	6	—	—	—	—	1	—
Regional labor boards.....	573	300	203	289	205	225	259	278	210	24
First district.....	17	10	—	9	—	5	—	9	—	5
Second district.....	25	9	13	9	11	6	13	11	9	2
Third district.....	3	2	1	2	1	—	3	1	2	—
Fourth district.....	11	8	1	7	1	3	6	6	—	1
Fifth district.....	1	1	—	1	—	—	—	—	—	—
Sixth district.....	12	4	8	3	8	2	9	2	7	—
Seventh district.....	6	6	—	6	—	6	—	6	—	—
Eighth district.....	12	9	1	8	1	1	6	7	2	2
Ninth district.....	3	2	—	1	1	—	3	1	2	—
Tenth district.....	26	19	3	18	3	12	7	14	4	4
Eleventh district ¹	345	167	137	167	137	167	137	167	137	—
Twelfth district.....	3	1	—	1	—	—	3	—	3	—
Thirteenth district.....	2	1	—	1	—	1	—	1	—	—
Fourteenth district.....	—	—	—	—	—	—	—	—	—	—
Fifteenth district.....	69	30	34	29	35	4	56	26	37	8
Sixteenth district.....	15	15	—	15	—	13	2	15	—	—
Seventeenth district.....	23	16	4	13	6	5	14	12	7	1
All districts except eleventh.....	228	133	66	122	68	58	122	111	73	24

¹ The reports in the trucking, garage, and auto shop cases answered "Yes", "Yes", "Stipulation", "Yes" to questions (1) Did the company recognize? (2) Did the company bargain with? (3) Did the company sign a written agreement? (4) Did harmonious relations result? but it was not clear whether this applied to the 136 units won by employee representatives. The total results are therefore shown without the figures for the eleventh district as well as a total including them.

The subsequent results of elections in units won by unions are classified according to affiliation of union in table 6.

Table 6.—Subsequent Results of Elections in Units Won by Trade Unions, by Affiliation of Union, July 10, 1934, to June 16, 1935

Union	Number of units won by union	Company recognized elected representatives		Company bargained with elected representatives		Written agreements resulted		Harmonious relations resulted	
		Number of units	Per cent of units won	Number of units	Per cent of units won	Number of units	Per cent of units won	Number of units	Per cent of units won
All unions.....	337	275	81.6	267	78.6	212	62.9	253	75.1
Unions affiliated with the American Federation of Labor.....	302	258	85.4	250	82.8	203	67.2	237	78.5
International unions (all districts).....	270	238	88.1	235	87.0	196	72.6	223	82.6
International unions (excluding eleventh district).....	107	75	70.1	72	67.3	33	30.8	60	56.1
Federal unions.....	32	20	62.5	15	46.9	7	18.7	14	43.7
Independent unions.....	35	17	48.6	17	48.6	9	25.7	16	45.7
Total units in which reports were available.....	579	509	-----	500	-----	484	-----	489	-----

Collective-Bargaining Practices in France

THE movement to regulate employment relations by collective agreements has made less progress in France than in many other countries. The French National Economic Council was asked recently for an opinion as to the desirability of extending the system of collective agreements and the means by which this may be done. The Council carried out an extensive inquiry concerning collective agreements in France in an effort to determine the underlying causes of the relatively slow progress of this form of labor procedure.

The findings of the study were embodied in a report adopted by the Council at a session held November 30, 1934; this report is summarized in the May 1935 issue of the *International Labor Review*.¹ The report contains a survey of existing law and practice in regard to collective agreements in France, based upon agreements between employers' and workers' organizations and upon official regulations growing out of agreements between parties.

Extent of Collective Agreements

THE report of the French National Economic Council shows that on October 15, 1933, 448,900 (or 7.5 percent) of the wage earners in

¹ International Labor Office. *International Labor Review* (Geneva), May 1935, p. 700: Collective Agreements in France.

industry and commerce were covered by collective agreements, as follows:

Number and Percent of Wage Earners Covered by Collective Agreements in France, by Industry

Industry group	Total number of establishments ¹	Total number of wage earners ¹	Wage earners covered	
			Number ²	Percent of total number in industry group
All industry group.....	970, 159	6, 004, 946	448, 900	7. 5
Food:				
Industry.....	87, 451	344, 220	102, 000	14. 5
Commerce.....	203, 701	339, 309		
Building.....	123, 580	631, 807	22, 350	3. 5
Building materials, quarries, pottery, glass.....	7, 029	263, 459	200	. 08
Leather and skins.....	31, 400	186, 239	12, 100	6. 6
Textiles.....	33, 180	833, 829	16, 500	2. 0
Clothing, fabrics.....	118, 583	478, 715	15, 000	3. 0
Chemical industries.....	7, 071	267, 986	500	. 2
Extractive industries.....	388	368, 824	188, 000	51. 0
Metals.....	103, 440	1, 337, 971	18, 000	1. 4
Wood, furniture.....	33, 158	271, 033	500	. 2
Luxury and precision industries.....	18, 144	42, 258	0	-----
Paper and printing.....	11, 141	214, 038	30, 000	14. 0
Inland navigation.....	4, 587	8, 625	0	-----
Maritime transport, docks.....	12, 133	69, 934	50, 000	64. 0
Banking and credit, insurance.....	11, 085	189, 135	0	-----
Travel and hotel industries.....	57, 088	157, 564	750	. 5

¹ Data from the 1926 census published by the Statistique Générale de la France. The figures do not include all wage earners, but cover the majority of wage earners employed in industrial and commercial undertakings.

² Based on data compiled by the General Confederation of French Production.

As indicated in the table, collective agreements were found to be significant in a few industries, such as bakeries, coal mines, maritime transport and docks, and printing industries, but practically non-existent in textile industries, food (other than bakeries), metal working, and various branches of commerce.

The majority of agreements now in force are local, covering at most one town or even one establishment. Aside from the standard "charter-parties" peculiar to deep-sea fishing, no national collective agreements and only a few regional or departmental agreements are in force at present. The best known is the agreement in the coal field of the Nord and Pas-de-Calais Departments and the Anzin district. Two regional agreements have been signed in the building trades, one in the north of France and one in the west. The agreements in force in the printing trades usually now cover a whole department.

The number of agreements actually concluded and signed has declined steadily, according to figures compiled by the Ministry of Labor. These figures, which relate only to new contracts and not to renewals, for each year from 1919 to 1933, are as follows:

1919	557	1924	177	1929	112
1920	345	1925	126	1930	72
1921	159	1926	238	1931	17
1922	196	1927	58	1932	23
1923	144	1928	99	1933	20

These official figures are supported by reports submitted to the National Economic Council covering individual industries. "In most industries", the report states, "a great many agreements were concluded in 1919, but a few years later they were no longer in force and they have now completely disappeared."

Conditions Covered in Agreements

FEW complete agreements regulate all conditions of employment. The only ones of this sort are in the printing trades and in bakeries. Most collective agreements deal only with some particular aspect of the employment relation, usually only wages. Wage agreements fix the new rate of wages, sometimes only setting the method of calculating the rate, which may vary with an economic index. Aside from wages, hours of labor have most frequently been the subject of collective bargaining, but at present there are fewer such agreements, owing to the fact that hours have been regulated by legislation. Other working conditions are seldom the subject of special agreements, but are simply dealt with as secondary issues in agreements relating to wages and hours.

Legal Status of Collective Agreements

ALTHOUGH collective agreements were mentioned as far back as the Millerand Decrees of 1899 as providing a basis for the administrative regulation of working conditions, such agreements were of very little importance up to 1914. During the war, however, the practice spread widely and was encouraged and supervised by the State.

Collective agreements have been promoted by legislation in two ways: (1) They were given a statutory basis by the act of March 25, 1919, which defined conditions of validity, scope, effect, and the various legislative texts providing for the organization of conciliation and arbitration procedures. (2) An increasing part has been assigned to collective agreements in the legislative and administrative regulation of working conditions. In regard to the statutory basis of collective agreements, the report concludes:

Consideration of the statutory basis of collective agreements shows that the legislation enacted in 1919 did not go far enough. Both parties are virtually free to evade the consequences of the agreements they have concluded. Further, such agreements have no real force as regards third parties. Finally and above all, no adequate attempt was made to promote the conclusion of such agreements.

The act of December 27, 1892, made provision for a voluntary procedure, on a local basis, for conciliation and arbitration, but this has not produced satisfactory results, due to insufficient authority of the local magistrate, lack of any permanent conciliation and arbitration machinery and of any compulsory measures or penalty for noncompliance.

Lack of Bargaining Machinery

Employers' organizations.—The main and sometimes the only purpose of employers' organizations in France is to study economic, social, and fiscal problems which affect all members of the group and represent the interest of these members in their dealings with public authorities. As a rule, employers' associations have neither managing nor organizing functions, and have no authority over their members. Usually the constitutions of such organizations prohibit the making of any agreement laying obligations upon the members. Agreements made are signed either by individual employers or by trade associations authorized by decision of a general meeting of members (not binding upon dissenting members).

Except in special cases, a federation of employers' associations has no authority over the trade bodies it represents for such action as collective bargaining with employee organizations. One federation alone—the National Federation of Building and Public Works Contractors—has some means of supervising collective agreements. This organization has a coordinating function, but only to the extent that the regional groups and trade associations are obligated to consult the central body before entering an agreement which affects the industry as a whole.

Thus the existing organizations of employers' associations and above all the spirit in which their activities are pursued are as unfavorable as possible to the conclusion of collective agreements. The organization would have to be radically changed before there could be any development in this field.

Workers' organizations.—As a rule, trade unions are grouped departmentally or regionally in intertrade organizations and nationally into federations for separate trades or industries. The majority of unions are affiliated to one of three confederations—the General Confederation of Labor which seeks by legislative reform to improve the conditions of the workers, the French Confederation of Christian Workers, and the General Confederation of United Labor which is more or less directly connected with the Communist Party.

Only a small proportion of wage earners in France are members of trade unions. According to the report under review, probably not more than 10 or 12 percent of the workers are organized, and this estimate includes civil servants. The number of trade unions at

present is about 6,000. There is no exact information as to their membership. The General Confederation of Labor has about 900,000 members, the strongest groups of which are maritime transport workers, dockers, miners, printers, and workers in the leather and skin industries. The French Confederation of Christian Workers claims 154,950 members, more than one-fourth of whom are salaried employees. It is not possible to ascertain the membership of the General Confederation of United Labor.

The real authority of workers' organizations does not depend exclusively or even mainly upon the size of membership, however, since central bodies exercise a genuine authority over local unions. The national industrial federations direct the functions of their affiliated unions, except in purely local questions. These national federations therefore have power to make collective agreements binding on the local unions, and these federations are the bodies normally responsible for making such agreements.

However, all workers' organizations have not taken the same attitude in regard to agreements, although most of them now favor collective bargaining. The General Confederation of Labor prior to 1914 maintained a neutral position and was somewhat suspicious of agreements, but is now anxious that they become more general. The French Confederation of Christian Workers is in favor of collective agreements but seldom unites with the General Confederation of Labor to negotiate agreements jointly.

The report points out that "the observance of contractual engagements is not so deeply rooted in French as it is in English custom. On the contrary, quite a number of recent enactments * * * tend to weaken the binding force of contracts still further. If collective agreements are to become more general * * * nothing short of a code of ethics in regard to such agreements will have to be brought into being."

Estimate of Value of Collective Agreements

OPINIONS differ as to just what effect collective agreements have had in France on industrial relations. In most branches of commerce and industry, employers' organizations consider that collective agreements have had a disturbing influence on industrial relations. Workers' organizations reply that they have not really been given a fair trial. Employers and employees agree that collective agreements have proved beneficial in those industries in which agreements have played an important part and have been continuously applied on a large scale over a period of time.

Official Decrees Based on Agreements

"THE specifically French form of collective agreement", according to the report, "is the official regulation of working conditions on a basis of agreement between the parties." These regulations play an important part in French labor law.

By June 15, 1934, 150 Public Administrative Regulations had been issued, fixing the method of application of the act of April 23, 1919, concerning the 8-hour day. Rules concerning special points, either in application of the Public Administrative Regulations or in exception to them, were laid down in 133 decrees or orders. All were issued on a basis either of collective agreements or an agreement reached in a mixed committee. These 283 regulations covered 520,000 industrial establishments employing 4,800,000 wage earners, and 120,000 commercial and transport companies employing 1,200,000 wage earners.

The Prefectoral Orders issued in application of the act of December 29, 1923, in regard to the weekly rest period do not have so wide a scope, yet many such orders have been issued. From 1929 to 1932, 387 Prefectoral Orders were issued. Seventeen of these were revoked, leaving 370 in force on January 1, 1933.

These examples show that collective agreements really play a greater part in France than might appear, and indicate, in the opinion of the Council, that such agreements can be applied on a large scale in the distinctively French form of administrative regulations based on agreements between parties.

PRODUCTIVITY OF LABOR AND INDUSTRY

Changes in Employment and Productivity in the Cement Industry

EMPLOYMENT in the cement industry increased in 1933 as compared with 1932, in spite of the fact that production fell to the lowest point in 25 years. The increase in number of employees resulted from the introduction of the 6-hour shift and 36-hour working week. This change was accompanied by a sharp drop in man-hours worked. Productivity per hour was maintained at almost the same level between 1931 and 1933, there having been a very marked increase between 1930 and 1931. These and other statistics relative to the cement industry have recently been made available by the Division of Mineral Resources and Economics, United States Bureau of Mines.¹ While the material in the article reviewed applies only to the period 1928-33, the authors state that the trend toward increased employment in the industry continued in 1934, as shown in the indexes of employment compiled by the Bureau of Labor Statistics.

The following table shows the salient statistics of the cement industry for the period 1928 to 1933.

Employment, Total Production, and Average Output per Man, in the Cement Industry, 1928 to 1933

Year	Employment					Production			Per- cent of in- dustry represent- ed ¹
	Average number of men	Time employed				Finished portland cement (barrels)	Average per man (barrels)		
		Average number of days	Total man- shifts	Man-hours			Per shift	Per hour	
				Average per day	Total				
1928-----	31,295	324	10,137,187	9.5	96,541,428	157,121,800	15.50	1.63	89.1
1929-----	29,274	319	9,345,890	9.5	88,528,269	152,116,204	16.28	1.72	89.1
1930-----	27,775	308	8,562,897	9.2	78,771,352	140,771,728	16.44	1.79	87.3
1931-----	22,036	279	6,146,564	8.8	53,833,283	111,501,887	18.14	2.07	88.9
1932-----	17,440	231	4,020,861	8.4	33,799,409	67,449,096	16.77	2.00	87.9
1933-----	19,536	196	3,835,657	7.3	28,048,172	56,463,620	14.72	2.01	89.0

¹ Calculated for each year by dividing the quantity of finished cement produced at the mills included in the study by the total production.

¹ Pit and Quarry (Chicago), August 1935, p. 24: Trends in Employment and Productivity of Labor in Cement Industry, by H. H. Hughes, E. T. Shuey, and W. W. Adams.

The figures in the table cover 129 plants, representing 87 to 89 percent of the industry on the basis of production. In 1928, the year of peak production, the man-shifts of employment for 31,295 men aggregated 10,137,187 and the man-hours 96,541,428 the working day was 9.5 hours, the days worked 324, and the output per man per shift 15.50 barrels and per hour 1.63 barrels. At the end of 5 years, in 1933, employment had fallen 38 percent, man-shifts 62 percent, man-hours 71 percent, and the average length of shift 23 percent, but output per man per shift had declined only 5 percent while the hourly output per man increased 23 percent. Man-hours of employment decreased at a somewhat greater rate than production between 1928 and 1933, owing to the increase in labor productivity. In the report here reviewed the increased productivity is attributed to improved technique and increased efficiency of operation. Output per man per hour reached the maximum in 1931 when the average was 2.07 barrels; it was only slightly lower in 1932 (2.00 barrels) and 1933 (2.01 barrels).

The separate statistics for quarry, crusher, mill, and miscellaneous employees show differences in the changes in productivity. Mill employees, who outnumber the quarry and crusher employees by 4 to 1 in the average plant, maintained practically the same average output per man per shift between 1928 (18.82 barrels) and 1933 (18.19 barrels) in spite of a decrease in the average daily hours from 9.5 to 7.3. Hourly output per man for mill employees increased from 1.98 to 2.50 barrels in this period. Quarry and crusher employees handling quarry rock and overburden showed a decrease in output per man per shift from 30.59 short tons in 1928 to 25.70 in 1933, a reduction in hours per day from 9.6 to 7.4, and an increase in output per man per hour from 3.20 short tons in the earlier year to 3.47 in 1933.

It is stated by the authors of the report that there was a definite trend toward shorter hours between 1928 and 1933. In 1933 over half the labor force worked less than 8 hours and 93 percent less than 9 hours; in 1928 no employee worked less than 8 hours a day and 39 percent of the total worked 10 hours or longer. A tendency has existed throughout the period studied for employees on short shifts to produce at a higher rate than long-shift employees. Thus, the 1933 returns show that "the group of employees, 35 percent of the total, who worked fewer than 7 hours daily produced 2.25 barrels of cement per man-hour; 23 percent, who worked 7 to 8 hours, produced 2.06 barrels per man-hour; and 35 percent, who worked 8 to 9 hours, produced only 1.89 barrels per man-hour." As it is not known whether the more efficient plants are those where hours are shortest, the report indicates that further study would be necessary to account fully for existing differences in productivity.

Productivity of Coal-Mine Labor in Japan

AN INVESTIGATION of the productivity of Japanese coal-mine labor, as reported by the United States Department of Commerce,¹ disclosed that from 1926 to 1932 per-capita output had increased as a result of the use of modern equipment and that the low output in past years had been due mainly to antiquated equipment.

In 1926 the Mining Bureau of the Japanese Department of Commerce and Industry reported 235,044 persons (both surface and underground workers) engaged in the coal-mining industry. Their per-capita output in that year was 133.7 metric tons. In 1932 the output per annum was 203.3 metric tons—an increase of 52 percent.

Labor Productivity in Japanese Coal-Mining Industry ¹

Year	Number of—		Metric tons of coal		
	Workers	Working days	Total output (in thousands)	Annual output per worker	Daily output per worker
1926.....	235,044	57,433,472	31,426	133.7	0.547
1927.....	239,167	57,991,079	35,530	148.5	.612
1928.....	237,890	60,115,244	33,860	142.3	.563
1929.....	228,761	53,619,857	34,257	149.7	.638
1930.....	204,526	49,404,302	31,376	153.4	.635
1932.....	137,976	34,964,637	28,053	203.3	.802

¹ Figures for 1926-30 from Statistics, 1931, Department of Commerce and Industry, published in November 1932. Figures for 1932 taken from Mining Bureau's Tendency of the Mining Industry in Japan, 1932, published in March 1933.

The above tabulation includes all workers in the coal industry. Data on number of days worked by miners alone were not available for 1926 and 1927. The annual output per miner for the 5 subsequent years was as follows:

	<i>Metric tons</i>
1928.....	485
1929.....	500
1930.....	507
1931.....	558
1932.....	618

¹ U. S. Department of Commerce. Bureau of Foreign and Domestic. Commerce Trade Information Bulletin No. 821: Fuel and Power in Japan. Washington, 1935.

HOUSING CONDITIONS

Status of Federally Aided Low-Cost Housing, as of August 1, 1935

THE Housing Division of the Federal Emergency Administration of Public Works published summary statistics on the status of its program of low-rent housing as of August 1, 1935,¹ showing that sums had been allotted for 22 Federal and 7 limited-dividend housing projects. Of the Federal housing projects construction had been started on 5, demolition begun on 1, sites acquired or being assembled for 7, condemnation proceedings filed or authorized on 3, title acquired on 2, bids received for 3, and the status of 1 was unspecified. Five of the 7 limited-dividend projects were either partly or wholly finished or occupied on August 1 and the remaining 2 were expected to be ready for tenancy in the first half of September.

The statement of the Public Works Administration is shown in tabular form.

Status of Federally Aided Low-Rent Housing Projects on August 1, 1935

Federal projects

Location and name of project	Type of buildings		Size of project		Status	Cost
	Multiple	Single family	Living units	Acreage		
Atlanta, Ga.: Techwood.....	3-story dormitory; 3-story apart- ments.	2-story row houses.	604	24.8	Construction 30 percent complete.	\$2,875,000
University.....	2- and 3-story flats. ¹	Row houses...	675	19.0	Construction 7 percent complete.	2,500,000
Atlantic City, N. J.: Site A.	2-story flats ¹.....	.....do.....	270	8.0	Site acquired..	1,300,000
Boston, Mass.: Old Har- bor Village.	3-story walk-up apartments. ²	2-story row houses.	960	19.6	Condemna- tion proceed- ings filed.	5,500,000
Brooklyn, N. Y.: Wil- liamsburg.	4-story walk-up apartments.	.....	1,628	21.0	Demolition begun.	12,783,000
Chicago, Ill.: South Park Gardens.	3-story apartments.	2-story row houses.	1,701	57.0	Site acquired..	9,200,000
Blackhawk Park.....	.....do.....	.....do.....	2,267	80.0	(*).....	14,300,000
Jane Addams House	.....do.....	.....do.....	300	6.3	Site acquired..	1,335,000
Cincinnati, Ohio: Basin housing.	3- and 4-story apartments.	.....	1,278	24.0	Site being as- sembled.	7,000,000

¹ Release No. P. W. 39147.

Status of Federally Aided Low-Rent Housing Projects on August 1, 1935—Con.

Federal projects—Continued

Location and name of project	Type of buildings		Size of project		Status	Cost
	Multiple	Single family	Living units	Acreage		
Cleveland, Ohio: Cedar Central.....	3-story apartments.	-----	654	18.0	Construction begun.	\$3,279,000
Outhwaite.....	2- and 3-story apartments, and flats.	Row houses...	635	21.0	Bids received..	3,084,000
West Side.....	Apartments.....	do.....	600	22.0	do.....	3,000,000
Detroit, Mich.: East Side.	3-story apartments and flats.	2-story row houses.	1,032	34.0	Title acquired..	5,500,000
Indianapolis, Ind.: Community housing.....	2- and 3-story apartments.	do.....	1,044	22.1	Construction begun.	3,025,000
Miami, Fla.: Sixty-second Street.	-----	1-story row houses.	255	42.0	Site acquired..	1,000,000
Milwaukee, Wis.: Park-lawn.	3-story apartments.	2-story row houses.	458	42.0	Title acquired..	2,230,000
Minneapolis, Minn.: Summer Field.	2- and 3-story apartments.	Row houses...	1,100	42.0	Condemnation authorized.	6,000,000
Montgomery, Ala.: Bell Street.....	-----	1- and 2-story row houses.	100	13.8	Bids received..	244,000
Thurman Street.....	-----	do.....	158	7.0	Construction begun.	459,000
Nashville, Tenn.....	-----	do.....	276	18.0	Site acquired..	1,100,000
Do.....	2-story flats.	do.....	550	22.2	do.....	1,500,000
Washington, D. C.: War College.	do.....	Row houses...	508	18.1	Condemnation proceedings filed.	3,000,000

Limited-dividend projects

Altavista, Va.: Altavista Housing Corporation.	-----	Small single-family houses.	50	-----	Completed Aug. 15, 1934.	\$84,000
Bronx, N. Y.: Hillside Housing Corporation.	Apartments—highest 6 stories.	-----	1,416	-----	First 3 units occupied.	5,060,000
Euclid, Ohio: Euclid Housing Corporation.	-----	Individual and double houses.	-----	-----	22 houses occupied; 11 under construction.	500,000
Philadelphia, Pa.: Carl Mackley Houses.	3-story apartments.	-----	284	-----	Completed June 27, 1935.	1,039,000
Queens, N. Y.: Boulevard Gardens.	Apartments—highest 6 stories.	-----	960	-----	4 units occupied; 6 units ready Nov. 1, 1935.	3,450,000
Raleigh, N. C.: Boylan Housing Corporation.	Apartments.....	-----	54	-----	Ready for occupancy Sept. 1 to 15, 1935.	198,600
St. Louis, Mo.: Neighborhood Gardens.	do.....	-----	252	-----	Ready for occupancy Sept. 15, 1935.	640,000

¹ Individual entrances.

² Probable type.

³ No data.

Expenditures for the projects listed will amount to over \$100,000,000 when work is completed but it is not shown what percentage of the total was secured from the Federal Government. The total sum made available to the Public Works Administration for low-rent housing was \$283,000,000. In all 17,053 living units will be furnished by the 22 Federal projects and 3,016 such units by the 6 limited-

dividend housing groups for which data were given. The total cost of the Federal building projects is to be \$90,214,000 and that of the limited-dividend projects \$10,971,600. The plans call for apartment houses in 18 of the 22 Federal projects and for houses in 19. In 15 projects both apartments and individual dwellings are specified. Among the limited-dividend projects individual houses are less conspicuous, there being 5 apartment-house projects and only 2 for houses. The 29 developments for which allotments have been made are located as follows:

Total developments.....	29	Minnesota.....	1
		Missouri.....	1
Alabama.....	2	New Jersey.....	1
District of Columbia.....	1	New York.....	3
Florida.....	1	North Carolina.....	1
Georgia.....	2	Ohio.....	5
Illinois.....	3	Pennsylvania.....	1
Indiana.....	1	Tennessee.....	2
Massachusetts.....	1	Virginia.....	1
Michigan.....	1	Wisconsin.....	1

Municipal Lodging Houses in Leeds, England ¹

IN THE course of the slum-clearance operations in Leeds, England, several lodging houses will be demolished and a number of municipal lodging houses erected. These will be of two types, one to accommodate persons who will be permanent residents and the other for transients who merely stay a night or so.

Plans for the first of these municipal hostels have recently been completed. It will be of fire-resisting construction, with steel framework and built of brick. It is designed to accommodate 504 men and women, with separate bedroom accommodation for each lodger.

The building will be set back 40 feet from the roadway, and will have four floors, in addition to the ground floor and basement. The 4 floors will contain 308 rooms for men, and 196 for women, in separate wings.

Each floor of the men's wing will contain 77 bedrooms, the majority measuring 7 feet 6 inches by 7 feet 3 inches. There will, however, be 12 rooms measuring 7 feet 6 inches by 13 feet 6 inches, for permanent lodgers. In addition, each floor will have three linen closets. This wing will also include a large room with 300 lockers, 42 lavatory basins, 6 bathrooms, and a room fitted with electric drier where the men may wash and dry their own clothing. Other facilities will include storage, shoe-repair, and shoe-cleaning rooms. The women's wing will provide similar accommodations on a smaller scale. Each

¹ Data are from report by Ernest E. Evans, American consul at Bradford, Aug. 8, 1935.

floor will contain 49 rooms and there will be 10 rooms for permanent residents.

Each section of the building will contain two large common rooms to be used for recreational purposes, a writing room, and a large dining room with a canteen common to both dining rooms. When required, a hall to seat over 500 persons can be created within a few minutes by connecting the large common rooms.

The basement will contain a kitchen and scullery, and space for storage of wet and dry food. The kitchen equipment will include preparation tables, hot plates, steamers, roasting oven, gas ranges, and gas rings.

Provision is to be made for a large boiler house, fuel store, engineers' workshop, gas-fed heating and hot-water services. A large laundry is to be provided, fitted with electrically driven equipment. The laundry will include a linen-storage space and fumigating chamber, and clean-and-dirty-linen lifts to serve each of the upper floors.

No figures are available concerning the cost of the scheme, but it is expected that these hostels will be self-supporting.

HEALTH AND INDUSTRIAL HYGIENE

Lighting Conditions in Connecticut Clothing Factories

IN CONNECTION with a survey¹ of the sewing trades in Connecticut, made by the Women's Bureau of the United States Department of Labor, a special study of lighting conditions was made to determine the effects of good and poor light on the health and efficiency of women in the clothing industry.

The Women's Bureau took as its standard by which to measure adequate and inadequate lighting facilities, the code approved by the American Standards Association. This gives different levels of illumination to correspond to the variations actually existing in the specified processes. For sewing light goods, for example, illumination of from 15 to 10 foot-candles² and for sewing dark goods, from 100 to 25 foot-candles is considered desirable, depending on the degree of fineness and other conditions. A foot-candle meter, a simple instrument by which illumination is read directly from a scale without computing, was used to measure the amount of light.

Lighting conditions and equipment in 32 clothing factories employing slightly more than 2,600 women, were studied and measured, involving 935 candle meter readings, at the working point of 459 positions. In order to get the maximum advantage of natural daylight, readings were made between 10 a. m. and 3 p. m. Wherever possible, two readings were taken for each position, the first by daylight only, and the second with artificial light added. The study was made in the month of January.

An important factor in determining the degree of adequacy of the lighting equipment in sewing rooms is the color of the material being worked upon. Practically three-fifths of the women were working on dark materials when the tests were made. Higher intensity is necessary for dark materials, and the lighting code recommends a minimum requirement of 25 foot-candles for work of that type. In the Bureau's study, 91.8 percent of the readings taken under natural light on bright days fell below this level, and on cloudy days all fell below it.

¹ U. S. Women's Bureau Bul. No. 109: *The Employment of Women in the Sewing Trades of Connecticut*, part IV, *Lighting in Clothing Factories* (p. 41). Washington, 1935.

² A foot-candle is the unit of measurement used to specify lighting requirements. The light rays from a bare 25-watt tungsten filament lamp, falling perpendicularly on the surface of a newspaper held 5 feet away, represent approximately 1 foot-candle of illumination.

With artificial light added, 54.5 percent of the readings taken on bright days and 75.7 percent of those taken on cloudy days, still fell below the 25 foot-candles regarded as the minimum necessary for acceptable lighting.

Under certain conditions, the recommended intensity for sewing on dark materials is 100 foot-candles. This standard was met in only one instance in the course of the survey.

Five factories where women were working on light-colored materials were visited on sunny days, and 6 on cloudy days. Nearly half (49.3 percent) of the readings taken on the sunny days with natural light failed to reach the recommended level of 10 foot-candles, and the addition of artificial light left 17.6 percent of the readings still below the minimum standard. On cloudy days the record was even less favorable. Natural light produced less than 10 foot-candles of illumination in 80.5 percent of the readings, and natural light with the aid of artificial light failed to realize the recommended level in 29.1 percent of the measurements. With the electric lights on, the higher recommended intensity of 15 foot-candles was recorded in 66.2 percent of the readings on bright days, and in 41.9 percent of those made on overcast and cloudy days.

The Bureau points out, moreover, that the readings were taken at a time when, almost without exception, machine operators and hand workers had the benefit of a maximum of the available daylight. At other times, as in the early morning or late afternoon when the workers had to depend upon artificial light only, the intensity of illumination would obviously be much less than that shown in the readings, which combined artificial light and daylight.

Lighting Equipment

Types and installations of lighting equipment showed a lack of thought and system in almost every factory. In some rooms there was no uniformity in the type of light furnished, even for persons doing the same kind of work; at the same worktable some lights hung high and others low; some had shades, others were unshaded; some work positions had too much light, while others were dimly lighted.

A type of light in common use was the drop light in a deep bowl or a tin reflector, close fitting, and with the lamp often extending below. Frequently the reflector was of tin painted green on the outside, and usually the lamps were hung over the workbenches so that each served 2, 3, or 4 operators. * * *

Annoying or really harmful glare was noted in many plants. In a number of cases the workers had put up their own crude substitutes for shades. * * *

A factory with 48 machine operators had the machine positions lighted by 12 lamps of 100 and 150 watts, only 2 feet above the tables, all unshaded and 5 of them unfrosted. In another factory girls stated that they often sewed in the dark rather than endure the glare of the light. * * *

Shadows on the work, not so noticeable to the casual observer as glare, are a very important consideration for the worker. In a number of factories, girls

complained of "shadows from the lights." One assistant forelady, indicating a certain position, said, "I used to work at that machine. A shadow was on the presser foot and needle all the time." A different situation is described in the following: "Lights are placed regularly, one to each two operators, purposely to avoid shadows. Only a few slight shadows were observed in this plant."

Prevalence of Anthraco-Silicosis in Pennsylvania

THE actual physical condition and the occupational and medical histories of 2,711 men employed in the anthracite fields of Pennsylvania form the basis of a study recently made to determine the prevalence, among mine workers, of anthraco-silicosis (miner's asthma), an occupational disease produced by mine dust.

The study was made by the United States Public Health Service, in cooperation with the coal operators, the United Mine Workers of America, and representatives of Pennsylvania State departments, particularly the department of labor and industry.¹ The mine operators contributed by enabling the field staff to study the various phases of occupational environment in the mines selected. The union assumed the responsibility of getting the men to report for physical examination and assisted in securing detailed occupational histories. The personnel of the Public Health Service carried out the study, which lasted about 4 months. Three mines were selected for the survey, 1 in each of the 3 districts into which the anthracite field is divided by geological formation and methods of mining.

The men selected for study were divided into occupational groups on the basis of the extent of their exposure to free silica in the dust. Of the number examined, 361 who were exposed to less than 5,000,000 particles of dust per cubic foot of air formed a control group, as that dust content was the specified minimum used for statistical analysis. For the purpose of the study, a large number of atmospheric dust samples were taken, which showed that, with the exception of rock working operations, chamber and pitch mining, and chute loading were the dustiest occupations in the mining of anthracite. In connection with chute loading it was found that motormen, because of their presence during the loading process, were exposed to a heavy concentration of dust. The dustiest occupations on the surface were found in connection with a dry breaker where slate pickers and certain other workers were exposed to a very high dust concentration, while on the other hand workers in wet breakers were exposed to relatively low concentrations. For all the workers, it was found that 39 percent were exposed to more than 200,000,000 particles of dust per cubic foot, 62 percent to more than 50,000,000 particles, and 38 percent to

¹ Pennsylvania. Department of Labor and Industry. Anthraco-Silicosis (Miner's Asthma). A preliminary report of a study made in the anthracite region of Pennsylvania by the United States Public Health Service. Harrisburg, 1934.

less than 26,000,000 particles per cubic foot. These conditions are considered fairly representative of conditions which have obtained for a number of years in the anthracite coal mines, as, with the exception of very recent improvements in mechanical loading and the use of wet methods of cleaning coal, working conditions are said to be about the same as those obtaining 20 or 30 years ago.

Physical-Examination Findings

THE physical examination of the miners indicated that 616, or 22.7 percent, of the 2,711 active workers had anthraco-silicosis, and that 106 of these were in the more advanced stages. The workers diagnosed as having the disease reported attacks of pleurisy, pneumonia, and severe colds more often than the group used as controls while among a group of 135 anthracite workers who were totally disabled such illnesses occurred from 2 to 5 times as often as among the active workers who had anthraco-silicosis.

The principal symptom of anthraco-silicosis among the men examined was shortness of breath, frequently associated with productive cough, while in the more advanced cases there was found weakness, chest pain, gastric disturbances, and hemoptysis (spitting of blood), although fever and night sweats were seldom found. Other symptoms present among the affected workers were various lung changes such as prolonged expiration, change in the contour of the chest, decreased chest expansion, change in breath sounds, etc., and clubbing of the fingers. In cases in which infection complicated the condition and in those workers who were markedly or completely disabled there was frequently found loss of weight and strength, and cyanosis, persistent râles were invariably found, and there was often impairment of the heart. In the group diagnosed as having anthraco-silicosis, at least four of the symptoms listed were present in each person in addition to other positive evidence disclosed by the history and the X-ray examination.

Tuberculosis as a complication of anthraco-silicosis was found among 124, or 4.6 percent, of the workers examined, the percentage of those affected with tuberculosis increasing among the men suffering from more advanced stages of anthraco-silicosis.

Length of Exposure to Dust

IN ALL the occupations except rock workers, less than 2 percent of the men developed silicosis, regardless of the amount of dust in the air, when the period of employment did not exceed 15 years. After employment from 15 to 24 years the prevalence of silicosis was much greater, about 14 percent of the men exposed to dust containing less than 5 percent free silica, having anthraco-silicosis when the dust concentration was 100,000,000 to 199,000,000

particles per cubic foot, 29 percent when the dust concentration was 200,000,000 to 299,000,000 particles, and 58 percent when the dust count was in excess of 300,000,000 particles. The rates were much higher when the period of employment exceeded 25 years, about one-fourth of the men in the nonmining occupations underground (rock workers excepted) showing evidence of anthraco-silicosis. Among rock workers the disease developed more rapidly, about 13 percent having stage 1 anthraco-silicosis when the working period was less than 15 years, while 9 out of 10 rock workers who had been employed more than 25 years had the disease. The dust to which these workers were exposed contained about 35 percent free silica. Nearly all the regular miners and mine laborers who had worked where the dust count exceeded 300,000,000 particles had anthraco-silicosis after employment for more than 25 years. Both the miners and mine laborers who had worked continuously at the coal face generally fared worse than those who had shifted occasionally from mining to other inside jobs.

There was little difference in the age distribution of the different groups with the exception of the rock workers who had the highest proportion of men at the younger ages. In spite of this favorable factor, however, a larger proportion of these workers had anthraco-silicosis than was found in any other group.

Safe Limits of Dust Exposure

IN ORDER to determine the safe limits of dust exposure, the groups working in atmospheres containing less than 100,000,000 particles of dust were subdivided so as to determine as far as possible the quantity of dust which could be tolerated with no adverse effect upon health. The number exposed to relatively small quantities of dust containing less than 5 percent free silica was too small to afford reliable information, but it appeared from the data available that an atmosphere containing less than 50,000,000 particles would result in a negligible number of cases when the silica content was less than 5 percent. The safe limit in the gangways when the dust contains about 13 percent free silica was tentatively set at 10,000,000 to 15,000,000 particles, while among rock workers who were exposed to about 35 percent free silica in the dust the safe limit appeared to be from 5,000,000 to 10,000,000 particles.

Measures for the Control of Dust

ALTHOUGH different methods of dust control are in use in some of the mines, the report lists certain preventive measures which have been found to be effective in different industries regardless of whether they are being followed to some extent in the anthracite coal-mining industry. It is important to control dust at its point of origin, and,

to effect this, thorough wetting by water is a general method in use. Wet methods may be used in almost all coal-mining and processing methods and will result in a decided improvement in working conditions. Local exhaust ventilation has also been successfully employed in rock drilling in open excavations and it is possible that it can be used in drilling operations in anthracite mines. If this type of dust-removal device is adopted, however, wet methods will still be necessary in coal- and rock-loading operations.

Adequate ventilation throughout the mines would eliminate much of the dust, and, while satisfactory standards of air velocity in these mines have not yet been established, an air movement of at least 50 feet per minute is regarded as desirable from the standpoint of eliminating "dead-ends."

Mechanical methods of loading coal have been found to contribute substantially to the solution of the dust problem, a dust count of less than 30,000,000 particles per cubic foot of air having been found in the mechanical loading operations in one mine.

Since a large amount of dust is produced by blasting operations, especially in dry mines, the firing of shots should be done only at the end of the shift.

The sand used in haulage ways to prevent slipping of the transport motors has been found to be an important source of silica dust, and thorough wetting of the roadbed would reduce this hazard.

The spread of respiratory infection by workers having active pulmonary tuberculosis may be checked by not permitting workers so affected to work underground or in dusty occupations above ground. In order to detect cases of tuberculosis of the lungs and anthracosilicosis which have progressed far enough to endanger future working capacity, physical examinations including X-rays of the chest should be given all applicants for work and to all anthracite mining employees annually. Periodic examinations afford a check on the degree of success of the preventive measures, and the records obtained may be put on a comparable basis if the procedure followed is standardized, preferably under the supervision of a permanent medical board composed of physicians competent in the diagnosis of anthracosilicosis and other diseases of the respiratory system. The methods of medical control which have been found practical and effective in other countries having a similar problem, such as South Africa, Australia, and Ontario, Canada, are recommended as worthy of serious consideration, as well as the methods recommended by the special industrial disease commission in Massachusetts in 1934.² In the South African gold mines the area and the number of employees

² See Monthly Labor Review, May 1934 (p. 1086).

closely parallel the situation in the Pennsylvania anthracite fields. In the South African area periodic examinations of both white and native miners are carried out under the Miners' Phthisis Medical Bureau and examinations are made at intervals of workers suspended from employment or receiving compensation because of their respiratory condition. A medical board of appeal, established in 1925, passes upon cases when there is dissatisfaction with the decision of the medical bureau.

It is evident that no single measure is applicable to all dusty operations and processes, and all means of prevention, therefore, must be practiced to insure success in the solution of the problem.

Employers Required to Furnish Free Medical Supplies in El Salvador ¹

THE furnishing of free first-aid supplies is required of all employers of more than 10 workers in El Salvador, by a decree of July 22, 1935.² Such supplies are to be paid for by the employer, and any employer who does not, within 2 months after the publication of the act, meet its requirements will incur a fine of 20 colones³ per month until he complies. The fine is to be collected officially by the mayor of the municipality and donated to the hospital within his jurisdiction or, in case there is none, to the nearest hospital.

The decree lists the supplies which are to be furnished and specifies that all employees, whether employed in factory or fields, are to receive the benefits of the law. Supplies which are thus used must be replaced by the employer at his own expense within 8 days. Failure to make the replacement is subject to the same fine as failure to provide the original supply.

The Ministry of Welfare and Health is authorized to make the regulations needed to carry out the present law.

¹ Data are from report by Joseph E. Maleady, American vice consul at San Salvador, July 29, 1935.

² El Salvador, *Diario Oficial*, July 26, 1935.

³ Colon at par=50 cents.

INDUSTRIAL ACCIDENTS

Occupational Fatalities in 1934

FATAL accidental injuries arising out of or in the course of employment increased during 1934 according to a report¹ issued by the Metropolitan Life Insurance Co. This increase in fatalities followed the improvement in the employment situation which took place in 1934. The estimates of such fatalities place the number at not less than 16,000, which is approximately 1,500 more than occurred in 1933, or an estimated increase of 10.3 percent.

The death rate from occupational accidents among adult white male industrial policyholders of the company increased at an even greater rate, 11.3 percent. This rise in the death rate among insured persons is the first upturn in the trend of death rates for occupational accidents during the entire period of the depression. From the relatively high figure of 35.9 deaths per 100,000 policyholders in 1929 the death rate dropped to 21.2 deaths per 100,000 in 1933, a reduction of 40.9 percent.

The following table shows the death rates per 100,000 adult male policyholders for each year from 1929 to 1934, by cause of injury.

Death Rates From Occupational Accidents Among Industrial Policyholders of Metropolitan Life Insurance Co., 1929 to 1934

Cause of injury	Death rates per 100,000 white male policyholders, aged 15 and over						Per- cent of change, 1933 to 1934
	1929	1930	1931	1932	1933	1934	
All occupational accidents.....	35.9	31.0	27.2	22.9	21.2	23.6	+11.3
Accidental burns (conflagration excepted).....	1.1	1.7	1.0	1.0	1.3	.9	-30.8
Accidental absorption of irrespirable gases.....	.5	.3	.4	.4	.4	.5	+25.0
Accidental drowning.....	1.7	1.5	1.3	1.0	.7	1.0	+42.9
Traumatism by fall.....	5.1	5.4	4.8	3.9	3.1	3.7	+19.4
Traumatism in mines and quarries.....	4.7	3.5	3.0	2.7	2.8	2.1	-25.0
Traumatism by machines.....	4.5	3.5	3.0	2.4	2.2	2.6	+18.2
Steam-railroad accidents.....	4.9	2.6	1.9	1.6	1.8	2.0	+11.1
Street-railway accidents.....	.3	.4	.5	.3	.2	.4	+100.0
Automobile accidents.....	3.8	3.8	4.6	3.6	3.7	4.5	+21.6
Electricity (lightning excepted).....	2.4	1.9	1.5	.9	.5	.8	+60.0
Miscellaneous.....	6.9	6.4	5.2	5.1	4.5	5.1	+13.3

* Exclusive of deaths in collisions between automobiles and railroad trains or engines, and between automobiles and street cars.

¹ Metropolitan Life Insurance Co. Statistical Bulletin, July 1935.

The table shows that, with the exception of accidental burns and injuries in mines and quarries, the death rate for the principal causes of injury was higher in 1934 than 1933.

A rise of 21.6 percent in occupational automobile accidents in 1934 as compared with 1933 is regarded as particularly disturbing. These accidents do not include collisions between automobiles and railroad trains or engines nor collisions between street cars and automobiles. The death rate of 4.5 per 100,000 for occupational automobile fatalities has been exceeded only once in the company's experience covering a 24-year period. The highest rate for this type of accidents—4.6 per 100,000—was recorded in 1931, and in 1933 and 1934 these accidents led all others as a cause of death.

Street-railway accidents showed the greatest increase from 1933 to 1934, although these accidents involve relatively few deaths. Among the more important causes of occupational deaths, traumatism by falls rose 19.4 percent in 1934, by machines 18.2 percent, and by railroad accidents 11.1 percent.

Occupational Injuries to Women in the United States, 1930 and 1931

THE accident experience of 16 States, which supplied figures classified by sex to the United States Women's Bureau, shows for each State a substantial decrease from 1930 to 1931 in the total number of accidents.¹ The decrease, however, is proportionately smaller for injuries to women than for injuries to men.

The basic cause of the general decline is attributed to the decrease in exposure to industrial hazards resulting from unemployment, but it is pointed out that additional information leads to the conclusion that a measure of progress in safety work is partly responsible. The lesser decline for women's injuries is considered the result of proportionately less unemployment in the woman-employing industries than in such large man-employing industries as construction, iron and steel, or mining.

According to the study, a much larger proportion of women than of men suffered from infections following minor injuries. Available data showed that injuries to fingers, hands, and arms were most frequent among women, due largely to employment of women as machine operators, while injuries to other parts of the body were more common in men's accidents.

The study points out that in each State the women under 21 years of age were injured more often than the women in any other age group, while women over 45 years of age suffered comparatively few

¹ U.S. Women's Bureau Bul. No. 129: Industrial Injuries to Women in 1930 and 1931 Compared with Injuries to Men. Washington, 1935.

injuries. A large proportion of the accidents to the young women were caused by machinery. The most frequent source of injury to women over 21 was "falls."

Manufacturing outranked other industries in the number of injuries both to women and to men in all but one State, and generally was responsible for a larger proportion of women's accidents than of men's. Clerical, professional, and personal service was also an important group in number of women's injuries.

Attention is called to the fact that the injured woman received much less in compensation than the injured man, because of her lower wages. The great majority of the injured women earned less than \$20 a week, while only a small percent of the men earned so little.

LABOR LAWS

Bituminous Coal Conservation Act of 1935

THE first session of the Seventy-fourth Congress passed an act to stabilize the soft-coal-mining industry, to promote its interstate commerce, and to protect the right of mine workers to organize and bargain collectively (Public Act No. 402).

Coal Commission

THE act establishes in the Department of the Interior a Bituminous Coal Commission of five members (serving for 4 years), appointed by the President and authorized to formulate a bituminous-coal code as a working agreement for the producers accepting its terms.

It is provided that the code shall include the following terms and conditions: An organization of 23 district boards of coal producers is to be created, each board to consist of not less than 3 nor more than 17 members. Of the members, one is to be chosen by the organization of employees representing a preponderant number of employees in the industry in the district in question, and the others are to be producers or their representatives. The respective boards are charged with administering the code.

A board may, of its own motion or when directed by the Commission, establish minimum prices and "make such classification of coals and price variations as to mines and consuming market areas as it may deem necessary and proper. In order to sustain the stabilization of wages, working conditions, and maximum hours of labor, said prices shall be established so as to yield a return per net ton for each district in a minimum price area * * * equal as nearly as may be to the weighted average of the total costs, per net ton * * * of the tonnage of such minimum price area." Thereafter, upon satisfactory proof by any district board of a change in excess of 2 cents per net ton in the weighted average of the total costs in the price area, the Commission is empowered to increase or decrease the minimum prices accordingly. The act authorizes the district boards, under rules established by the Commission, to coordinate the minimum prices in common consuming areas upon a fair competitive basis. The Commission is to make rules regulating the procedure for the establishment of minimum prices, and may approve, disapprove, or modify

the minimum prices established by the district boards; its action shall be binding upon all code members within the district. The Commission is also authorized to fix maximum prices to protect coal consumers against unreasonably high prices.

The act permits the voluntary organization by producers of an agency for the marketing of coal. Such agencies must be representative of at least one-third of the tonnage of any producing field and must function under the supervision of the district boards and the Commission.

Additional duties of the Commission are to investigate the following:

(1) The economic operation of mines, with a view to the conservation of the national coal resources.

(2) The safe operation of mines, for the purpose of minimizing the working hazards.

(3) The rehabilitation of mine workers displaced from employment, and the relief of mine workers partially employed. Its findings in these matters are to be transmitted to the proper Government agency for relief, rehabilitation, and subsistence homesteads.

(4) The possibility of lowering distributing costs, for the benefit of consumers.

The Commission is also directed to investigate the necessity for the control of production of bituminous coal and the methods of such control, including "allotment of output to districts and producers within such districts" and to report its conclusions and recommendations to the Secretary of the Interior for transmission by him to Congress not later than January 6, 1936.

Labor Provisions

THE following provisions relating to labor relations must be incorporated into the code and be accepted by every member:

(a) Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from interference, restraint, or coercion of employers, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; and no employee and no one seeking employment shall be required as a condition of employment to join any company union.

(b) Employees shall have the right of peaceable assemblage for the discussion of the principles of collective bargaining, shall be entitled to select their own checkweighman to inspect the weighing or measuring of coal, and shall not be required as a condition of employment to live in company houses or to trade at the store of the employer.

There is also established a Bituminous Coal Labor Board of three members, appointed by the President and assigned to the Department of Labor. This Board is to consist of one representative of the producers, one representative of the organized employees, and a

chairman who must be an impartial person with no financial interest in the industry or connection with any organization of the employees. These members serve for terms of 4 years each. The Board is empowered to adjudicate disputes relating to labor relations, and "to determine whether or not an organization of employees has been promoted, or is controlled or dominated by an employer in its organization, management, policy, or election of representatives." To determine the "freely chosen representatives of the employees", the Board may conduct elections. It may offer its services as mediator between a producer and its employees when a dispute "is not determined by the tribunal set up in a bona fide collective contract."

Maximum hours agreed upon between the producers of more than two-thirds of the annual national tonnage and representatives of more than one-half of the mine workers are binding upon all code members. Likewise, collective wage agreements concluded in any district between the producers of more than two-thirds of the annual tonnage production and representatives of the majority of the mine workers in the district shall apply to all code members operating in the district.

Other Provisions

THE act enumerates certain practices such as deceptive advertising, fee splitting, and the giving of secret rebates, and prohibits these as violations of the code.

An excise tax of 15 percent of the sale price at the mine is imposed upon the sale or other disposal of all bituminous coal produced in the United States. Any coal producer who complies with the provisions of the code is entitled to a rebate of 90 percent of the amount of the tax. After hearing and notice, the Commission may revoke the code membership of any producer upon proof of his failure to comply with the duties imposed by the code and the act. Provision is made for court review of all orders, rules and regulations of the Commission and the Labor Board.

The office of consumers' counsel of the National Bituminous Coal Commission is created in the Department of the Interior, which shall "appear in the interest of the consuming public in any proceeding before the Commission", and conduct independent investigations of matters relating to the bituminous-coal industry.

WORKMEN'S COMPENSATION

Murder of Employee on Duty Held to be a Compensable Accident

AN INTERESTING case involving the question of when murder is an accident "arising out of employment" under the workmen's compensation act was recently decided by the Supreme Court of Colorado. It was held by the court that a murder is an accident "arising out of employment" when such accident was incurred because of the employment (*London Guarantee & Accident Co., Ltd., et al. v. McCoy et al.*, 45 Pac. (2d) 900).

McCoy was a sales agent of the Liberty Trucks & Parts Co., and in connection with his duties it was necessary for him to get in touch with a man named Mitchell. He went to the home of Decino, Mitchell's father-in-law, to get Mitchell's telephone number. While there, using the telephone, he was stabbed to death by Decino, a paroled inmate of the State insane asylum, who apparently suffered a sudden return of his insane delusions.

The court held that McCoy's death resulted from an accident "arising out of his employment." The decision was based primarily on a former case decided by the same court (*Aetna Life Ins. Co. v. Industrial Commission*, 81 Colo. 233, 254 Pac. 995), from which the following was quoted:

When one in the course of his employment is reasonably required to be at a particular place at a particular time and there meets with an accident, although one which any other person then and there present would have met with irrespective of his employment, that accident is one "arising out of" the employment of the person so injured.

The court, in its opinion, then said:

McCoy was "reasonably required to be at a particular place at a particular time", i. e., the Decino place, at the time he phoned. He there met with this accident, doubtless "one which any other person then and there present would have met with irrespective of his employment." Yet such an accident "is one 'arising out of' his employment", thus bringing it clearly within the *Aetna Life case, supra*.

In holding that the death of McCoy was compensable under the workmen's compensation act, the court compared McCoy's death by violence with death of one walking under a falling timber or upon a spot where a lightning bolt fell, and intimated that there would be no difference in the result, and that in either case the death would be compensable.

Injury to Employee Operating Sorghum Mill on Farm Held to be Noncompensable

IT HAS recently been held by the Supreme Court of Iowa that a farm laborer operating a sorghum mill on his employer's farm is engaged in "agricultural pursuits or operations immediately connected therewith", and that an injury sustained while operating the mill is not compensable under the Iowa Workmen's Compensation Act (*Taverner v. Anderson*, 261 NW. 610).

Anderson, a farmer operating his own farm in Page County, Iowa, employed Taverner at a wage of \$1 a day and board and lodging. His duties were to operate the sorghum mill and do general farm work. While operating this mill, his hand was caught in the rollers and he permanently lost the use of his right hand. He filed a claim for compensation under the workmen's compensation act, to which the employer made answer that all of the work done by Taverner was general farm work, and for that reason the workmen's compensation act did not apply.

The applicable section of the Workmen's Compensation Act of Iowa (Code, 1931, sec. 1361) reads as follows:

SECTION 1361. *To whom not applicable.*—This chapter shall not apply to:

1. Any household or domestic servant.
2. Persons whose employment is of a casual nature.
3. Persons engaged in agriculture, insofar as injuries shall be incurred by employees while engaged in agricultural pursuits or any operations immediately connected therewith, whether on or off the premises of the employer.

The decision of the Industrial Commission denying an award was upheld by the district court of Page County, and Taverner appealed to the Iowa Supreme Court.

The question in this case was whether Taverner was "engaged in agricultural pursuits or operations immediately connected therewith" while operating the sorghum mill. The supreme court said in this connection:

Sorghum making would seem, clearly, to be classified as a farm pursuit, but, if not, how can it fail to classify as an "operation immediately connected therewith"? The legislature saw fit to exempt the farmer from the burdens of the workmen's compensation act. Sugarcane is a farm crop. It necessarily follows that the crop has to be harvested; that is, cut and removed from the land from which it has gained sustenance. Subsequent to that it would have to be fed to livestock on the farm or the juice taken therefrom and made into sorghum. * * * The claimant assisted in the cutting of the cane, hauling it to the machine, and while engaged in pressing the stalks he was unfortunately injured.

The court accordingly held that Taverner was engaged in an agricultural pursuit and did not come under the compensation law.

COOPERATION

Cooperative Credit Movement in 1934

THE number of societies in the cooperative credit movement and their membership continued to increase in 1934. The Bureau of Labor Statistics was unable to make a general survey of all credit societies such as was made for 1933.¹ A number of States require the credit unions to make annual reports to some State office, and from these the Bureau obtained combined reports covering all of the credit unions in the State.² As the points upon which reports are required vary from State to State, complete information is not available for all societies. Some data were, however, obtained for 24 States, in which, at the end of 1933, nearly 80 percent of all the credit unions in the United States were found.

Membership data were reported for 20 States. In these States more than 425,000 persons were members of credit unions at the end of 1934. Massachusetts, always preeminent among the credit-union States, still led by a wide margin as regards membership, with 109,434 members, or nearly twice the membership of that of its nearest competitor, Illinois. It also was uncontested leader in point of capital, resources, and loans.

In 24 States for which reports were received the combined share capital amounted to \$26,285,497, reserves and guaranty fund to \$2,618,587, and total assets to \$40,212,112.

The reports covered 2,028 societies. Of these, 1,513 had served 195,126 borrowers. The total loans made during the year in 12 States by 1,269 societies aggregated \$29,580,684. Assuming that the average amount of loans granted per society—\$23,310—is representative of the societies in the 12 States for which data are not available, the total loans in all 24 States during 1934 was probably about \$40,000,000.

Dividends paid on share capital for the year by 1,096 societies amounted to more than \$500,000.

Credit unions are cooperative societies which make loans to their members only. They are designed to furnish a source of credit for small borrowers who generally have no banking connections. "Char-

¹ For a report of the findings of the 1933 survey, as regards the credit societies, see *Monthly Labor Review*, September 1934 (p. 551).

² The Bureau also wishes to express its appreciation of the cooperation of the New York State Credit Union League and of Mr. C. R. Orchard, director of the Credit Union Section of the Federal Farm Credit Administration.

acter loans", i. e., loans made without any security except the personal note of the borrower, may generally be made in amounts up to \$50. As a large proportion of the loans of credit unions are loans of this type, it is essential that the membership be drawn from a fairly stable group with some common interest, and such a requirement is often imposed by the State credit-union acts. Employment in a common establishment or membership in a labor, church, or fraternal organization fulfills the requirement of such a "common bond."

Loan funds are provided by the members themselves who subscribe for one or more shares (generally \$5 or \$10 each) in the organization. Regardless of the amount of share holdings, however, each member has but one vote. Additional funds may be obtained in some States, where the law allows such practice, from the receipt of savings deposits from the members. A few State laws even allow the acceptance of such deposits from nonmembers.

The membership and financial resources of the credit societies for which reports were received are shown in table 1. It is evident from this table that in certain States credit unions have had outstanding development. Thus the 4 States of Illinois, Massachusetts, New York, and Wisconsin together account for 46 percent of the total number of societies, 60 percent of the membership, and 61 percent of the total resources of all the 2,028 societies in the 24 States covered.

Table 1.—Membership and Resources of Credit Unions, 1934, by States

State	Number of credit unions reported for	Member-ship	Share capital	Reserves and guaranty fund	Total resources
California.....	55	14, 818	\$905, 610	\$46, 733	\$1, 192, 025
Florida ¹	9	1, 399	120, 983	8, 772	143, 147
Georgia.....	62	9, 726	559, 757	61, 343	939, 851
Illinois.....	192	55, 539	2, 603, 745	142, 961	2, 875, 951
Indiana.....	109	(²)	786, 060	60, 674	932, 520
Iowa.....	132	16, 681	551, 825	28, 571	625, 786
Kansas.....	34	6, 928	237, 265	5, 361	257, 487
Louisiana.....	17	(²)	183, 792	14, 512	221, 736
Maryland.....	17	4, 295	131, 512	17, 583	155, 430
Massachusetts.....	304	109, 434	7, 107, 920	937, 820	12, 575, 661
Michigan.....	51	9, 688	652, 997	25, 754	836, 868
Minnesota.....	171	30, 281	1, 175, 140	64, 308	1, 776, 588
Missouri.....	138	29, 955	1, 426, 862	67, 394	1, 604, 219
Montana.....	4	300	10, 259	323	10, 988
Nebraska.....	113	11, 987	344, 815	15, 764	1, 027, 069
New Hampshire ¹	7	(²)	100, 087	25, 872	1, 840, 507
New Jersey.....	35	9, 160	338, 822	17, 938	379, 255
New York.....	140	55, 117	5, 522, 615	746, 613	7, 289, 804
Rhode Island.....	13	10, 118	571, 999	85, 468	2, 007, 542
Tennessee.....	69	(²)	611, 933	42, 442	725, 960
Utah.....	10	1, 471	86, 044	3, 528	103, 057
Virginia.....	30	10, 435	492, 613	121, 091	726, 416
West Virginia ¹	12	2, 619	141, 020	11, 151	174, 090
Wisconsin.....	³ 304	37, 146	1, 621, 822	66, 611	1, 790, 155
Total.....	2, 028	427, 097	26, 285, 497	2, 618, 587	40, 212, 112

¹ Data are for fiscal year ending June 30, 1934.

² No data.

³ As of Mar. 26, 1935.

Reserves and guaranty funds have been built up by the societies, amounting to \$2,618,587, or 6.5 percent of their combined resources.

Data are at hand showing the savings deposits for 9 States, totaling \$4,324,867 at the end of 1934, as follows:

Indiana.....	\$30, 631	Utah.....	\$2, 942
Iowa.....	13, 481	Virginia.....	28, 363
Maryland.....	1, 446	West Virginia.....	1, 875
Massachusetts.....	3, 751, 232		
Minnesota.....	477, 322	Total.....	4, 324, 867
Tennessee.....	17, 575		

More than \$29,000,000 was granted in loans by the societies of 12 States, of which 40 percent was lent by the credit unions of Massachusetts alone. More than 195,000 loans were made during the year in the 17 States for which reports were received on this point. For these loans the most general rate charged is 1 percent per month, calculated on the balance still due.³ From the net earnings, a certain proportion must be placed in a fund which is maintained to cover any losses from bad debts. The remainder is utilized to pay dividends on all fully paid shares outstanding at the end of the year; such dividends paid at the end of the 1934 operating period by the societies in 12 States totaled \$501,648.

The 1934 operations of the credit societies, by States, are shown in table 2.

Table 2.—Loans of Credit Unions During 1934, and Dividends Paid, by States

State	Number of credit unions reported for	Number of borrowers during year	Loans		Dividends	
			Made during 1934	Outstanding at end of year	Amount	Rate (percent)
California.....	55	1 8, 195	(²)	\$970, 640	(²)	(²)
Florida ³	9	816	(²)	94, 333	\$7, 855	⁴ 7.0
Georgia.....	62	(²)	(²)	704, 415	(²)	(²)
Illinois.....	192	28, 907	\$3, 907, 116	2, 260, 200	103, 714	⁴ 4.0
Indiana.....	109	(²)	(²)	585, 383	12, 069	⁴ 1.5
Iowa.....	132	10, 174	(²)	490, 785	(²)	(²)
Kansas.....	34	3, 334	374, 848	203, 329	6, 876	2.5-7.0
Louisiana.....	17	(²)	(²)	202, 769	(²)	(²)
Maryland.....	17	1 2, 080	187, 641	108, 388	4, 532	⁴ 3.4
Massachusetts.....	304	1 55, 417	11, 754, 139	8, 752, 279	272, 388	5.0
Michigan.....	51	4, 995	835, 199	635, 252	3, 626	3.5
Minnesota.....	171	14, 695	2, 166, 770	1, 341, 722	(²)	(²)
Missouri.....	138	(²)	(²)	1, 327, 211	(²)	(²)
Montana.....	4	107	11, 672	9, 767	⁵ 538	8.0
Nebraska.....	113	(²)	(²)	390, 139	(²)	(²)
New Hampshire ³	7	(²)	191, 652	1, 238, 696	(²)	(²)
New Jersey.....	35	5, 384	436, 815	192, 674	10, 298	3.0-8.0
New York.....	140	1 31, 140	⁶ 7, 771, 156	4, 851, 615	(²)	⁴ 4.7
Rhode Island.....	13	1 3, 491	576, 877	1, 596, 556	(²)	⁷ 3.7
Tennessee.....	69	(²)	(²)	635, 787	(²)	(²)
Utah.....	10	1, 364	(²)	87, 806	2, 002	⁴ 2.3
Virginia.....	30	1 7, 093	(²)	610, 660	13, 455	⁴ 2.7
West Virginia.....	12	1 1, 888	(²)	158, 366	(²)	(²)
Wisconsin.....	⁸ 304	16, 046	1, 366, 799	584, 809	64, 295	4.0-10.0
Total.....	2, 028	195, 126	29, 580, 684	28, 033, 581	501, 648	1.5-10.0

¹ At end of year.

² No data.

³ Data are for fiscal year ending June 30, 1934.

⁴ Average rate.

⁵ 1 society only.

⁶ 137 societies.

⁷ Rate paid on 1933 business.

⁸ As of Mar. 26, 1935.

³ This is a requirement of the credit-union act in a number of States.

Comparative data for the 4 years 1929, 1932, 1933, and 1934 are shown in table 3. The number of societies, total membership, and reserves have increased steadily from year to year. A decided set-back was shown in 1932 as compared with 1929 in average membership, average share capital per member, and total and average amount of loans granted. Although the average share capital per member continued to fall in 1933 and 1934, some recovery was made in average membership and total and average loans per society.

The data for 1929 and 1933 were obtained as part of a general survey of the cooperative movement in which every known society (except farmers' marketing organizations) was circularized. The information for 1932 and 1934 was obtained from State officials and covered only those States whose credit union act requires an annual report to a State office.

Table 3.—Comparative Development of Credit Unions, 1929 to 1934

Item	1929	1932	1933	1934
Number of societies reported for.....	838	1,472	1,772	2,028
Membership:				
Total.....	264,908	301,119	350,646	427,097
Average per society.....	320	216	215	234
Share capital:				
Amount.....	\$24,065,407	\$21,708,328	\$22,457,861	\$26,285,497
Average per member.....	92	70	62	58
Reserves and guaranty fund.....	2,079,450	2,110,815	2,372,711	2,618,587
Loans during year:				
Total.....	24,548,353	16,375,952	28,217,457	29,580,684
Average per society.....	58,310	16,475	22,811	23,310
Average per loan.....	350	156	138	177
Loans outstanding at end of year.....	30,811,582	24,826,291	26,391,683	28,033,581

Production of Butter and Meats by Consumers' Cooperatives

COOPERATIVE production by consumers has been extremely limited in the United States. The little done in the manufacturing field has been carried on by the wholesale societies. Thus, several of the wholesales dealing in petroleum products have their own oil compounding plants, one society operates a feed mill, and another its own bakery.

The first attempt at cooperative production by local consumers' societies in the knowledge of the Bureau of Labor Statistics was made in 1933, when a group of such societies in the Mesaba Range district of Minnesota formed the Mesaba Range Cooperative Federation. This society is operating a creamery and a sausage factory for its 15 owner societies.

The report of this society, as of December 31, 1934, showed paid-in share capital amounting to \$2,691, and total assets of \$13,985. Its

sales of butter and smoked meats during 1934 amounted to \$11,908. A net loss of \$274 was sustained on the year's operations.

The society employed 5 workers during the year, and the amount paid to them in wages was \$1,671. Working hours were 8 per day, 6 days a week.

Wisconsin Act Providing for the Teaching of Cooperation

THE Wisconsin Legislature early in August 1935 passed an amendment to the statutes, requiring the giving of courses in agricultural and consumers' cooperation throughout the public-school system of Wisconsin, from the State university downward. Hereafter no certificates are to be granted for the teaching of courses in economics, the social studies, or agriculture unless the applicant's course of training has included the subject of cooperation.

The text of the act is as follows:

SECTION 1. Subsection (1) of section 40.22 of the statutes is amended to read:

(40.22) (1) Reading, writing, spelling, English grammar and composition, geography, arithmetic, elements of agriculture and cooperative marketing, history and civil government of the United States and of Wisconsin, citizenship and such other branches as the board may determine shall be taught in every common school. All instruction shall be in the English language, except that the board may cause any foreign language to be taught to such pupils as desire it, not to exceed 1 hour each day.

SEC. 2. Four new subsections are added to section 40.22 of the statutes to read:

(40.22) (11) *Cooperation*.—Every high school and vocational school shall prescribe adequate and essential instruction in cooperative marketing and consumers' cooperatives.

(12) *Teacher training*.—The governing boards of the university State teachers' colleges and county normal schools shall provide in their respective institutions adequate and essential instruction in cooperative marketing and consumers' cooperatives.

(13) *Text material*.—The State superintendent of public instruction and the dean of the college of agriculture at the State university shall cooperate in the preparation of outlines to be used by teachers in the courses offered under subsections (11) and (12) and they shall have power to request the assistance of any teacher or professor in any of the schools of the State in the preparation of such outlines. They may also make a recommended list of material now in pamphlets or books for guidance to teachers of these courses.

(14) *Teachers' certificates*.—In granting certificates for the teaching of the courses in economics, the social studies and agriculture, adequate instruction in cooperative marketing and consumers' cooperatives shall be required.

SEC. 3. This act shall take effect September 1, 1935.

INDUSTRIAL DISPUTES

Strikes and Lockouts in August 1935

PRELIMINARY reports indicate a substantial increase in the number of strikes and lockouts in August 1935 as compared with July. Information based on news items from daily newspapers, labor papers, trade journals, and reports from all Government labor boards indicates that 185 strikes and lockouts began in August, as compared with 148 in July 1935 and 157 in August 1934.

An analysis of these August disputes, based on verified information, will appear in the December Labor Review.

The following table shows figures on the number of strikes and lockouts, the number of workers involved, and the number of man-days of idleness for each month, from January 1934 to August 1935. These figures exclude all strikes and lockouts which lasted less than 1 day and all those in which less than 6 workers were involved.

Strikes and Lockouts, January 1934 to August 1935

Month	Number of strikes and lockouts					Workers involved in strikes and lockouts		Man-days idle during month
	Beginning		In progress during month	Ended in month	In effect at end of month	Beginning in month	In progress during month	
	Prior to month	In month						
1934								
January.....	30	91	121	78	43	41,628	80,880	668,301
February.....	43	92	135	83	52	85,727	110,910	939,580
March.....	52	164	216	146	70	94,117	127,742	1,424,833
April.....	70	211	281	179	102	158,887	199,580	2,517,749
May.....	102	224	326	217	109	165,815	249,693	2,226,069
June.....	109	156	265	135	130	41,263	106,852	1,676,265
July.....	130	128	258	160	98	151,432	219,037	2,020,172
August.....	98	157	255	149	106	63,447	122,144	1,735,672
September.....	106	127	233	148	85	413,383	486,798	4,029,155
October.....	85	175	260	171	89	75,688	102,971	852,787
November.....	89	114	203	106	97	36,102	98,201	841,570
December.....	97	101	198	120	78	26,119	73,481	376,297
1935								
January.....	78	136	214	137	77	84,450	94,457	776,485
February.....	77	145	222	124	98	61,929	97,332	845,639
March.....	98	169	267	154	113	52,123	95,885	954,249
April.....	113	163	276	147	129	65,509	120,349	1,197,469
May.....	129	157	286	158	128	101,930	152,124	1,725,368
June.....	128	155	283	160	123	39,862	122,599	1,341,618
July ¹	123	148	271	132	139	65,000	130,000	1,244,000
August ¹	139	185	324	166	158	58,000	124,000	1,026,000

¹ Preliminary.

Analysis of Strikes and Lockouts in June 1935

MORE than one-third (57) of the 155 strikes and lockouts which began in June were in the textile industries. Of these textile strikes and lockouts 30 were called in protest against wage decreases, often coupled with lengthening hours.

The industries manufacturing food and kindred products experienced 12 new strikes and lockouts in June, but none of the remaining industrial groups experienced as many as 10.

The following tables analyze the strikes and lockouts beginning, in progress, and ending in June 1935, showing classifications by industries, States, number of workers involved, major issues involved, duration, methods of negotiating settlements, and results of settlements. These tables give an essentially complete picture of strikes and lockouts in June, although they cannot be considered as absolutely final. Occasionally, information is received after this report goes to press which might slightly alter the figures in the tables.

The Bureau attempts to get complete information on all strikes and lockouts in the United States in which as many as 6 workers are involved and which last 1 day or more. In getting leads on these disputes, information is obtained on strikes and lockouts from 437 daily newspapers, 82 labor papers, 88 trade journals, and 14 other journals. Information is also obtained from the United States Conciliation Service and Government labor boards. Questionnaires are sent to the parties directly involved in the dispute to get detailed and first-hand information. The figures compiled on strikes and lockouts, therefore, are based on definite reports and verified information.

The month of June saw the beginning of many small strikes and lockouts—small as measured by the number of workers involved and by the length of time they lasted. The average number of workers involved in the strikes and lockouts which began in June was 257 as compared with an average of 649 for May and 402 for April.

Table 1 gives a detailed classification by industry of the 155 strikes and lockouts which began in June, and the 283 which were in progress during June, together with industry figures on number of workers involved and man-days of idleness during the month.

Table 1.—Strikes and Lockouts in June 1935, by Industry

Industry	Beginning in June		In progress during June		Man-days idle during June
	Number	Workers involved	Number	Workers involved	
All industries	155	39,862	283	122,599	1,341,668
Iron and steel and their products, not including machinery	3	304	9	1,454	6,667
Blast furnaces, steel works, and rolling mills.....			1	75	225
Cast-iron pipe.....	1	165	1	105	1,485
Cutlery (not including silver and plated cutlery) and edge tools.....	2	139	2	139	823
Plumbers' supplies and fixtures.....			1	6	120
Steam and hot-water heating apparatus and steam fittings.....			1	55	550
Other.....			3	1,014	3,464
Machinery, not including transportation equipment	5	346	12	4,786	73,021
Agricultural implements.....			2	669	7,485
Electrical machinery, apparatus, and supplies.....	3	292	5	2,396	42,200
Foundry and machine-shop products.....	2	54	2	54	458
Radios and phonographs.....			2	767	4,878
Other.....			1	900	18,000
Transportation equipment	1	59	5	4,813	86,071
Automobiles, bodies, and parts.....	1	59	4	925	8,311
Shipbuilding.....			1	3,888	77,760
Nonferrous metals and their products	5	677	7	1,688	18,844
Aluminum manufactures.....	1	135	1	135	1,620
Brass, bronze, and copper products.....	3	490	3	490	1,570
Smelting and refining—copper, lead, and zinc.....			1	467	4,670
Stamped and enameled ware.....			1	544	10,880
Other.....	1	52	1	52	104
Lumber and allied products	7	1,744	18	35,722	486,828
Furniture.....	4	992	9	4,849	34,420
Millwork and planing.....	2	659	4	1,156	5,951
Sawmills.....			2	32,075	443,213
Other.....	1	93	3	642	3,244
Stone, clay, and glass products	4	711	7	3,344	19,955
Brick, tile, and terra cotta.....	3	539	5	3,099	18,345
Marble, granite, slate, and other products.....	1	175	1	175	1,050
Other.....			1	70	560
Textiles and their products	57	16,385	82	24,829	272,218
Fabrics:					
Cotton goods.....	7	3,942	11	8,643	106,070
Dyeing and finishing textiles.....	2	760	4	968	3,836
Hats, fur-felt.....			1	378	7,560
Knit goods.....	6	1,473	7	1,583	18,911
Silk and rayon goods.....	13	1,788	18	3,365	46,595
Woolen and worsted goods.....	5	3,238	6	3,563	22,882
Other.....	3	877	3	877	10,643
Wearing apparel:					
Clothing, men's.....	4	958	6	1,088	5,500
Clothing, women's.....	2	129	9	962	16,777
Men's furnishings.....	1	39	1	39	702
Millinery.....	2	1,643	4	1,825	23,055
Shirts and collars.....	9	1,403	9	1,403	8,892
Other.....	3	135	3	135	795
Leather and its manufactures	9	1,496	11	1,971	14,653
Boots and shoes.....	5	810	7	1,288	12,314
Leather.....	1	429	1	429	858
Other leather goods.....	3	257	3	257	1,481
Food and kindred products	12	3,032	19	3,689	34,729
Baking.....	7	1,991	10	2,480	22,416
Beverages.....			2	34	580
Canning and preserving.....			2	134	536
Flour and grain mills.....	1	75	1	75	225
Slaughtering and meat packing.....	2	493	2	493	9,080
Other.....	2	473	2	473	1,892
Tobacco manufactures			1	215	4,300
Cigars.....			1	215	4,300
Paper and printing	2	42	8	624	12,367
Paper and pulp.....			1	98	2,450
Printing and publishing:					
Book and job.....			2	279	5,580
Newspapers and periodicals.....	1	7	4	212	4,267
Other.....	1	35	1	35	70
Chemicals and allied products			1	50	1,000
Rayon and allied products.....			1	50	1,000
Rubber products	2	349	2	349	3,321
Other rubber goods.....	2	349	2	349	3,321

Table 1.—Strikes and Lockouts in June 1935, by Industry—Continued

Industry	Beginning in June		In progress during June		Man-days idle during June
	Number	Workers involved	Number	Workers involved	
Miscellaneous manufacturing	7	1,556	12	2,722	25,133
Electric light, power, and manufactured gas.....	3	974	5	1,794	15,213
Furriers and fur factories.....	2	132	2	132	1,770
Other.....	2	450	5	796	8,150
Extraction of minerals	7	4,926	13	17,760	120,350
Coal mining.....	6	4,776	10	14,045	51,090
Metalliferous mining.....	1	150	2	3,150	61,350
Quarrying and nonmetallic mining.....			1	565	7,910
Transportation and communication	6	4,154	18	6,907	51,303
Water transportation.....	3	583	7	1,845	24,417
Motor transportation.....	3	3,571	10	4,993	25,131
Air transportation.....			1	69	1,725
Trade	8	905	17	1,896	30,439
Wholesale.....	3	731	5	874	10,002
Retail.....	5	174	12	1,022	20,437
Domestic and personal service	5	1,574	14	2,543	52,003
Hotels, restaurants, and boarding houses.....	3	57	8	236	2,584
Personal service, barbers, beauty parlors.....	1	1,500	1	1,500	36,000
Laundries.....			4	790	13,385
Dyeing, cleaning, and pressing.....	1	17	1	17	34
Professional service	1	150	2	230	2,100
Recreation and amusement.....	1	150	1	150	300
Semiprofessional, attendants, and helpers.....			1	80	1,800
Building and construction	9	1,120	16	1,547	15,011
Buildings, exclusive of P. W. A.....	4	707	7	793	6,172
All other construction (bridges, docks, etc., and P. W. A. buildings).....	5	413	9	1,054	8,839
Agriculture, etc.	1	25	3	113	825
Agriculture.....	1	25	2	105	585
Other.....			1	8	240
Relief work	3	91	5	1,831	9,891
Other nonmanufacturing industries	1	213	1	213	639

Of the 155 strikes and lockouts which began in June, more than half were in 5 States. Pennsylvania, with 32, experienced more new disputes than any other State. New Jersey and New York each experienced 15 new strikes and lockouts during the month; Ohio had 14 and Massachusetts 12.

As shown in table 2, there were 9 strikes or lockouts in progress during June which extended into two or more States. The largest of these were (1) the strike of 2,500 clay workers in Ohio and western Pennsylvania, which began in April and was settled June 9; (2) the general lumber strike in the Pacific Northwest, which began in May and was still in progress at the end of June; (3) the strike of 3,000 zinc and lead miners and smelters in Oklahoma, Missouri, and Kansas, which began in May and gradually came to a close in the latter part of June, the men going back to work in some cases and vacancies being filled with new employees in others; and (4) the strike of 3,000 employees of the Uxbridge Worsted Co., Inc., in Connecticut, Massachusetts, and Rhode Island, which began June 24 and was still in progress at the end of the month.

Table 2.—Strikes and Lockouts in June 1935, by States

State	Beginning in June		In progress during June		Man-days idle during June
	Number	Workers involved	Number	Workers involved	
All States.....	155	39,862	283	122,599	1,341,668
Alabama.....	6	2,829	11	3,295	26,741
Arizona.....	1	150	1	150	1,350
Arkansas.....	1	89	1	89	623
California.....	4	1,292	7	1,795	28,700
Connecticut.....	3	588	5	1,795	11,116
District of Columbia.....	1	3,500	1	3,500	3,500
Georgia.....			4	930	3,210
Idaho.....	1	11	1	11	11
Illinois.....	9	1,126	21	3,484	41,852
Indiana.....	2	1,390	6	2,051	22,620
Iowa.....	3	579	3	579	3,716
Kentucky.....	2	464	2	464	3,970
Louisiana.....	1	213	1	213	639
Maine.....	1	175	1	175	1,050
Massachusetts.....	12	3,053	16	6,968	128,352
Michigan.....	1	25	6	1,017	10,269
Minnesota.....	1	40	1	40	720
Missouri.....	4	221	8	1,055	18,388
Montana.....			1	60	1,380
New Hampshire.....			1	325	6,500
New Jersey.....	15	1,680	27	7,238	103,433
New York.....	15	3,032	38	6,293	70,981
North Carolina.....	3	1,439	4	1,479	5,175
Ohio.....	14	3,784	25	13,164	125,588
Oklahoma.....	1	452	1	452	8,588
Oregon.....	3	151	3	151	509
Pennsylvania.....	32	7,333	48	17,716	83,350
Rhode Island.....	4	526	6	619	11,241
South Carolina.....	1	736	2	1,576	18,272
Tennessee.....	5	573	7	1,115	13,055
Texas.....	2	175	5	805	13,275
Virginia.....	1	105	1	105	945
Washington.....			4	623	3,491
West Virginia.....	1	65	2	630	8,560
Wisconsin.....	3	618	3	618	7,898
Interstate.....	2	3,448	9	42,019	552,600

None of the strikes and lockouts beginning in June involved as many as 5,000 workers. Nearly 90 percent of them involved less than 500 workers each.

The strikes and lockouts, in each industrial group, which began in June are classified in table 3 by number of workers involved. Some of the larger strikes beginning in the month were (1) the 1-day strike of 3,500 taxicab drivers in Washington, D. C., on June 10; (2) the strike of the Uxbridge Worsted Co. employees referred to above; and (3) the strike of 1,750 bakery workers in Cleveland, Ohio, which began on June 22 and was still in effect at the end of the month.

Table 3.—Strikes and Lockouts Beginning in June 1935, Classified by Number of Workers Involved

Industrial group	Total	Number of strikes and lockouts in which the number of workers involved was—						
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000	10,000 and over
All industries.....	155	20	58	59	8	10		
<i>Manufacturing</i>								
Iron and steel and their products, not including machinery.....	3		2	1				
Machinery, not including transportation equipment.....	5	1	3	1				
Transportation equipment.....	1		1					
Nonferrous metals and their products.....	5		3	2				
Lumber and allied products.....	7	1	1	3	2			
Stone, clay, and glass products.....	4		1	3				
Textiles and their products.....	57	5	21	23	3	5		
Leather and its manufactures.....	9	1	2	6				
Food and kindred products.....	12	3	4	4		1		
Paper and printing.....	2	1	1					
Rubber products.....	2			2				
Miscellaneous manufactures.....	7	1	3	2	1			
<i>Nonmanufacturing</i>								
Extraction of minerals.....	7			5		2		
Transportation and communication.....	6	1	3	1		1		
Trade.....	8	2	4	1	1			
Domestic and personal service.....	5	2	2			1		
Professional service.....	1			1				
Building and construction.....	9	1	4	3	1			
Agriculture, etc.....	1		1					
Relief work.....	3	1	2					
Other nonmanufacturing industries.....	1			1				

There was a noticeable increase in the number of strikes and lockouts over the issues of wages and hours. These were the major issues in 50.3 percent of the strikes and lockouts which began in June, as compared with 43.8 percent in May and 40.8 percent in April.

For the first time since the beginning of the N. R. A. there were more strikes in protest against wage decreases than for wage increases. Of the 155 strikes and lockouts which began in June, protests of workers against wage decreases caused 18, or 11.6 percent. Only 8.5 percent of the disputes in May and 7 percent of those in April were over this issue. Decreasing wages and at the same time increasing hours caused 21, or 13.6 percent, of the strikes and lockouts in June, as compared with 2 percent in May and 0.6 percent in April. Fifteen of the 18 strikes and lockouts over the "wage decrease" issue were in the textile industries, as were also 15 of the 21 cases in which the major issues were a wage decrease and an hour increase.

The 155 strikes and lockouts beginning in June are classified in table 4 according to the major issues involved.

Table 4.—Major Issues Involved in Strikes and Lockouts Beginning in June 1935

Major issues	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues.....	155	100.0	39,862	100.0
Wages and hours	78	50.3	14,953	37.5
Wage increase.....	20	13.0	3,819	9.6
Wage decrease.....	18	11.6	2,574	6.5
Wage increase, hour decrease.....	3	1.9	315	.8
Wage decrease, hour increase.....	21	13.6	2,842	7.1
Wages and other causes.....	9	5.8	4,997	12.5
Hour increase.....	5	3.2	246	.6
Hour decrease.....	1	.6	23	.1
Hours and other causes.....	1	.6	137	.3
Organization	59	38.1	12,872	32.3
Recognition.....	4	2.6	1,125	2.8
Recognition and wages.....	7	4.5	1,120	2.8
Recognition, wages, and hours.....	9	5.8	1,203	3.0
Recognition and other causes.....	4	2.6	1,002	2.5
Closed shop.....	12	7.7	5,776	14.5
Violation of agreement.....	3	1.9	186	.5
Discrimination.....	20	13.0	2,460	6.2
Miscellaneous	18	11.6	12,037	30.2
Sympathy.....	1	.6	1,445	3.6
Jurisdiction.....	3	1.9	209	.5
Other.....	14	9.1	10,383	26.1

The duration of the strikes and lockouts, in each industrial group, which ended in June, is indicated in table 5.

Approximately half of the 160 strikes and lockouts which ended in June lasted less than one-half month. Eleven disputes which had been in progress for 3 months or more were terminated during the month. The most important of these were (1) the strike of 275 truck drivers in Pittsburgh, Pa., which began in December 1934, (2) the strike of more than 6,300 coal miners in Pennsylvania which began in February, and (3) the strike of 900 seamen, employed on oil tankers along the Pacific coast, which began on March 9.

Table 5.—Duration of Strikes and Lockouts Ending in June 1935

Industrial group	Total	Number of strikes and lockouts with duration of—					
		Less than 1 week	1 week and less than 1½ month	1½ month and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries.....	160	51	30	31	21	16	11
<i>Manufacturing</i>							
Iron and steel and their products, not including machinery.....	5	1		1	1	2	
Machinery, not including transportation equipment.....	8		1	2	3	2	
Transportation equipment.....	3	1			1	1	
Nonferrous metals and their products.....	4	2		1	1		
Lumber and allied products.....	8	1	3	3	1		
Stone, clay and glass products.....	4		1	1		2	
Textiles and their products.....	40	19	8	7	1	3	2
Leather and its manufactures.....	9	4	1	3	1		
Food and kindred products.....	13	5	3	3	2		
Paper and printing.....	1				1		
Miscellaneous manufactures.....	4	2			1	1	
<i>Nonmanufacturing</i>							
Extraction of minerals.....	11	4	3	1	2		1
Transportation and communication.....	13	2	3	1	1	2	4
Trade.....	12	1	3	4	2	1	1
Domestic and personal service.....	9	2	1	2	2	1	1
Professional service.....	1	1					
Building and construction.....	7	1	2	1	1	1	1
Agriculture, etc.....	2	1		1			
Relief work.....	5	3	1				1
Other nonmanufacturing industries.....	1	1					

Of the 160 strikes and lockouts which ended in June, all but 37 were terminated, as indicated in table 6, by some kind of formal settlement. Settlements for 6.4 percent of the workers were obtained by direct negotiations with their employers. Negotiations for 34.6 percent of the workers were carried on directly by their union representatives, while 24.9 percent of the workers were assisted by Government conciliators and labor boards. In most of these cases, Government agents negotiated through union representatives and employers.

In the 37 cases which were terminated without formal settlements, the employees simply went back to work and gave up their struggle without a formal settlement, the employers hired new workers to fill the vacancies of the strikers, or the employers discontinued operations in the particular locality, either going out of business or moving operations to another city.

Table 6.—Methods of Negotiating Toward Settlement of Strikes and Lockouts Ending in June 1935

Negotiations toward settlements carried on by—	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	160	100.0	57,139	100.0
Employers and workers directly.....	20	12.5	3,647	6.4
Employers and representatives of organized workers directly.....	52	32.5	19,761	34.6
Government conciliators or labor boards.....	49	30.6	14,233	24.9
Private conciliators or arbitrators.....	2	1.3	130	.2
Terminated without formal settlement.....	37	23.1	19,368	33.9

Settlements favorable to the workers were obtained in 68 of the 160 strikes and lockouts which ended in June; settlements unfavorable to the workers were obtained in 58, and compromise settlements in 28.

As indicated in table 7, the 68 strikes and lockouts which were settled favorably to the workers were small, on the average, involving only 22.8 percent of the total number of workers. Generally speaking, the workers won a large number of small strikes, lost a significant number of medium-sized strikes, and obtained compromise settlements on the largest strikes.

Table 7.—Results of Strikes and Lockouts Ending in June 1935

Results	Strikes and lockouts		Workers involved	
	Number	Percent of total	Number	Percent of total
Total.....	160	100.0	57,139	100.0
Favorable to workers.....	68	42.4	13,007	22.8
Unfavorable to workers.....	58	36.3	19,317	33.7
Compromise.....	28	17.5	16,786	29.4
Jurisdiction or rival unions.....	3	1.9	6,414	11.2
Undetermined.....	2	1.3	1,585	2.8
Not reported.....	1	.6	30	.1

A more detailed analysis of the results of the 160 strikes and lockouts which ended in June 1935, showing the relation of results to the major issues involved, is shown in table 8.

Of the 64 wage and hour disputes which ended during the month, the workers won 29, lost 21, and obtained compromise settlements in 14. Of the 75 disputes over organization matters, they won 31, lost 31, and compromised 12. In one case the results were not reported.

Table 8.—Results of Strikes and Lockouts Ending in June 1935, in Relation to Major Issues Involved

Major issue	Total	Number of strikes and lockouts, the results of which were—					Not reported
		Favorable to workers	Unfavorable to workers	Compromises	Jurisdiction or rival union settlements	Undetermined	
All issues.....	160	68	58	28	3	2	1
Wages and hours	64	29	21	14			
Wage increase.....	20	7	9	4			
Wage decrease.....	14	6	6	2			
Wage increase, hour decrease.....	3	2	1				
Wage decrease, hour increase.....	14	8	4	2			
Wages and other causes.....	7	2	1	4			
Hour increase.....	4	2		2			
Hour decrease.....	1	1					
Hours and other causes.....	1	1					
Organization	75	31	31	12			1
Recognition.....	12	2	9	1			
Recognition and wages.....	19	11	3	5			
Recognition, wages, and hours.....	8	2	3	3			
Recognition and other causes.....	1		1				
Closed shop.....	9	4	4	1			
Violation of agreement.....	6	3	1	2			
Discrimination.....	20	9	10				1
Miscellaneous	21	8	6	2	3	2	
Sympathy.....	5	2	2			1	
Different unions competing for control.....	1				1		
Jurisdiction.....	2				2		
Other.....	13	6	4	2		1	

Conciliation Work of the Department of Labor in August 1935

By HUGH L. KELWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 115 disputes during August 1935. These disputes affected a known total of 53,928 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.

Labor Disputes Handled by Conciliation Service During the Month of August 1935

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Malleable Steel Range Co., South Bend, Ind.	Controversy.	Stove workers.....	Asked collective bargaining....	Adjusted. Collective bargaining granted.	1935 Aug. 2	1935 Aug. 6	104	-----
Greyhound Bus Co., Pittsburgh, Pa.	Threatened strike.	Bus drivers.....	8 men discharged.....	Pending.....	Aug. 1	-----	(1)	-----
Merit Casket Co., Chicago, Ill.	Strike.....	Casket workers.....	Wage cut, lengthened hours, and refusal to allow organization.	Unable to adjust. Conference refused. Factory closed.	Aug. 2	Aug. 7	280	-----
Smith-Roland Chemical Co., Granite City, Ill.	.....do.....	Chemical workers.....	Renewal of agreement and collective bargaining.	Adjusted. New agreement with increase of 2 cents per hour.	Aug. 1	Aug. 24	48	3
Mersman Bros. Corporation, Celina, Ohio.	.....do.....	Furniture workers.....	Asked 10 percent increase, 9-hour day, and union recognition.	Pending.....	July 21	-----	500	-----
Iowa Manufacturing Co., Cedar Rapids, Iowa.	.....do.....	Machinists.....	Organization difficulties.....	Adjusted. Settled satisfactorily....	Aug. 2	Sept. 2	64	26
Industrial Hosiery Mills, Inc., Reading, Pa.	.....do.....	Hosiery workers.....	Objection to foreman.....	Adjusted. Foreman discharged; all workers returned.	Feb. 21	Aug. 1	150	-----
Canners, Hoopston, Ill.	Controversy.	Canning workers.....	Collective bargaining refused....	Adjusted. Satisfactory agreement.	Aug. 3	Aug. 11	100	-----
Woodward Lumber Co., Cottage Grove, Oreg.	Strike.....	Sawmill and timber workers.....	Wage increase and union recognition.	Pending.....	.....do.....	-----	190	-----
J. H. Chambers & Son, Inc., Cottage Grove, Oreg.	Controversy.	Lumber workers.....	.....do.....	.....do.....	Aug. 1	-----	125	-----
Bohemia Lumber Co., Cottage Grove, Oreg.	.....do.....	Timber and sawmill workers.....	.....do.....	.....do.....	.....do.....	-----	81	-----
El Paso Electric Co., El Paso, Tex.	.....do.....	Power industry workers.....	Renewal of agreement; intimidation alleged.	Adjusted. Compromise agreement.	Aug. 5	Aug. 15	146	362
I. Stephanson Lumber Co., Wells, Mich.	Strike.....	Lumber workers.....	Wage increase and working conditions.	Adjusted. Increase of 2½ cents per hour; better conditions.	Aug. 2	Aug. 16	300	15
Dam construction, Fort Peck, Mont.	Controversy.	Dam workers.....	Wage scale of district not being paid.	Pending.....	Aug. 1	-----	6,000	600
Post-office building, New York City.	Strike.....	Building trades.....	Nonunion workers employed....	.....do.....	Aug. 6	-----	60	-----
University Building, Pullman, Wash.	.....do.....	Plumbers and steamfitters.....	Transportation and expenses of nonresidents.	.....do.....	.....do.....	-----	50	-----
Carpenters, State of California.	Threatened strike.	Carpenters.....	Wages and working conditions.	Adjusted. Agreed to arbitrate differences.	.....do.....	Aug. 24	4,000	-----
Highway construction, Bloomington, Ill.	Controversy.	Road laborers.....	Wage rates.....	Unclassified. Referred to State agencies.	Aug. 7	Aug. 11	(1)	-----
Tin Plate Litho Co., Brooklyn, N. Y.	Strike.....	Metal-cap makers.....	Asked wage increase; collective bargaining.	Pending.....	July 21	-----	100	-----

Longshoremen, Panama City, Fla.	Threatened strike.	Longshoremen	Working conditions	Adjusted. Action postponed until expiration of contracts at other ports.	July 15	Aug. 7	125	-----
American Sheep Lined Coat Co., Inc., Elizabeth, N. J.	Strike	Leather-coat makers	Proposed wage cuts; bargaining refused.	Unable to adjust. Plant moved from city.	July 10	Aug. 6	200	-----
United Sheep Lined Coat Co., Newark, N. J.	do	do	do	Unclassified. Settled by parties to controversy.	Apr. 10	do	200	-----
Vincennes Packing Corporation, Vincennes, Ind.	Controversy	Packing and canning workers.	(1)	Pending.	Aug. 6		(1)	-----
Smith Cabinet Co., Salem, Ind.	Strike	Furniture workers	Discharges for union affiliation.	Unable to adjust. Bargaining refused.	Aug. 8	Aug. 13	400	-----
Cereal mills, Buffalo, N. Y.	Threatened strike.	Cereal workers	Wages and hours	Adjusted. Allowed 50, 57, and 60 cents per hour in agreement covering all terms.	July 1	Aug. 17	540	100
Goldman's Jewelry Store, Kansas City, Mo.	Strike	Jewelry workers	Asked increase of \$2.50 per week and closed shop.	Adjusted. Closed shop allowed and probable increase.	Apr. 16	Aug. 12	7	-----
Coca Cola Co., Tuscaloosa, Ala.	Threatened strike.	Bottling workers	Working conditions	Pending.	Aug. 9		1	-----
Pielet Scrap Iron & Metal Co., Chicago, Ill.	Controversy	Scrap-metal handlers	Dispute relative to back pay	Adjusted. Allowed back pay	July 22	Aug. 6	2	-----
National Lead Co., Potosi, Mo.	Strike	Tiff miners	Wages and working conditions	Adjusted. Increase of \$1.50 per ton; may return to work if business warrants.	Aug. 5	Aug. 22	2,500	50
Steffins Ice & Ice Cream Co., Arkansas City, Kans.	Controversy	Ice and ice-cream makers.	Discharge of 2 workers for union activity.	Adjusted. Company agreed to rehire both workers.	Aug. 8	Aug. 20	28	5
Eastern Tool & Mfg. Co., Bloomfield, N. J.	Strike	Tool makers	Longer hours which reduced pay 12½ percent.	Adjusted. Returned; 45-hour week which permitted greater earnings.	Aug. 9	Aug. 16	55	12
Rice Growers Cooperative Association, Stuttgart, Ark.	Controversy	Rice-mill workers	Alleged discharges for union activity.	Pending.	do		(1)	-----
Walker Motor Co., Newport, Ky.	Strike	Machinists	Wages and closed shop	Adjusted. Increased from 6 to 9 cents per hour for 5 workers. Reinstatement of strikers.	Aug. 7	Aug. 16	10	1
Godman Shoe Co., Lancaster, Ohio, and Columbus, Ohio.	Controversy	Boot and shoe workers	Objection to proposed company union.	Unable to adjust. Mediation refused.	July 26	Aug. 15	2,500	-----
Motion-picture theaters, New York City.	Threatened strike.	Operators	Proposed wage cuts	Adjusted. Negotiations for wage settlement continued.	Aug. 1	Aug. 29	740	-----
Precision Die Cast Co., Fayetteville, N. Y.	Controversy	Die makers	Discrimination for union affiliation.	Unclassified. Regional board will take up situation.	Aug. 6	Aug. 20	27	400
Rollway Bearing Co., Syracuse, N. Y.	do	Metal workers	Lay-off of senior employees	do	do	do	11	200
Lipson Dress Factory, Oglesby, Ill.	Strike	Garment workers	Asked for back pay alleged to be due.	Unable to adjust.	Aug. 13	Aug. 21	20	60
Uhleman Optical Co., Detroit, Mich.	do	Optical workers	Union recognition	Adjusted. Allowed 40-hour week and pay for overtime.	do	Aug. 29	25	-----
Freuhauf Trailer Co., Detroit, Mich.	Threatened strike.	Auto-trailer makers	Discharges for union activity	Pending.	Aug. 3		239	211
E. B. Craney Radio Tower, Butte, Mont.	Controversy	Iron and electrical workers.	Jurisdiction	Unable to adjust.	July 15	Aug. 29	12	-----

¹ Not yet reported.

Labor Disputes Handled by Conciliation Service During the Month of August 1935—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Krenn & Dato, contractors on road project, Chicago, Ill.	Strike.....	Road builders.....	Asked employment of union men only.	Adjusted. All returned.....	1935 Aug. 13	1935 Aug. 15	100	400
Meat packers, San Diego, Calif.	Threatened strike.	Packing-house workers.	Working conditions.....	Pending.....	Aug. 12	.....	(1)	.....
Japanese growers, San Diego, Calif.	.....do.....	Mexican field laborers.	Asked signed agreement.....	Adjusted. Signed agreement, providing arbitration board for 1 year.	.....do.....	Aug. 15	3,000	2,000
Farley & Loetscher Manufacturing Co., Dubuque, Iowa.	Strike.....	Mill workers.....	Alleged discrimination.....	Adjusted. Majority of workers returned without discrimination.	Aug. 5	Aug. 16	650	50
Carr, Ryder & Adams Co., Dubuque, Iowa.	.....do.....	.....do.....	Wages and union recognition.....	Adjusted. Agreed on memorandum of terms.	.....do.....	Aug. 23	450	50
Mother Lode Mines, Jackson, Calif.	.....do.....	Gold miners.....	Wages, hours, and recognition.....	Pending.....	Aug. 2	.....	650	.....
Jewelry workers, Philadelphia, Pa.	Controversy.	Jewelry workers.....	Wages and working conditions.....	.....do.....	Aug. 6	.....	200	.....
Jester Gardens, Philadelphia, Pa.	Strike.....	Waiters.....	.....do.....	.....do.....	Aug. 9	.....	28	.....
Wide Awake Shirt Co., Reading, Pa.	.....do.....	Shirt makers.....	Wage cut of 30 percent.....	Adjusted. Wages restored with 10 percent increase, and recognition.	Aug. 6	Aug. 24	200	.....
Ashland Shirt Co., Ashland, Pa.	.....do.....	Shirt workers.....	Wage cuts.....	Adjusted. Accepted wage cut and returned to work.	Aug. 7	Aug. 9	200	1
W. P. Brown Sons Lumber Co., Helena, Ala.	.....do.....	Lumber workers.....	Wages, hours, and closed shop.....	Adjusted. Accepted cut of 6 cents per hour. Recognition.	Aug. 15	Aug. 21	225	12
Independent food stores, Butte, Mont.	Controversy.	Clerks.....	Hours of labor.....	Adjusted. Agreed on 8 o'clock closing hour; closed Sundays and holidays.	Aug. 14	Aug. 22	12	.....
Colorado Milling & Elevator Co., Denver, Colo.	.....do.....	Elevator operators.....	Discharges for union activity.....	Adjusted. Part reinstated. National Labor Relations Board may complete settlement.	Aug. 12	Aug. 25	800	.....
Sawyer Watch Strap Co., Jersey City, N. J.	Strike.....	Watch-strap makers.....	Asked \$15 per week and union recognition.	Pending.....	June 14	.....	38	.....
Pfizer Chemical Co., New York and Brooklyn, N. Y.	Controversy.	Chemical workers.....	Discrimination and discharges for union activity.	Adjusted. Agreed to bargain collectively when Wagner bill became effective.	June 1	Aug. 15	500	.....
Wheeland Studios, Inc., New York City.	Threatened strike.	Photograph finishers.....	Discharges for union activity.....	Adjusted. Reemployed all but one; negotiations continued.	.....do.....	Aug. 14	90	360
Rayovac Co., Madison, Wis.	Controversy.	(1).....	Making of agreement.....	Pending.....	Aug. 17	.....	(1)	.....
Michigan-Indiana Transportation Co., Flint, Mich., to Indianapolis, Ind.	Strike.....	Drivers.....	Wages and working conditions.....	Adjusted. All returned, with closed-shop agreement.	Aug. 11	Sept. 4	10	.....

Faultless Pants Co., Buffalo, N. Y.	.....do.....	Pants makers	Wages cut 5 to 20 percent; hours increased from 36 to 40 per week.	Adjusted. Wages adjusted, 36-hour week, and closed shop.	Aug. 13	Aug. 30	83	20
Breen Stone & Marble Co., Kasota, Minn.	Controversy	Stone workers	Wages and discharges	Unclassified. Reinstated those discharged; settled before commissioner arrived.	...do....	Aug. 26	57	100
Hardwick Stove Co., Cleveland, Ohio.	.....do.....	Foundry workers	Discharges for union activity	Unable to adjust	Aug. 20	Aug. 22	10	-----
General Cable Co., Rome, N. Y.	.....do.....	Cable makers	Longer hours required	Adjusted. Satisfactory adjustment.	Aug. 15	Aug. 28	850	-----
Wolverine Optical Co., Detroit, Mich.	Strike	Optical workers	Sympathy with Uhleman Optical Co. workers.	Adjusted. Returned when Uhleman Co. workers returned.	Aug. 17	...do....	15	-----
Liggett & Meyers Tobacco Co., Durham, N. C.	Controversy	Tobacco workers	Company refused to enter contractual relations with workers.	Pending	June 7	-----	4,500	-----
Crystal Pure Candy Co., Chicago, Ill.	Strike	Candy makers	Wage cuts and longer hours	Adjusted. Satisfactory agreement.	Aug. 17	Aug. 23	240	10
Southern Cooperative Stove Shops, Rome, Ga.	Controversy	Stove mounters	Working conditions	Pending	July 25	-----	(¹)	-----
U. S. Pipe Co., North Birmingham, Ala.	.....do.....	Pipe workers	Making agreement	Adjusted. Will follow code, as previous to termination of National Recovery Administration.	Aug. 11	Aug. 21	360	25
Jamestown Veneer & Plywood Co., Jamestown, N. Y.	Strike	Veneer and plywood workers	Wages and discharges; asked 40-hour week and union recognition.	Adjusted. Recognition, and 8-hour day allowed.	Aug. 13	Aug. 20	94	6
Jamestown Metal Products Co., Jamestown, N. Y.	.....do.....	Metal workers	Asked 10 percent increase; discharges followed.	Adjusted. Secured better understanding, expect final settlement of differences.	May 26	Sept. 10	26	12
Griswold Greenhouse, Ashtabula, Ohio.	Controversy	Greenhouse workers	Wage cuts	Unable to adjust	Aug. 10	Aug. 23	135	-----
Sewer construction, Peoria, Ill.	Strike	Engineers and laborers	Working conditions	Pending	Aug. 13	-----	(¹)	-----
American Furniture & Fixture Co., Richmond, Va.	Controversy	Furniture and fixture makers	.....do.....	Unclassified. Remained at work pending arrival of union officials.	Aug. 1	Aug. 17	63	17
Northern Indiana Railway, Inc., and South Bend Motor Bus Co., South Bend, Ind.	Strike	Street-car workers	Asked union recognition and reinstatement of discharged workers.	Adjusted. Recognition; permanent arbitration agency established.	Aug. 17	Aug. 30	206	-----
Roland & Harvey, Inc., Philadelphia, Pa.	.....do.....	Metal trades	Wage cuts, longer hours, and reduced force.	Pending	...do....	-----	(¹)	-----
Shamokin Dress Co., Shamokin, Pa.	.....do.....	Dress workers	Wage cuts and longer hours	.....do.....	Aug. 19	-----	250	-----
Johnson Ink Co., Philadelphia, Pa.	.....do.....	Ink makers	Working conditions	.....do.....	Aug. 20	-----	(¹)	-----
Andora Nurseries, Philadelphia, Pa.	.....do.....	Nursery workers	Low wages, long hours, and union recognition refused.	Unable to adjust	...do....	Aug. 25	(¹)	-----
Philadelphia & Reading Coal & Iron Co., Pottsville, Pa.	Threatened strike	Machinists	Asked increase, union recognition, and collective bargaining.	Pending	...do....	-----	80	90
U. S. Court House, St. Louis, Mo.	.....do.....	Tile roofers and interior tile setters	Jurisdiction of tile setting	Adjusted. Jurisdiction settled	...do....	Aug. 28	10	-----
American Smelting and Refining Co., Selby, Calif.	Strike	Smelter workers	Union recognition refused by company.	Adjusted. Increase of 2 cents per hour and formation of permanent employees' adjustment committee.	Aug. 21	Sept. 2	450	50

¹Not yet reported.

Labor Disputes Handled by Conciliation Service During the Month of August 1935—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
West Virginia Pulp & Paper Co., Cass, W. Va.	Controversy.	Carpenters.....	Union members discharged.....	Adjusted. Satisfactory agreement.	1935 Aug. 19	1935 Sept. 5	4	296
Garment workers, Philadelphia, Pa.	Threatened strike.	Embroidery workers, tuckers, and hemmers.	Proposed wage cuts and longer hours.	Adjusted. Union agreement signed, fixing wages and hours.	Aug. 17	Aug. 25	350	-----
James Vernor Co. Brewery, Detroit, Mich.	Strike.....	Soft-drink workers.....	Asked closed-shop contract.....	Pending.....	Aug. 19	-----	23	277
Daniels & Fisher Stores Co., Denver, Colo.	Controversy.	Fur workers.....	Discharges for union affiliation.....	Unable to adjust.....	Aug. 20	Sept. 2	1	-----
Denver Tramway Co., Denver, Colo.	.....do.....	Tramway workers.....	.....do.....	.....do.....	.....do.....	.....do.....	3	777
Novelty Advertising Co., Coshocton, Ohio.	Strike.....	Printers.....	Discharged foreman.....	Pending.....	Aug. 23	-----	125	20
Edward E. Cox Printer, Inc., Hartford City, Ind.	Controversy	.....do.....	Refused union recognition and collective bargaining.	.....do.....	Aug. 22	-----	(1)	-----
Buchsbaum Co., Chicago, Ill.	Strike.....	Employees.....	Wages.....	.....do.....	.....do.....	-----	100	24
Rude Motor Co., Cedar Rapids, Iowa	Threatened strike.	Machinists.....	Collective bargaining refused.....	.....do.....	.....do.....	-----	49	27
Mexican field workers, southern California.	.....do.....	Fruit and vegetable workers.	Wages.....	.....do.....	.....do.....	-----	5,000	-----
Webber Shocase Co. and 75 other firms, Los Angeles, Calif.	Strike.....	Cabinetmakers.....	Violation of arbitration agreement.	Adjusted. Majority received 85 cents per hour. Installation work \$1, and overtime \$1.10 per hour. 650 returned to work.	June 5	Aug. 7	700	300
.....do.....	.....do.....	Jewelry workers.....	Wages and conditions.....	Pending.....	Aug. 26	-----	(1)	-----
Rodgers Theaters, Carbondale, Ill.	Controversy.	Motion-picture operators.	Asked union recognition.....	Adjusted. Satisfactory settlement.	Aug. 24	Aug. 29	1	30
Beckman's Pretzel Bakery, Reading, Pa.	Threatened strike.	Bakers.....	Asked restoration of 10 percent cut and other privileges.	.....do.....	Aug. 15	Sept. 6	80	5
Holly Sugar Co., Tracy, Calif.	Controversy.	Sugar workers.....	Discharged 5 workers for union affiliation.	Pending.....	Aug. 21	-----	(1)	-----
Hercules Clothing Co., Columbus, Ohio.	Strike.....	Garment workers.....	Wage cut and longer hours.....	.....do.....	Aug. 15	-----	700	-----
Ohio Match Co., Wadsworth, Ohio.	Controversy	Match makers.....	Working conditions.....	Adjusted. Increased employment from 4 to 5 days per week. Other questions satisfactorily adjusted.	Aug. 13	Aug. 28	700	-----

Maddox Table Co., Jamestown, N. Y.	Strike.....	Table makers.....	Hours of labor.....	Adjusted. Recognition and seniority rights. Memorandum of terms adopted.	Aug. 20	Aug. 30	250	40
Miller Motor Co., Pittsburgh, Pa.	Threatened strike.	Auto mechanics.....	Management refused to meet workers.	Adjusted. Agreed to meet workers for negotiations.	Aug. 26	Sept. 3	18	10
Santa Cruz Packing Corporation, Oakland, Calif.	Lockout.....	Warehouse workers.....	Working conditions.....	Pending.....	Aug. 27	-----	(1)	-----
F. J. Boutel Co., Flint, Mich.	Strike.....	Truck drivers.....	do.....	Adjusted. Satisfactory settlement.	Aug. 22	Aug. 29	35	-----
Dairy drivers, Tulsa, Okla.	Threatened strike.	Drivers.....	Wages, hours, and closed shop asked in new agreement.	Pending.....	Aug. 28	-----	14	6
Elkhorn Piney Coal Mining Co., Powellton, W. Va.	Strike.....	Timber workers.....	Hours lengthened from 7 to 8 per day, without extra pay.	Adjusted. Accepted company's terms owing to business conditions.	Aug. 26	Sept. 2	23	-----
A. B. Stone Co., Battle Creek, Mich.	Controversy	Employees.....	Working conditions.....	Pending.....	Aug. 29	-----	(1)	-----
Cigarmakers, Philadelphia, Pa.	do.....	Cigarmakers.....	do.....	do.....	do.....	-----	(1)	-----
Dick Brothers Foundry, Reading, Pa.	Strike.....	Foundry workers.....	Asked minimum of 50 cents per hour; objection to efficiency expert.	Adjusted. Allowed 50 cents per hour, minimum; and dismissed efficiency expert. All returned.	Aug. 16	Aug. 23	45	-----
Flour City Ornamental Iron Co., Minneapolis and St. Paul, Minn.	do.....	Ironworkers.....	Discharges for union affiliation.	Pending.....	Aug. 23	-----	315	-----
Samuel Finklestein Co., Norfolk, Va.	do.....	Employees.....	Working conditions.....	do.....	Aug. 30	-----	(1)	-----
S. & K. Pants Co., Lynchburg, Va.	do.....	Pants makers.....	Wage dispute.....	Adjusted. Increase of 15 percent and union recognition.	do.....	Sept. 6	150	-----
Truck drivers on Highway No. 2, Escanaba, Mich.	do.....	Drivers.....	Working conditions.....	Adjusted. Satisfactory settlement.	do.....	Sept. 5	300	-----
Elite Jewelry Products Corporation, New York City.	do.....	Jewelry workers.....	Wages, hours, and union recognition.	Pending.....	Aug. 21	-----	190	-----
Shell Oil Corporation, Missouri, Kansas, and Oklahoma.	Controversy	Pipe-line workers.....	Asked memorandum of terms.	do.....	Aug. 22	-----	(1)	-----
Lewis Bros. Co., Newark, N. J.	Strike.....	Candy workers.....	Hours increased from 40 to 49 per week without increase in pay.	Adjusted. Reestablished 40-hour week.	July 18	Aug. 23	150	-----
Curtis Bay Towing Co., Baltimore, Md.	do.....	Bargemen.....	Asked 15 cents per hour increase and union recognition.	Adjusted. Satisfactory signed agreement.	July 15	Aug. 1	20	3,000
Total.....	-----	-----	-----	-----	-----	-----	43,868	10,060

¹ Not yet reported.

LABOR AGREEMENTS

Legalized Schedules of Wages and Hours in Ontario Building Trades

SINCE the passage of the Industrial Standards Act (25 Geo. V, 1935) of the Province of Ontario,¹ which makes collective agreements between employers and workers enforceable as law, most of the building trades in the Toronto area have secured binding schedules of wages and hours. The new schedules went into effect during June and July 1935, but do not apply to work begun or contracted for before the effective dates.

The 5-day, 40-hour week is adopted for all skilled workers, a 45-hour week for plasterers' laborers, and a 48-hour week for common laborers. Working hours for the skilled craftsmen are from 8 a. m. to 5 p. m., with 1 hour for lunch where only one shift is worked. If work cannot be done during the day, it may be done "as a night shift of not more than 8 hours, at straight time." Where more than one shift is regularly used, 8 hours' pay shall be paid for 7 hours' work, but this applies only where the overtime shifts equal at least 66% percent of the regular shift. No employee may work on more than 1 shift in 24 hours unless overtime rates are paid.

The overtime provisions are not uniform, except with respect to work on holidays and Sundays, which must be paid for at double the regular rate in all cases. The specified holidays in addition to Sundays are: New Year's Day, Good Friday, Victoria Day, Dominion Day, Civic Holiday, Labor Day, Thanksgiving Day, and Christmas Day. Time and a half for overtime is the general rule. The electricians' agreement, however, calls for double pay for any overtime work not of an emergency nature. That of the sheet-metal workers calls for time and a half up to 10 p. m. and double time thereafter; emergency work on Saturdays must be paid for at regular rates during the morning, time and a half until 5 p. m., and double time thereafter. Where emergencies require that work be done on Saturdays, the rate for carpenters, lathers, and bricklayers is straight time

¹ See Monthly Labor Review, August 1935 (p. 405).

for morning work, and time and one-half thereafter; for electricians, straight time for morning work and double time thereafter.

A provision applying to bricklayers and masons, lathers, plasterers, and carpenters is that "in the event of any building exceeding 8 stories in height the eighth floor shall be known as the starting point at the starting time, and the employee shall proceed promptly to his work from this point, on the employer's time."

The minimum hourly rates as fixed in the schedules, which are enforceable throughout the Toronto zone under the terms of the act, are as follows:

Skilled trades:	<i>Minimum hourly rate</i>
Bricklayers and masons.....	\$0. 90
Carpenters and joiners.....	. 80
Electricians (journeyman).....	1. 00
Lathers.....	} . 90 . 70
Painters, spray.....	2. 80
Painters, decorators, glaziers, and paperhangers.....	3. 70
Plasterers.....	. 90
Plumbers, steamfitters, and gasfitters:	
Journeymen.....	. 90
5th-year junior mechanics.....	. 60
Sheet-metal workers.....	. 75
Laborers:	
Common laborers.....	. 50
Painters' laborers.....	. 50
Plasterers' laborers.....	. 60

Apprentice regulations are not included in the agreements, but a clause is inserted stating that the Ontario apprenticeship act shall govern. The legalized agreements are to remain in effect for about a year from the date of their promulgation, most of them terminating on July 10, 1935. Under the terms of the act, the minimum wage board is the enforcing authority and penalties may be assessed against both employers and workers for infractions.

¹ To Sept. 1, 1935; 85 cents thereafter.

³ To Sept. 1, 1935; 75 cents thereafter.

LABOR TURN-OVER

Labor Turn-Over in Manufacturing Establishments, July 1935

THE higher accession rate and lower total separation rate in manufacturing industries shown by the Bureau's labor turn-over report for the month of July as compared with June indicate more stabilized employment conditions.

The turn-over rates shown represent the number of changes per 100 employees on the pay rolls during the month. The data were compiled from reports received by the Bureau of Labor Statistics from more than 5,000 representative manufacturing establishments in 144 industries. Approximately 1,875,000 workers were employed by the firms reporting to the Bureau in July.

In addition to information for manufacturing as a whole, rates are presented for 12 separate manufacturing industries. Reports were received from representative plants in these 12 industries employing at least 25 percent of the workers in each industry, according to the 1933 Census of Manufactures.

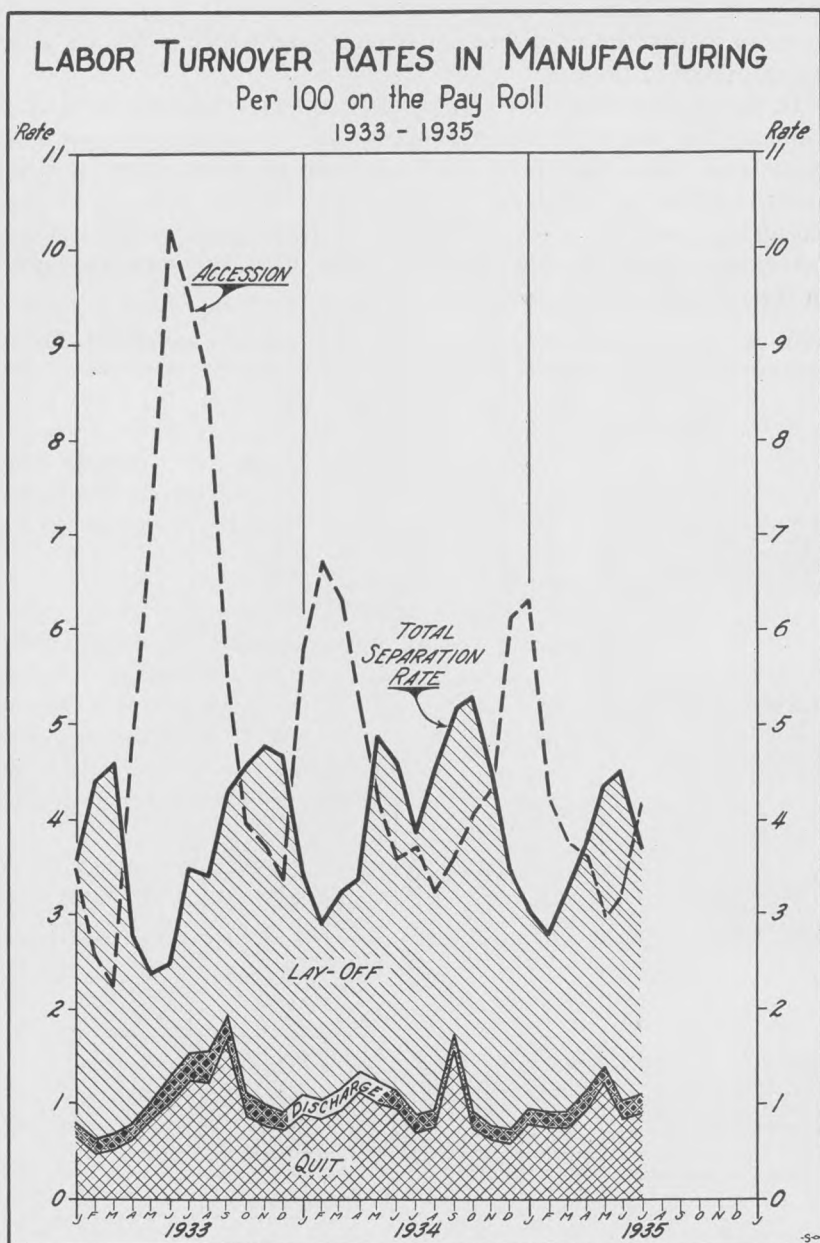
Trend by Months

THE accession rate for July was higher than for the same month of the previous year and for any of the preceding 4 months. Settlement of labor troubles in a number of sawmills in the States of Oregon and Washington had some influence on this rate. The quit rate was slightly higher than for June or for the month of July 1934. The lay-off rate was not only lower than for the same month of the preceding year but the lowest since March 1935.

The monthly trend of labor turn-over for manufacturing as a whole is shown in table 1 for 1934 and for the first 7 months of 1935.

Table 1.—Monthly Labor Turn-Over Rates Per 100 Employees in Representative Factories in 144 Industries

Class of rate and year	Jan- uary	Feb- ruary	March	April	May	June	July	Aug- ust	Sep- tem- ber	Octo- ber	No- vem- ber	De- cem- ber
Quit rate:												
1935.....	0.76	0.73	0.75	0.93	1.21	0.83	0.90					
1934.....	.90	.85	.93	1.11	1.01	.94	.70	0.75	1.55	0.73	0.62	0.58
Discharge rate:												
1935.....	.18	.18	.17	.20	.17	.20	.20					
1934.....	.18	.19	.21	.23	.22	.18	.19	.19	.16	.19	.15	.15
Lay-off rate:												
1935.....	2.10	1.88	2.32	2.60	3.00	3.46	2.57					
1934.....	2.35	1.85	2.08	2.04	3.65	3.48	2.96	3.56	3.41	4.38	3.78	2.72
Total separation rate:												
1935.....	3.04	2.79	3.24	3.73	4.38	4.49	3.67					
1934.....	3.43	2.89	3.22	3.38	4.88	4.60	3.85	4.50	5.12	5.30	4.55	3.45
Accession rate:												
1935.....	6.33	4.23	3.79	3.63	3.01	3.18	4.17					
1934.....	5.81	6.71	6.33	5.18	4.19	3.58	3.71	3.24	3.61	4.09	4.32	6.14



Analysis by Industries

THE quit, discharge, lay-off, and accession rates for the 12 industries for which the Bureau's sample covers a sufficiently large number of firms to justify the publishing of separate industry figures are given by industries in table 2.

In the 12 industries for which separate figures are shown the sawmill industry had the highest accession rate and the automotive industry the lowest. The highest quit rate occurred in cotton manufacturing and the lowest in petroleum refining. The sawmill industry showed the highest, and iron and steel the lowest, discharge rate. The largest percentage of lay-offs was registered in the brick industry, the lowest in the iron and steel industry.

Table 2.—Monthly Turn-Over Rates Per 100 Employees in Specified Industries

Class of rates	July 1935	June 1935	July 1934	July 1935	June 1935	July 1934	July 1935	June 1935	July 1934
	Automobiles			Boots and shoes			Brick		
Quit rate.....	0.72	0.92	0.98	0.89	0.59	0.86	0.47	0.55	2.64
Discharge rate.....	.21	.21	.29	.23	.15	.30	.13	.15	.08
Lay-off rate.....	5.02	9.47	6.38	1.10	2.36	.95	7.30	5.98	8.22
Total separation rate.....	5.95	10.60	7.65	2.22	3.10	2.11	7.90	6.68	10.94
Accession rate.....	2.46	1.95	2.93	5.17	6.15	4.37	8.03	7.91	6.26
	Cigars and cigarettes			Cotton manufacturing			Foundries and machine shops		
Quit rate.....	1.58	1.51	(¹)	1.87	0.97	0.88	0.77	0.86	0.52
Discharge rate.....	.30	.18	(¹)	.27	.25	.32	.19	.39	.20
Lay-off rate.....	.99	.51	(¹)	3.88	6.44	1.89	3.11	3.55	2.80
Total separation rate.....	2.87	2.20	(¹)	6.02	7.66	3.09	4.07	4.80	3.52
Accession rate.....	2.65	3.47	(¹)	4.68	3.46	3.67	3.65	3.47	3.58
	Furniture			Iron and steel			Men's clothing		
Quit rate.....	0.61	0.53	0.49	0.73	0.86	0.56	0.95	0.74	1.07
Discharge rate.....	.24	.17	.37	.08	.15	.11	.10	.07	.09
Lay-off rate.....	1.69	2.64	3.08	.78	1.59	3.74	1.51	3.73	2.15
Total separation rate.....	2.54	3.34	3.94	1.59	2.59	4.41	2.56	4.54	3.31
Accession rate.....	6.47	4.55	6.37	2.64	1.10	1.12	4.47	4.12	2.57
	Petroleum refining			Sawmills			Slaughtering and meat packing		
Quit rate.....	0.43	0.51	(¹)	1.68	3.43	1.52	0.72	0.58	1.33
Discharge rate.....	.15	.13	(¹)	.44	.30	.33	.28	.20	.40
Lay-off rate.....	1.76	1.27	(¹)	3.61	3.53	5.61	5.55	4.90	4.20
Total separation rate.....	2.34	1.91	(¹)	5.73	7.26	7.46	6.55	5.68	5.93
Accession rate.....	3.62	3.52	(¹)	17.55	8.19	6.38	6.37	5.66	15.41

¹ Rates not available.

WAGES AND HOURS OF LABOR

Average Annual Earnings in Construction, "Service" Industries, Trade, and Transportation and Public Utilities in Ohio, 1929 to 1933¹

THE annual wage and salary payments to persons employed in construction in Ohio averaged \$1,676 in 1929, \$1,026 in 1932, and \$861 in 1933; in the "service" industries \$1,384 in 1929, \$1,074 in 1932, and \$1,001 in 1933; in wholesale and retail trade \$1,237 in 1929, \$1,014 in 1932, and \$920 in 1933; and in transportation and public utilities \$1,429 in 1929, \$1,241 in 1932, and \$1,189 in 1933. In each of these general industry groups the average annual payment in 1933 was less than in 1932. The averages given above are for the three general occupation groups, "wage earners"; "bookkeepers, stenographers, and office clerks"; and "salespeople (not traveling)", combined.

The average number of persons reported employed was higher in 1933 than in 1932 in trade and transportation and public utilities, and lower in construction and the "service" industries. Total wage and salary payments in 1933 were less than in 1932 in each of the four general industry groups.

This article covers, by industries or activities, the four general industry groups—construction; "service" industries; trade, wholesale and retail; and transportation and public utilities.

Summaries for these general industry groups were published in the Monthly Labor Review for April 1935.

Source and Scope of Study

AVERAGE wage and salary payments in this study, and in earlier studies published in the Monthly Labor Review beginning in January 1934, have been computed from reports furnished by Ohio employers. The reports were made annually as required by law, immediately after the close of each calendar year, to the Division of Labor Statistics, Department of Industrial Relations of Ohio. The employers'

¹ By Fred C. Croxton, Columbus, Ohio, and Frank C. Croxton, Whiting, Ind. A series of articles on average annual wage and salary payments in Ohio was published in the Monthly Labor Review beginning in January 1934. That series covered the years 1916 to 1932 for all industries except construction and all industries combined, which were for 1918 to 1932. A new series on average annual wage and salary payments which began in the Monthly Labor Review for April 1935, covers the years 1929 to 1933.

reports show, among other items, the number of persons employed on the 15th of each month and the total wage and salary payments during the year. Employers were not requested to furnish, in connection with such annual reports, information concerning number or proportion of employees working full time, part time, and overtime; nor were they requested to furnish information relative to the extent to which they had "spread" work or shortened hours during slack periods or provided overtime during busy periods. It is not possible to determine from data available the amount of part-time and overtime work during the period covered by this study and measure, even approximately, the effect of such conditions upon average annual wage and salary payments.

Reports were requested, in each of the years covered by this study, of all employers of three or more persons. Some reports were received each year from employers of fewer than three, and all such returns are included in the compilation. The number of establishments reporting varied from year to year, but the returns were from identical establishments throughout the 12 months of each year. Reports were not requested concerning employment by governmental units and in interstate transportation. A discussion of the completeness of the reports received and compiled by the Ohio Division of Labor Statistics will be found in the Monthly Labor Review for January 1934 (pp. 144, 145).

In supplying data concerning total wage and salary payments, employers were requested to report total wage and salary payments in dollars, including bonuses and premiums, and value of board and lodging furnished. Employers were instructed not to include salaries of officials.

The average number of persons employed was computed by dividing the sum of the numbers reported employed on the 15th of each month by 12. The average annual wage and salary payment was computed by dividing the total wage and salary payment for the year by the average number of persons employed. These averages should not be taken as exact measures but as approximate figures. It should be emphasized that average annual wage and salary payments as here computed do not show full-time earnings, as data concerning part-time and overtime work are not available. Full-time earnings may be either greater or less than the computed average. The changes from year to year, also, do not afford any measure of changes in wage or salary scales or rates of pay.

In preparing annual reports for the Ohio Division of Labor Statistics, employers were instructed to classify employees as follows:

Wage earners.—Include mechanics of all kinds, factory employees, shop foremen, laborers, laundry employees, cleaners, and caretakers in buildings, employees of alteration departments and delivery departments in stores, cash girls, check boys, farm hands, etc.

Bookkeepers, stenographers, and office clerks.—Include bookkeepers, typists, stenographers, copyists, timekeepers, draftmen, filing clerks, sales-office employees, cashiers, etc.

Salespeople (not traveling).—Include the selling force in stores and other establishments. Do not include traveling salespeople.

Superintendents and managers.—Include all superintendents and managers but not shop foremen. Shop foremen should be included under wage earners. Do not include salaries of officials.

Construction

THE average number of persons reported employed in construction each year from 1929 to 1933 is shown in table 1. The number decreased each year following 1929. The average number of wage earners reported employed in 1933 was 17.5 percent less than in 1932, and 72.7 percent less than in 1929.

Table 1.—Average Number Reported Employed in Construction in Ohio, 1929 to 1933, by General Occupation Groups

Year	Estab-lish-ments	Average number of—			Total
		Wage earners	Book-keepers, stenog-raphers, and office clerks	Sales-people (not travel-ing)	
1929.....	10, 183	72, 670	4, 844	1, 117	78, 631
1930.....	9, 672	63, 625	5, 323	680	69, 607
1931.....	8, 272	41, 066	3, 630	904	45, 601
1932.....	6, 456	24, 094	2, 691	734	27, 519
1933.....	5, 586	19, 871	2, 220	603	22, 693

Total wage and salary payments in construction each year from 1929 to 1933 are shown in table 2. Data for superintendents and managers are shown in this table but not elsewhere. Total wage and salary payments to each of the three occupation groups (omitting superintendents and managers) decreased each year after 1929. The total payments to wage earners in 1933 were \$7,343,456, or 31 percent, less than in 1932, and \$105,099,431, or 86.6 percent, less than in 1929.

Table 2.—Total Wage and Salary Payments in Construction in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeepers, stenog-raphers, and office clerks	Salespeople (not traveling)	Subtotal	Superintendents and managers	Grand total
1929.....	\$121, 413, 067	\$8, 160, 166	\$2, 196, 454	\$131, 769, 687	\$7, 823, 916	\$139, 593, 603
1930.....	98, 314, 644	9, 367, 262	1, 449, 083	109, 130, 989	7, 992, 681	117, 123, 670
1931.....	54, 519, 506	5, 833, 638	1, 313, 937	61, 667, 081	5, 695, 227	67, 362, 308
1932.....	23, 657, 092	3, 636, 039	950, 619	28, 243, 750	3, 270, 559	31, 514, 309
1933.....	16, 313, 636	2, 633, 765	601, 359	19, 548, 760	1, 937, 409	21, 486, 169

Table 3 shows the average annual wage and salary payment in construction each year from 1929 to 1933. The average annual payment to wage earners decreased each year following 1929. The average payment to each of the other two occupation groups decreased each year following 1930. The average annual payment to wage earners in 1933 was \$161, or 16.4 percent, less than in 1932, and \$847, or 50.8 percent, less than in 1929.

Table 3.—Average Annual Wage and Salary Payments in Construction in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1929.....	\$1,668	\$1,685	\$1,966	\$1,676
1930.....	1,545	1,760	2,196	1,568
1931.....	1,328	1,607	1,453	1,352
1932.....	982	1,351	1,295	1,026
1933.....	821	1,186	997	861

Table 4 shows, for construction, indexes of average number of wage earners employed and total and average annual wage and salary payments to wage earners for each year from 1929 to 1933. The base used is the year 1926.

In 1933, only 26.6 percent as many wage earners were employed as in 1926, total wage and salary payments were only 13.5 percent as much, and the average wage and salary payment was 51 percent of the 1926 payment.

Table 4.—Indexes of Number of Wage Earners Employed and Wage and Salary Payments to Wage Earners in Construction in Ohio, 1929 to 1933

[1926=100.0]

Year	Wage earners (average number)	Wage and salary payment	
		Total	Average
1929.....	97.4	101.0	103.5
1930.....	85.3	81.8	95.9
1931.....	55.0	45.4	82.4
1932.....	32.3	19.7	61.0
1933.....	26.6	13.5	51.0

Employment and Wage and Salary Payments, by Industries

THE four tables which follow present data for wage earners by industries. Table 5 shows for each industry the number of establishments reporting.

Table 5.—Number of Establishments Reporting in Construction in Ohio, 1929 to 1933, by Industries

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water drilling or producing	Painting and decorating	Plastering, including lathing and stucco work
1929	1,005	456	239	3,538	739	990	329
1930	897	433	245	3,139	751	1,002	284
1931	795	402	180	2,566	670	860	264
1932	600	317	152	1,825	639	645	169
1933	484	279	145	1,680	584	598	134
	Plumbing and steam-fitting	Sand and gravel excavating	Sheet-metal work and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction not otherwise classified	
1929	842	155	515	1,161	141	73	
1930	821	158	505	1,203	148	86	
1931	742	146	473	973	157	54	
1932	618	136	382	770	169	34	
1933	531	123	330	530	137	31	

Table 6 shows the average number of wage earners reported employed in each industry. The average number employed decreased each year following 1929 in 11 of the 13 industries (considering the group "not otherwise classified" as an industry).

Table 6.—Average Number of Wage Earners Reported Employed in Construction in Ohio, 1929 to 1933, by Industries

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water; drilling or producing	Painting and decorating	Plastering, including lathing and stucco work
1929	5,935	3,080	983	28,796	3,646	3,415	1,629
1930	4,837	3,670	916	22,695	3,139	2,834	1,462
1931	3,380	2,372	742	13,866	2,349	1,895	972
1932	1,678	1,267	467	6,516	2,295	1,061	420
1933	1,062	983	366	6,029	2,269	987	234
	Plumbing and steam fitting	Sand and gravel excavating	Sheet-metal work and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	
1929	4,828	1,499	3,041	14,184	1,180	457	
1930	4,270	1,430	2,651	14,001	1,078	642	
1931	2,885	1,066	1,771	8,509	909	353	
1932	1,650	863	1,159	5,921	556	212	
1933	1,376	782	1,056	4,119	413	204	

Table 7 shows the average annual wage and salary payment to wage earners in each of the construction industries for each year from 1929 to 1933. The average annual payment decreased each year following 1929 in 9 of the industries. There was an increase in average in 1933 over 1932 in 2 industries.

Table 7.—Average Annual Wage and Salary Payments to Wage Earners in Construction in Ohio, 1929 to 1933, by Industries

Year	Brick, stone, and cement work	Electrical contracting	Erecting or installing machinery	General contracting, including wrecking	Oil, gas, and water; drilling or producing	Painting and decorating	Plastering, including lathing and stucco work
1929.....	\$1,571	(1)	\$1,941	\$1,727	\$1,242	\$1,825	\$1,895
1930.....	1,499	\$1,739	2,065	1,625	1,252	1,732	1,931
1931.....	1,306	1,700	1,910	1,375	1,068	1,518	1,633
1932.....	936	1,333	1,509	1,008	917	1,111	1,134
1933.....	760	1,295	1,663	786	668	911	928
	Plumbing and steam fitting	Sand and gravel excavating	Sheet-metal work, and roofing	Street, road, and sewer contracting	Ventilating and heating	Construction, not otherwise classified	
1929.....	\$1,861	\$1,425	\$1,657	\$1,343	\$2,057	\$1,402	-----
1930.....	1,796	1,339	1,559	1,258	1,804	1,501	-----
1931.....	1,520	1,106	1,448	1,010	1,567	1,320	-----
1932.....	1,067	905	942	836	1,026	828	-----
1933.....	961	746	821	700	1,096	747	-----

¹ Omitted due to probable error in reporting or tabulating.

Table 8 shows for each industry, except the group "not otherwise classified", indexes of average number of wage earners employed and total and average annual wage and salary payments to wage earners. The base used is the year 1926.

In 10 of the 12 industries for which indexes are shown, the indexes in 1933 were lower than in 1932 in each of the three items covered—average number employed, total wage and salary payments, and average annual wage and salary payments. In the other 2 industries, the 1933 index of average annual wage and salary payments was higher than in 1932. Brick, stone, and cement work, general contracting, and plastering, lathing, and stucco work show the greatest decline since 1926 (the base year).

Table 8.—Indexes of Number Employed and Wage and Salary Payments to Wage Earners in Construction in Ohio, 1929 to 1933, by Industries

[1926=100.0]

Year	Brick, stone, and cement work			Electrical contracting			Erecting or installing machinery		
	Wage earners (average number)	Wage and salary payments		Wage earners (average number)	Wage and salary payments		Wage earners (average number)	Wage and salary payments	
		Total	Average		Total	Average		Total	Average
1929.....	87.0	81.1	93.2	124.2	(1)	(1)	163.6	152.0	93.0
1930.....	70.9	63.1	89.0	148.0	134.2	90.7	152.4	150.7	98.9
1931.....	49.5	38.4	77.5	95.7	84.8	88.6	123.5	112.9	91.5
1932.....	24.6	13.7	55.5	51.1	35.5	69.5	77.7	56.2	72.3
1933.....	15.4	7.0	45.1	39.7	26.8	67.5	60.9	48.5	79.6
	General contracting, including wrecking			Oil, gas, and water, drilling or producing			Painting and decorating		
1929.....	100.5	96.4	95.9	80.5	81.2	100.8	111.8	111.8	100.0
1930.....	79.2	71.5	90.2	69.3	70.5	101.6	92.8	88.0	94.9
1931.....	48.4	36.9	76.3	51.9	45.0	86.7	62.0	51.6	83.1
1932.....	22.7	12.7	56.0	50.7	37.7	74.4	34.7	21.1	60.8
1933.....	21.0	9.2	43.6	50.1	27.2	54.2	32.3	16.1	49.9
	Plastering, including lathing and stucco work			Plumbing and steam fitting			Sand and gravel excavating		
1929.....	102.8	92.3	89.7	101.3	100.9	99.5	103.2	106.2	103.0
1930.....	92.3	84.4	91.4	89.6	86.1	96.0	98.5	95.3	96.7
1931.....	61.4	47.5	77.3	60.6	49.2	81.3	73.4	58.7	79.9
1932.....	26.5	14.2	53.7	35.3	20.1	57.1	59.4	38.9	65.4
1933.....	14.8	6.5	43.9	28.9	14.8	51.4	53.9	29.0	53.9
	Sheet-metal work and roofing			Street, road, and sewer contracting			Ventilating and heating		
1929.....	104.1	107.5	103.3	85.2	101.2	118.7	123.4	127.1	103.0
1930.....	90.7	88.2	97.1	84.1	93.6	111.2	112.8	101.9	90.3
1931.....	60.6	54.7	90.3	51.1	45.7	89.3	95.1	74.6	78.5
1932.....	39.7	23.3	58.7	35.6	26.3	73.9	58.2	29.9	51.4
1933.....	36.1	18.5	51.2	24.8	15.3	61.9	43.2	23.7	54.9

1 Omitted due to probable error in reporting or tabulating.

"Service" Industries

IN THE "service" industries there are a number of industries or activities seldom included in statistical studies. The reporting lists in some of the activities necessarily have been developed slowly, and therefore, the increases in employment and in total wage and salary payments are accounted for in part by more nearly complete coverage from year to year. This should be borne in mind in using figures for those two items for comparative purposes. The average number of persons reported employed in the "service" industries has decreased each year since 1930, and the average number of wage earners and salespeople (not traveling) has decreased each year since 1929. The average number of wage earners reported employed in 1933 was 9.1 percent less than in 1932 and 17.5 percent less than in 1929. The

average number of bookkeepers, stenographers, and office clerks employed in 1933 was greater than in 1932.

Table 9 shows the average number of persons reported employed in the "service" industries each year from 1929 to 1933.

Table 9.—Average Number Reported Employed in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups

Year	Establishments	Average number of—			
		Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Total
1929.....	9,335	100,805	44,374	7,930	153,109
1930.....	10,241	99,427	51,162	4,423	155,012
1931.....	10,452	97,184	48,590	4,348	150,122
1932.....	10,357	91,523	42,964	3,918	138,405
1933.....	10,215	83,190	44,503	3,614	131,308

Table 10 shows total wage and salary payments in the "service" industries each year from 1929 to 1933. Data for superintendents and managers are included in this table but not elsewhere. Total wage and salary payments to all occupation groups combined and also to wage earners and salespeople, decreased each year since 1929. The total payments to wage earners in 1933 were \$19,692,784, or 22.9 percent, less than in 1932 and \$52,694,314, or 44.3 percent, less than in 1929. Total payments to bookkeepers, stenographers, and office clerks were greater in 1933 than in 1932.

Table 10.—Total Wage and Salary Payments in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	Subtotal	Superintendents and managers	Grand total
1929.....	\$118,959,260	\$76,873,897	\$16,074,147	\$211,907,304	\$26,384,039	\$238,291,343
1930.....	111,692,103	83,742,536	6,998,762	202,433,401	27,932,230	230,365,631
1931.....	103,607,067	75,869,112	6,060,877	185,537,056	24,510,860	210,047,916
1932.....	85,957,730	58,630,191	4,093,525	148,681,446	19,735,297	168,416,743
1933.....	66,264,946	61,225,599	3,895,052	131,385,597	16,860,884	148,246,481

Average annual wage and salary payments in the "service" industries are shown in table 11 for each year from 1929 to 1933. The average annual wage and salary payment to the three occupation groups combined and also to wage earners decreased each year since 1929. The average annual payment to wage earners in 1933 was \$142, or 15.1 percent, less than in 1932, and \$383, or 32.5 percent, less than in 1929. Average annual payments to the clerical and sales groups were higher in 1933 than in 1932.

Table 11.—Average Annual Wage and Salary Payments in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1929.....	\$1, 180	\$1, 732	\$2, 027	\$1, 384
1930.....	1, 123	1, 637	1, 582	1, 306
1931.....	1, 066	1, 561	1, 394	1, 236
1932.....	939	1, 365	1, 045	1, 074
1933.....	797	1, 376	1, 078	1, 001

Table 12 shows, for the "service" industries, indexes of average annual wage and salary payments to wage earners, clerical employees, and all occupation groups combined for each year, 1929 to 1933. The base used is the year 1926. Indexes of average number of persons employed and total wage and salary payments have been omitted for reasons already stated.

Table 12.—Indexes of Average Annual Wage and Salary Payments in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups

[1926=100]

Year	Average wage and salary payments to—		
	Wage earners	Bookkeepers, stenographers, and office clerks	All employees
1929.....	102.3	114.6	106.5
1930.....	97.4	108.3	100.5
1931.....	92.5	103.2	95.2
1932.....	81.4	90.3	82.7
1933.....	69.1	91.0	77.1

Employment and Wage and Salary Payments, by Industries or Activities

THE five tables which follow present data by industries or activities. In this study certain industries or activities, for which comparatively few employees were reported in Ohio, were combined under "Service, other." Those so combined are: Homes for aged and children; laboratories; mausoleums and cemeteries; photographers; professional; radio broadcasting; recreation camps for boys and girls; shoe repairing; undertakers; and service, not otherwise classified.

In the tables relating to bookkeepers, stenographers, and office clerks, all industries and activities listed above and also all included in the wage earners' tables, except 7, are combined under "Service, other."

Table 13 shows the number of establishments reporting in each industry or activity each year from 1929 to 1933.

Table 13.—Number of Establishments Reporting in "Service" Industries in Ohio, 1929 to 1933, by Industries or Activities

Year	Advertising	Banks	Barbers and hair-dressers	Bowling alleys and parks	Churches	Clubs (athletic, country, and yacht)	Garages, including auto-body repairing	Hospitals	Hotels	Laundries, dry cleaners, and renovators
1929.....	58	908	108	217	78	194	1,921	189	406	526
1930.....	65	920	119	311	113	225	1,947	217	390	537
1931.....	65	821	142	265	138	267	1,820	192	383	555
1932.....	69	787	168	231	160	268	1,618	191	356	534
1933.....	66	755	155	210	200	273	1,474	190	332	517
Year	Offices	Office buildings, including window cleaning	Restaurants	Schools and colleges	Servants in private homes	Social agencies	Theaters	YMCA and YWCA	Service, other	
1929.....	1,826	502	1,207	130	228	133	291	47	366	-----
1930.....	2,145	575	1,365	126	310	139	274	44	419	-----
1931.....	2,301	612	1,336	132	403	138	278	41	563	-----
1932.....	2,501	653	1,159	132	458	148	279	37	608	-----
1933.....	2,486	733	1,101	123	501	152	271	37	639	-----

The average number of wage earners and of bookkeepers, stenographers, and office clerks is shown in table 14. The average number of wage earners reported employed in 1933 was less than in 1932 in 15 of the 19 industries or activities (considering "other" as an industry or activity), and greater in 4. The average number of bookkeepers, stenographers, and office clerks reported employed in 1933 was less than in 1932 in 6 of the 8 industries or activities shown, and greater in 2.

Table 14.—Average Number Reported Employed in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups and by Industries or Activities

Year	Wage earners								
	Advertising	Banks	Barbers and hair-dressers	Bowling alleys and parks	Churches	Clubs (country, athletic, golf, and yacht)	Garages, including auto-body repairing	Hospitals and sanitariums	Hotels
1929.....	949	2,093	749	2,538	601	3,028	14,447	9,989	12,597
1930.....	1,060	2,069	910	2,812	941	3,088	12,933	10,073	12,289
1931.....	1,005	1,891	1,013	2,323	1,077	3,099	10,920	10,008	11,441
1932.....	926	1,794	1,129	1,858	1,182	2,714	8,976	9,406	9,808
1933.....	855	1,515	1,098	1,624	1,390	2,431	8,488	8,833	8,635

Table 14.—Average Number Reported Employed in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups and by Industries or Activities—Continued

	Wage earners—Continued								
	Laundries, dry cleaners, and renovators	Offices	Office buildings, including window cleaning	Restaurants	Schools and colleges	Servants in private homes	Social agencies	Theaters	YMCA and YWCA
1929.....	14,487	4,728	5,981	13,731	4,539	1,050	1,473	4,217	947
1930.....	14,571	2,502	6,304	14,438	4,767	1,520	1,703	3,605	874
1931.....	13,428	3,281	6,549	13,496	4,877	1,739	1,937	3,775	1,024
1932.....	11,915	5,972	6,768	11,404	4,915	1,844	2,396	3,028	904
1933.....	10,855	2,400	7,269	11,062	4,616	1,921	1,789	2,933	888

	Wage earners—Contd.								
	Bookkeepers, stenographers, and office clerks								
	Service, other	Banks	Garages, including auto-body repairing	Hospitals and sanitariums	Hotels	Laundries, dry cleaners, and renovators	Offices	Schools and colleges	Service, other
1929.....	2,663	14,149	2,794	907	1,408	1,021	20,495	637	2,964
1930.....	2,969	14,283	3,054	907	1,279	1,083	26,536	676	3,345
1931.....	4,304	12,249	2,521	918	1,188	955	26,194	678	3,889
1932.....	4,583	11,161	2,017	882	1,068	892	22,445	610	3,890
1933.....	4,589	8,930	1,760	850	999	828	27,068	646	3,422

¹ Increase in number of wage earners and decrease in number of bookkeepers, stenographers, and office clerks possibly due in part to change in classification of some employees in certain types of offices.

Table 15 shows average annual wage and salary payments to wage earners and bookkeepers, stenographers, and office clerks. The average annual payment to wage earners was less in 1933 than in 1932 in each of the 19 industries or activities. In 8 the average decreased each year since 1929 and in 9 others it decreased each year since 1930. The average annual wage and salary payment to bookkeepers, stenographers, and office clerks was higher in 1933 than in 1932 in 1 of the 8 industries or activities shown. In 4 the average decreased each year since 1929 and in 3 others it decreased each year since 1930.

Table 15.—Average Annual Wage and Salary Payments in "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups and by Industries or Activities

Year	Wage earners								
	Adver- tising	Banks	Barbers and hair dressers	Bowling alleys and parks	Church- es	Clubs (coun- try, golf, athletic, and yacht)	Garages, includ- ing auto- body re- pairing	Hospi- tals and sanita- riums	Hotels
1929.....	\$1,306	\$1,008	\$1,336	\$1,045	\$928	\$1,067	\$1,532	\$904	\$818
1930.....	1,192	1,054	1,135	977	874	1,114	1,502	909	858
1931.....	1,050	942	1,059	856	1,024	1,025	1,280	869	779
1932.....	844	924	877	807	948	822	1,014	810	684
1933.....	751	698	770	627	905	710	894	758	587
	Wage earners—Continued								
	Laun- dries, dry cleaners, and re- novators	Offices	Office build- ings, in- clud- ing win- dow cleaning	Restau- rants	Schools and col- leges	Servants in pri- vate homes	Social agencies	Theaters	YMCA and YWCA
1929.....	\$1,066	\$2,404	\$1,104	\$876	\$1,655	\$1,114	\$1,026	\$1,605	\$938
1930.....	1,016	1,742	1,119	842	1,773	1,107	1,087	1,630	827
1931.....	934	1,708	1,071	920	1,745	1,051	1,073	1,593	792
1932.....	773	1,659	936	665	1,573	893	967	1,345	738
1933.....	684	1,168	829	598	1,338	831	786	1,164	564
	Wage earn- ers—Con.	Bookkeepers, stenographers, and office clerks							
	Service, other	Banks	Garages includ- ing auto- body re- pairing	Hospi- tals and sanita- riums	Hotels	Laun- dries, dry cleaners, and re- novators	Offices	Schools and col- leges	Service, other
1929.....	\$1,277	\$1,586	\$1,694	\$1,147	\$1,175	\$1,153	\$2,013	\$1,505	\$1,223
1930.....	1,382	1,570	1,388	1,182	1,162	1,195	1,802	1,379	1,336
1931.....	1,167	1,495	1,248	1,172	1,082	1,086	1,726	1,359	1,256
1932.....	1,040	1,453	1,075	952	989	937	1,442	1,310	1,117
1933.....	959	1,395	963	837	881	812	1,498	1,236	1,009

Table 16 shows for each of 6 industries or activities indexes of average number of persons employed and total and average annual wage and salary payments. In 4, indexes are shown for wage earners and bookkeepers, stenographers, and office clerks, and in 2 for wage earners only.

Considering wage earners, indexes of each of the 3 items—average number employed, total wage and salary payments, and average annual wage and salary payments—were lower in 1933 than in 1932 in each of the 6 industries or activities shown. For the clerical group, also, the indexes of each of the 3 items were lower in 1933 than in 1932 in each of the 4 industries or activities shown.

Table 16.—Indexes of Number Employed and Wage and Salary Payments in Certain "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups and by Industries or Activities

[1926=100.0]

Year	Banks					
	Wage earners			Bookkeepers, stenographers, and office clerks		
	Number (average)	Wage and salary payments		Number (average)	Wage and salary payments	
		Total	Average		Total	Average
1929	127.2	113.8	89.5	113.4	117.7	103.8
1930	125.7	117.7	93.6	114.5	117.6	102.7
1931	114.9	96.1	83.7	98.2	96.1	97.8
1932	109.0	89.4	82.1	89.5	85.1	95.1
1933	92.0	57.1	62.0	71.6	65.3	91.3
	Garages, including auto-body repairing					
1929	113.5	118.1	104.1	93.2	110.7	118.7
1930	101.6	103.7	102.0	101.9	99.1	97.3
1931	85.8	74.6	87.0	84.1	73.6	87.5
1932	70.5	48.6	68.9	67.3	50.7	75.3
1933	66.7	40.5	60.7	58.7	39.6	67.5
	Hotels					
1929	108.5	105.5	97.3	107.6	114.4	106.2
1930	105.8	107.9	102.0	97.8	102.8	105.1
1931	98.5	91.3	92.6	90.8	88.9	97.8
1932	84.5	68.7	81.3	81.7	73.0	89.4
1933	74.4	51.9	69.8	76.4	60.9	79.7
	Laundries, dry cleaners, and renovators					
1929	124.4	126.3	101.5	123.6	128.2	103.7
1930	125.2	121.0	96.8	131.1	140.9	107.5
1931	115.3	102.5	89.0	115.6	113.0	97.7
1932	102.3	75.3	73.6	108.0	91.1	84.3
1933	93.2	60.7	65.1	100.2	73.2	73.0
	Restaurants: Wage earners			Theaters: Wage earners		
1929	125.0	135.8	108.6	102.1	104.7	102.5
1930	131.4	137.2	104.3	87.3	90.8	104.1
1931	122.8	140.1	114.0	91.4	93.0	101.7
1932	103.8	85.6	82.4	73.3	63.0	85.9
1933	100.7	74.6	74.1	71.0	52.8	74.3

Table 17 shows for each of 12 industries or activities (not included in table 16) indexes of average annual wage and salary payments to wage earners. In 3 of the 12 industries indexes are also shown of average annual payments to bookkeepers, stenographers, and office clerks. In each of the 12 industries or activities the index for wage earners was lower in 1933 than in 1932. In 1 of the 3 industries or activities for which indexes are shown for the clerical group, the index was higher in 1933 than in 1932.

Table 17.—Indexes of Average Annual Wage and Salary Payments in Certain "Service" Industries in Ohio, 1929 to 1933, by General Occupation Groups

[1926=100.0]

Year	Wage earners					
	Advertis- ing	Barbers and hair dressers	Bowling alleys and parks	Churches	Clubs (country, golf, ath- letic, and yacht)	Hospitals and san- itariums
1929.....	65.2	106.4	95.4	108.5	100.7	106.9
1930.....	59.5	90.4	89.2	102.2	105.1	107.4
1931.....	52.4	84.3	78.2	119.8	96.7	102.7
1932.....	42.2	69.8	73.7	110.9	77.5	95.7
1933.....	37.5	61.3	57.3	105.8	67.0	89.6
	Wage earners—Continued					
	Offices	Office buildings, including window cleaning	Schools and colleges	Servants in private homes	Social agencies	YMCA and YWCA
1929.....	108.9	102.0	102.0	112.3	94.0	107.9
1930.....	78.9	103.4	109.3	111.6	99.6	95.2
1931.....	77.4	99.0	107.6	105.9	98.4	91.1
1932.....	75.2	86.5	97.0	90.0	88.6	84.9
1933.....	52.9	76.6	82.5	83.8	72.0	64.9
	Bookkeepers, stenographers, and office clerks					
	Hospitals and san- itariums	Offices	Schools and colleges			
1929.....	108.3	123.5	119.3	-----	-----	-----
1930.....	111.6	110.6	109.3	-----	-----	-----
1931.....	110.7	105.9	107.7	-----	-----	-----
1932.....	89.9	88.5	103.8	-----	-----	-----
1933.....	79.0	91.9	97.9	-----	-----	-----

Trade, Wholesale and Retail

THE AVERAGE number of persons reported employed in wholesale and retail trade is shown in table 18. The average number of persons employed, in the three occupation groups combined, in wholesale and retail trade decreased in each of the 3 years following 1929 and increased in 1933. The increase from 1932 to 1933 was in the average number of salespeople. A decrease is shown in each of the other two occupation groups. The average number of persons employed in the three occupation groups combined in 1933 was 1.4 percent greater than in 1932 and 16.6 percent less than in 1929.

Table 18.—Average Number Reported Employed in Wholesale and Retail Trade in Ohio, 1929 to 1933, by General Occupation Groups

Year	Estab- lish- ments	Average number of—			Total
		Wage earners	Book- keepers, stenog- raphers, and office clerks	Sales- people (not trav- eling)	
1929.....	9,524	56,971	24,973	67,280	149,224
1930.....	10,022	57,845	24,482	59,959	142,286
1931.....	10,111	55,482	22,267	59,555	137,304
1932.....	9,716	49,087	19,545	54,106	122,738
1933.....	9,647	48,049	18,671	57,766	124,485

Table 19 shows total wage and salary payments in wholesale and retail trade each year from 1929 to 1933. Data for superintendents and managers are included in this table but not elsewhere. Total payments to wage earners and to salespeople decreased each year following 1929, and total payments to the clerical group and to superintendents and managers decreased each year following 1930. Total payments to wage earners, bookkeepers, stenographers, and office clerks, and salespeople (not traveling), combined, in 1933, were \$10,022,115, or 8.1 percent, less than in 1932 and \$70,114,948, or 38.0 percent, less than in 1929.

Table 19.—Total Wage and Salary Payments in Wholesale and Retail Trade in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeep- ers, ste- nographers, and office clerks	Salespeople (not trav- eling)	Subtotal	Superin- tendents and man- agers	Grand total
1929.....	\$72,980,211	\$33,268,959	\$78,338,716	\$184,587,886	\$28,532,443	\$213,120,329
1930.....	72,844,362	34,396,203	67,848,122	175,088,687	32,256,244	207,344,931
1931.....	67,505,063	28,548,605	64,051,911	160,105,579	26,096,282	186,201,861
1932.....	52,243,081	21,934,553	50,317,419	124,495,053	20,821,876	145,316,929
1933.....	46,592,394	19,069,688	48,810,856	114,472,938	17,092,965	131,565,903

Table 20 shows average annual wage and salary payments in wholesale and retail trade each year from 1929 to 1933. The average annual payment to wage earners and to salespeople decreased each year following 1929 and the average annual payment to the clerical group decreased each year following 1930. For the three occupation groups combined, the average annual payment in 1933 was \$94, or 9.3 percent, less than in 1932, and \$317, or 25.6 percent, less than in 1929.

Table 20.—Average Annual Wage and Salary Payments in Wholesale and Retail Trade in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1929.....	\$1,281	\$1,332	\$1,164	\$1,237
1930.....	1,259	1,405	1,132	1,231
1931.....	1,217	1,282	1,076	1,166
1932.....	1,064	1,122	930	1,014
1933.....	970	1,021	845	920

Table 21 shows for wholesale and retail trade, indexes of average number of persons employed and total and average annual wage and salary payments for each year from 1929 to 1933. The base used is the year 1926. For wage earners and for the clerical group the indexes in 1933 were lower than in 1932 for each of the three items covered—average number employed, total payments, and average annual payments. For salespeople and for the three occupation groups combined the index of average number employed was higher in 1933 than in 1932.

Table 21.—Indexes of Number Employed and Wage and Salary Payments in Wholesale and Retail Trade in Ohio, 1929 to 1933, by General Occupation Groups

[1926=100.0]

Year	Wage earners			Bookkeepers, stenographers, and office clerks		
	Number (average)	Wage and salary payments		Number (average)	Wage and salary payments	
		Total	Average		Total	Average
1929.....	100.8	100.8	100.0	108.3	106.5	98.3
1930.....	102.3	100.7	98.4	106.2	110.1	103.7
1931.....	98.1	93.3	95.1	96.6	91.4	94.6
1932.....	86.8	72.2	83.1	84.8	70.2	82.8
1933.....	85.0	64.4	75.8	81.0	61.1	75.4
	Salespeople (not traveling)			All employees		
1929.....	126.5	123.4	97.5	112.4	110.5	98.3
1930.....	112.7	106.9	94.8	107.2	104.8	97.9
1931.....	112.0	100.9	90.1	103.4	95.8	92.7
1932.....	101.7	79.3	77.9	92.4	74.5	80.6
1933.....	108.6	76.9	70.8	93.7	68.5	73.1

Employment and Wage and Salary Payments, by Trade Groups

THE FIVE tables which follow present data by trade groups. Table 22 shows the number of establishments reporting in each trade group each year from 1929 to 1933.

Table 22.—Number of Establishments Reporting in Wholesale and Retail Trade in Ohio, 1929 to 1933, by Trade Groups

Year	Stores, wholesale and retail	Yards—lumber, coal, and scrap	Retail delivery—milk, ice, and water
1929.....	8,061	1,326	137
1930.....	8,494	1,389	139
1931.....	8,553	1,394	164
1932.....	8,155	1,390	171
1933.....	8,103	1,378	166

Table 23 shows for each trade group the average number of persons reported employed in each of the three occupation groups. The average number of persons employed in the three occupation groups combined, in each trade group, increased from 1932 to 1933. In wholesale and retail stores the average number of salespeople increased and the average number of wage earners and clerical employees decreased in 1933 as compared with 1932.

Table 23.—Average Number Reported Employed in Wholesale and Retail Trade in Ohio, 1929 to 1933, by Trade Groups

Year	Stores, wholesale and retail				Yards—lumber, coal, and scrap			
	Wage earners	Book-keepers, stenographers, and office clerks	Sales-people (not traveling)	Total	Wage earners	Book-keepers, stenographers, and office clerks	Sales-people (not traveling)	Total
1929.....	46,395	22,835	66,777	136,007	8,597	1,920	444	10,961
1930.....	49,204	22,289	59,617	131,109	6,578	1,963	307	8,848
1931.....	46,498	20,254	59,134	125,886	6,445	1,709	392	8,547
1932.....	41,000	17,791	53,722	112,513	5,943	1,513	359	7,814
1933.....	39,542	17,001	57,395	113,938	6,302	1,416	337	8,055
	Retail delivery—milk, ice, and water							
1929.....	1,979	218	59	2,256				
1930.....	2,064	230	34	2,328				
1931.....	2,538	304	29	2,871				
1932.....	2,145	241	24	2,411				
1933.....	2,204	254	134	2,492				

¹ Carried in tabulations of the Ohio Division of Labor Statistics under "Trade, not otherwise classified".

Table 24 shows fluctuation of employment from month to month in wholesale and retail stores during the years 1929 to 1933. The maximum employment during the 5 years for the three occupation groups combined was in December 1929, and the minimum employment in March 1933. The number employed in December 1933 was 9.9 percent above the number in December 1932 and was 2.1 percent below the number in December 1931.

Table 24.—Fluctuation of Employment in Wholesale and Retail Stores in Ohio, 1929 to 1933

[Data are for the 3 occupation groups—wage earners; bookkeepers, stenographers, and office clerks; and salespeople, not traveling—combined and for both sexes]

Month	1929	1930	1931	1932	1933
January.....	127,086	128,964	122,882	112,103	103,916
February.....	126,924	128,319	121,888	110,806	103,502
March.....	130,600	130,423	124,293	112,615	101,631
April.....	133,459	134,612	127,708	113,675	112,423
May.....	134,301	132,525	127,259	114,587	109,038
June.....	135,394	131,807	126,670	112,695	111,651
July.....	133,704	127,635	123,341	109,005	111,027
August.....	134,043	125,614	122,774	107,077	114,161
September.....	137,306	128,074	125,949	109,923	119,984
October.....	141,216	129,922	125,650	113,147	123,024
November.....	142,200	131,944	125,631	112,826	123,187
December.....	155,850	143,472	136,590	121,694	133,718
Maximum.....	155,850	143,472	136,590	121,694	133,718
Minimum.....	126,924	125,614	121,888	107,077	101,631
Variation from maximum ¹ —					
Number.....	28,926	17,858	14,702	14,617	32,087
Percent.....	18.6	12.4	10.8	12.0	24.0

¹ Eliminating from consideration the month of December, with the large number of extra employees taken on in retail stores to handle the holiday trade, the percent of variation from the maximum for the 11 months of each year from 1929 to 1933 was 10.7, 6.7, 4.6, 6.6, and 17.5, respectively.

Average annual wage and salary payments in each of the trade groups are shown in table 25. In wholesale and retail stores, average annual wage and salary payments to wage earners decreased each year following 1929 (except for an increase of \$1 in 1931), the average payment to the clerical group decreased each year following 1930, and the average payment to salespeople (not traveling) decreased each year following 1929. Considering the three occupation groups combined, the average annual payment in 1933 was \$93, or 9.2 percent, less than in 1932, and \$297, or 24.4 percent, less than in 1929.

Table 25.—Average Annual Wage and Salary Payments in Wholesale and Retail Trade in Ohio, 1929 to 1933, by Trade and General Occupation Groups

Year	Stores—wholesale and retail				Yards—lumber, coal, and scrap			
	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)	All employees	Wage earners	Book-keepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1929.....	\$1,258	\$1,310	\$1,155	\$1,215	\$1,274	\$1,576	(1)	\$1,376
1930.....	1,216	1,392	1,124	1,204	1,418	1,552	(1)	1,484
1931.....	1,217	1,274	1,068	1,156	1,053	1,343	(1)	1,160
1932.....	1,077	1,115	925	1,011	852	1,183	(1)	950
1933.....	986	1,017	841	918	766	1,046	(1)	842
	Retail delivery—milk, ice, and water							
1929.....	1,860	(1)	(1)	1,831				
1930.....	1,782	(1)	(1)	1,752				
1931.....	1,628	(1)	(1)	1,612				
1932.....	1,410	(1)	(1)	1,400				
1933.....	1,254	(1)	(1)	1,249				

¹ Not computed, owing to small number involved.

Table 26 shows, for each trade group, indexes of average number of persons employed and total and average annual wage and salary payments. The base used is the year 1926. In wholesale and retail stores the indexes for wage earners and for the clerical group were lower in 1933 than in 1932 for each of the three items—average number employed, total payments, and average annual payments. For salespeople the 1933 index of employment was above and the indexes of total and average annual payments were below those of 1932.

Table 26.—Indexes of Number Employed and Wage and Salary Payments in Wholesale and Retail Trade in Ohio, 1929 to 1933, by Trade and General Occupation Groups

[1926=100.0]

Year	Stores—wholesale and retail								
	Wage earners			Bookkeepers, stenographers and office clerks			Salespeople (not traveling)		
	Number (average)	Wage and salary payments		Number (average)	Wage and salary payments		Number (average)	Wage and salary payments	
		Total	Average		Total	Average		Total	Average
1929.....	101.7	101.2	99.5	109.2	107.3	98.3	127.0	124.0	97.6
1930.....	107.9	103.8	96.2	106.6	111.3	104.4	113.3	107.8	95.0
1931.....	101.9	98.1	96.3	96.9	92.6	95.6	112.4	101.5	90.3
1932.....	89.9	76.6	85.2	85.1	71.2	83.6	102.1	79.9	78.2
1933.....	86.7	67.6	78.0	81.3	62.0	76.3	109.1	77.6	71.1
	Stores—wholesale and retail—Continued			Yards—lumber, coal, and scrap					
	All employees			Wage earners			Bookkeepers, stenographers, and office clerks		
1929.....	114.2	111.9	98.0	93.6	94.1	100.6	97.9	97.4	99.6
1930.....	110.1	106.9	97.1	71.6	80.1	111.9	100.1	98.1	98.0
1931.....	105.7	98.5	93.2	70.2	58.3	83.1	87.1	73.9	84.8
1932.....	94.4	77.0	81.5	64.7	43.5	67.2	77.1	57.6	74.7
1933.....	95.6	70.8	74.0	68.6	41.4	60.5	72.2	47.7	66.1
	Yards—lumber, coal, and scrap—Continued			Retail delivery—milk, ice, and water					
	All employees			Wage earners			All employees		
1929.....	94.6	95.5	101.0	114.4	120.7	105.5	109.4	116.4	106.5
1930.....	76.4	83.1	108.9	119.3	120.6	101.1	112.8	114.9	101.9
1931.....	73.8	62.8	85.1	146.7	135.5	92.3	139.2	130.5	93.7
1932.....	67.5	47.0	69.7	124.0	99.1	80.0	116.9	95.2	81.4
1933.....	69.5	43.0	61.8	127.4	90.6	71.1	120.8	87.7	72.6

Transportation and Public Utilities

IN CONSIDERING data for this general industry group it should constantly be borne in mind that the Ohio Division of Labor Statistics does not request reports from establishments engaged in interstate transportation nor does the division request reports of activities conducted by governmental units.

Table 27 shows the average number of persons reported employed in transportation and public utilities, as far as this general industry group is covered by the Ohio Division of Labor Statistics. The average number of persons reported employed, in the three occupation groups combined, in transportation and public utilities in 1933 was 1.3 percent greater than in 1932 and 25.9 percent less than in 1929. The highest average during the 5 years, 1929 to 1933, was reported for 1930.

Table 27.—Average Number Reported Employed in Transportation and Public Utilities in Ohio, 1929 to 1933, by General Occupation Groups

Year	Estab- lishments	Average number of—			
		Wage earners	Book- keepers, steno- graphers, and office clerks	Sales- people (not travel- ing)	Total
1929.....	1, 674	66, 862	14, 297	978	82, 137
1930.....	1, 741	68, 358	14, 969	1, 123	84, 450
1931.....	1, 776	54, 303	13, 231	847	68, 382
1932.....	1, 742	47, 021	12, 279	803	60, 103
1933.....	1, 692	48, 222	11, 838	841	60, 901

Total wage and salary payments in transportation and public utilities are shown in table 28 for each year from 1929 to 1933. Data for superintendents and managers are included in this table but not elsewhere. Total payments to each of the occupation groups except salespeople, decreased each year following 1930. Total payments to the three occupation groups combined (omitting superintendents and managers) in 1933 were \$2,176,388, or 2.9 percent less than in 1932, and \$44,944,029, or 38.3 percent less than in 1929. Total payments in 1930 exceeded the total for 1929.

Table 28.—Total Wage and Salary Payments in Transportation and Public Utilities in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Book- keepers, steno- graphers, and office clerks	Sales- people (not traveling)	Subtotal	Superin- tendents and managers	Grand total
1929.....	\$93, 988, 809	\$21, 225, 289	\$2, 151, 021	\$117, 365, 119	\$7, 158, 501	\$124, 523, 620
1930.....	95, 848, 928	21, 871, 675	2, 241, 252	119, 961, 855	7, 746, 909	127, 708, 764
1931.....	72, 945, 697	19, 571, 037	1, 616, 839	94, 133, 573	7, 187, 037	101, 321, 260
1932.....	56, 357, 180	16, 740, 302	1, 490, 996	74, 597, 478	6, 085, 413	80, 682, 891
1933.....	55, 429, 975	15, 423, 637	1, 567, 478	72, 421, 090	5, 623, 952	78, 045, 042

Average annual wage and salary payments in transportation and public utilities are shown for each year from 1929 to 1933, in table 29. Considering the three occupation groups combined, the average annual payment decreased each year since 1929. The average annual payment in 1933 was \$52, or 4.2 percent, less than in 1932, and \$240, or 16.8 percent, less than in 1929.

Table 29.—Average Annual Wage and Salary Payments in Transportation and Public Utilities in Ohio, 1929 to 1933, by General Occupation Groups

Year	Wage earners	Bookkeepers, stenographers, and office clerks	Salespeople (not traveling)	All employees
1929.....	\$1,406	\$1,485	\$2,199	\$1,429
1930.....	1,402	1,461	1,997	1,420
1931.....	1,343	1,479	1,909	1,377
1932.....	1,199	1,363	1,868	1,241
1933.....	1,149	1,303	1,864	1,189

Table 30 shows for transportation and public utilities, indexes of average number of wage earners employed and total and average annual wage and salary payments to wage earners, each year from 1929 to 1933. The base used is the year 1926. The indexes of employment and of total payments declined each year since 1930, and of average annual payments each year since 1929.

Table 30.—Indexes of Number of Wage Earners Employed and Wage and Salary Payments to Wage Earners in Transportation and Public Utilities in Ohio, 1929 to 1933

[1926=100.0]

Year	Wage earners (average number)	Wage and salary payments	
		Total	Average
1929.....	98.8	100.3	101.5
1930.....	101.0	102.3	101.2
1931.....	80.2	77.9	97.0
1932.....	69.5	60.1	86.6
1933.....	71.3	59.2	83.0

Employment and Wage and Salary Payments, by Industries

THE FOUR tables which follow present data by industries. In this study certain industries, in which (because reports are not requested by the Ohio Division of Labor Statistics from establishments engaged in interstate transportation and from activities conducted by Government units) comparatively few employees were reported in Ohio, were combined under "Transportation and public utilities, other." The industries so combined are: Airports; air transportation; gas, illuminating and heating; steam railroads; stockyards; waterworks; and transportation and public utilities, not otherwise classified.

Table 31 shows the number of establishments reporting in each industry each year from 1929 to 1933.

Table 31.—Number of Establishments Reporting in Transportation and Public Utilities in Ohio, 1929 to 1933, by Industries

Year	Drayage and storage, including livery stables	Electric light and power	Electric railroads	Natural gas	Pipe lines (petroleum)	Taxicab and bus service	Telegraph and telephone, including messenger service	Transportation by water, including stevedoring	Transportation and public utilities, other
1929.....	842	112	38	35	11	155	373	32	76
1930.....	898	114	45	41	11	153	367	34	78
1931.....	949	121	33	41	12	150	357	32	81
1932.....	912	119	26	39	12	128	379	33	94
1933.....	890	115	25	40	13	120	371	31	87

Table 32 shows the average number of wage earners and of bookkeepers, stenographers, and office clerks reported employed in each industry. The average number of wage earners employed in 1933 was greater than in 1932 in 6 of the 9 industries (considering the group "other" as an industry) and the average number of bookkeepers, stenographers, and office clerks was greater in 4 industries.

Table 32.—Average Number Reported Employed in Transportation and Public Utilities in Ohio, 1929 to 1933, by Industries

Year	Drayage and storage, including livery stables		Electric light and power		Electric railroads	
	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks
1929.....	9,192	1,948	11,645	3,764	19,069	1,982
1930.....	8,851	2,084	10,487	3,772	12,964	1,160
1931.....	8,117	1,875	9,810	3,599	6,705	789
1932.....	7,395	1,733	8,500	3,550	5,538	603
1933.....	7,703	1,723	8,185	3,527	9,246	776
Year	Natural gas		Pipe lines (petroleum)		Taxicab and bus service	
	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks
1929.....	6,729	1,455	1,479	110	2,913	266
1930.....	6,545	1,541	1,181	110	3,999	709
1931.....	4,432	1,571	1,028	105	3,595	254
1932.....	3,972	1,375	746	100	3,236	341
1933.....	4,029	1,371	786	92	3,252	389
Year	Telegraph and telephone, including messenger service		Transportation by water, including stevedoring		Transportation and public utilities, other	
	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks
1929.....	23,180	5,447	1,454	142	1,201	184
1930.....	21,869	5,270	1,297	140	1,165	183
1931.....	18,739	4,727	1,020	140	858	170
1932.....	15,802	4,258	750	115	1,082	205
1933.....	13,022	3,627	973	120	1,028	216

¹ In accord with tabulations of Ohio Division of Labor Statistics but possibly some error in reporting or tabulating. In 1928, the average number of wage earners was 14,355 and of bookkeepers, stenographers, and office clerks, 1,329.

The average annual wage and salary payments to wage earners and to bookkeepers, stenographers, and office clerks are shown in table 33. The average annual payment to wage earners in 1933 was less than in 1932 in 8 of the 9 industries.

Table 33.—Average Annual Wage and Salary Payments in Transportation and Public Utilities in Ohio, 1929 to 1933, by Industries

Year	Drayage and storage, including livery stables		Electric light and power		Electric railroads	
	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks	Wage earners	Bookkeepers, stenographers, and office clerks
1929.....	\$1,487	\$1,648	\$1,589	\$1,466	\$1,589	\$1,296
1930.....	1,506	1,681	1,580	1,427	1,600	(1)
1931.....	1,365	1,608	1,538	1,449	1,498	1,126
1932.....	1,190	1,392	1,413	1,355	1,344	1,050
1933.....	1,075	1,290	1,363	1,302	1,237	1,297
	Natural gas		Pipe lines (petroleum)		Taxicab and bus service	
1929.....	\$1,338	\$1,709	\$1,256	(2)	\$1,364	(2)
1930.....	1,307	1,443	1,501	(2)	1,072	(2)
1931.....	1,358	1,384	1,518	(2)	1,067	(2)
1932.....	1,159	1,429	1,595	(2)	760	(2)
1933.....	1,131	1,374	1,506	(2)	690	(2)
	Telegraph and telephone, including messenger service		Transportation by water, including stevedoring		Transportation and public utilities, other	
1929.....	\$1,195	\$1,391	\$1,931	(2)	\$1,710	(2)
1930.....	1,206	1,442	1,855	(2)	1,551	(2)
1931.....	1,194	1,520	1,627	(2)	1,500	(2)
1932.....	1,114	1,368	1,256	(2)	1,213	(2)
1933.....	1,080	1,285	1,241	(2)	1,265	(2)

¹ Omitted, due to probable error in reporting or tabulating.

² Not computed, owing to small number involved.

Table 34 shows for wage earners in each industry (omitting the group "other") indexes of average number employed and total and average annual payments. The base used is the year 1926. The indexes of employment in 1933 were higher than in 1932 in 6 of the 8 industries. The indexes both of total and average annual payments in 1933 were lower than in 1932 in 6 industries.

Table 34.—Indexes of Number Employed and Wage and Salary Payments to Wage Earners, in Transportation and Public Utilities in Ohio, 1929 to 1933, by Industries

[1926=100.0]

Year	Drayage and storage, including livery stables			Electric light and power			Electric railroads		
	Wage earners (average number)	Wage and salary payments		Wage earners (average number)	Wage and salary payments		Wage earners (average number)	Wage and salary payments	
		Total	Average		Total	Average		Total	Average
1929.....	111.2	111.0	99.8	108.9	112.9	103.7	(1)	(1)	100.0
1930.....	107.1	108.2	101.1	98.1	101.1	103.1	80.5	81.1	100.8
1931.....	98.2	90.0	91.6	91.7	92.0	100.3	41.6	39.3	94.3
1932.....	89.5	71.4	79.9	79.5	73.3	92.2	34.4	29.1	84.6
1933.....	93.2	67.3	72.1	76.5	68.1	88.9	57.4	44.7	77.9
	Natural gas			Pipe lines (petroleum)			Taxicab and bus service		
1929.....	119.0	134.7	113.2	137.6	126.3	91.7	114.5	109.8	95.9
1930.....	115.7	128.0	110.6	109.9	120.4	109.6	157.2	118.5	75.4
1931.....	78.4	90.0	114.9	95.6	106.1	110.9	141.3	106.0	75.0
1932.....	70.2	68.9	98.1	69.4	80.9	116.5	127.2	67.9	53.4
1933.....	71.2	68.2	95.7	73.1	80.5	110.0	127.8	62.0	48.5
	Telegraph and telephone, including messenger service			Transportation by water, including stevedoring					
1929.....	110.4	118.1	107.0	108.8	113.1	104.0	-----	-----	-----
1930.....	104.2	112.4	108.0	97.0	97.0	100.0	-----	-----	-----
1931.....	89.3	95.4	106.9	76.3	66.9	87.7	-----	-----	-----
1932.....	75.3	75.0	99.7	56.1	38.0	67.7	-----	-----	-----
1933.....	62.0	59.9	96.7	72.8	48.6	66.9	-----	-----	-----

¹ Omitted due to probable error in reporting or tabulating employment or total wage and salary payments.

Wage-Rate Changes in American Industries

Manufacturing Industries

INFORMATION concerning general wage-rate changes occurring in reporting manufacturing establishments between June 15 and July 15, 1935, is given in table 1. This table covers 23,502 establishments employing 3,738,194 workers in July.

Increases in rates of pay were reported by 95 establishments in 26 industries. The average increase was 7.5 percent and the number of employees affected was 15,174. Two engine-turbine-tractor establishments reported increases averaging 5.9 percent and affecting 4,704 workers, 21 sawmills reported that they gave raises averaging 11 percent to 4,394 employees, and 1 agricultural implement factory reported a 6-percent increase given to 1,107 employees. Other industries which reported wage-rate increases affecting over 500 employees were: Foundries and machine shops (710), electric railroad repair shops (638), newspapers (597), electrical machinery (539), and stoves (532).

Decreases were reported by 24 establishments in 11 industries. These decreases averaged 13.2 percent and affected 1,700 workers.

Table 1.—Wage-Rate Changes in Manufacturing Industries During Month Ending July 15, 1935

Industry	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases	No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases
All manufacturing industries....	23,501	3,738,194	23,382	95	24	3,721,320	15,174	1,700
Percentage of total.....	100.0	100.0	99.5	.4	.1	99.5	.4	(1)
Iron and steel and their prod- ucts, not including machinery:								
Blast furnaces, steel works, and rolling mills.....	292	291,295	292			291,295		
Bolts, nuts, washers, and rivets.....	47	8,242	47			8,242		
Cast-iron pipe.....	50	9,720	50			9,720		
Cutlery (not including silver and plated cutlery) and edge tools.....	98	8,315	98			8,315		
Forgings, iron and steel.....	72	6,158	72			6,158		
Hardware.....	106	28,379	105	1		28,264	115	
Plumbers' supplies.....	78	16,088	77	1		16,074	14	
Steam and hot-water heat- ing apparatus and steam fittings.....	73	16,755	72	1		16,735	20	
Stoves.....	209	26,507	207	2		25,975	532	
Structural and ornamental metal work.....	263	19,198	262	1		19,193	5	
Tin cans and other tinware.....	86	18,505	86			18,505		
Tools (not including edge tools, machine tools, files, and saws).....	102	7,079	102			7,079		
Wirework.....	84	10,178	84			10,178		
Machinery, not including trans- portation equipment:								
Agricultural implements.....	76	30,579	75	1		29,472	1,107	
Cash registers, adding ma- chines, and calculating machines.....	25	15,706	25			15,706		
Electrical machinery, ap- paratus, and supplies.....	391	126,543	388	3		126,004	539	
Engines, turbines, tractors, and water wheels.....	82	42,631	80	2		37,927	4,704	
Foundry and machine-shop products.....	1,610	144,330	1,605	5		143,620	710	
Machine tools.....	157	24,793	157			24,793		
Radios and phonographs.....	54	33,874	54			33,874		
Textile machinery and parts.....	138	15,908	138			15,908		
Typewriters and parts.....	13	10,556	13			10,556		
Transportation equipment:								
Aircraft.....	27	8,769	27			8,769		
Automobiles.....	342	337,837	342			337,837		
Cars, electric and steam railroad.....	56	9,953	56			9,953		
Locomotives.....	11	3,682	11			3,682		
Shipbuilding.....	105	33,896	105			33,896		
Railroad repair shops:								
Electric railroad.....	359	18,580	354	5		17,942	638	
Steam railroad.....	533	82,544	533			82,544		
Nonferrous metals and their products:								
Aluminum manufactures....	33	6,905	33			6,905		
Brass, bronze, and copper products.....	249	41,546	249			41,546		
Clocks and watches and time-recording devices....	26	11,736	26			11,736		
Jewelry.....	191	8,766	191			8,766		
Lighting equipment.....	69	5,035	69			5,035		
Silverware and plated ware.....	43	8,355	43			8,355		
Smelting and refining—cop- per, lead, and zinc.....	37	17,831	37			17,831		
Stamped and enameled ware.....	183	21,869	183			21,869		
Lumber and allied products:								
Furniture.....	564	58,987	562	2		58,940	47	
Lumber:								
Millwork.....	500	22,559	492	8		22,392	167	
Sawmills.....	543	82,754	520	21	2	78,291	4,394	69
Turpentine and rosin.....	43	3,277	43			3,277		

1 Less than 1/10 of 1 percent.

Table 1.—Wage-Rate Changes in Manufacturing Industries During Month Ending July 15, 1935—Continued

Industry	Estab-lish-ments report-ing	Total number of em-ployees	Number of establish-ments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases	No wage-rate changes	Wage-rate in-creases	Wage-rate de-creases
Stone, clay, and glass products:								
Brick, tile, and terra cotta.....	532	24,382	532	-----	-----	24,382	-----	-----
Cement.....	133	20,148	133	-----	-----	20,148	-----	-----
Glass.....	156	50,691	156	-----	-----	50,691	-----	-----
Marble, granite, slate, and other products.....	220	4,898	220	-----	-----	4,898	-----	-----
Pottery.....	114	16,069	114	-----	-----	16,069	-----	-----
Textiles and their products:								
Fabrics:								
Carpets and rugs.....	32	20,555	32	-----	-----	20,555	-----	-----
Cotton goods.....	690	253,122	689	-----	1	253,046	-----	78
Cotton small wares.....	113	9,442	113	-----	-----	9,442	-----	-----
Dyeing and finishing textiles.....	170	38,295	169	-----	1	38,290	-----	5
Hats, fur-felt.....	52	7,152	52	-----	-----	7,152	-----	-----
Knit goods.....	634	131,677	633	-----	1	131,583	-----	94
Silk and rayon goods.....	255	49,076	255	-----	-----	49,076	-----	-----
Woolen and worsted goods.....	488	141,424	485	-----	3	141,159	-----	265
Wearing apparel:								
Clothing, men's.....	1,138	94,746	1,138	-----	-----	94,746	-----	-----
Clothing, women's.....	838	36,938	838	-----	-----	36,938	-----	-----
Corsets and allied garments.....	39	6,911	39	-----	-----	6,911	-----	-----
Men's furnishings.....	95	8,317	94	-----	1	8,266	-----	51
Millinery.....	124	5,501	124	-----	-----	5,501	-----	-----
Shirts and collars.....	173	28,066	172	-----	1	27,937	-----	129
Leather and its manufactures:								
Boots and shoes.....	374	121,183	371	-----	3	120,606	-----	577
Leather.....	173	34,419	171	-----	1	34,183	-----	76
Food and kindred products:								
Baking.....	1,040	65,152	1,036	-----	4	64,957	-----	195
Beverages.....	488	29,357	484	-----	4	29,333	-----	24
Butter.....	274	4,138	274	-----	-----	4,138	-----	-----
Canning and preserving.....	734	81,562	729	-----	3	81,320	-----	109
Confectionery.....	296	29,135	294	-----	1	28,937	-----	42
Flour.....	319	13,096	313	-----	6	12,829	-----	167
Ice cream.....	310	11,735	310	-----	-----	11,735	-----	-----
Slaughtering and meat packing.....	284	88,300	284	-----	-----	88,300	-----	-----
Sugar, beet.....	67	4,103	61	-----	6	3,838	-----	265
Sugar refining, cane.....	15	9,939	15	-----	-----	9,939	-----	-----
Tobacco manufactures:								
Chewing and smoking tobacco and snuff.....	37	7,906	37	-----	-----	7,906	-----	-----
Cigars and cigarettes.....	206	45,780	206	-----	-----	45,780	-----	-----
Paper and printing:								
Boxes, paper.....	705	33,591	705	-----	-----	33,591	-----	-----
Paper and pulp.....	394	102,492	393	-----	1	102,127	-----	365
Printing and publishing:								
Book and job.....	1,402	60,551	1,390	-----	7	60,374	-----	89
Newspapers and periodicals.....	615	51,854	606	-----	9	51,257	-----	597
Chemicals and allied products, and petroleum refining:								
Other than petroleum refining:								
Chemicals.....	148	33,226	147	-----	1	33,087	-----	139
Cottonseed—oil, cake, and meal.....	101	2,786	101	-----	-----	2,786	-----	-----
Druggists' preparations.....	61	6,962	61	-----	-----	6,962	-----	-----
Explosives.....	27	2,993	27	-----	-----	2,993	-----	-----
Fertilizers.....	316	8,617	316	-----	-----	8,617	-----	-----
Paints and varnishes.....	570	21,602	570	-----	-----	21,602	-----	-----
Rayon and allied products.....	28	46,942	28	-----	-----	46,942	-----	-----
Soap.....	91	14,854	91	-----	-----	14,854	-----	-----
Petroleum refining.....	179	65,328	178	-----	1	65,317	-----	11
Rubber products:								
Rubber boots and shoes.....	12	16,518	12	-----	-----	16,518	-----	-----
Rubber goods, other than boots, shoes, tires, and inner tubes.....	179	26,376	179	-----	-----	26,376	-----	-----
Rubber tires and inner tubes.....	40	54,067	40	-----	-----	54,067	-----	-----

Trade, Public Utility, Mining, and Service Industries

In table 2 are presented wage-rate changes between June 15 and July 15, reported by cooperating establishments in 16 nonmanufacturing industries.

Increases in rates, averaging 2.9 percent and affecting 4,622 workers, were reported by 7 electric-railroad and motor-bus establishments, while 39 electric light and power establishments reported increases which averaged 5.5 percent and affected 3,052 employees. Twenty-nine wholesale trade establishments showed increases in rates which averaged 8.1 percent and affected 319 employees, and 69 retail trade stores indicated that 212 employees received increases averaging 8.7 percent. Other increases as well as decreases reported were negligible.

Table 2.—Wage-Rate Changes in Nonmanufacturing Industries During Month Ending July 15, 1935

Industrial group	Estab- lish- ments re- port- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases	No wage- rate changes	Wage- rate in- creases	Wage- rate de- creases
Anthracite mining.....	160	68,683	160			68,683		
Percentage of total.....	100.0	100.0	100.0			100.0		
Bituminous coal mining.....	1,298	211,598	1,298			211,598		
Percentage of total.....	100.0	100.0	100.0			100.0		
Metalliferous mining.....	202	22,158	202			22,158		
Percentage of total.....	100.0	100.0	100.0			100.0		
Quarrying and nonmetallie mining.....	978	31,268	977		1	31,261		7
Percentage of total.....	100.0	100.0	99.9		.1	100.0		(¹)
Crude petroleum producing.....	380	33,255	379	1		33,236	19	
Percentage of total.....	100.0	100.0	99.7	.3		99.9	.1	
Telephone and telegraph.....	9,359	261,502	9,359			261,502		
Percentage of total.....	100.0	100.0	100.0			100.0		
Electric light and power and manufactured gas.....	2,691	246,332	2,652	39		243,280	3,052	
Percentage of total.....	100.0	100.0	98.6	1.4		98.8	1.2	
Electric-railroad and motor-bus operation and maintenance.....	472	129,122	465	7		124,500	4,622	
Percentage of total.....	100.0	100.0	98.5	1.5		96.4	3.6	
Wholesale trade.....	15,086	268,869	15,053	29	4	268,512	319	38
Percentage of total.....	100.0	100.0	99.8	.2	(¹)	99.9	.1	(¹)
Retail trade.....	49,853	739,300	49,777	69	7	739,047	212	41
Percentage of total.....	100.0	100.0	99.8	.1	(¹)	100.0	(¹)	(¹)
Hotels.....	2,279	135,080	2,277	1	1	135,061	4	15
Percentage of total.....	100.0	100.0	99.9	(¹)	(¹)	100.0	(¹)	(¹)
Laundries.....	1,231	70,610	1,230	1		70,600	10	
Percentage of total.....	100.0	100.0	99.9	.1		100.0	(¹)	
Dyeing and cleaning.....	682	16,832	680	1	1	16,786	10	36
Percentage of total.....	100.0	100.0	99.7	.1	.1	99.7	.1	.2
Banks.....	2,635	99,197	2,631	4		99,111	86	
Percentage of total.....	100.0	100.0	99.8	.2		99.9	.1	
Brokerage.....	349	10,392	349			10,392		
Percentage of total.....	100.0	100.0	100.0			100.0		
Insurance.....	1,094	70,339	1,091	3		70,327	12	
Percentage of total.....	100.0	100.0	99.7	.3		100.0	(¹)	

¹ Less than 1/10 of 1 percent.

Establishment of Eight-Hour Working Day in the Dominican Republic¹

A MAXIMUM working day of 8 hours and a working week of 48 hours were decreed for commercial and industrial establishments in the Dominican Republic by a law of June 21, 1935.² Exception is made of inspectors, managers, persons holding positions of responsibility, persons engaged in agricultural or rural work or in small establishments in rural zones, and domestic servants. In case of accident or of urgent need the working day may be increased to 10 hours, but the working week must not exceed 58 hours, and the overtime must be compensated at the worker's option by a shorter working day in the following days, or pay for overtime at the same rate as for regular time. Except under conditions allowed by this law, on legal holidays the working day shall not exceed 4 hours, preferably in the morning. In case of continuous operations in which employees finishing their 8-hour shift are required to instruct those who replace them, 1 hour per day extra is allowed. In such cases the employees shall be entitled to an extra day of paid vacation per month, which shall be cumulative.

After 6 days of work every worker shall be entitled to an uninterrupted rest of 24 hours. Such rest must be granted on Sunday except upon written agreement to the contrary for reasons of general interest or because of the nature of the work; in these cases 1 rest of 24 hours or 2 rests of 12 hours each may be substituted on a day other than Sunday. Employers are required to post notices showing the time of beginning and quitting work and of the daily rest periods. Such rest periods shall not be less than 1½ hours after 4 hours' work or 2 hours after 5 hours' work; women employees with small children must be given two additional rests of one-half hour each, to enable them to nurse their babies. A record must be kept for each employee showing interruptions of work and their causes and hours lost, prolongations of work and the amount of remuneration due.

Employment of women in industrial work between 10 o'clock at night and 5 o'clock in the morning is prohibited. In enterprises which employ women, sufficient seats must be provided so that they may sit during rest periods. In employments where workers must remain in the establishments during mealtime, the management must provide a sufficient number of tables and chairs.

The employment of children of 14 years or less is strictly prohibited in industrial establishments and in maritime work. Employment of children is permitted in commercial enterprises provided such children fulfill their school duties, but no person of 18 years or less shall be employed in retail sale of intoxicating beverages.

¹ Data are from reports by James E. Brown, Jr., secretary of the American Legation at Santo Domingo, June 21 and July 17, 1935.

² Dominican Republic, *Gaceta Oficial*, June 29, 1935, pp. 7-10.

Violations of this law are to be punished by a fine of 5 to 30 pesos gold³ or imprisonment of 5 to 30 days, or both. Repetitions of the offense are punishable by double penalty.

Exceptions authorized by this law must be reported in writing to the State Departments of Agriculture and Labor in the month following the dates on which they occur.

Hours and Earnings in Various Industries in Germany in March 1934 and April 1935⁴

AVERAGE weekly hours ranging from 38.54 to 44.92 and average net earnings of from 22.24 to 28.97 marks per week were disclosed by an official study of conditions in the woodworking and furniture and musical-instrument industries in March 1934. Hours of labor were nearly 2 percent longer than those worked in March 1931, but net weekly earnings had decreased 11.1 percent during the same time. Table 1 shows the hours of labor and the actual earnings in these industries.

Table 1.—Hours and Earnings in the Woodworking and Furniture and Musical-Instrument Industries in Germany, March 1934

[Mark (100 pfennigs) at par=23.8 cents; average exchange rate in March 1934=39.66 cents]

Industry and class of workers	Number of workers	Hours per week	Earnings per hour	Deductions from wages per hour for—			Net earnings per week	Employers' contributions to social insurance per hour
				Taxes	Social insurance			
			Pfennigs	Pfennigs	Pfennigs	Marks	Pfennigs	
<i>Woodworking and furniture manufacture</i>			74.8	3.9	7.0	27.42	5.7	
All workers.....	26,622	44.12						
Skilled workers.....	20,150	44.01	78.8	4.3	7.4	28.68	6.0	
Time work.....	13,997	44.55	79.2	4.4	7.5	28.97	6.0	
Piecework.....	6,153	42.79	78.0	4.1	7.2	28.03	5.8	
Semiskilled workers.....	3,545	44.38	65.0	2.7	6.1	24.51	4.9	
Time work.....	2,397	44.11	64.7	2.6	6.0	24.25	4.9	
Piecework.....	1,148	44.92	65.7	2.8	6.2	25.05	5.0	
Unskilled workers, timework.....	2,927	44.58	59.4	2.4	5.6	22.24	4.5	
<i>Musical-instrument manufacture</i>			81.2	4.2	7.7	27.65	6.2	
All workers.....	1,098	41.22						
Skilled workers.....	946	41.22	83.4	4.4	7.9	28.41	6.4	
Time work.....	518	42.25	80.5	4.2	7.7	28.08	6.3	
Piecework.....	428	39.97	87.1	4.6	8.1	28.81	6.6	
Semiskilled workers.....	70	38.54	68.9	2.6	6.6	22.62	5.4	
Time work.....	53	38.88	67.9	2.6	6.6	22.41	5.3	
Unskilled workers, timework.....	82	43.69	66.4	3.1	6.2	23.22	5.0	

Bakery Industry

IN THE bakery industry hours of labor in March 1934 ranged from 45.28 to 50.68, and net weekly earnings ranged from 10.53 to 38.05 marks. Details are shown in table 2.

³ Peso at par=\$1 in United States gold.

⁴ Data are from Germany, Statistisches Reichsamt, Wirtschaft und Statistik, nos. 12, 13, and 14, 1935.

Table 2.—Average Hourly and Weekly Earnings in Confectionery, Baking, and Pastry Trades in Germany, March 1934

[Mark (100 pfennigs) at par=23.8 cents; average exchange rate in March 1934=39.66 cents]

Class of workers, age group, and kind of work	Number of workers	Hours per week	Earnings per hour, with supplements	Deductions per hour for—		Net earnings per week	Employers' contributions to social insurance per worker per hour
				Taxes	Social insurance		
Skilled workers, male:							
Over 23 years:			<i>Pfennigs</i>	<i>Pfennigs</i>	<i>Pfennigs</i>	<i>Marks</i>	<i>Pfennigs</i>
Timework.....	2,673	47.16	34.3	5.3	7.8	33.23	6.3
Piecework.....	282	45.28	102.6	7.0	9.2	38.05	7.5
Unskilled workers, male:							
Over 23 years:							
Timework.....	2,463	48.10	70.0	3.9	6.5	28.23	5.3
Piecework.....	120	50.68	81.1	5.7	7.2	33.66	5.9
Female workers:							
16-18 years:							
Timework.....	1,619	46.20	26.5	.4	2.6	10.53	2.1
Piecework.....	395	47.17	32.9	.7	3.0	13.22	2.5
18-20 years:							
Timework.....	2,989	47.48	37.4	1.6	3.6	14.73	2.9
Piecework.....	725	48.77	45.7	2.2	4.1	18.60	3.4
Over 20 years:							
Timework.....	14,785	47.11	45.6	1.9	4.4	17.87	3.6
Piecework.....	5,076	47.63	54.1	2.8	4.9	21.43	4.1

Printing Industry

AVERAGE weekly hours and earnings per hour and per week in the book and lithography branches of the printing industry in April 1935 are shown in table 3.

Table 3.—Hours and Earnings in the Printing Trades in Germany, April 1935

[Mark (100 pfennigs) at par=23.8 cents; average exchange rate in April 1935=40.26 cents]

Trade, and population of locality	Male workers			Technical workers					
	Hours per week	Earnings per—		Males		Females			
		Hour	Week	Hours per week	Earnings per—		Hours per week	Earnings per—	
					Hour	Week		Hour	Week
	<i>Pfennigs</i>	<i>Marks</i>		<i>Pfennigs</i>	<i>Marks</i>		<i>Pfennigs</i>	<i>Marks</i>	
Book printing.....	46.6	119.4	55.63	47.0	98.3	46.25	45.9	52.5	24.08
Localities with population of—									
Over 1,000,000.....	47.7	138.7	66.19	47.4	110.0	52.18	46.0	64.7	29.79
500,000-1,000,000.....	46.2	119.0	54.96	46.8	82.6	43.36	44.8	51.5	23.06
200,000-500,000.....	47.0	116.3	54.62	45.9	90.2	41.41	47.0	49.2	23.14
100,000-200,000.....	46.9	110.3	51.76	47.7	79.6	38.02	47.2	46.8	22.09
50,000-100,000.....	46.4	110.4	51.21	47.4	78.2	37.06	46.4	45.5	21.10
25,000-50,000.....	45.2	102.4	46.31	46.7	73.6	34.39	46.5	46.9	21.83
10,000-25,000.....	45.2	101.8	46.00	45.0	70.4	31.68	44.6	42.3	18.83
10,000 and under.....	45.0	93.6	42.12	46.4	65.0	30.15	45.7	37.0	16.90
Lithography.....	46.3	111.9	51.76	47.2	77.2	36.43	45.5	44.2	20.11
Localities with population of—									
Over 1,000,000.....	47.6	128.0	60.77	48.4	91.3	44.25	47.5	48.7	23.09
500,000-1,000,000.....	46.4	118.1	54.84	47.4	83.3	39.52	45.8	49.9	22.87
200,000-500,000.....	46.8	109.5	51.24	48.0	78.4	37.66	46.2	44.1	20.37
100,000-200,000.....	44.7	106.8	47.75	45.3	68.5	31.02	45.6	42.0	19.16
50,000-100,000.....	45.5	99.5	45.30	43.3	67.8	29.36	46.4	42.7	19.85
25,000-50,000.....	46.7	108.5	50.70	47.2	69.3	32.72	44.1	42.7	18.83
10,000-25,000.....	42.4	98.2	41.66	45.6	60.3	27.40	41.2	35.9	14.79
10,000 and under.....	46.6	93.4	43.57	49.2	65.1	32.03	46.3	39.3	18.06

Brewery Industry

HOURS and earnings in the brewery industry in April 1935 are shown in table 4.

Table 4.—Hours and Earnings of Workers in the Brewery Industry in Germany, April 1935

[Mark (100 pfennigs) at par=23.8 cents; average exchange rate in April 1935=40.26 cents]

Population of locality	Skilled workers, male				Unskilled workers, male				Drivers (teamsters and truck drivers)			
	Hours per week	Average earnings per—		Net earnings per week	Hours per week	Average earnings per—		Net earnings per week	Hours per week	Average earnings per—		Net earnings per week
		Hour	Week			Hour	Week			Hour	Week	
All localities.....	41.6	<i>Pfg.</i> 104.8	<i>Mk.</i> 43.64	<i>Mk.</i> 37.28	41.2	<i>Pfg.</i> 90.7	<i>Mk.</i> 37.38	<i>Mk.</i> 32.27	41.6	<i>Pfg.</i> 106.8	<i>Mk.</i> 44.39	<i>Mk.</i> 38.58
Localities with population of—												
Over 1,000,000.....	39.8	117.8	46.88	39.49	39.9	100.8	40.17	34.10	39.8	125.5	49.90	43.59
500,000-1,000,000.....	41.6	107.0	44.48	37.57	41.1	92.7	38.10	32.37	40.7	105.7	43.04	36.72
200,000-500,000.....	41.8	107.6	44.97	38.35	40.8	95.6	38.98	33.68	41.4	109.6	45.42	39.49
100,000-200,000.....	41.1	106.4	43.78	37.57	41.2	93.1	38.37	33.44	42.1	104.0	43.85	38.31
50,000-100,000.....	42.6	101.1	43.12	37.10	42.6	85.9	36.63	31.91	42.8	98.8	42.30	36.92
25,000-50,000.....	42.6	98.1	41.82	35.99	41.4	84.6	35.00	30.66	43.5	95.6	41.64	36.25
10,000-25,000.....	41.9	100.6	42.10	36.60	41.5	85.9	35.67	31.28	42.4	98.4	41.70	36.56
10,000 and less.....	42.1	93.7	39.42	34.14	41.9	78.2	32.76	28.80	43.3	92.7	40.15	34.99

Wages and Cost of Production in State Coal Mines in Netherlands in 1934¹

UNFAVORABLE conditions which confronted the Netherland State coal mines during the past several years were intensified during 1934. The four mines and the nitrogen plant, which occupy an area of 1,047 hectares (2,587 acres), were operated regularly throughout the entire period. Production of coal totaled 7,789,238 metric tons, of coke 2,062,380 tons, of briquets 358,044 tons, and of nitrogen 192,318 tons. The total production of 10,401,980 metric tons in 1934 was 557,515 tons, or 5.7 percent, more than in 1933.

The selling price per ton of coal, including gross profits of the nitrogen plant, etc., dropped from 6.11 florins² in 1933 to 5.76 florins in 1934. The cost price per ton, including allowances for depreciation and interest, also declined from 6.11 florins in 1933 to 5.87 florins in 1934. The cost and selling prices per metric ton of coal in 1934 were 4 and 6 percent lower, respectively, than the year before and, in fact, were the lowest on record since 1918.

¹ Data are from report by Halleck L. Rose, American vice consul at Amsterdam, June 19, 1935.

² Florin at par=40.2 cents; average exchange rate in 1934=67.4 cents.

The cost price in 1934 was 77.1 percent lower and the selling price 78.2 percent lower than in 1919, the first post-war year. The cost price included the following items:

	<i>1934</i> <i>florins</i>	<i>1933</i> <i>florins</i>
General costs.....	0. 66	0. 72
Social insurance.....	. 33	. 36
Miners' family allowance.....	. 15	. 17
Miners' wage.....	2. 40	2. 52
Mining timber and other materials.....	. 77	. 77
Power and other expenses.....	. 65	. 64
Total.....	4. 98	5. 18

The total number employed on December 31 in specified years was as follows:

1903.....	92	1927.....	20, 908
1908.....	955	1929.....	22, 091
1911.....	2, 380	1930.....	21, 819
1914.....	4, 500	1931.....	22, 291
1919.....	12, 274	1932.....	21, 358
1923.....	14, 994	1933.....	20, 685
1926.....	19, 854	1934.....	20, 267

Of the total number employed on December 31, 1934, 12,564 were underground workers, 6,807 surface workers, and 1,331 salaried employees; 17,885 were natives of the Netherlands and 2,382 were aliens.

Wages paid during 1934 averaged 5.20 florins per shift of 8 hours for underground and 4.08 florins for surface miners, or 4.78 florins for both classes—a decrease of 3 percent from 1933. The 1934 wages were the lowest since 1926. The following table shows the average wages per shift of 8 hours paid in the years 1929 to 1934:

Average Wages per 8-hour Shift in State Coal Mines of Netherlands, 1929 to 1934

Class	1929	1930	1931	1932	1933	1934
	<i>Florins</i>	<i>Florins</i>	<i>Florins</i>	<i>Florins</i>	<i>Florins</i>	<i>Florins</i>
Average, all classes of workers.....	5. 50	5. 61	5. 43	5. 00	4. 86	4. 78
Underground miners.....	6. 01	6. 09	5. 87	5. 43	5. 26	5. 20
Surface miners.....	4. 41	4. 60	4. 52	4. 20	4. 15	4. 08

EMPLOYMENT OFFICES

Operations of the United States Employment Service, August 1935

MORE than two and one-quarter million persons have been registered by offices of the United States Employment Service in the 3 months since registration for employment has been required of relief employables. The registration and classification of 782,027 persons during the month of August brought the 3-month volume of new registrations to a total of 2,264,446. In the 3 months preceding the order requiring universal registration for employment by relief clients, total new registrations numbered 959,740. Although the exact number of relief clients included in the latter 3 months' registration total is not yet known, it is estimated that the major portion of the increased number of applications received during the period was made up of previously unregistered relief employables. Relief clients also voluntarily had registered for employment in large numbers prior to the issuance late in May of the order requiring employment registration.

Total new applications received in August 1934, 1 year earlier, numbered 370,705. In the 3 months June, July, and August 1934, 1,022,019 new applications were received.

Effects of continued heavy new registration are evident in further increases in the total number of persons actively seeking work through the Employment Service. On August 31 the records of 8,234,933 active job seekers were in Employment Service occupational files available for work.

Nearly one-quarter of a million placements in gainful employment were made by public employment offices in August. Verified placements in 243,016 jobs were reported, the openings filled representing all types of gainful work.

Offices of the affiliated State employment services received 337,296 new applications (43.1 percent of the national total), reported an active file of 3,056,155 applicants (37.1 percent), and made 80,159 verified placements (33.0 percent). Offices of the National Reemployment Service received 444,731 new applications (56.9 percent of the national total), reported an active file of 5,178,778 job seekers (62.9 percent), and made 162,857 verified placements (67.0 percent).

During August, 33,664 previously unregistered war veterans were registered and classified by the Employment Service. Since July 1, 1933, 1,329,700 veterans have registered with the Service, a number equal to approximately 30 percent of the total number of veterans

living in the United States who served in the armed forces of the United States during the Spanish-American and World Wars. From this number of applicants, 1,278,000 veteran placements have been made. On August 31, 512,809 veterans were actively seeking jobs through public employment offices.

Table 1.—Operations of Offices of Combined State Employment and National Reemployment Services, August 1935

State	Placements		New applications		Total applications ¹		Active file	
	August	Percent of change from July	August	Percent of change from July	August	Percent of change from July	August 31	Percent of change from July 31
United States.....	243,016	² -6.5	782,027	² -4.8	1,444,973	² -8.3	8,234,933	² +9.3
Alabama.....	2,862	-2.8	13,215	-38.5	29,143	-45.1	166,315	+10.3
Arizona.....	1,825	-20.9	2,205	-66.2	4,391	-52.1	41,297	+2.3
Arkansas.....	6,464	+13.8	7,320	-36.2	16,683	-32.6	96,002	-4.4
California.....	20,641	+11.6	74,585	+24.7	98,919	+12.5	234,494	+28.6
Colorado.....	2,746	-13.9	6,056	-19.8	10,979	-25.0	81,400	+5.0
Connecticut.....	2,952	-12.4	7,015	-3.2	13,294	-1.7	60,707	+4.2
Delaware.....	825	-21.4	1,455	-14.2	3,213	-9.3	14,601	+7.1
Florida.....	2,133	+9.1	17,447	-4.8	34,618	-18.3	142,831	+20.4
Georgia.....	6,982	+73.4	20,995	-44.6	30,510	-32.0	281,708	+6.5
Idaho.....	2,559	-2.4	1,651	-6.6	4,951	-6.4	32,766	+1.7
Illinois.....	12,399	-3.3	39,566	+36.6	85,490	+33.7	244,281	+13.2
Indiana.....	7,972	+16.0	16,407	-59.5	25,280	-63.7	227,143	+4.6
Iowa.....	7,184	-21.0	4,897	+2.7	17,463	+5.0	78,353	-1.8
Kansas.....	5,056	-34.6	8,960	-4.8	16,865	-16.3	173,136	+4.4
Kentucky.....	2,008	-3.0	34,387	+73.2	55,759	+69.0	196,874	+36.9
Louisiana.....	1,467	-23.8	3,544	-80.5	5,187	-76.6	176,303	+1.7
Maine.....	898	-46.4	4,411	+33.7	8,819	-14.6	32,899	+17.5
Maryland.....	2,043	+5.8	4,445	-9.0	9,049	-32.9	97,059	+4.2
Massachusetts.....	3,624	-18.9	25,744	+120.4	38,248	+50.4	255,691	+13.8
Michigan.....	3,369	+13.4	43,334	+60.3	50,010	+14.0	202,136	+22.0
Minnesota.....	12,870	-8.4	20,081	+18.3	45,878	-2.6	124,444	+15.1
Mississippi.....	3,005	-27.7	14,561	+12.6	27,276	-9.6	141,599	+13.2
Missouri.....	10,733	-1.9	24,773	-5.5	53,988	-2.2	265,722	+11.8
Montana.....	5,143	+11.8	7,172	+122.4	14,248	+48.6	38,602	+18.1
Nebraska.....	5,889	-18.8	3,687	+33.6	15,969	+46.6	64,556	-1.6
Nevada.....	1,411	+36.3	1,275	+12.2	2,650	+9.7	5,891	-2.2
New Hampshire.....	900	-54.7	1,618	-16.9	3,353	-29.1	28,843	+6.8
New Jersey.....	3,199	-13.6	18,022	-53.4	27,171	-47.1	290,278	+7.4
New Mexico.....	1,740	-15.1	7,207	+96.9	11,401	+36.4	49,411	+21.5
New York.....	13,775	² -19.5	90,747	² +16.2	132,918	² +6.6	873,853	² +7.1
North Carolina.....	6,987	+26.9	33,839	+33.4	56,105	+11.0	170,107	+28.0
North Dakota.....	3,848	-3.2	3,380	-25.2	10,656	-11.7	35,851	-1.5
Ohio.....	12,624	-2.4	32,306	-18.1	81,046	-9.1	306,463	+12.1
Oklahoma.....	2,894	-25.0	15,078	+2.9	42,858	-38.4	157,288	+21.5
Oregon.....	4,586	-22.4	4,321	-41.3	8,947	-38.6	91,158	+1.7
Pennsylvania.....	7,400	-29.1	53,170	-24.3	124,863	+8.7	1,255,056	+5.4
Rhode Island.....	698	-1.8	4,957	+26.2	6,760	-8.0	52,183	+10.8
South Carolina.....	3,603	-13.3	8,287	-37.5	15,585	-29.7	158,641	+6.5
South Dakota.....	3,201	-9.0	2,625	-1.1	8,772	-6.4	62,833	+1.8
Tennessee.....	3,199	+7.1	17,949	-1.0	22,432	-13.3	247,591	+6.6
Texas.....	9,561	-22.4	16,837	-47.0	37,092	-38.9	298,607	+3.8
Utah.....	3,361	-8.5	3,533	-6.2	10,461	-11.7	43,371	+6.0
Vermont.....	747	-23.9	790	+2.6	2,116	-27.2	16,766	+7.6
Virginia.....	5,447	+7.0	16,985	+6.0	28,598	-2.4	136,637	+14.4
Washington.....	4,567	+6.9	11,521	-3.4	19,056	-7.0	181,394	+5.0
West Virginia.....	2,862	-9.0	7,954	-18.6	20,345	-0.0	130,774	+3.8
Wisconsin.....	8,835	-3	15,966	+40.6	44,599	+15.0	108,766	+21.6
Wyoming.....	2,200	+18.5	1,864	-13.9	4,713	+3.7	11,453	+6.1
District of Columbia.....	1,722	+8.4	3,883	-41.2	6,246	-37.4	50,799	+2.0

¹ Includes new applications, reregistrations, and renewals.

² Based on revised July figure.

Table 2.—Operations of Offices of State Employment Services, August 1935

State	Placements		New applica- tions		Total applica- tions ¹		Active file	
	August	Per- cent of change from July	August	Per- cent of change from July	August	Per- cent of change from July	Aug. 31	Per- cent of change from July 31
All States.....	80, 159	⁴ -3. 6	337, 296	⁴ -3. 3	597, 150	⁴ -0. 7	3, 056, 155	⁴ +10. 5
Arizona.....	445	+1. 8	1, 077	-63. 2	1, 510	-55. 9	14, 417	+6. 2
California.....	13, 004	+21. 0	63, 991	+34. 0	80, 512	+30. 2	166, 970	+43. 6
Colorado.....	674	-24. 7	2, 083	-5. 8	2, 901	-15. 7	34, 201	+2. 7
Connecticut.....	2, 258	-12. 3	5, 048	-15. 7	9, 850	-6. 1	42, 548	+4. 4
Delaware.....	825	-21. 4	1, 455	-14. 2	3, 213	-9. 3	14, 601	+7. 1
Illinois.....	7, 517	+5. 2	27, 486	+41. 3	50, 148	+39. 5	133, 186	+21. 1
Indiana.....	5, 460	+8. 4	9, 695	-60. 4	15, 630	-63. 7	119, 068	+5. 0
Iowa.....	3, 303	-21. 4	3, 301	-5. 3	9, 838	-5. 6	45, 859	-2. 2
Kansas (not affiliated).....	1, 108	-39. 2	4, 731	+35. 1	7, 013	+1. 3	42, 722	+13. 7
Louisiana.....	1, 467	-23. 8	3, 544	-80. 5	5, 187	-76. 6	176, 303	+7. 7
Massachusetts.....	2, 383	-5. 2	9, 804	+47. 1	17, 313	+33. 9	101, 183	+13. 7
Minnesota.....	4, 202	-13. 8	12, 825	+8. 1	23, 669	-5. 3	55, 248	+26. 4
Missouri.....	2, 425	+4. 5	14, 443	+17. 2	32, 136	+21. 2	79, 603	+32. 2
Nevada.....	849	+48. 2	917	+17. 0	1, 665	+10. 0	3, 883	-5. 8
New Hampshire.....	211	+36. 1	831	+3. 6	1, 543	-24. 7	13, 190	+9. 1
New Jersey.....	2, 582	-10. 8	15, 438	-57. 1	22, 148	-52. 1	241, 016	+7. 6
New Mexico.....	851	+92. 5	2, 493	+91. 3	4, 562	+37. 0	24, 797	+16. 0
New York.....	7, 992	² -8. 2	73, 839	² +62. 4	105, 929	² +30. 7	537, 871	² +9. 1
Ohio.....	6, 214	-12. 7	21, 873	-20. 8	53, 397	-10. 7	159, 344	+11. 7
Oklahoma.....	790	-20. 0	3, 777	-16. 4	7, 684	-32. 8	26, 217	+25. 7
Oregon.....	2, 485	-8. 1	2, 386	-53. 3	4, 857	-44. 9	67, 498	+2. 1
Pennsylvania.....	3, 981	-16. 0	37, 673	-20. 0	93, 570	+19. 7	781, 472	+7. 1
Vermont.....	747	(³)	790	(³)	2, 116	(³)	16, 766	(³)
Virginia.....	617	+39. 3	1, 688	+67. 1	3, 211	+116. 2	15, 453	+23. 2
West Virginia.....	670	+55. 8	1, 635	-20. 4	3, 831	-3. 6	26, 648	+9. 0
Wisconsin.....	4, 779	-14. 2	9, 688	+20. 4	22, 725	+4. 9	59, 704	+17. 8
Wyoming.....	598	+16. 3	902	-22. 1	1, 746	-11. 4	5, 588	+8. 1
District of Columbia.....	1, 722	+8. 4	3, 883	-41. 2	6, 246	-37. 4	50, 799	+2. 0

¹ Includes new applications, registrations, and renewals.² Based on revised July figure.³ August first month operating as S. E. S.⁴ Computed from comparable reports only.

Table 3.—Operations of Offices of National Reemployment Service, August 1935

State	Placements		New applications		Total applications ¹		Active file	
	August	Percent of change from July	August	Percent of change from July	August	Percent of change from July	Aug. 31	Percent of change from July 31
All States.....	162,857	⁴ -7.7	444,731	⁴ -5.9	847,823	⁴ -12.9	5,178,778	⁴ +8.6
Alabama.....	2,862	-2.8	13,215	-38.5	29,143	-45.1	166,315	+10.3
Arizona.....	1,380	-26.2	1,128	-68.7	2,881	-49.8	26,880	+4.4
Arkansas.....	6,464	+13.8	7,320	-36.2	16,683	-32.6	96,002	-4.4
California.....	7,637	-1.5	10,594	-11.9	18,407	-29.5	67,524	+2.3
Colorado.....	2,072	-9.6	3,973	-25.6	8,078	-27.9	47,199	+6.8
Connecticut.....	694	-12.5	1,967	+56.2	3,444	+19.1	18,159	+3.5
Florida.....	2,133	+9.1	17,447	-4.8	34,618	-18.3	142,831	+20.4
Georgia.....	6,982	+73.4	20,995	-44.6	30,510	-32.0	281,708	+6.5
Idaho.....	2,559	-2.4	1,651	-6.6	4,951	-6.4	32,766	+1.7
Illinois.....	4,882	-14.1	12,080	+27.1	35,342	+26.3	111,095	+5.0
Indiana.....	2,512	+36.7	6,712	-58.1	9,650	-63.5	108,075	+4.2
Iowa.....	3,881	-20.7	1,596	+24.4	7,625	+22.7	32,494	+1.3
Kansas.....	3,948	-33.2	4,229	-28.4	9,852	-25.4	130,414	+1.7
Kentucky.....	2,008	-3.0	34,387	+73.2	55,759	+69.0	196,874	+36.9
Maine.....	898	-46.4	4,411	+33.7	8,819	-14.6	32,899	+17.5
Maryland.....	2,043	+5.8	4,445	-9.0	9,049	-32.9	97,059	+4.2
Massachusetts.....	1,241	-36.6	15,940	+218.0	20,935	+67.4	154,508	+13.8
Michigan.....	3,369	+13.4	43,334	+60.3	50,010	+14.0	202,136	+22.0
Minnesota.....	8,668	-5.6	7,256	+42.1	22,209	+3.3	69,196	+7.4
Mississippi.....	3,005	-27.7	14,561	+12.6	27,276	-9.6	141,599	+13.2
Missouri.....	8,308	-3.6	10,330	+25.6	21,852	-20.8	186,119	+4.9
Montana.....	5,143	+11.8	7,172	+122.4	14,248	+48.6	38,602	+18.1
Nebraska.....	5,889	-18.8	3,687	+33.6	15,969	+46.6	64,556	-1.6
Nevada.....	562	+21.6	358	+1.7	985	+9.3	2,008	+6.0
New Hampshire.....	689	-62.4	787	-31.3	1,810	-32.4	15,653	+5.0
New Jersey.....	617	-23.6	2,584	-3.0	5,023	-1.7	49,262	+6.5
New Mexico.....	889	-44.7	4,714	+100.0	6,839	+36.0	24,614	+27.5
New York.....	5,783	² -31.2	16,908	-48.1	23,989	² -42.0	335,982	² +4.1
North Carolina.....	6,987	+26.9	33,839	+33.4	58,105	+11.0	170,107	+28.0
North Dakota.....	3,848	-3.2	3,380	-25.2	10,656	-11.7	35,851	-1.5
Ohio.....	6,410	+10.2	10,433	-11.8	27,649	-5.7	147,119	+12.5
Oklahoma.....	2,104	-26.7	11,301	+11.5	35,174	-39.5	131,071	+20.7
Oregon.....	2,101	-34.4	1,935	-13.9	4,090	-29.1	23,660	+6.6
Pennsylvania.....	3,419	-40.1	15,497	-33.0	31,293	-14.8	473,584	+2.5
Rhode Island.....	698	-1.8	4,957	+26.2	6,760	-8.0	52,183	+10.8
South Carolina.....	3,603	-13.3	8,287	-37.5	15,585	-29.7	158,641	+6.5
South Dakota.....	3,201	-9.0	2,625	-1.1	8,772	-6.4	62,833	+8.8
Tennessee.....	3,199	+7.1	17,949	-1.0	22,432	-13.3	247,581	+6.6
Texas.....	9,561	-22.4	16,837	-47.0	37,092	-38.9	298,607	+3.8
Utah.....	3,361	-8.5	3,533	-6.2	10,461	-11.7	43,371	+6.0
Vermont.....	(³)		(³)		(³)		(³)	
Virginia.....	4,830	+3.9	15,297	+1.9	25,387	-8.7	121,184	+13.4
Washington.....	4,567	+6.9	11,521	-3.4	19,056	-7.0	181,394	+5.0
West Virginia.....	2,192	-19.3	6,319	-18.1	16,514	+0.8	104,126	+2.5
Wisconsin.....	4,056	+23.1	6,278	+89.6	21,874	+27.8	49,062	+26.5
Wyoming.....	1,602	+19.4	962	-4.4	2,967	+15.2	5,865	+4.2

¹ Includes new applications, reregistrations, and renewals.² Based on revised July figure.³ Operating as S. E. S. Aug. 1.⁴ Computed from comparable reports only.

Table 4.—Veterans' Activities of Offices of Combined State Employment and National Reemployment Services, August 1935

State	Placements		New applications		Active file	
	August	Percent of change from July	August	Percent of change from July	Aug. 31	Percent of change from July 31
United States.....	27,022	¹ -7.7	33,664	¹ -6.2	512,809	¹ +6.7
Alabama.....	297	-26.5	374	-46.5	7,975	+4.6
Arizona.....	227	-26.8	106	-71.0	2,352	-2.4
Arkansas.....	492	-2.0	269	-22.0	5,505	-8.2
California.....	2,771	+6.0	6,966	+33.9	23,359	+28.2
Colorado.....	263	-38.3	263	+9.6	5,858	+2.3
Connecticut.....	234	+2.2	351	+1.7	4,702	+6.4
Delaware.....	86	+17.8	58	-3.3	843	-2.9
Florida.....	194	+2.6	426	-21.5	7,768	+7.1
Georgia.....	458	+33.9	445	-40.2	11,222	+3.1
Idaho.....	198	-2.0	88	-12.9	1,453	-10.6
Illinois.....	1,185	+5.1	2,434	+16.2	21,362	+9.6
Indiana.....	1,147	+19.9	684	-60.8	14,624	-1.1
Iowa.....	980	-13.7	211	+5.5	5,465	+3.3
Kansas.....	719	-24.1	298	-28.4	9,660	+4.1
Kentucky.....	432	+3.8	709	+16.0	12,876	+13.4
Louisiana.....	204	-20.3	172	-81.2	11,980	+1.5
Maine.....	95	-40.3	222	+53.1	2,585	+8.5
Maryland.....	248	+8	212	-13.1	6,011	+1.8
Massachusetts.....	340	-17.3	1,366	+151.1	17,756	+12.9
Michigan.....	506	+30.1	2,220	+25.8	13,833	+16.3
Minnesota.....	1,092	-19.3	973	+54.9	8,974	+12.4
Mississippi.....	198	-35.1	172	-41.5	6,834	+2.6
Missouri.....	1,241	-11.0	1,276	-3.5	15,882	-8.9
Montana.....	446	-15.5	246	+95.2	2,302	+12.1
Nebraska.....	518	-18.0	145	+21.8	4,375	-5.8
Nevada.....	186	+55.0	67	+26.4	308	+14.9
New Hampshire.....	66	-52.9	75	-39.5	2,195	+3.9
New Jersey.....	274	-32.3	979	-58.8	22,540	+5.8
New Mexico.....	377	+5.6	228	+11.8	3,196	-10.6
New York.....	1,116	¹ -21.8	2,375	¹ +12.1	57,322	¹ -2
North Carolina.....	582	+2.5	595	+15.1	7,307	+11.4
North Dakota.....	285	-1.7	115	-17.9	1,486	-3.5
Ohio.....	1,161	-25.5	1,222	-33.0	21,923	+7.3
Oklahoma.....	374	-33.3	533	+14.4	16,255	+4.7
Oregon.....	526	+1.5	278	-46.8	7,087	-2
Pennsylvania.....	953	¹ -9.2	2,410	-16.6	57,823	¹ +7.8
Rhode Island.....	76	+5.6	154	+27.3	3,049	+6.4
South Carolina.....	269	-6.3	214	-29.4	6,938	+4.5
South Dakota.....	400	-9.1	96	.0	3,114	-3.2
Tennessee.....	281	-15.1	389	-48.4	13,362	+2.2
Texas.....	1,879	-7.3	723	-37.3	17,902	+1.3
Utah.....	435	-21.6	91	-32.6	2,848	+2.4
Vermont.....	38	-43.3	41	+57.7	560	+8.5
Virginia.....	393	¹ -16.4	478	-2.0	7,228	+8.0
Washington.....	697	-3	384	-27.4	12,945	+1.2
West Virginia.....	390	-24.9	280	-32.4	7,944	+4.2
Wisconsin.....	1,205	+25.1	861	+222.5	9,024	+17.4
Wyoming.....	210	+15.4	104	-7.1	927	+9.1
District of Columbia.....	278	+22.5	286	-30.8	3,970	-3

¹ Based on revised July figure.

Analysis of Employment Service Activities During June 1935

TABULATED reports of 604,023 new applications of the total of 660,773 received in June, and of 238,583 placements of the month's total of 248,211, indicate that men formed 72.7 percent of the new applicants and received 86.7 percent of placements, while women made up 27.3 percent of the new applicants and received 13.3 percent of the placements. More than half of all placements were in regular jobs—those expected to continue for more than 1 month. Male placements were classified as 57.7 percent regular and 42.3 percent temporary, while jobs filled by women were classified as 54.2 percent regular and 45.8 percent temporary. Employment Service registrations during June were abnormally high as a result of the large-scale registration of relief employables. The June total of 660,773 new applications compares to an average volume of 315,000 new applications per month for the previous 15 months.

Detailed tabulated reports are complete for all parts of the United States except the State of New York. Tabulated reports for this State will be available at a later date.

Industrial Classification of New Applicants and All Persons Placed

DETAILED tabulations of the industrial background of the men who registered with public employment offices in June show that nearly one-third had last been regularly employed in agriculture, forestry, fishing, or extraction of minerals, 31.4 percent reporting their last employment in this field. The tabulations upon which these figures are based are complete for the country with the sole exception of the State of New York for which detailed reports are not yet available. Manufacturing industries were reported by the second largest group of male applicants, 22.9 percent falling in this group. In order of rank the other major industrial groups were professional and commercial service and distribution, 14.6 percent; building and construction, 12.9 percent; public utilities and transportation, 6.8 percent; domestic and personal service, hotels and institutions, 6.1 percent; and Governmental service (including all types of local governmental employment except relief work), 5.3 percent. In addition, 94,634 men reported no classifiable work experience.

Placements among men were 69.3 percent in building and construction work, 9.7 percent in agriculture, forestry, fishing, and extraction of minerals, 4.6 percent in manufacturing, 4.6 percent in domestic and personal service, hotels and institutions, 4.5 percent in Governmental service, 3.3 percent in professional and commercial service and distribution, and the remainder in public utilities and transporta-

tion and in miscellaneous fields. The predominance of building and construction work reflects employment on public works enterprises.

The largest group of new woman applicants registered in June, for whom detailed reports are available, reported their work experience in the group domestic and personal service, hotels and institutions; 55.8 percent of the woman applicants reporting this classification. Manufacturing was reported as the background of 16.7 percent of the woman applicants, and professional and commercial service and distribution, of 15.1 percent. Small numbers of women reported former employment in the industrial fields predominantly staffed by men. Placements of women were made in domestic and personal service, hotels and institutions, professional and commercial service and distribution (sales), and manufacturing, in the order named. Smaller numbers of women were also placed in the other industrial groups.

The accompanying charts portray the main industrial groups in which male and female applicants were formerly employed and in which placements were made.

Age Distribution of New Applicants and Persons Placed

THE large rise in the number of new applicants during June resulting from the wholesale registration of relief employables, was accompanied by a decided increase in the average age of both male and female applicants. The median age of male new applicants in June was 33.1 years, as compared with an average of 31.6 for the 6 preceding months. The median age of female new applicants in June was 30, which compares with the figure of 27.3 for the 6 preceding months. These averages indicate a higher average age among the previously unregistered relief recipients than among persons ordinarily applying to the employment offices. It is possible that a larger proportion of the younger relief recipients may have filed their applications before the issuance of the order for general registration of all employable relief recipients.

The median age of all men placed by the public employment offices reached a new low of 33.1 years in June. The corresponding figure for last December was 33.9, and the average has been uniformly dropping since that time.

No significant change has taken place in the age distribution of the women placed during the 7 months for which tabulations have been made public. The median for June is 27.6 years.

The median ages of persons receiving regular jobs (those expected to last more than 1 month) are uniformly lower than those for persons temporarily placed. This differential amounts to only about a year for the male group, but for the female group is regularly between 5 and 7 years.

UNITED STATES EMPLOYMENT SERVICE

INDUSTRIAL CLASSIFICATION OF NEW APPLICANTS
AND ALL PERSONS PLACED DURING JUNE 1935

Forty seven States and District of Columbia*

MEN

NEW APPLICANTS

ALL PLACEMENTS



AGRICULTURE, FORESTRY, FISHING, MINING



BUILDING AND CONSTRUCTION



MANUFACTURING



PROFESSIONAL AND COMMERCIAL SERVICE AND DISTRIBUTION



DOMESTIC AND PERSONAL SERVICE HOTELS INSTITUTIONS



PUBLIC UTILITIES AND TRANSPORTATION



GOVERNMENTAL SERVICE

 REGULAR
 TEMPORARY

* NEW YORK STATE NOT INCLUDED

EACH COMPLETE FIGURE REPRESENTS 5,000

UNITED STATES EMPLOYMENT SERVICE

INDUSTRIAL CLASSIFICATION OF NEW APPLICANTS
AND ALL PERSONS PLACED DURING JUNE 1935
Forty seven States and District of Columbia *

WOMEN

NEW APPLICANTS

ALL PLACEMENTS



 REGULAR
 TEMPORARY

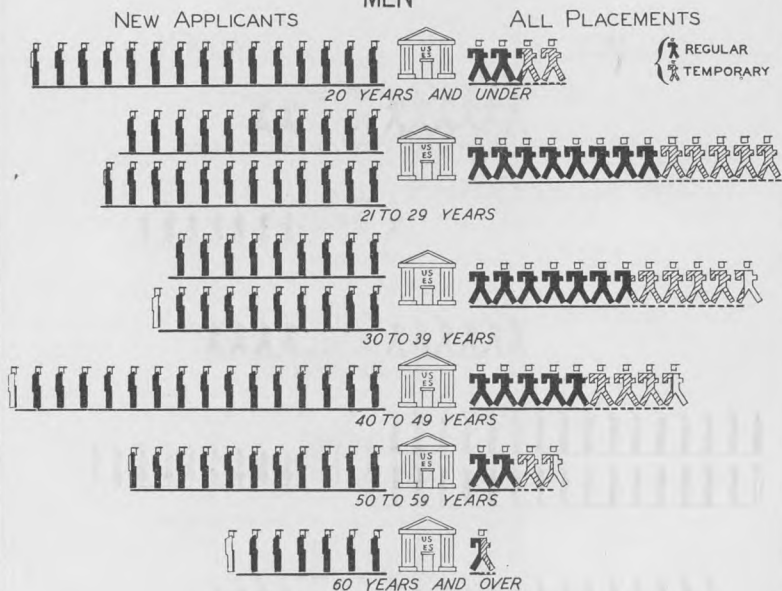
* NEW YORK STATE NOT INCLUDED

EACH COMPLETE FIGURE REPRESENTS 5,000

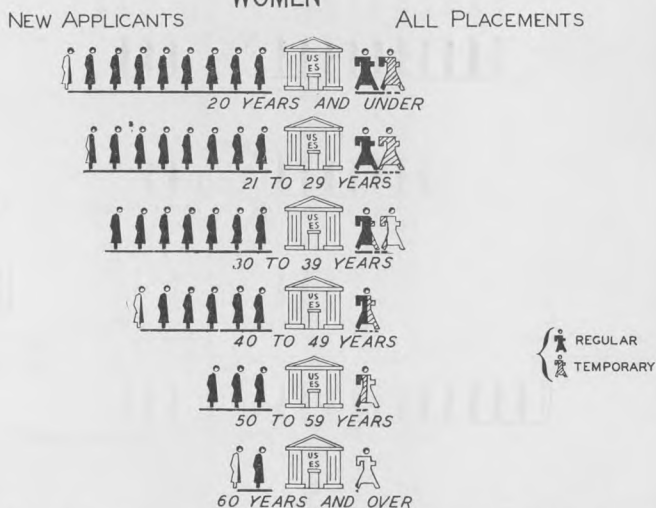
UNITED STATES EMPLOYMENT SERVICE

AGE OF NEW APPLICANTS AND ALL PERSONS PLACED DURING JUNE 1935, 47 STATES AND D. C.*

MEN



WOMEN



* NEW YORK STATE NOT INCLUDED

EACH COMPLETE FIGURE REPRESENTS 5,000

UNITED STATES EMPLOYMENT SERVICE

LENGTH OF UNEMPLOYMENT OF NEW APPLICANTS
JUNE 1935, 47 STATES AND D. C.*

MEN

WOMEN



* NEW YORK STATE NOT INCLUDED

EACH COMPLETE FIGURE REPRESENTS 5,000

The age group 21-29 years consistently shows the highest number of new applicants and of persons placed, both for men and women. During June, 25.2 percent of the new applicants and 31 percent of the persons placed fell in this age group.

The distribution of new applicants and all placements by age groups in June is illustrated by the chart on page 1054.

Length of Unemployment of New Applicants Registered During June 1935

THE greater length of unemployment of relief employables than of nonrelief registrants is reflected in the increased proportion of new registrants in June reporting more than 4 years of unemployment, and in the increase in the median length of unemployment of applicants with previous work experience.

During June, when registration by relief employables was heavy, 11.5 percent of all new applicants reported over 4 years of continuous unemployment. During the 4 months, January through April, when relief clients constituted but a minor portion of Employment Service new applicants, only 7 percent of the job seekers reported unemployment exceeding 4 years in duration. The median length of unemployment of male applicants with classifiable work experience, during June was 9.3 months, while during the first 4 months of the present year 4.7 months was the median length of continuous unemployment. For women the corresponding record was 8.5 months in June and 4.6 for the 4-month period. In these reports, work on relief projects was not considered as gainful employment.

The effect of heavy registrations by recent students at the conclusion of the school year is also marked in June. Recent students constituted 8.3 percent of all new applicants in June compared to 4.3 percent in May.

The chart of length of unemployment (p. 1055) shows male and female applicants registered in June, classified by the length of unemployment of those with work experience, and the previous status of applicants who had no record of gainful employment.

TREND OF EMPLOYMENT AND PAY ROLLS

Summary of Employment Reports for August 1935

Comparison of August 1935 with July 1935 and August 1934

A SUMMARY of the reported data regarding employment in August 1935 is presented in the following four tables. Employment and pay-roll indexes, per capita weekly earnings, average hours worked per week, and average hourly earnings, as well as percentage changes from July 1935 and August 1934, are shown for manufacturing and for the nonmanufacturing groups insofar as the information is available.

The principal changes shown in these tables are briefly as follows:

Factory employment and pay rolls rose 2.8 percent and 6.6 percent, respectively. This means that approximately 185,000 workers were added to factory pay rolls and that weekly wage disbursements increased by approximately \$8,700,000. The gain in employment has been exceeded in August in only 2 of the preceding 16 years (1922 and 1933) and in pay rolls in only one instance (1933).

Of the 90 manufacturing industries surveyed, 66 showed more employees on their rolls in August than in July and 72 reported larger pay rolls. Among the manufacturing industries in which pronounced gains in employment were shown from July to August were beet sugar (63.3 percent), millinery (36.2 percent), canning and preserving (30.5 percent), women's clothing (28.2 percent), cottonseed oil-cake-meal (27.6 percent), radios (15.6 percent), rubber boots and shoes (12.9 percent), fur-felt hats (11.6 percent), and sawmills (7.8 percent). Employment in the machine-tool industry showed a gain of 3.3 percent, and steel works, rolling mills, and blast furnaces increased the number of workers by 2.8 percent and their weekly wage bill by 17.4 percent. Among the 24 industries which showed declines in employment were cement (6.4 percent) and automobiles (5.5 percent).

In nonmanufacturing 11 of the 17 industries surveyed reported gains in employment and 8 showed larger pay rolls. In the aggregate,

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there were approximately 30,000 fewer workers on the pay rolls of these 17 nonmanufacturing industries and \$900,000 less in weekly wages.

Employment during August in the various services of the Federal Government showed a gain of 13.2 percent over the preceding month. Pay rolls which were in excess of \$171,000,000 were 6.4 percent larger than in July. A substantial part of the gain in employment may be attributed to the Works Program for which the first monthly statistics showed over 143,000 workers employed. Approximately 113,000 of this number were working on projects operated by the Works Progress Administration; the remainder were employed by the various Federal agencies receiving allotments from the Works Progress fund.

Pronounced gains in employment of the month were registered in construction projects financed by direct governmental appropriations and in emergency conservation work. Increases also occurred in the executive, military, and legislative services of the Federal Government.

The most marked decrease in employment during August was in the emergency-work program. Small losses were shown in the judicial service, in construction projects financed by the Reconstruction Finance Corporation, and in construction projects financed by the Public Works Administration.

Private employment.—Table 1 shows employment and pay-roll indexes and per capita weekly earnings in August 1935 for all manufacturing industries combined, for various nonmanufacturing industries, and for class I steam railroads, with percentage changes over the month and year intervals, except in the few cases referred to in footnotes, for which certain items cannot be computed. Table 2 shows for the same industries as in table 1, so far as data are available, average hours worked per week and average hourly earnings, together with percentage changes over the month and year intervals.

Table 1.—Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, August 1935 (Preliminary Figures)

Industry	Employment			Pay roll			Per capita weekly earnings		
	Index August 1935	Percentage change from—		Index August 1935	Percentage change from—		Average in August 1935	Percentage change from—	
		July 1935	August 1934		July 1935	August 1934		July 1935	August 1934
	(1923-25 = 100)			(1923-25 = 100)					
All manufacturing industries combined.....	81.7	+2.8	+2.8	69.6	+6.6	+11.9	\$20.85	+3.8	+9.0
Class I steam railroads ¹	56.6	-7	-2.1	(2)	(2)	(2)	(2)	(2)	(2)
	(1929 = 100)			(1929 = 100)					
Coal mining:									
Anthracite.....	38.7	-21.7	-21.8	28.3	-24.6	-28.7	21.28	-3.8	-8.9
Bituminous.....	73.4	+4.8	-4.8	45.8	+27.6	-9.1	15.97	+21.8	-4.6
Metalliferous mining.....	46.3	+2.5	+8.4	33.4	+7.4	+23.7	22.32	+4.7	+14.1
Quarrying and nonmetallic mining.....	51.0	+2	-6.8	36.3	+5.6	+6.8	17.58	+5.3	+14.5
Crude petroleum producing.....	78.7	+2.5	-4.8	60.7	+2.6	-8	27.91	+1	+4.2
Public utilities:									
Telephone and telegraph.....	70.5	+3	-7	75.5	-2	+2.0	28.38	-6	+2.8
Electric light and power and manufactured gas.....	85.7	+1.1	+1	81.5	-(2)	+2.0	29.77	-1.1	+1.9
Electric-railroad and motor-bus operation and maintenance.....	71.2	-4	-2.2	63.3	-2	+8	28.30	+2	+3.0
Trade:									
Wholesale.....	82.8	+9	+4	64.8	+3	+3.3	26.93	-6	+3.0
Retail.....	77.7	-1.8	-1	59.2	-2.1	+1.4	20.41	-2	+1.5
General merchandising.....	81.7	-3.4	+6	69.0	-3.8	+3.1	17.79	-4	+2.5
Other than general merchandising.....	76.6	-1.4	-4	57.2	-1.6	+1.1	22.40	-3	+1.5
Hotels (cash payments only).....	80.7	+5	+9	62.0	-1	+3.0	13.26	-5	+2.0
Laundries.....	84.2	-3	+6	69.2	-2.4	+3.9	15.56	-2.1	+3.3
Dyeing and cleaning.....	79.4	-2.8	+1.0	58.2	-5.4	+2.6	17.98	-2.7	+1.7
Banks.....	(2)	+3	+1.7	(2)	+3	+1.3	31.77	+(2)	-4
Brokerage.....	(2)	+3.4	-3.9	(2)	+4.6	-2.4	35.60	+1.1	+1.6
Insurance.....	(2)	-2	+1.1	(2)	-5.0	+1.5	35.76	-4.8	+4
Building construction.....	(2)	+3.6	+7.6	(2)	+4.4	+16.8	25.06	+8	+8.7

¹ Preliminary source: Interstate Commerce Commission.² Not available.³ Less than 1/10 of 1 percent.

Table 2.—Hours and Earnings in August 1935 in All Manufacturing Industries Combined and in Nonmanufacturing Industries (Preliminary Figures)

Industry	Average hours worked per week			Average hourly earnings		
	Average in August 1935	Percentage change ¹ from—		Average in August 1935	Percentage change ¹ from—	
		July 1935	August 1934		July 1935	August 1934
All manufacturing industries combined.....	36.6	+4.0	+7.3	56.8	-0.2	+1.5
Class I steam railroads.....				<i>Cents</i>		
Coal mining:						
Anthracite.....	24.1	-10.1	-11.8	83.2	+8	-5
Bituminous.....	21.8	+19.8	-2.7	73.7	.0	+1.1
Metalliferous mining.....	38.0	+4.1	+7.7	58.0	+3	+7.6
Quarrying and nonmetallic mining.....	37.5	+5.3	+9.7	47.0	-6	-8
Crude-petroleum producing.....	36.4	+6	-1.2	76.7	-4	+3.0
Public utilities:						
Telephone and telegraph.....	38.6	+1.3	-3	76.0	-1.4	+6.1
Electric light and power and manufactured gas.....	39.4	+5	+1.8	74.9	-1.6	+2.2
Electric-railroad and motor-bus operation and maintenance.....	44.8	+2	+1.1	61.9	-2	+1.6
Trade:						
Wholesale.....	41.5	+2	+2.1	64.5	-1.1	+9
Retail.....	42.1	+5	+5.3	51.6	-4	-8
General merchandising.....	38.4	+3	+2.2	48.2	-6	-3
Other than general merchandising.....	43.1	+5	+5.7	52.5	-6	-1.1
Hotels.....	47.8	.0	+1.7	27.5	.0	.0
Laundries.....	41.3	-1.2	+4.4	36.3	-5	-5
Dyeing and cleaning.....	41.4	-7	-2.7	43.1	-1.8	-1.1
Banks.....	(3)	(3)	(3)	(3)	(3)	(3)
Brokerage.....	(3)	(3)	(3)	(3)	(3)	(3)
Insurance.....	(3)	(3)	(3)	(3)	(3)	(3)
Building construction.....	31.0	+3	+9.1	80.8	+7	+2.1

¹ Percentage changes over year computed from indexes.² The additional value of board, room, and tips cannot be computed.³ Not available.

Public employment.—Employment created by the Federal Government is of two general classes: (1) Employment either in the executive, judicial, legislative, or military services, and on various construction projects financed by the Federal Government; and (2) employment on relief work, where the work itself and the system of payment is of an emergency-relief character. Data for these two types of Federal employment are shown separately in tables 3 and 4.

Table 3.—Employment and Pay Rolls in Various Services of the United States Government, August 1935 (Preliminary Figures)

Kind of service	Employment		Percentage change	Pay roll		Percentage change
	August 1935	July 1935		August 1935	July 1935	
Total services.....	1,630,183	1,440,087	+13.2	\$171,659,653	\$161,314,734	+6.4
Executive service.....	² 770,336	¹ 731,539	+5.3	115,789,800	111,110,248	+4.2
Judicial service.....	1,732	1,766	-1.9	470,939	473,044	-4
Legislative service.....	5,147	5,014	+2.7	1,204,204	1,181,349	+1.9
Military service.....	269,459	261,067	+3.2	20,846,275	20,689,446	+8
Construction projects financed by P. W. A.....	394,509	405,332	-2.7	25,292,656	24,968,785	+1.3
Construction projects financed by R. F. C.....	9,415	9,581	-1.7	1,020,208	1,001,653	+1.9
Construction projects financed by direct governmental appropriations.....	36,491	25,788	+41.5	2,694,822	1,890,209	+42.6
The Works Program.....	143,094			4,340,749		

¹ Revised.² 24,174 employees of the Works Progress Administration included for which pay roll is not available.

Table 4.—Employment and Pay Rolls on Relief Work of Various Federal Agencies, August 1935 (Preliminary Figures)

Group	Employment		Per-centage change	Pay roll		Per-centage change
	August 1935	July 1935		August 1935	July 1935	
All groups.....	1,989,976	2,409,375	-17.4	\$63,992,155	\$75,211,411	-14.9
Emergency Work Program.....	1,401,394	1,928,789	-27.3	37,823,716	53,136,834	-28.8
Emergency Conservation Work.....	588,582	480,586	+22.5	26,168,439	22,074,577	+18.5

Coverage of Reports

MONTHLY reports on employment and pay rolls are now available for the following groups: (1) 90 manufacturing industries; (2) 17 nonmanufacturing industries, including building construction; (3) class I steam railroads; and (4) Federal services and agencies. The reports for the first two of these groups—manufacturing and non-manufacturing—are based on sample surveys by the Bureau of Labor Statistics, but in practically all cases the samples are sufficiently large to be entirely representative. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and include all employees. The data for the various Federal services and agencies also cover all employees on the pay rolls of such organizations.

In total, these four groups include a majority of the wage and salary workers in the United States. Unfortunately, however, information is not available for certain other large employment groups—notably, agricultural work, professional service, and domestic and personal service.

Employment and Pay Rolls, July 1935: Revised Figures

THIS article presents the detailed figures on volume of employment, as compiled by the Bureau of Labor Statistics for the month of July 1935. The tabular data are the same as those published in the *Employment and Pay Rolls* (formerly *Trend of Employment*) pamphlet for July except for certain minor revisions and corrections.

Industrial Employment

Manufacturing Industries

TAKING the 3-year average, 1923–25, as 100, the Bureau of Labor Statistics index of factory employment and pay rolls for July stood at 79.5 and 65.3, respectively. Compared with the corresponding month of the preceding year, the employment index for July 1935 showed an increase of 1 percent and the current pay-rolls index a gain of 7.9 percent.

The most pronounced increase in employment from June to July in the separate industries was a seasonal rise of 67.5 percent in the canning and preserving industry. A gain of 11.8 percent in the radio and phonograph industry was also seasonal. A number of industries related to building construction showed employment gains. Among these were plumbers' supplies (9.8 percent), sawmills (9.7 percent), millwork (6.9 percent), brick (2.5 percent), and structural metal work (1.7 percent). The agricultural implement industry, an indicator of farm purchasing power, continued to take on more workers, the gain from June to July being 5.5 percent, bringing the index for the industry to 116.7, the highest point since May 1930. The lowest point was 26.9 in October 1932. Compared with the corresponding month of last year, the employment index for the agricultural implement industry showed an increase of 68.4 percent. The machine-tool industry, which is a barometer of orders placed for power-driven, metal-cutting machinery, also continued to take on more workers, the increase in July being 4.6 percent. The expansion in this industry, which began in November of last year, brought the July employment index to 89.0, the highest since March 1931.

The most pronounced decline in employment in manufacturing industries in July (34.3 percent) was in the electric and steam car-building industry, and was due primarily to the completion of contracts and lack of new orders. Locomotive plants reported a drop of 29.8 percent in number of workers. Seasonal factors were primarily responsible for the declines in employment of 23.4 percent in millinery, 14.1 percent in fertilizers, 11.0 percent in silverware, 12.7 percent in women's clothing, 8.8 percent in men's furnishings, 8.0 percent in cutlery, and 5.5 percent in confectionery. The automobile industry reduced the number of workers on pay rolls 6.1 percent and weekly wage disbursements 8.3 percent. Blast furnaces, steel works, and rolling mills reported 1 percent fewer employees and a 7.7 percent lower weekly wage bill. The durable goods group of industries showed losses of 0.3 percent in employment and 3.5 percent in pay rolls, and the nondurable goods group reported gains of 0.1 percent in both items.

The indexes of factory employment and pay rolls are computed from reports supplied by representative establishments in 90 manufacturing industries, the 3-year average, 1923-25, being taken as the base or 100. In July, reports were received from 23,501 establishments employing 3,738,194 workers whose earnings in 1 week ending nearest July 15 were \$75,228,168.

Per capita weekly earnings in all manufacturing industries combined were \$20.12 in July, a decrease of 1.6 percent in comparison with June.

Some of the establishments that report employment and pay-roll totals do not report man-hours. Consequently, average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than are used in computing per capita weekly earnings and indexes of employment and pay rolls. Man-hour data are not published for any industry for which available information covers less than 20 percent of all employees in that industry.

Indexes of employment and pay rolls, average hours worked per week, average hourly earnings, and per capita weekly earnings in manufacturing industries in July are presented in table 1. Percentage changes from June 1935 to July 1935 and from July 1934 to July of this year are also given in this table.

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, July 1935

Industry	Employment			Pay roll			Per capita weekly earnings ¹			Average hours worked per week ²			Average hourly earnings ²		
	Index July 1935 (3-year average 1923-25 = 100)	Percentage change from—		Index July 1935 (3-year average 1923-25 = 100)	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—	
		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934
All industries	79.5	-0.1	+1.0	65.3	-1.7	+7.9	\$20.12	-1.6	+6.8	35.2	-0.6	+5.1	<i>Cents</i> 56.9	-0.9	+1.5
Durable goods	69.3	- .3	+2.8	55.6	-3.5	+11.4	21.58	-3.3	+8.4	35.2	-2.2	+6.1	60.9	- .7	+1.7
Nondurable goods	90.5	+ .1	- .3	77.7	+ .1	+5.1	18.76	+ .1	+5.5	35.3	+1.1	+4.9	53.4	- .7	+2.6
<i>Durable goods</i>															
Iron and steel and their products, not including machinery	71.3	- .7	+1.4	52.8	-5.4	+10.9	19.87	-4.6	+9.5	32.7	-4.1	+8.3	61.1	- .5	+ .9
Blast furnaces, steel works, and rolling mills.....	71.7	-1.0	-1.0	52.4	-7.7	+9.4	19.96	-6.7	+10.9	30.2	-6.8	+10.2	65.7	- .6	+ .5
Bolts, nuts, washers, and rivets.....	75.5	-2.3	-5.4	54.2	-5.6	-2.2	18.81	-3.4	+3.1	32.5	-3.6	+5.1	58.0	+ .2	-2.4
Cast-iron pipe.....	51.6	+1.5	- .6	28.3	-2.2	+3.3	15.08	-3.6	+4.1	30.4	-3.2	+3.5	49.0	- .4	- .4
Cutlery (not including silver and plated cutlery) and edge tools.....	71.2	-8.0	-5.6	54.1	-8.8	+1.3	19.71	- .9	+7.1	35.5	-2.7	+3.0	55.1	+2.2	+4.1
Forgings, iron and steel.....	56.9	-1.2	+10.5	38.5	-7.3	+12.2	19.85	-6.1	+1.3	32.7	-4.4	-3.1	60.7	-1.8	+6.0
Hardware.....	49.5	-3.8	-4.4	40.3	-6.1	+15.8	19.16	-2.3	+22.1	35.2	-1.1	+23.9	55.1	-1.1	-2.0
Plumbers' supplies.....	90.3	+9.8	+41.1	53.5	+6.3	+47.0	19.27	-3.2	+3.9	35.1	-2.5	+6.2	54.8	-1.1	-3.1
Steam and hot-water heating apparatus and steam fittings.....	49.4	-4.0	+2.3	32.3	-6.7	+3.5	20.80	-2.8	+ .9	35.3	-2.2	-2.0	58.8	- .8	+ .8
Stoves.....	98.2	- .3	+13.4	71.8	-2.3	+27.1	20.54	-2.0	+11.9	36.5	- .8	+6.3	55.9	(³)	+3.8
Structural and ornamental metalwork.....	56.9	+1.7	-3.6	42.2	+3.6	+3.9	20.53	+1.9	+7.5	34.9	+1.5	+5.9	58.9	+ .5	+2.6
Tin cans and other tinware.....	100.0	+4.2	+ .4	97.7	+4.1	+3.4	20.69	- .1	+2.8	39.4	+ .8	+2.5	52.3	-1.5	- .9
Tools (not including edge tools, machine tools, files, and saws).....	62.3	-2.6	+5.1	55.1	-7.3	+12.4	19.87	-4.9	+6.4	37.0	-3.9	+1.1	53.8	- .9	+6.9
Wirework.....	116.5	-4.8	-5.7	106.3	-3.2	+10.7	20.10	+1.6	+17.7	34.9	- .9	+8.1	57.5	+2.3	+7.7
Machinery, not including transportation equipment	85.6	+1.7	+8.4	67.5	+ .9	+15.4	22.53	- .8	+6.5	36.5	- .3	+5.7	60.7	- .5	+1.2
Agricultural implements.....	116.7	+5.5	+68.4	135.2	+6.1	+92.6	24.76	+ .6	+14.2	39.9	+ .5	+6.2	62.2	+ .2	+7.5
Cash registers, adding machines, and calculating machines.....	102.7	+ .3	-1.8	85.6	+1.5	- .8	27.43	+1.1	+1.0	39.7	+ .5	+1.1	69.8	+ .7	-1.5
Electrical machinery, apparatus, and supplies.....	69.6	+ (⁴)	+6.9	54.7	-2.5	+9.8	21.64	-2.5	+2.8	34.9	-1.1	+3.5	61.3	-1.1	- .7

Engines, turbines, tractors, and water wheels	101.1	-1.6	+41.6	72.6	-2.7	+59.2	25.83	-1.1	+12.0	38.7	-1.5	+7.3	66.9	+5	+4.4
Foundry and machine-shop products	73.4	+9	+5.6	56.7	+9	+11.0	21.78	(?)	+5.2	36.3	-3	+3.2	59.8	(?)	+1.8
Machine tools	89.0	+4.6	+28.8	75.8	+5.6	+47.2	25.59	+9	+14.0	41.0	+7	+11.7	62.5	+5	+1.7
Radios and phonographs	185.0	+11.8	-9.8	112.9	+11.9	-1.3	18.96	+2	+9.5	35.0	+3.2	+9.9	54.4	-3.0	-1.7
Textile machinery and parts	63.4	-8	-11.1	51.2	-2.0	-8.7	22.26	-1.2	+3.9	36.2	-1.4	+2.6	61.6	(?)	+2.6
Typewriters and parts	97.1	+8	+3	79.4	+2.1	-6.4	20.92	+1.3	-6.8	36.3	+3	+8.1	57.7	+1.2	+2.1
Transportation equipment	87.2	-6.9	-1.4	74.7	-9.3	+13.2	25.05	-2.5	+14.7	33.6	-2.0	+10.8	74.5	+1	+4.7
Aircraft	432.6	+4.0	+16.1	343.7	+1.0	+5.8	24.30	-2.9	-8.7	39.7	-3.2	-1.4	62.7	-2.6	-1.3
Automobiles	100.6	-6.1	+2.2	85.7	-8.3	+21.2	25.39	-2.3	+18.4	33.6	-2.3	+13.3	75.7	+1	+3.9
Cars, electric- and steam-railroad	31.7	-34.3	-43.2	28.0	-39.9	-44.8	18.76	-8.6	-2.1	30.9	-5.5	-7.3	60.8	-3.5	+3.4
Locomotives	20.0	-29.8	-43.7	8.2	-35.3	-50.0	21.05	-7.9	-11.1	32.5	-6.1	-14.0	64.7	-2.1	+2.3
Shipbuilding	71.3	+7.8	+3.0	59.4	+7.0	+6.8	24.13	-7	+3.8	32.6	+6	+4.1	73.3	-1.2	+4.4
Railroad repair shops	53.5	-6	-8.2	48.2	-5.5	-5.7	25.64	-5.0	+2.7	37.6	-5.1	-4.1	67.5	-3	+6.6
Electric railroad	65.2	-6	-1.7	58.8	-4	(?)	26.99	+2	+1.6	43.5	-5	-3	61.6	+3	+1.6
Steam railroad	52.6	-6	-8.8	47.5	-5.9	-6.1	25.34	-5.3	+3.3	37.1	-5.4	-4.5	68.1	-3	+7.2
Nonferrous metals and their products	78.0	-1.9	+6.7	59.6	-4.8	+11.2	19.91	-2.9	+4.2	36.0	-2.4	+3.5	55.0	-2	+2.7
Aluminum manufactures	63.2	-2.1	-6.4	51.2	-9.7	+16.9	18.85	-7.8	+24.7	34.7	-3.7	+34.8	54.4	+1.1	-5.2
Brass, bronze, and copper products	77.4	-1.9	+3.2	57.5	-4.1	+5.7	21.55	-2.2	+2.8	36.7	-2.4	+2.0	58.7	+2	+1.2
Clocks and watches and time-recording devices	80.0	-9	+17.3	62.5	-7.0	+24.3	17.65	-6.2	+6.0	35.7	-7.0	+2.4	49.5	+1.0	+4.2
Jewelry	66.9	+2.1	+8.3	47.8	-3.4	+5.8	18.16	-6.4	-2.3	34.1	+1.2	-1.2	54.0	-3.4	+3.9
Lighting equipment	69.0	+1	+11.8	58.9	-1.4	+19.7	20.26	-1.5	+7.1	36.4	(?)	+4.8	55.5	-1.8	+1.9
Silverware and plated ware	65.3	-11.0	+6.5	48.1	-15.7	+10.3	20.83	-5.3	+3.6	36.4	-5.7	+3.7	57.3	+5	+4
Smelting and refining—copper, lead, and zinc	80.2	-1.9	+16.9	53.0	-3	+22.7	21.33	+1.8	+5.2	37.8	+3	-1.8	56.5	+1.8	+5.7
Stamped and enameled ware	89.8	-2.1	-6	75.2	-4.8	+3.2	17.42	-2.8	+3.8	34.5	-2.3	+1.0	50.3	-6	+4.2
Lumber and allied products	51.9	+6.1	+6.4	38.3	+5.5	+21.2	16.45	-5	13.9	37.3	-2.1	+11.6	43.7	+1.4	-3
Furniture	69.1	+3.0	+11.5	48.4	-2	+23.2	16.46	-3.1	+10.6	36.7	-2.9	+11.4	44.5	-4	-1.1
Lumber:															
Millwork	44.8	+6.9	+21.1	34.2	+8.4	+48.1	17.63	+1.4	+22.1	39.1	+5	+24.4	44.8	+7	+4
Sawmills	33.9	+9.7	+3	23.3	+11.6	+11.5	16.32	+1.8	+11.6	36.8	-1.6	+10.9	44.6	+3.5	(?)
Turpentine and rosin	98.9	(?)	+1.6	57.5	-4.1	+14.3	11.50	-4.1	+12.1						
Stone, clay, and glass products	54.7	-1.8	+9	38.9	-4.0	+7.8	18.61	-2.2	+6.8	34.3	-9	+5.0	55.2	-4	+2.9
Brick, tile, and terra cotta	32.9	+2.5	+3.8	20.2	+4.6	+18.8	15.88	+2.0	+14.3	35.4	+1.7	+8.6	45.6	+7	+1.9
Cement	57.5	-4.2	-1.5	37.9	-5.4	-3.1	19.70	-1.3	-1.5	35.1	-1.1	-1.0	56.1	-4	+5
Glass	92.7	-2.6	+4.0	77.0	-6.1	+10.8	19.52	-3.6	+6.8	34.0	-2.9	+2.8	58.0	-3	+3.2
Marble, granite, slate, and other products	30.0	+8.8	-9.4	20.4	+7.1	-5.1	22.29	-1.5	+5.2	32.7	+6	+4.9	69.0	-1.7	+7
Pottery	62.4	-6.5	-2.7	41.5	-9.9	+8.1	17.36	-3.7	+12.1	33.3	(?)	+7.4	53.5	-9	+9.1

See footnotes at end of table.

Table 1.—Employment, Pay Rolls, and Earnings in Manufacturing Industries, July 1935—Continued

Industry	Employment			Pay roll			Per capita weekly earnings ¹			Average hours worked per week ²			Average hourly earnings ³		
	Index July 1935 (3-year average 1923-25 =100)	Percentage change from—		Index July 1935 (3-year average 1923-25 =100)	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—	
		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934
<i>Nondurable goods</i>															
Textiles and their products	87.8	-2.9	+2.2	68.4	-3.5	+9.4	\$15.07	-0.6	+7.0	32.0	+0.3	+7.0	<i>Cents</i>		
Fabrics.....	87.5	-2.1	+6	70.1	-2.6	+8.9	14.85	-5	+8.2	32.9	-6	+6.7	44.7	-2	+1.8
Carpets and rugs.....	82.7	+1.8	+22.7	75.8	-1.2	+56.6	20.98	-2.9	+27.3	36.3	-3.5	+21.1	56.3	(?)	+4.5
Cotton goods.....	82.3	-3.2	-10.7	64.2	-2.2	-2.9	12.29	+1.1	+8.8	32.4	+1.6	+9.1	37.9	-3	+6
Cotton small wares.....	79.9	-1.6	+4.9	65.2	-1.1	+10.1	15.74	+5	+5.1	35.1	(?)	+5.6	44.6	-2	+1.1
Dyeing and finishing textiles.....	101.3	-5.6	+1.9	73.5	-6.8	+4.1	16.86	-1.3	+2.1	30.5	-3.8	-1	54.6	+2.2	+2.4
Hats, fur-felt.....	81.1	+8.6	+5.5	82.1	+21.5	-1.3	24.68	+11.9	-6.5	36.3	+13.4	-5.7	69.0	-4	-3.6
Knit goods.....	103.9	-3.9	-2.0	85.8	-8.4	-2	14.07	-4.7	-2.1	30.2	-4.1	-3.8	47.1	-8	+1.3
Silk and rayon goods.....	68.2	+8.1	-7.1	55.4	+7.5	-9	14.94	-5	+6.8	33.7	+1.8	+8.3	44.4	-2.4	-3
Woolen and worsted goods.....	94.4	-2.4	+34.7	74.6	-3.0	+48.9	15.87	-7	+10.4	36.7	-1.3	+14.7	49.3	+6	-2.8
Wearing apparel.....	84.4	-4.7	+5.8	60.8	-5.9	+9.9	15.87	-1.2	+3.9	29.9	+2.0	+5.8	52.7	-1.9	-4.3
Clothing, men's.....	88.9	+2.6	+9.2	65.6	+3.0	+20.4	17.00	+4	+10.1	29.1	+2.5	+7.5	57.8	-2.0	-1.7
Clothing, women's.....	94.7	-12.7	+5.7	63.0	-11.7	+3.4	16.72	+1.2	-2.2	30.6	+4.8	+9.2	54.4	-9	-10.2
Corsets and allied garments.....	85.4	-2.3	-1.6	73.1	-2.6	+5.3	13.95	-4	+7.1	30.8	+2.0	+4.5	44.8	-1.5	+1.3
Men's furnishings.....	91.5	-8.8	+2.2	55.7	-11.8	-1.8	11.94	-3.3	-4.0	29.6	-2.6	-11.8	37.4	-8	+5.5
Millinery.....	42.3	-23.4	-15.6	30.3	-35.8	-19.6	17.18	-16.2	-4.7						
Shirts and collars.....	99.0	+6	+5.7	91.2	-3.7	+10.9	12.32	-4.3	+5.2	30.7	-1.0	+2.2	40.9	-2.9	+5.4
Leather and its manufactures	87.3	+5.2	-2.3	77.5	+9.3	+4	19.09	+4.0	+2.8	37.3	-3.9	+2.2	51.8	-1.3	+2.9
Boots and shoes.....	85.8	+6.4	-3.6	73.1	+12.9	-4.1	18.52	+6.1	-3	37.2	+5.1	+2.5	50.7	-1.4	+2.6
Leather.....	93.5	+7	+2.2	91.2	+2	+15.2	21.10	-5	+12.6	37.8	+5	+3.7	55.8	-4	+7.7
Food and kindred products	104.3	+6.4	-5.3	96.0	+6.3	+4	20.81	-1	+6.0	40.3	+2.0	+7.5	51.8	-3.4	+1.3
Baking.....	111.5	-2.4	-4.1	96.5	-3.1	-1.7	21.85	-7	+2.6	40.7	(?)	+1.7	53.6	-6	-7
Beverages.....	178.5	+5.0	-5.5	192.7	+11.1	-4	32.41	+5.8	+5.3	42.2	+6.6	+8.5	77.3	-6	-2.4
Butter.....	78.0	+1.0	-10.2	61.4	+9	-7.8	20.90	-1	+2.6						
Canning and preserving.....	138.6	+67.5	+14.9	167.1	+73.2	+61.3	14.46	+3.4	+40.5	39.6	+12.8	+60.6	37.0	-5.6	-4.7
Confectionery.....	68.4	-5.5	-3.0	57.0	-10.0	+2.9	15.08	-4.7	-2	33.6	-5.6	-1.5	44.6	+7	+2.4
Flour.....	74.6	+1.0	-3.7	64.1	+1.9	-1.4	21.17	+9	+2.7	39.2	+3.2	+3.8	53.9	-1.8	-6
Ice cream.....	87.6	+3.5	-3.5	71.8	+5.0	-1.1	25.70	+1.4	+2.6	47.9	+3.0	-1.0	52.4	-1.5	+3.3
Slaughtering and meat packing.....	80.4	-1.2	-22.3	75.0	+3	-17.9	23.09	+1.4	+5.5	40.7	+5	-5.5	55.7	-5	+10.3
Sugar, beet.....	47.2	+8.9	-13.4	43.6	+7.0	+7.1	22.14	-1.8	+24.0	36.3	(?)	+18.1	62.7	-2.9	+3.2
Sugar, refining, cane.....	85.5	+2.6	+3.9	72.7	-1.2	+10.3	21.65	-3.6	+6.4	37.6	-4.1	+4.2	57.0	-9	+2.5

Tobacco manufactures	57.6	-3	-5.7	47.6	+1.7	+6	14.71	+2.0	+6.7	36.7	+4.0	(3)	40.7	-1.0	+4.9
Chewing and smoking tobacco and snuff.....	65.8	-1.2	-9.7	66.8	-6	-3	15.75	+6	+10.4	35.6	-8	+6.4	44.4	+1.4	+5.1
Cigars and cigarettes.....	56.5	-4	-5.2	45.1	+2.0	+7	14.53	+2.3	+6.0	36.9	+4.8	-9	40.1	-1.5	+5.4
Paper and printing	95.5	-1	+2.2	81.4	-2.4	+5.3	23.88	-2.3	+2.9	36.6	-1.9	+1.6	68.8	-3	+3.1
Boxes, paper.....	83.3	+2	+2	73.9	-8	+3.2	18.14	-1.0	+2.6	36.0	-1.1	-4	50.4	+2	+1.4
Paper and pulp.....	108.9	-2	+3.9	85.1	-2.6	+10.4	19.69	-2.5	+6.3	37.2	-2.4	+3.4	53.1	+2	+3.0
Printing and publishing:															
Book and job.....	86.6	+1.8	+3.5	75.8	+3	+7.8	27.16	-1.5	+4.2	36.8	-1.1	+3.5	74.1	-7	+3.0
Newspapers and periodicals.....	97.0	-2.0	+2	85.3	-4.5	+6	32.03	-2.6	+2	36.1	-1.6	-6	89.2	-1	+4.8
Chemicals and allied products, and petroleum refining	106.8	-4	+1.4	95.4	+4	+7.6	23.53	+8	+6.1	37.3	+3	+2.3	63.5	+8	+4.6
Other than petroleum refining.....	105.7	-7	+1.8	93.8	+1	+8.3	21.51	+7	+6.4	38.3	(3)	+2.9	56.7	+9	+3.6
Chemicals.....	109.0	+8	-2.9	101.6	+3.6	+5.2	25.96	+2.8	+8.2	39.9	+1.8	+4.3	65.1	+9	+2.1
Cottonseed—oil, cake, and meal.....	46.7	+7.9	-14.8	48.3	+15.0	-10.1	9.83	+6.6	+5.5	40.7	+7.7	+5.4	24.4	-1.2	-2
Druggists' preparations.....	95.1	-7	+1.4	92.3	-1.5	+7.2	20.63	-8	+5.6	37.9	-1.0	+4.2	54.6	-5	+1.0
Explosives.....	86.1	-4	-6.4	70.0	-3.7	-1.4	23.35	-3.3	+5.5	34.1	-1.7	-2.6	68.5	-1.6	+3.5
Fertilizers.....	68.0	-14.1	-4.2	62.0	-10.5	+9.0	13.56	+4.1	+13.6	33.9	(3)	+10.3	40.0	+3.9	+3.7
Paints and varnishes.....	108.6	-3.5	+7.3	88.9	-5.4	+12.8	22.78	-2.0	+5.5	38.8	-3.5	+2.3	58.8	+1.6	+3.3
Rayon and allied products.....	327.9	+6	+10.5	240.2	-1	+15.1	19.38	-7	+4.2	37.7	-3	+1.6	51.4	-4	+2.5
Soap.....	99.3	-2	+1.6	94.4	-1.5	+12.0	23.32	-1.3	+10.3	37.8	-1.8	-4.2	61.8	+5	+15.3
Petroleum refining.....	111.2	+5	-4	100.5	+1.2	+5.0	27.80	+7	+5.5	34.5	+3	+6	81.3	+5	+6.8
Rubber products	77.3	-3.1	-7.9	61.3	-5.5	-1.0	21.78	-2.5	+7.5	32.4	-1.2	+4.1	68.6	-3	+4.7
Rubber boots and shoes.....	45.3	-3.6	-15.2	41.7	-2	-15.6	18.22	+3.5	-4	34.8	+3.9	-7.5	52.3	-4	+3.5
Rubber goods, other than boots, shoes, tires, and inner tubes.....	117.6	-2.4	-3.7	94.9	-2.9	+8.5	18.11	-5	+12.9	35.5	+6	+12.1	51.7	-4	+1.3
Rubber tires and inner tubes.....	70.3	-3.5	-9.2	54.2	-8.1	-3.0	24.66	-4.8	+6.4	29.6	-4.2	+4	84.3	-2	+7.6

¹ Per capita weekly earnings are computed from figures furnished by all reporting establishments. Percentage changes over month in the groups and in "All industries" also computed from indexes.

² Computed from available man-hour data—all reporting establishments do not furnish man-hours. Percentage changes over year computed from indexes. The average hours and average hourly earnings in the groups and in "All industries" are weighted.

³ No change.

⁴ Less than $\frac{1}{10}$ of 1 percent.

Percentage changes over year computed from indexes. Percentage changes

Percentage changes over year computed from indexes. The average hours

Indexes and Estimates of Factory Employment and Pay Rolls

INDEXES of employment and pay rolls for all manufacturing industries combined, for the durable-goods group, and for the non-durable-goods group, by months from January 1934 to July 1935, inclusive, are given in table 2. Estimates of employment and weekly pay rolls for all manufacturing industries combined are also given.

The diagram on page 1069 indicates the trend of factory employment and pay rolls from January 1919 to July 1935.

Table 2.—Indexes and Estimates of Employment and Pay Rolls in All Manufacturing Industries Combined and Indexes of Employment and Pay Rolls in the Durable- and Nondurable-Goods Groups ¹

[Indexes based on 3-year average, 1923-25=100.0]

Year and month	Estimated number of wage earners	Estimated pay rolls (1 week)	Indexes					
			All manufacturing industries combined		Durable-goods group		Nondurable-goods group	
			Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
<i>1934</i>								
January.....	6,146,000	\$109,806,000	73.3	54.0	59.8	41.6	87.9	69.7
February.....	6,514,200	123,395,000	77.7	60.6	63.5	47.9	93.0	76.9
March.....	6,770,100	131,852,000	80.8	64.8	67.1	52.8	95.4	80.1
April.....	6,906,100	136,962,000	82.4	67.3	70.0	57.4	95.8	80.0
May.....	6,912,600	136,575,000	82.5	67.1	71.5	58.6	94.3	78.1
June.....	6,799,900	132,040,000	81.1	64.9	70.8	56.9	92.3	75.1
July.....	6,593,500	123,011,000	78.7	60.5	67.4	49.9	90.8	73.9
August.....	6,666,200	126,603,000	79.5	62.2	66.1	50.0	94.0	77.9
September.....	6,351,900	118,089,000	75.8	58.0	64.2	45.5	88.2	74.0
October.....	6,569,500	124,138,000	78.4	61.0	62.8	46.4	95.1	79.6
November.....	6,435,000	121,085,000	76.8	59.5	62.2	46.1	92.4	76.6
December.....	6,536,100	128,593,000	78.0	63.2	64.3	50.4	92.7	79.5
Average.....	6,600,100	126,012,000	78.8	61.9	65.8	50.3	92.7	76.8
<i>1935</i>								
January.....	6,595,700	130,503,000	78.7	64.1	66.1	52.5	92.3	79.0
February.....	6,809,000	140,618,000	81.2	69.1	69.3	58.6	94.1	82.5
March.....	6,906,300	143,927,000	82.4	70.7	70.8	60.5	94.8	83.8
April.....	6,906,100	144,075,000	82.4	70.8	71.6	61.8	94.0	82.3
May.....	6,795,500	139,325,000	81.1	68.5	71.3	60.1	91.6	79.1
June.....	6,669,200	135,246,000	79.6	66.4	69.5	57.6	90.4	77.6
July.....	6,664,700	132,886,000	79.5	65.3	69.3	55.6	90.5	77.7

¹ Comparable indexes for earlier years will be found in the December 1934 and subsequent issues of this pamphlet, or the March 1935 and subsequent issues of the Monthly Labor Review.

Trade, Public Utility, Mining, and Service Industries, and Private Building Construction

INCREASED employment from June to July was shown in 9 of the 17 nonmanufacturing industries surveyed while gains in pay rolls were reported for 10. The largest gains in number of workers were in laundries (2.6 percent), brokerage houses (1.6 percent), private building construction (1.4 percent), and power and light (1.1 percent).

Among the 8 industries which showed declines were: Anthracite mining (13 percent), bituminous-coal mining (10.1 percent), and retail

EMPLOYMENT & PAY ROLLS *in* MANUFACTURING INDUSTRIES

3-year average 1923-1925=100

U.S. Department of Labor
BUREAU OF LABOR STATISTICS
Washington



TREND OF EMPLOYMENT AND PAY ROLLS

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trade (3.7 percent). The decline in employment in retail trade was largely seasonal, general merchandising and wearing apparel stores suffering the greatest losses. The reduction in number of workers in coal mines was largely a retrenchment after the large gains of the preceding month. In the aggregate, there were approximately 147,000 fewer workers on the pay rolls of the 17 nonmanufacturing industries surveyed in July than in June. Weekly pay rolls were approximately \$5,000,000 less than in the month preceding.

Indexes of employment and pay rolls, per capita weekly earnings, average hours worked per week, and average hourly earnings in July for 13 of the trade, public utility, mining, and service industries, together with percentage changes from June 1935 and July 1934, are shown in table 3. Similar information, except indexes of employment and pay rolls, is also presented for private building construction. Man-hour data and indexes of employment and pay rolls are not available for banking, brokerage, or insurance establishments, but the table shows percentage changes in employment, pay rolls, and per capita weekly earnings for these three industries.

Table 3.—Employment, Pay Rolls, Hours, and Earnings, July 1935

Industry	Employment			Pay roll			Per capita weekly earnings ¹			Average hours worked per week ¹			Average hourly earnings ¹			
	Index July 1935 (average 1929 = 100)	Percentage change from—		Index July 1935 (average 1929 = 100)	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—		Average in July 1935	Percentage change from—		
		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934		June 1935	July 1934	
Coal mining:																
Anthracite.....	49.4	-13.0	-7.8	37.5	-43.1	-11.3	\$22.11	-34.6	-3.8	27.3	-33.6	-1.2	<i>Cents</i> 82.3	-0.6	-1.2	
Bituminous.....	70.0	-10.1	-9.1	35.9	-44.5	-27.8	13.31	-38.4	-20.5	18.3	-39.0	-17.3	73.7	+1.8	+9	
Metalliferous mining.....	45.2	-1.6	+13.3	31.1	-1.1	+23.9	21.91	+6	+9.4	37.4	+2.5	+4.9	58.1	.0	+6.7	
Quarrying and nonmetallic mining.....	50.9	+1.0	-8.5	34.4	+1.7	-1.7	16.57	+7	+7.5	35.2	+1.7	+3.5	47.6	-2	-1.2	
Crude-petroleum producing.....	76.8	+4	-5.9	59.2	+1.5	-1.3	27.88	+1.1	+4.9	36.1	+8	-1.2	77.1	-4	+3.4	
Public utilities:																
Telephone and telegraph.....	70.3	+1	-1.0	75.7	+1.7	+4.7	28.56	+1.7	+5.8	38.1	-1.0	+8	77.1	+2.4	+7.8	
Electric light and power and manufactured gas.....	84.7	+1.1	-4	81.5	+2.1	+5	30.57	+1.1	+8	38.9	+8	+1.7	78.7	+3	+1.2	
Electric-railroad and motor-bus operation and maintenance.....	71.5	-4	-2.2	63.4	-7	-6	28.18	-3	+1.6	44.8	-4	-6	61.6	.0	+2.0	
Trade:																
Wholesale.....	82.1	-(²)	-1	64.6	+(²)	+1.3	27.31	+(²)	+1.4	41.3	+5	+1.1	65.7	-2	+3	
Retail.....	79.1	-3.7	+1	60.5	-3.0	+7	20.40	+8	+5	41.6	+7	+4.0	52.1	-2	-1.1	
General merchandising.....	84.5	-6.8	+1.8	71.8	-6.0	+3.3	17.96	+7	+1.6	38.0	-3	+9	48.8	+8	-5	
Other than general merchandising.....	77.7	-2.7	-3	58.1	-2.3	-2	22.29	+5	+1	42.6	+7	+4.4	53.0	-6	-1.2	
Hotels (cash payments only) ³	80.3	-1.2	-1	62.1	-2.3	+1.0	13.36	-1.0	+1.0	47.8	+6	+1.1	27.4	-1.4	-7	
Laundries.....	84.4	+2.6	-2	70.9	+3.9	+4.0	15.98	+1.3	+4.2	41.8	+2.2	+4.8	36.6	-8	-3	
Dyeing and cleaning.....	81.7	-2.2	+1.5	61.5	-6.4	+4.4	18.46	-4.3	+2.9	41.9	-2.8	-2.0	43.9	-1.8	+2	
Banks.....	(⁴)	+1.0	+1.6	(⁴)	+6	+1.3	31.57	-3	-3	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	
Brokerage.....	(⁴)	+1.6	-8.8	(⁴)	+1.4	-9.1	34.79	-2	+3	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	
Insurance.....	(⁴)	+8	+1.5	(⁴)	+3.0	+5.3	37.37	+2.3	+3.8	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	
Building construction.....	(⁴)	+1.4	+4.9	(⁴)	+2.7	+12.0	24.17	+1.3	+6.9	30.8	+2.0	+7.0	80.3	-9	+2.9	

¹ Per capita weekly earnings are computed from figures furnished by all reporting establishments. A average hours and average hourly earnings are computed from data furnished by a smaller number of establishments as some firms do not report man-hour information. Percentage changes over year computed from indexes.

² Less than 1/10 of 1 percent.

³ The additional value of board, room, and tips cannot be computed.

⁴ Not available.

Indexes of Employment and Pay Rolls in Trade, Public-Utility, Mining, and Service Industries

INDEXES of employment and pay rolls in 13 trade, public utility mining, and service industries and 2 subdivisions under retail trade are shown by months in table 4 for the period, January 1934 to July 1935.

Table 4.—Indexes of Employment and Pay Rolls, January 1934 to July 1935

[12-month average, 1929=100.0]

Month	Anthracite mining				Bituminous-coal mining				Metalliferous mining				Quarrying and non-metallic mining			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	64.1	62.9	73.2	57.5	75.8	80.0	51.3	59.6	39.6	44.3	25.4	30.1	39.7	36.9	21.3	20.8
February	63.2	64.4	65.8	64.3	76.1	81.1	54.6	66.1	40.3	44.3	26.0	29.9	38.8	37.3	21.0	22.2
March	67.5	51.4	82.4	38.9	77.8	81.6	58.9	67.5	39.8	45.0	25.9	30.9	42.0	40.5	24.1	24.9
April	58.2	52.6	51.7	49.9	72.2	74.3	51.4	45.0	41.7	46.0	27.2	31.8	48.7	45.3	29.9	28.9
May	63.8	53.5	64.0	49.5	76.7	75.3	54.4	49.1	40.8	44.4	25.6	31.4	54.3	49.5	35.0	32.8
June	57.5	56.8	53.3	66.0	76.7	77.9	55.1	64.7	41.0	46.0	26.7	31.5	56.6	50.4	37.0	33.8
July	53.6	49.4	42.3	37.5	77.0	70.0	49.7	35.9	39.9	45.2	25.1	31.1	55.6	50.9	35.0	34.4
August	49.5	-----	39.7	-----	77.1	-----	50.4	-----	42.7	-----	27.0	-----	54.7	-----	34.0	-----
September	56.9	-----	47.0	-----	78.2	-----	51.4	-----	42.3	-----	25.9	-----	53.3	-----	32.4	-----
October	58.5	-----	48.3	-----	79.3	-----	57.6	-----	43.3	-----	28.2	-----	51.8	-----	32.1	-----
November	60.7	-----	51.2	-----	79.8	-----	58.3	-----	43.2	-----	28.5	-----	49.5	-----	29.4	-----
December	61.6	-----	52.3	-----	79.7	-----	57.0	-----	44.4	-----	29.4	-----	42.1	-----	23.6	-----
Average	59.6	-----	55.9	-----	77.2	-----	54.2	-----	41.6	-----	26.7	-----	48.9	-----	29.6	-----

Month	Crude-petroleum producing				Telephone and telegraph				Electric light and power and manufactured gas				Electric-railroad and motor-bus operation and maintenance			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January	73.2	74.9	53.0	55.5	70.2	70.5	69.0	73.9	82.2	82.7	73.8	78.0	70.5	71.2	59.2	62.9
February	72.4	74.2	50.5	54.9	69.8	70.0	67.9	72.9	81.2	82.2	74.4	78.3	71.0	71.0	60.1	63.1
March	72.8	74.0	52.5	56.0	70.0	69.8	70.4	75.3	81.7	82.2	75.6	79.4	71.7	71.3	62.2	63.4
April	74.0	74.9	53.4	56.7	70.2	69.7	68.8	73.1	82.4	82.6	76.8	79.0	72.2	71.4	62.9	63.3
May	76.7	76.0	56.4	57.8	70.2	70.0	71.4	73.7	83.1	83.2	77.6	79.8	72.6	71.6	63.0	63.6
June	80.0	76.5	56.9	58.3	70.4	70.2	71.3	74.4	84.0	83.8	77.8	79.8	73.2	71.7	63.2	63.9
July	81.6	76.8	60.0	59.2	71.0	70.3	72.3	75.7	85.0	84.7	81.1	81.5	73.1	71.5	63.8	63.4
August	82.7	-----	61.2	-----	71.0	-----	74.0	-----	85.6	-----	79.9	-----	72.8	-----	62.8	-----
September	81.8	-----	59.7	-----	70.9	-----	72.2	-----	85.8	-----	79.3	-----	72.5	-----	62.4	-----
October	79.5	-----	60.8	-----	70.3	-----	74.9	-----	85.8	-----	80.6	-----	72.2	-----	63.0	-----
November	78.8	-----	59.0	-----	69.9	-----	72.2	-----	85.5	-----	79.6	-----	71.8	-----	61.8	-----
December	78.7	-----	59.5	-----	69.7	-----	73.2	-----	83.6	-----	78.3	-----	71.0	-----	62.3	-----
Average	77.7	-----	56.9	-----	70.3	-----	71.5	-----	83.8	-----	77.9	-----	72.1	-----	62.2	-----

¹ Comparable indexes for earlier years for all of these industries, except year-round hotels, will be found in the November 1934 and subsequent issues of this pamphlet, or the February 1935 and subsequent issues of the Monthly Labor Review. Comparable indexes for year-round hotels will be found in the June 1935 issue of this pamphlet, or the September 1935 issue of the Monthly Labor Review.

Table 4.—Indexes of Employment and Pay Rolls, January 1934 to July 1935—Continued

Month	Wholesale trade				Total retail trade				Retail trade—general merchandising				Retail trade—other than general merchandising			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January.....	80.6	84.2	60.3	63.9	79.8	79.5	59.0	59.7	86.6	87.3	71.1	73.5	78.0	77.4	56.5	56.9
February.....	81.2	84.6	61.0	64.6	79.6	79.2	58.8	59.3	85.0	86.2	68.9	72.3	78.2	77.3	56.7	56.6
March.....	81.8	84.0	62.0	65.2	81.5	80.2	59.8	60.4	90.1	88.7	71.5	74.1	79.3	78.0	57.4	57.6
April.....	82.1	83.2	63.1	64.8	82.5	83.6	61.2	62.5	91.0	94.5	74.0	77.5	80.3	80.7	58.5	59.4
May.....	82.8	82.5	62.6	64.6	82.9	82.2	61.5	62.0	92.0	91.4	74.5	76.3	80.5	79.8	58.8	59.0
June.....	82.3	82.1	62.8	64.6	82.6	82.1	61.4	62.4	90.6	90.7	73.9	76.3	80.5	79.8	58.8	59.5
July.....	82.2	82.1	63.8	64.6	79.0	79.1	60.1	60.5	83.0	84.5	69.5	71.8	77.9	77.7	58.2	58.1
August.....	82.5	-----	62.7	-----	77.8	-----	58.4	-----	81.2	-----	66.9	-----	76.9	-----	56.6	-----
September.....	83.5	-----	63.6	-----	81.7	-----	60.6	-----	91.5	-----	74.0	-----	79.1	-----	57.8	-----
October.....	84.3	-----	64.5	-----	82.6	-----	61.9	-----	94.2	-----	77.3	-----	79.5	-----	58.7	-----
November.....	85.1	-----	64.2	-----	83.7	-----	61.9	-----	99.9	-----	80.2	-----	79.4	-----	58.1	-----
December.....	85.0	-----	64.8	-----	91.1	-----	66.2	-----	128.4	-----	99.0	-----	81.3	-----	59.4	-----
Average.....	82.8	-----	63.0	-----	82.1	-----	60.9	-----	92.8	-----	75.1	-----	79.2	-----	58.0	-----

Month	Year-round hotels				Laundries				Dyeing and cleaning			
	Employment		Pay rolls		Employment		Pay rolls		Employment		Pay rolls	
	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935	1934	1935
January.....	76.4	80.3	57.2	62.2	78.5	79.6	61.7	63.9	68.1	70.3	46.8	50.4
February.....	78.9	81.1	60.9	63.5	78.4	79.6	61.7	64.1	68.1	69.6	46.3	49.8
March.....	80.4	80.8	62.2	63.9	79.2	79.7	62.7	64.6	72.4	72.5	51.7	53.5
April.....	81.5	81.1	62.7	63.6	80.5	80.0	64.4	65.5	79.9	79.9	60.8	61.9
May.....	81.8	81.6	62.9	63.7	82.1	81.1	66.0	66.6	84.3	80.9	65.1	61.7
June.....	81.9	81.3	62.9	63.5	84.0	82.3	68.3	68.2	84.9	83.6	64.1	65.7
July.....	80.4	80.3	61.5	62.1	84.6	84.4	68.2	70.9	80.5	81.7	58.9	61.5
August.....	80.0	-----	60.2	-----	83.7	-----	66.6	-----	78.6	-----	56.7	-----
September.....	80.0	-----	61.0	-----	82.9	-----	65.9	-----	80.0	-----	58.0	-----
October.....	80.9	-----	62.7	-----	81.7	-----	64.8	-----	80.3	-----	59.1	-----
November.....	80.6	-----	62.4	-----	80.3	-----	63.7	-----	75.8	-----	53.9	-----
December.....	80.0	-----	62.2	-----	79.5	-----	63.3	-----	72.4	-----	51.1	-----
Average.....	80.2	-----	61.6	-----	81.3	-----	64.9	-----	77.1	-----	56.1	-----

Employment on Class I Railroads

ACCORDING to reports of the Interstate Commerce Commission there were 1,006,495 workers, exclusive of executives and officials, employed in July by class I railroads—that is, roads having operating revenues of \$1,000,000 or over. This represents a gain of 0.3 percent over the total of 1,003,042 workers reported in June. The total compensation in July of all employees, except executives and officials, was \$134,992,051 compared with \$131,887,181 in June, a gain of 2.4 percent.

The Commission's preliminary index of employment for July, taking the 3-year average, 1923-25, as 100, is 57. The final June index is 56.8.

Table 5 shows the total number of employees by occupations on the 15th day of June and July 1935 and total pay rolls for these entire months. In these tabulations, data for the occupational

group reported as "executives, officials, and staff assistants" are omitted. Beginning in January 1933 the Interstate Commerce Commission excluded reports of switching and terminal companies from its monthly tabulations. The actual figures for the months shown in the table, therefore, are not comparable with the totals published for the months prior to January 1933.

Table 5.—Employment and Pay Rolls on Class I Steam Railroads, June and July 1935

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sums of the items under the respective groups]

Occupation	Number of employes at middle of month		Total earnings (monthly)	
	June 1935	July 1935	June 1935	July 1935
All employees.....	1, 003, 042	1, 006, 495	\$131, 887, 181	\$134, 992, 051
Professional, clerical, and general.....	163, 274	163, 366	24, 523, 605	24, 933, 206
Clerks.....	84, 877	84, 834	12, 069, 137	12, 347, 709
Stenographers and typists.....	15, 336	15, 427	2, 046, 817	2, 073, 837
Maintenance of way and structures.....	228, 795	234, 632	19, 976, 878	21, 034, 548
Laborers, extra gang and work train.....	34, 331	36, 647	2, 167, 872	2, 444, 429
Track and roadway section laborers.....	114, 356	117, 306	7, 335, 912	7, 809, 102
Maintenance of equipment and stores.....	271, 224	270, 672	32, 733, 916	33, 625, 566
Carmen.....	56, 001	55, 151	7, 577, 796	7, 760, 852
Electrical workers.....	8, 734	8, 609	1, 289, 733	1, 323, 669
Machinists.....	38, 380	38, 505	5, 386, 624	5, 570, 095
Skilled trades.....	59, 389	59, 233	5, 927, 110	6, 099, 984
Laborers (shop, engine houses, power plants, and stores).....	20, 472	20, 565	1, 708, 758	1, 759, 289
Common laborers (shop, engine houses, power plants, and stores).....	17, 647	17, 710	1, 166, 463	1, 200, 017
Transportation, other than train, engine and yard.....	123, 346	123, 168	15, 072, 644	15, 547, 880
Station agents.....	23, 439	23, 454	3, 595, 330	3, 713, 355
Telegraphers, telephoners, and towermen.....	14, 260	14, 326	2, 166, 713	2, 237, 715
Truckers (stations, w.a.houses, and platforms).....	17, 391	17, 047	1, 445, 886	1, 477, 861
Crossing and bridge flagmen and gatemen.....	16, 597	16, 618	1, 206, 432	1, 216, 704
Transportation, yardmasters, switch tenders, and hostlers.....	12, 193	12, 216	2, 288, 385	2, 357, 201
Transportation, train and engine.....	204, 210	202, 441	37, 291, 753	37, 493, 650
Road conductors.....	22, 778	22, 674	5, 324, 617	5, 407, 093
Road brakemen and flagmen.....	46, 516	46, 556	7, 205, 584	7, 280, 385
Yard brakemen and yard helpers.....	34, 877	34, 569	4, 942, 269	4, 903, 416
Road engineers and motormen.....	27, 590	27, 350	7, 151, 107	7, 178, 181
Road firemen and helpers.....	30, 268	29, 881	5, 161, 261	5, 174, 917

Trend of Employment, by States

CHANGES in employment and pay rolls from June to July 1935 are shown by States in table 6 for all groups combined, except building construction, and for all manufacturing industries combined. Data concerning groups which have appeared in this table in previous issues of this pamphlet are available on the Bureau's office records.

The percentage changes shown in the table, unless otherwise noted, are unweighted. That is, the industries included in the manufacturing group and in the grand total have not been weighted according to their relative importance.

Table 6.—Comparison of Employment and Pay Rolls in Identical Establishments in June and July 1935, by Geographic Divisions and by States

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—All groups				Manufacturing					
	Number of establishments	Number on pay roll July 1935	Percentage change from June 1935	Amount of pay roll (1 week) July 1935	Percentage change from June 1935	Number of establishments	Number on pay roll July 1935	Percentage change from June 1935	Amount of pay roll (1 week) July 1935	Percentage change from June 1935
New England	13,905	783,247	-0.5	\$16,508,542	-(1)	3,165	513,767	-0.6	\$9,966,093	-0.3
Maine.....	761	48,871	+5	894,676	+1.2	241	38,967	-6	682,369	+2
New Hampshire.....	675	40,357	-2.6	767,679	-1	187	32,832	-4.8	599,211	-1.9
Vermont.....	456	15,780	+5.4	321,470	+5.9	128	9,072	+6.7	183,250	+8.4
Massachusetts.....	<i>2,8,637</i>	<i>426,558</i>	<i>-1</i>	<i>9,335,226</i>	<i>+4</i>	<i>1,545</i>	<i>233,404</i>	<i>+5</i>	<i>4,631,083</i>	<i>+9</i>
Rhode Island.....	1,245	82,023	-3.3	1,040,906	-2.4	413	61,718	-4.2	1,132,580	-3.6
Connecticut.....	2,131	169,658	-2	3,548,585	-7	651	137,774	-2	2,737,600	-1.1
Middle Atlantic	31,020	1,717,152	-1.9	38,804,007	-6.9	4,970	1,034,903	-2	21,964,862	-1.8
New York.....	18,348	728,636	-1.3	18,494,056	-2.0	<i>1,813</i>	<i>379,104</i>	<i>-6</i>	<i>9,072,317</i>	<i>-1.1</i>
New Jersey.....	3,707	239,637	+9	5,490,662	+1	<i>475</i>	<i>213,429</i>	<i>+2</i>	<i>4,693,343</i>	<i>-6</i>
Pennsylvania.....	8,965	748,879	-3.3	14,819,289	-14.5	<i>2,303</i>	<i>442,370</i>	<i>-1</i>	<i>8,199,202</i>	<i>-3.3</i>
East North Central	19,611	1,771,616	-2.0	39,625,224	-3.3	6,721	1,292,384	-1.6	28,208,499	-5.2
Ohio.....	8,319	513,162	-2.3	11,168,333	-4.7	2,302	364,790	-1.6	7,865,043	-4.6
Indiana.....	2,517	179,768	-1.0	3,566,141	-5.9	788	141,018	-1	2,782,887	-4.7
Illinois.....	<i>4,245</i>	<i>467,845</i>	<i>-1.5</i>	<i>10,815,424</i>	<i>-1.0</i>	<i>2,061</i>	<i>296,176</i>	<i>-1.3</i>	<i>6,504,318</i>	<i>-1.0</i>
Michigan.....	3,515	439,717	-4.2	10,638,750	-5.3	<i>827</i>	<i>352,341</i>	<i>-4.3</i>	<i>8,161,372</i>	<i>-11.5</i>
Wisconsin.....	<i>6,1015</i>	<i>171,124</i>	<i>+2.0</i>	<i>3,636,576</i>	<i>+2.8</i>	<i>753</i>	<i>137,760</i>	<i>+0.8</i>	<i>2,894,789</i>	<i>+9.7</i>
West North Central	11,378	392,194	+5	8,604,119	+9	2,179	184,893	+2.6	3,969,580	+2.8
Minnesota.....	2,137	87,446	+3.5	1,951,162	+2.6	380	41,121	+9.2	879,087	+6.9
Iowa.....	1,694	54,881	+1	1,131,231	-6	394	28,775	+2.2	583,826	+9
Missouri.....	3,332	154,007	-5	3,400,703	+1.0	771	74,987	+1.2	1,588,585	+3.2
North Dakota.....	569	4,918	-8	107,969	+1.4	46	864	+7	19,933	+1.7
South Dakota.....	520	5,536	+2.4	121,825	+2.0	34	1,824	+6.7	39,236	+3.0
Nebraska.....	1,360	30,584	-1.1	657,538	-2	156	10,104	-5	220,125	-3
Kansas.....	<i>8,1766</i>	<i>54,822</i>	<i>-1</i>	<i>1,233,691</i>	<i>-4</i>	<i>598</i>	<i>87,218</i>	<i>-1.1</i>	<i>658,788</i>	<i>-6</i>
South Atlantic	10,612	671,858	-2.1	11,147,323	-7.1	2,655	432,097	-1.3	6,599,860	-1.0
Delaware.....	229	12,834	-1.1	273,283	-2.3	78	8,629	-1.7	170,240	-4.1
Maryland.....	1,580	88,661	-2.4	1,796,482	-3.0	535	52,327	-2.3	970,472	-3.8
District of Columbia.....	943	33,535	-5.2	794,684	-3.7	38	3,468	-2.1	113,701	-4.2
Virginia.....	2,039	86,965	-1	1,565,732	+1	417	56,791	-6	989,629	+1.2
West Virginia.....	1,232	134,126	-2.4	2,315,177	-23.5	239	51,487	+7	1,042,446	-1.0
North Carolina.....	1,262	135,251	-2	1,774,065	-2.3	588	125,526	-1.1	1,606,675	-2.5
South Carolina.....	663	57,606	-3.1	722,699	+1.5	195	50,826	-3.0	602,350	+1.7
Georgia.....	1,476	89,629	-1.5	1,322,178	+1	372	67,305	-1.6	874,467	+1
Florida.....	1,188	33,251	-4.8	583,023	-3.6	193	15,738	-3.8	229,880	-3.9
East South Central	4,416	238,335	-2.6	3,750,882	-7.1	913	138,815	-3.0	2,069,895	-3.9
Kentucky.....	1,413	78,282	-8	1,339,838	-11.2	278	30,356	+1.0	545,947	-3.0
Tennessee.....	1,234	78,575	-6	1,274,893	-(1)	304	55,174	-1	843,533	+1.1
Alabama.....	1,201	67,678	-7.3	936,939	-11.6	234	45,577	-9.4	588,371	-11.8
Mississippi.....	568	13,800	+1.9	199,212	+2.2	97	7,708	+3.3	92,044	+3.4
West South Central	4,449	167,085	+0.4	3,491,345	+1.2	926	77,943	+0.6	1,525,093	+0.9
Arkansas.....	<i>9,653</i>	<i>20,195</i>	<i>-1.0</i>	<i>335,260</i>	<i>-5</i>	<i>264</i>	<i>13,077</i>	<i>-9</i>	<i>189,413</i>	<i>-2.6</i>
Louisiana.....	987	40,261	+1	723,624	+2.2	207	19,753	-8	305,237	+2.2
Oklahoma.....	1,427	39,951	+8	864,983	+6	134	10,111	+2.7	202,863	-2.0
Texas.....	1,382	66,678	+9	1,567,478	+1.4	321	35,008	+1.1	827,580	+2.0

1 Less than 1/10 of 1 percent.

2 Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional services, and trucking and handling.

3 Includes laundering and cleaning, but does not include food, canning, and preserving.

4 Includes laundries.

5 Includes miscellaneous services and building and contracting.

6 Includes construction, but does not include hotels and restaurants, and public works.

7 Weighted percentage change.

8 Includes construction, miscellaneous services (theaters), and restaurants.

9 Includes automobile dealers and garages, and sand, gravel, and building stone.

Table 6.—Comparison of Employment and Pay Rolls in Identical Establishments in June and July 1935, by Geographic Divisions and by States—Con.

Geographic division and State	Total—All groups					Manufacturing				
	Number of establishments	Number on pay roll July 1935	Percentage change from June 1935	Amount of pay roll (1 week) July 1935	Percentage change from June 1935	Number of establishments	Number on pay roll July 1935	Percentage change from June 1935	Amount of pay roll (1 week) July 1935	Percentage change from June 1935
Mountain	4,261	110,984	+5.0	\$2,449,094	+2.6	560	37,053	+18.7	\$754,166	+10.3
Montana.....	749	16,029	+5	418,204	+5.8	80	4,156	+2.7	98,912	+6.8
Idaho.....	466	9,664	+13.2	192,784	+6.2	50	4,068	+29.8	78,913	+15.5
Wyoming.....	336	7,873	+3	201,534	-4	42	1,714	+2.1	47,651	+2.7
Colorado.....	1,036	37,986	+3.5	833,209	+1.0	184	14,087	+10.9	295,186	+3.6
New Mexico.....	364	6,806	+8	127,819	-4.5	23	1,069	-5.5	19,693	-9.6
Arizona.....	504	11,195	-8.1	236,125	-8.0	41	2,519	-1.1	46,045	-4.8
Utah.....	563	18,297	+24.6	358,147	+14.9	109	8,630	+67.2	145,714	+46.7
Nevada.....	243	3,134	+1.8	81,272	+1.5	31	810	+6	22,052	+2
Pacific	5,804	388,779	+4.8	9,427,751	+3.4	1,726	211,967	+9.5	4,591,042	+5.9
Washington.....	2,875	79,481	+10.4	1,732,688	+8.2	488	38,986	+24.7	769,012	+21.1
Oregon.....	1,199	45,431	+3.7	1,000,163	+2.8	255	26,248	+7.0	524,101	+3.8
California.....	107,730	263,867	+3.4	6,694,900	+2.3	983	146,733	+6.6	3,607,929	+3.6

¹⁰ Includes banks, insurance, and office employment.

Industrial Employment and Pay Rolls in Principal Cities

A COMPARISON of July employment and pay-roll totals with June totals in 13 cities of the United States having a population of 500,000 or over is made in table 7. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to reports included in the several industrial groups regularly covered in the survey of the Bureau, reports have also been secured from establishments in other industries for inclusion in these city totals. As information concerning employment in building construction is not available for all cities at this time, figures for this industry have not been included in these city totals.

Table 7.—Fluctuations in Employment and Pay Rolls in July 1935 as Compared with June 1935

Cities	Number of establishments reporting in both months	Number on pay roll		Percentage change from June 1935	Amount of pay roll (1 week)		Percentage change from June 1935
		June 1935	July 1935		June 1935	July 1935	
New York City.....	14,183	573,144	560,918	-2.1	15,258,452	14,941,104	-2.1
Chicago, Ill.....	3,531	329,796	322,337	-2.3	8,071,739	7,916,147	-1.9
Philadelphia, Pa.....	2,724	216,519	214,810	-8	5,008,627	4,937,145	-1.4
Detroit, Mich.....	1,497	306,434	290,303	-5.3	7,778,090	7,290,565	-6.3
Los Angeles, Calif.....	2,383	121,103	120,312	-7	2,979,393	2,977,531	-1
Cleveland, Ohio.....	1,788	121,387	120,078	-1.1	2,837,060	2,768,377	-2.4
St. Louis, Mo.....	1,721	116,262	115,714	-5	2,568,924	2,608,012	+1.5
Baltimore, Md.....	1,324	78,231	77,239	-1.3	1,683,754	1,654,853	-1.7
Boston, Mass.....	3,794	152,879	153,351	+3	3,551,684	3,596,182	+1.3
Pittsburgh, Pa.....	1,377	148,092	145,154	-2.0	3,159,529	2,996,885	-5.1
San Francisco, Calif.....	1,501	79,142	81,120	+2.5	2,096,616	2,123,357	+1.3
Buffalo, N. Y.....	869	64,862	62,754	-3.2	1,498,895	1,423,149	-5.1
Milwaukee, Wis.....	675	66,274	66,739	+7	1,533,428	1,548,141	+1.0

Public Employment

ALTHOUGH industrial employment in July was slightly below the June level, a small increase occurred in employment in the regular agencies of the Federal Government. Including the executive, judicial, legislative, and military services, as well as construction projects financed wholly or partially from Federal funds, the number of employees on pay rolls of the United States Government totaled 1,440,087 in July. The most pronounced decline was reported in the number of workers employed on projects financed from funds of the Reconstruction Finance Corporation. (See table 8.)

Due to a contraction in the emergency-work program, the number of employees on Federal relief work also declined during the month. In July, 1,928,789 workers were employed on the emergency-work program of the Federal Emergency Relief Administration, a decrease of 4.6 percent in comparison with the number reported in June. On the other hand, enrollment in Civilian Conservation Camps increased by more than 12 percent.

The principal changes in Federal employment and pay rolls during the month interval are indicated by table 8.

Table 8.—Summary of Federal Employment and Pay Rolls, July 1935

Class	Employment		Per-centage change	Pay roll		Per-centage change
	July	June		July	June	
Federal service:						
Executive.....	¹ 731, 539	718, 236	+1.9	\$111, 110, 248	\$109, 300, 324	+1.7
Judicial.....	1, 766	1, 854	-4.7	473, 044	449, 217	+5.3
Legislative.....	5, 014	4, 871	+2.9	1, 181, 349	1, 154, 868	+2.3
Military.....	261, 067	258, 410	+1.0	20, 689, 446	21, 364, 278	-3.2
Construction projects financed by						
P. W. A.....	405, 332	414, 306	-2.2	24, 968, 785	25, 386, 962	-1.6
Construction projects financed by						
R. F. C.....	9, 581	11, 901	-19.5	1, 001, 653	1, 191, 336	-15.9
Construction projects financed by regular governmental appropriations.....	25, 788	26, 191	-1.5	1, 890, 209	1, 904, 454	-.7
Relief work:						
Emergency-work program.....	¹ 928, 789	² 2, 021, 060	-4.6	53, 136, 834	54, 260, 051	-2.1
Emergency conservation work.....	³ 480, 586	³ 427, 556	+12.4	³ 22, 074, 577	³ 19, 766, 881	+11.7

¹ Includes 116 employees by transfer, previously reported as separations by transfer, not actual additions for July.

² Includes 40,368 employees and a pay roll of \$5,217,265 included in executive service.

³ Includes 38,451 employees and a pay roll of \$4,944,676 included in executive service.

Executive, Legislative, Military, and Judicial Services of the Federal Government

DURING July employment increased in the executive, legislative, and military services of the Federal Government. The judicial branch, however, showed a decline of 4.7 percent.

The information concerning employment in the executive departments is collected by the Civil Service Commission from the various departments and offices of the United States Government. The

figures are tabulated by the Bureau of Labor Statistics. Data for the legislative, judicial, and military services are collected and tabulated by the Bureau of Labor Statistics.

Information concerning the number of employees in the executive departments of the Federal Government is shown in table 4. Data for employees working in the District of Columbia are shown separately.

Table 9.—Employees in the Executive Service of the United States, July 1934, June 1935, and July 1935

Item	District of Columbia			Outside District of Columbia			Entire service		
	Perma- nent	Tempo- rary ¹	Total	Perma- nent	Tempo- rary ¹	Total	Perma- nent	Tempo- rary ¹	Total
Number of employees:									
July 1934.....	81,742	8,396	90,138	503,198	93,988	597,186	584,940	102,384	687,324
June 1935.....	92,727	11,250	103,977	516,166	98,093	614,259	608,893	109,343	718,236
July 1935.....	94,210	10,525	104,735	521,185	105,619	626,804	615,395	116,144	731,539
Gain or loss:									
July 1934 to July 1935...	+12,468	+2,129	+14,597	+17,987	+11,631	+29,618	+30,455	+13,760	+44,215
June 1935 to July 1935...	+1,483	-725	+758	+5,019	+7,526	+12,545	+6,502	+6,801	+13,303
Percentage change:									
July 1934 to July 1935...	+15.25	+25.36	+16.19	+3.57	+12.37	+4.96	+5.21	+13.44	+6.43
June 1935 to July 1935...	+1.6	-6.44	+7.3	+9.7	+7.67	+2.04	+1.07	+6.22	+1.85
Labor turn-over, July 1935:									
Additions ²	2,528	1,661	4,189	12,055	27,943	39,998	14,583	29,604	44,187
Separations ³	1,727	1,462	3,189	7,560	20,251	27,811	9,287	21,713	31,000
Turn-over rate per 100.....	1.85	13.43	3.06	1.46	19.88	4.48	1.52	19.26	4.28

¹ Not including field employees of the Post Office Department and 41,642 employees hired under letters of authorization by the Department of Agriculture with a pay roll of \$1,422,437.

² Includes 116 employees by transfer previously reported as separations by transfer, not actual additions for July.

³ Not including employees transferred within the Government service as such transfers should not be regarded as labor turn-over.

There were 13,303 more employees working in the executive branch of the Federal Government in July than in the preceding month. During the year there was a gain of more than 44,000 workers in the executive service of the Federal Government. During the same period Federal employment in the District of Columbia increased 16.2 percent and employment outside the District increased 5.0 percent.

The Resettlement Administration, with 6,907 more workers in July, accounted for over half the net gain in Federal employment during the month. The branches showing the most pronounced decreases for the month were the Treasury Department, the Department of the Interior, the Farm Credit Administration, and the National Recovery Administration.

Construction Projects Financed by Public Works Administration

DETAILS concerning employment, pay rolls, and man-hours worked on construction projects financed by Public Works Administration funds in July are given in table 10, by type of project.

Table 10.—Employment and Pay Rolls on Construction Projects Financed from Public Works Funds, July 1935

[Subject to revision]

Type of project	Wage earners		Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
	Maximum number employed ¹	Weekly average				
Federal projects						
All projects.....	² 272, 995	264, 496	\$16, 563, 938	27, 002, 929	\$0. 613	\$25, 273, 109
Building construction.....	15, 539	13, 185	929, 788	1, 256, 560	. 740	1, 994, 830
Forestry.....	407	391	22, 713	32, 675	. 695	21, 754
Naval vessels.....	22, 790	22, 493	2, 872, 857	3, 495, 471	. 822	3, 105, 508
Public roads ³	(⁴)	170, 543	7, 386, 000	14, 306, 000	. 516	12, 000, 000
Reclamation.....	24, 467	23, 443	2, 511, 129	3, 677, 865	. 683	3, 454, 837
River, harbor, and flood control.....	27, 312	23, 498	2, 093, 058	2, 969, 125	. 705	3, 773, 297
Streets and roads.....	6, 568	5, 993	327, 701	578, 906	. 566	313, 997
Water and sewerage.....	460	382	27, 331	36, 061	. 758	39, 749
Miscellaneous.....	4, 909	4, 568	393, 361	650, 266	. 605	569, 137
Non-Federal projects						
All projects.....	126, 158	105, 383	\$7, 847, 300	10, 104, 399	\$0. 777	\$13, 798, 978
Building construction.....	55, 387	46, 205	3, 799, 825	4, 201, 469	. 904	7, 182, 882
Railroad construction.....	8, 632	7, 573	575, 356	970, 592	. 593	68, 018
Streets and roads.....	20, 836	17, 364	1, 032, 209	1, 561, 672	. 661	1, 855, 596
Water and sewerage.....	35, 932	29, 775	2, 106, 701	2, 885, 417	. 730	4, 017, 928
Miscellaneous.....	5, 371	4, 466	333, 209	485, 249	. 687	674, 554

¹ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

² Includes weekly average for public roads.

³ Estimated by the Bureau of Public Roads.

⁴ Not available; average number included in total.

Compared with the previous month, moderate increases in employment on Federal construction projects were shown in naval-vessel construction and in river, harbor, and flood-control work. On non-Federal projects, the total number of wage earners employed increased by more than 10,000 in July. Reports for the month showed increases in the number of men employed in every type of non-Federal project except railroad construction. Building construction, with an increase of nearly 5,300 workers, had the most pronounced rise.

On Federal projects earnings per hour averaged 61 cents. Hourly earnings ranged from a high of 82 cents paid on naval-vessel construction to a low of 52 cents received in road building. On non-Federal

projects the average hourly earnings were 77 cents; the highest, 90 cents, was received by workers on building construction.

Federal construction projects are financed entirely by allotments made by the Public Works Administration to the various agencies and departments of the Federal Government. The work is performed either by commercial firms, which have been awarded contracts, or by day labor hired directly by the Federal agencies.

Non-Federal projects are financed by allotments made by the Public Works Administration to a State or one of its political subdivisions; in some cases allotments are made to commercial firms. In making allotments to the States or their political subdivisions, the Public Works Administration makes a direct grant of not more than 30 percent of the total construction cost. The remaining 70 percent of the cost is financed by the recipient. The Public Works Administration, in some instances, provides the additional financing by means of a loan; in other cases the loan is procured from outside sources. Loans made by the Public Works Administration carry interest charges and have a definite date of maturity.

Grants are not made to commercial firms. Railroads, for the most part, have been the chief recipients of commercial allotments. Railroad work financed by loans made by the Public Works Administration falls under three headings: First, construction work in the form of electrification, the laying of rails and ties, repairs to buildings, bridges, etc.; second, the building and repairing of locomotives and passenger and freight cars in shops operated by the railroads; and, third, locomotive and passenger- and freight-car building in commercial shops.

Information concerning the first type of railroad work, i. e., construction is shown in table 10, page 1079. Employment in car and locomotive shops owned by the railroads and in commercial car and locomotive shops is shown in a separate table. (See table 12, p. 1082.)

Comparisons by Geographic Divisions

EMPLOYMENT, pay rolls, and man-hours worked in July 1935 on construction projects financed by the Public Works Administration fund is shown by geographic divisions in table 11.

Table 11.—Employment and Pay Rolls on Construction Projects Financed from Public Works Funds, July 1935

[Subject to revision]

Geographic division	Wage earners		Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
	Maximum number employed ¹	Weekly average				
Federal projects						
All divisions ²	272, 995	264, 496	\$16, 563, 938	27, 002, 929	\$0. 613	³ \$25, 273, 109
New England.....	15, 257	14, 951	1, 198, 528	1, 752, 637	. 684	1, 100, 569
Middle Atlantic.....	32, 106	31, 233	2, 221, 666	3, 472, 826	. 640	1, 519, 060
East North Central.....	34, 044	32, 997	1, 946, 065	2, 893, 001	. 673	1, 019, 622
West North Central.....	44, 937	43, 718	1, 741, 364	3, 163, 012	. 551	1, 129, 045
South Atlantic.....	44, 607	43, 169	2, 834, 915	4, 763, 306	. 595	2, 840, 505
East South Central.....	34, 377	34, 048	2, 080, 937	3, 889, 014	. 535	1, 727, 850
West South Central.....	23, 854	22, 965	851, 350	1, 847, 922	. 461	136, 236
Mountain.....	23, 780	22, 551	1, 988, 055	2, 903, 014	. 678	1, 960, 493
Pacific.....	15, 587	14, 863	1, 493, 992	1, 874, 088	. 797	1, 488, 774
Outside continental United States.....	4, 256	3, 811	211, 587	417, 878	. 506	345, 503
Non-Federal projects						
All divisions.....	126, 158	105, 383	\$7, 847, 300	10, 104, 399	\$0. 777	\$13, 798, 978
New England.....	12, 489	10, 538	800, 888	1, 066, 580	. 751	1, 544, 053
Middle Atlantic.....	27, 449	23, 246	2, 078, 556	2, 306, 857	. 901	3, 072, 394
East North Central.....	18, 456	15, 191	1, 146, 420	1, 410, 282	. 813	2, 088, 294
West North Central.....	18, 849	15, 950	1, 103, 564	1, 488, 792	. 741	2, 656, 512
South Atlantic.....	16, 761	14, 116	958, 129	1, 479, 308	. 648	936, 834
East South Central.....	4, 340	3, 608	207, 672	333, 359	. 623	363, 899
West South Central.....	11, 655	9, 307	485, 754	771, 906	. 629	1, 157, 748
Mountain.....	3, 474	2, 744	205, 225	254, 858	. 805	507, 746
Pacific.....	11, 793	9, 957	817, 354	923, 173	. 885	1, 391, 795
Outside continental United States.....	892	726	43, 738	69, 284	. 631	79, 703

¹ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public-road projects

² Includes data for 190 wage earners which cannot be charged to any specific geographic division.

³ Includes \$12,000,000 estimated value of material orders placed for public-road projects which cannot be charged to any specific geographic division.

During July there was a falling off in employment on Federal projects in all geographic divisions except the East North Central States. On non-Federal projects, however, all divisions except three registered increases. Considering Federal and non-Federal projects as a whole the geographic divisions with the greatest number of employees were the West North Central States and the South Atlantic States.

Table 12 shows employment, pay rolls, and man-hours worked during July 1935 in railway car and locomotive shops on projects financed from the Public Works Administration fund, by geographic divisions.

Table 12.—Employment and Pay Rolls in Railway Car and Locomotive Shops on Work Financed from Public Works Funds, July 1935

[Subject to revision]

Geographic division	Wage earners		Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
	Maximum number employed ¹	Semi-monthly average				
Total, railroad and commercial shops.....	6, 179	(²)	\$557, 547	737, 719	\$0. 756	(²)
Railroad shops						
All divisions.....	1, 958	1, 741	\$124, 262	148, 372	\$0. 838	\$63, 337
New England.....	236	236	24, 211	32, 194	. 752	3, 219
Middle Atlantic.....	1, 722	1, 505	100, 051	116, 178	. 861	60, 118
Commercial shops						
All divisions.....	4, 221	(²)	\$433, 285	589, 347	\$0. 735	(²)
New England.....	1	(²)	13	25	. 520	(²)
Middle Atlantic.....	3, 824	(²)	410, 915	557, 010	. 738	(²)
East North Central.....	311	(²)	16, 913	22, 857	. 740	(²)
West North Central.....	85	(²)	5, 444	9, 455	. 576	(²)

¹ Maximum number employed during either semimonthly period by each shop.

² Data not available.

Compared with June, there was a decrease of about 1,800 in the number of workers engaged in building and repairing locomotives and passenger and freight cars.

Monthly Trend

EMPLOYMENT, pay rolls, and man-hours worked at the site of Public Works Administration construction projects from the beginning of the program in July 1933 to July 1935 are shown in table 13.

Table 13.—Employment and Pay Rolls, July 1933 to July 1935, Inclusive, on Projects Financed from Public-Works Funds

Month and year	Maximum number of wage earners ¹	Amount of pay rolls	Number of man-months worked	Average earnings per hour	Value of material orders placed
July 1933 to July 1935, inclusive ²	-----	\$485, 739, 403	803, 595, 653	\$0. 604	\$919, 878, 003
<i>1933</i>					
July.....	267	26, 433	35, 217	. 751	-----
August.....	4, 719	131, 937	206, 990	. 637	202, 100
September.....	39, 535	1, 784, 996	3, 296, 162	. 542	1, 628, 537
October.....	146, 747	6, 353, 835	12, 029, 751	. 528	³ 23, 351, 150
November.....	255, 512	11, 552, 547	21, 759, 245	. 531	24, 568, 577
December.....	300, 758	13, 091, 587	24, 391, 546	. 537	25, 702, 750
<i>1934</i>					
January.....	298, 069	12, 646, 241	23, 409, 908	. 540	24, 206, 352
February.....	311, 381	14, 348, 094	26, 544, 346	. 541	25, 269, 537
March.....	307, 274	14, 113, 247	25, 501, 446	. 553	³ 69, 766, 559
April.....	382, 220	18, 785, 405	32, 937, 649	. 570	³ 68, 526, 223
May.....	506, 056	25, 942, 387	46, 052, 698	. 563	³ 60, 468, 427
June.....	610, 752	33, 808, 429	59, 873, 309	. 565	³ 60, 797, 939
July.....	644, 729	34, 845, 461	60, 736, 768	. 574	³ 53, 377, 997
August.....	629, 907	36, 480, 027	61, 925, 300	. 589	³ 54, 192, 443
September.....	575, 655	32, 758, 795	53, 427, 096	. 613	³ 50, 878, 000
October.....	507, 886	29, 289, 216	46, 632, 214	. 628	³ 50, 234, 495
November.....	470, 467	28, 791, 297	46, 454, 108	. 620	54, 228, 457
December.....	382, 594	22, 443, 944	34, 955, 156	. 642	45, 683, 081
<i>1935</i>					
January.....	304, 723	18, 462, 677	27, 478, 022	. 672	³ 30, 746, 857
February.....	272, 273	16, 896, 475	25, 144, 558	. 672	29, 264, 484
March.....	281, 461	17, 400, 798	26, 008, 063	. 669	27, 276, 566
April.....	333, 045	20, 939, 741	31, 387, 712	. 667	31, 645, 166
May.....	394, 875	24, 490, 087	36, 763, 164	. 667	36, 893, 840
June.....	414, 306	25, 386, 962	38, 800, 178	. 654	41, 833, 642
July.....	405, 332	24, 968, 785	37, 845, 047	. 660	39, 135, 424

¹ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work. Includes weekly average for public-road projects.

² Includes orders placed for material for naval vessels prior to October 1933.

³ Includes orders placed by railroads for new equipment.

From July 1933 to July 1935, inclusive, wage earners were paid over \$485,000,000 for work at the site of Public Works Administration projects. Hourly earnings received have averaged 60 cents. During this period orders were placed for materials amounting to over \$919,000,000.

It is estimated that approximately 3,000,000 man-months of labor have been or will be created in fabricating the materials represented by the total orders placed for materials since the inception of the public-works program.

Materials for which orders were placed during July will create about 125,000 man-months of labor. This accounts only for labor required in the fabrication of material in the form in which it is to be used. In the manufacture of brick, for example, only the labor employed in the manufacturing process is included. No estimate is made of the labor required in taking the clay from the pits or in transporting the clay and other materials used in the manufacturing process. In fabricating steel rails, the only labor counted is that occurring in the rolling mills. An estimate is not made for the labor

created in mining, smelting, and transporting the ore, nor for the labor in the blast furnaces, the open-hearth furnaces, nor the blooming mills.

In obtaining information concerning man-months of labor created in fabricating materials, each firm receiving a material order which is to be financed from the public-works fund, from the United States Government, or from State governments or their political subdivisions is sent a schedule. It is requested that the manufacturer fill in this schedule estimating the number of man-hours created in the plant in manufacturing the material specified in the contract. In the case of materials purchased directly by contractors, the Bureau estimates the man-months of labor created. This estimate is made by using the experience of manufacturing plants as shown by the Census of Manufactures, 1933.

Emergency-Work Program

DURING the week ended July 25 there were over 1,300,000 workers employed on the emergency-work program of the Federal Emergency Relief Administration. Compared with the week ended June 27, this represents a decrease in the number working of 181,428, or 12.14 percent. Pay-roll disbursements also showed a drop. The total pay roll of more than \$12,000,000 was more than 11 percent less than in the week ended June 27.

Table 14 shows the number of employees and amounts of pay rolls for the emergency-work program for the weeks ended June 27 and July 25.

Table 14.—Employment and Pay Rolls for Workers on Emergency-Work Program, Weeks Ended June 27 and July 25, 1935

Geographic division	Number of employees, week ended—		Amount of pay roll, week ended—	
	July 25	June 27	July 25	June 27
All divisions.....	1,312,891	1,494,319	\$12,493,222	\$14,183,456
Percentage change.....	-12.14		-11.92	
New England.....	144,441	158,903	1,776,698	1,998,519
Middle Atlantic.....	155,982	182,419	2,781,291	3,243,787
East North Central.....	208,757	218,881	2,043,638	2,134,345
West North Central.....	173,023	212,261	1,327,842	1,646,999
South Atlantic.....	203,170	223,633	1,043,108	1,197,114
East South Central.....	104,779	144,310	464,307	729,386
West South Central.....	135,313	176,725	775,132	1,093,276
Mountain.....	52,643	49,476	537,607	497,431
Pacific.....	134,783	127,711	1,743,599	1,642,599

Emergency Conservation Work

A GAIN of more than 53,000 in the month of July was reported in the number of men employed in Civilian Conservation Camps. Every class of employee, except educational advisers, was represented in the increase.

The total pay roll for July was more than \$22,000,000, which was an increase of more than \$2,300,000 over the figure for June. The enrolled personnel received over \$12,850,000 of this amount. The enrolled men, in addition to their pay, were provided with board, clothing, and medical services.

Table 15 gives, for June and July, the employment and pay-roll statistics for each of the major groups of workers engaged in Emergency Conservation Work.

Table 15.—Employment and Pay Rolls in Emergency Conservation Work, June and July 1935

Group	Number of employees		Amount of pay rolls	
	July	June	July	June
All groups.....	480, 586	427, 556	\$22, 074, 577	\$19, 766, 881
Enrolled personnel.....	411, 556	367, 430	12, 852, 894	11, 474, 839
Reserve officers.....	10, 155	10, 005	2, 550, 282	2, 511, 028
Educational advisers ¹	1, 334	1, 413	228, 297	236, 402
Supervisory and technical ²	³ 57, 541	⁴ 48, 708	³ 6, 443, 104	⁴ 5, 544, 612

¹ Included in executive service table.

² Includes carpenters, electricians, and laborers.

³ 39,034 employees and pay roll of \$4,988,968 included in executive service table.

⁴ 37,038 employees and pay roll of \$4,708,274 included in executive service table.

The employment and pay-roll data for emergency conservation workers are collected by the Bureau of Labor Statistics from the War Department, the Department of Agriculture, the Treasury Department, and the Department of the Interior. The monthly pay of the enrolled personnel is distributed as follows: 5 percent are paid \$45; 8 percent, \$36; and the remaining 87 percent, \$30.

State-Road Projects

EMPLOYMENT on State-road projects during July increased by more than 16 percent in the construction of new roads, and by more than 7 percent in maintenance work. The number of employees on new projects increased by more than 5,000 and the increase in employees in maintenance work was more than 10,000.

Table 16 shows, by geographic divisions, the number of workers employed in building and maintaining State roads during June and July 1935.

Table 16.—Employment on Construction and Maintenance of State Roads, by Geographic Division, June and July 1935¹

Geographic division	New roads				Maintenance			
	Number of employees		Amount of pay roll		Number of employees		Amount of pay roll	
	July	June	July	June	July	June	July	June
All divisions.....	35,826	30,823	\$1,543,619	\$1,222,211	148,575	138,253	\$6,688,970	\$5,857,582
Percentage change.....	+16.2	-----	+26.3	-	+7.5	-----	+14.2	-----
New England.....	8,642	4,055	370,538	154,416	12,716	13,056	677,448	615,172
Middle Atlantic.....	1,893	2,421	157,268	171,504	27,422	31,642	1,098,817	1,235,226
East North Central.....	6,522	6,522	385,746	305,266	22,864	17,630	1,148,199	882,445
West North Central.....	3,047	3,402	102,512	95,431	18,745	14,219	718,614	544,758
South Atlantic.....	7,341	7,552	137,149	141,445	29,165	29,243	1,080,981	965,133
East South Central.....	2,300	1,668	86,042	62,797	9,046	8,598	334,894	284,985
West South Central.....	2,045	1,672	62,449	57,744	14,835	12,256	681,428	471,540
Mountain.....	1,962	1,475	98,906	74,302	7,000	5,702	459,568	401,828
Pacific.....	2,074	2,056	143,009	159,306	6,613	5,744	474,385	442,942
Outside continental United States.....	-----	-----	-----	-----	169	163	14,636	13,553

¹ Excluding employment furnished by projects financed from public-works funds.

The State governments employed more men and expended more money for pay rolls in building new roads and maintaining highways in July than in any previous month of the current year.

Reconstruction Finance Corporation Construction Projects

RECONSTRUCTION Finance Corporation construction projects during July provided work for more than 9,500 men and resulted in pay-roll disbursements of more than \$1,000,000. Compared with the previous month, however, these figures represent a decrease; the pay roll in June was in excess of \$1,190,000 and more than 11,000 wage earners were employed.

The data concerning employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation during July is given in table 17 by type of project.

Table 17.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Type of Project, July 1935

Type of project	Number of wage earners	Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
All projects.....	9,581	\$1,001,653	1,349,064	\$.742	\$1,495,108
Bridges.....	2,349	215,801	241,239	.895	391,077
Building construction.....	194	13,995	12,964	1.080	14,366
Railroad construction.....	194	9,040	17,084	.529	287
Reclamation.....	450	23,141	46,999	.492	4,726
Water and sewerage.....	5,096	591,968	810,663	.730	657,736
Miscellaneous.....	1,298	147,708	220,115	.671	426,916

The number of employees, the amounts of pay rolls, and the number of man-hours worked on construction projects financed by the Reconstruction Finance Corporation during July are shown in table 18 by geographic divisions.

Table 18.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Geographic Division, July 1935

Geographic division	Number of employees	Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
All divisions.....	9,581	\$1,001,653	1,349,064	\$0.742	\$1,495,108
Middle Atlantic.....	480	32,830	40,094	.819	68,469
East North Central.....	442	36,782	34,250	1.074	39,997
East South Central.....	174	6,964	12,812	.544	287
West South Central.....	88	10,352	10,895	.950	-----
Mountain.....	450	23,141	46,999	.492	4,726
Pacific.....	7,947	891,584	1,204,014	.741	1,381,629

During the period, March 15, 1934, to July 15, 1935, materials were ordered, costing more than \$42,000,000. Of this total, approximately 50 percent was for steel-works and rolling-mill products. From June 15 to July 15 total orders were placed amounting to nearly \$1,500,000; of this figure, structural and reinforcing steel accounted for more than 20 percent. Other products which were important with respect to the value of orders placed since March 15, 1934, include foundry and machine-shop products, cement, concrete products, copper products, lumber and timber products, explosives, and electrical machinery, apparatus, and supplies.

Construction Projects Financed from Regular Governmental Appropriations

THE number of workers employed at the site of construction projects financed by appropriations made by Congress direct to the executive departments and agencies of the Federal Government was in excess of 25,000 for July. This represents a decrease of approximately 400 in comparison with employment in June. Disbursements for pay rolls during the month were over \$1,890,000.

Whenever a construction contract is awarded or force-account work is started by a department or unit of the Federal Government, the Bureau of Labor Statistics is immediately notified on forms supplied by the Bureau, of the name and address of the contractor, the amount of the contract, and the type of work to be performed. Schedules are then mailed by the Bureau to the contractor or Government agency doing the work. These schedules are filled in and returned to the Bureau and show the number of men on pay rolls, the amounts disbursed for pay, the number of man-hours worked on the project, and the value of the different types of materials for which orders have been placed during the month.

The following tables present data concerning such construction projects on which work has started since July 1, 1934. The Bureau

does not have statistics covering projects which were under way previous to that date.

In table 19 information is given for the month of July 1935 concerning employment, pay rolls, and man-hours worked on construction projects financed from direct appropriations made to the various Federal departments and agencies and started since July 1, 1934, by type of project.

Table 19.—Employment on Construction Projects Financed from Regular Governmental Appropriations, by Type of Project, July 1935

Type of project	Wage earners		Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
	Maximum number employed ¹	Weekly average				
All projects.....	² 25,788	23,508	\$1,890,209	2,752,801	\$0.687	\$3,079,618
Building construction.....	6,930	5,701	394,001	528,155	.746	593,086
Naval vessels.....	5,430	5,247	625,330	738,762	.846	1,326,261
Public roads ³	(⁴)	5,777	406,292	624,792	.650	660,101
Reclamation.....	362	266	17,502	29,855	.586	27,940
River, harbor, and flood control.....	4,631	4,317	334,044	627,614	.531	328,859
Streets and roads.....	1,343	1,114	51,070	105,251	.485	44,578
Water and sewerage.....	109	92	5,745	7,692	.747	6,858
Miscellaneous.....	1,206	994	56,225	90,680	.620	91,935

¹ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

² Includes weekly average for public roads.

³ Estimated by the Bureau of Public Roads.

⁴ Not available; average number included in total.

Statistics concerning employment, pay rolls, and man-hours worked on construction projects financed from regular governmental appropriations in July are given in table 20, by geographic divisions.

Table 20.—Employment on Construction Projects Financed from Regular Governmental Appropriations, by Geographic Division, July 1935

Geographic division	Wage earners		Amount of pay rolls	Number of man-hours worked	Average earnings per hour	Value of material orders placed
	Maximum number employed ¹	Weekly average				
All divisions.....	25,788	23,508	\$1,890,209	2,752,801	\$0.687	² \$3,079,618
New England.....	2,585	2,424	238,634	299,353	.797	441,806
Middle Atlantic.....	3,317	2,948	268,692	341,502	.787	519,553
East North Central.....	2,427	2,178	138,237	210,820	.656	98,330
West North Central.....	2,096	1,839	103,098	185,280	.556	149,563
South Atlantic.....	5,806	5,123	501,546	712,142	.704	809,071
East South Central.....	997	869	43,622	78,666	.555	72,430
West South Central.....	2,395	2,175	127,492	253,433	.603	143,175
Mountain.....	2,968	2,855	202,637	308,828	.656	34,977
Pacific.....	2,834	2,758	234,257	306,208	.765	148,399
Outside continental United States.....	363	339	31,994	56,569	.566	2,213

¹ Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

² Includes \$660,101 estimated value of orders placed for public-roads projects which cannot be charged to any specific geographic division.

The upward trend of employment, beginning in January 1935, on construction projects financed from regular governmental appropriations was interrupted in July. With the exception of the previous month, however, more wage earners were employed in July than in any month of the current year. The average earnings per hour in July—69 cents—were the highest for any month since August 1934.

The value of materials for which orders have been placed for use on construction projects financed from direct governmental appropriations from July 1, 1934, to July 15, 1935, amounted to over \$26,000,000.

Unemployment in Foreign Countries

THE table following gives statistics of unemployment in foreign countries, as shown in official reports for the years 1928 to 1934, and by months beginning with July 1934 to the latest available date.

As compared with midsummer 1934, the series show a reduction in unemployment at the same season in 1935 in a number of the major industrial countries including Austria, Belgium, Germany, Great Britain, and Italy. However, this downward trend has not characterized the movement in Czechoslovakia, France, the Netherlands, Poland, Switzerland, and certain of the eastern European countries, where unemployment has increased as measured by the official statistics covering either unemployed registered or figures for particular unemployed groups in the population. There is a third but small group of countries where unemployment has remained approximately stationary measured in terms of the 1-year period, as, for example, New Zealand and Norway.

Official organs of the British Government have called attention to the reduction in number of persons registered with employment exchanges in Great Britain to below 2 million at the end of July 1935 for the first time in a period of some years. The reduction in unemployment, from 2,000,110 in June to 1,972,941 in July, occurred in a month when there is ordinarily a recession in employment. The 1.4 percent decrease between June and July compares favorably with the increase in 1934 when the number registered rose from 2,092,586 in June to 2,126,260 in July, or by 1.6 percent. In Germany, throughout the first 8 months of 1935, the registered unemployed have been fewer in number than in the same months of 1934, no doubt reflecting the removal of young workers from employment to make room for older unemployed and the resumption of manufacturing in the durable-goods industries where there has been a marked increase in activity in recent months. A similar decrease in unemployment has occurred in Italy owing in part to the absorption of men into the

military service. Growing unemployment in France and the Netherlands has accompanied the deepening of the industrial depression and monetary difficulties. In Belgium devaluation of the franc and various economic reforms were followed by better employment conditions.

Beyond comparisons of the figures in a single series for different periods it is not possible to use the official unemployment statistics to measure volume of unemployment in a single country or to compare conditions in one country with those in another, owing to the fact that the coverage is not always complete. For example, only insured persons may be reported, or certain categories, such as agricultural labor, may be excluded.

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
1928	45,669	10.8	156,185	5,386	0.9	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
1933	104,035	25.1	328,844	168,023	17.0	170,023	17.2
1934	86,865	20.5	287,528	182,855	19.0	166,229	17.2
July			257,213	167,979	17.4	175,974	18.2
August			248,066	164,969	17.1	169,255	17.5
September	86,652	20.4	243,874	173,118	17.9	156,408	16.2
October			249,275	173,368	18.0	153,412	15.9
November			275,116	193,212	20.2	150,997	15.7
December	80,097	18.8	308,106	212,713	22.2	167,562	17.5
July			334,337	223,300	23.6	158,406	16.7
February			334,658	220,777	23.4	157,160	16.7
March	80,548	18.6	314,923	206,511	21.8	148,408	15.7
April			286,748	181,110	19.3	127,419	13.6
May			255,646	159,551	17.1	114,534	12.3
June	77,090	17.8	238,133	146,581	15.8	104,066	11.2
July			220,599				
August			209,493				

Statement of Unemployment in Foreign Countries—Continued

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
1928	4.5	38,636	16,342	1.4	50,226	18.5	
1929	5.7	41,630	23,763	2.2	12,905	15.5	
1930	11.1	105,442	52,047	4.6	18,291	13.7	
1931	16.8	291,332	102,179	8.3	24,898	17.9	
1932	22.0	554,059	184,555	13.5	33,244	31.7	
1933	22.3	738,267	247,613	16.9	31,408	28.8	
1934	18.2	676,994	245,953	17.4	20,326	22.2	
1934							
July	17.9	569,450	226,711	15.8	16,852	15.3	
August	16.5	572,428	233,227	16.3	16,941	15.5	
September	16.4	576,267	230,224	16.1	16,588	16.4	
October	16.2	599,464	217,741	15.5	18,835	18.3	
November	17.5	668,937	231,314	16.4	20,395	22.6	
December	18.0	752,328	271,110	19.0	22,585	29.7	
1935							
January	18.1	818,005	303,253	21.0	23,032	29.5	
February	18.2	833,194	299,718	20.8	21,077	27.1	
March	16.7	804,794	281,982	19.4	18,611	22.3	
April	17.0	734,550	261,307	17.6	18,410	18.6	
May	15.9	666,433	236,537	16.0	18,353	14.4	
June	15.4	605,956	212,786	14.3	16,212	12.6	
July	15.1	566,559	—	—	14,341	12.6	
August	—	556,000	—	—	—	15.5	

Year and date (end of month)	Estonia	Finland	France	Germany	Great Britain
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Number of persons registered with employment exchanges
1928	2,629	1,735	—	—	—
1929	3,181	3,906	4,834	1,353,000	1,355,000
1930	3,054	7,993	928	1,678,824	1,281,000
1931	3,632	11,522	2,514	3,144,910	2,297,000
1932	7,121	17,581	56,112	4,573,218	2,668,000
1933	8,210	17,139	273,412	5,579,858	2,757,000
1934	2,970	10,011	276,033	4,733,014	2,520,616
1934					
July	493	5,691	320,427	2,426,014	2,126,260
August	838	6,064	325,655	2,397,562	2,136,578
September	1,016	6,834	323,132	2,281,800	2,081,987
October	1,796	7,629	343,795	2,267,657	2,119,635
November	2,927	9,708	369,248	2,352,662	2,120,785
December	2,739	10,680	418,933	2,604,700	2,085,815
1935					
January	3,406	12,479	478,844	2,973,544	2,325,373
February	3,721	11,280	502,668	2,764,152	2,285,463
March	3,121	9,780	483,866	2,401,889	2,153,870
April	2,247	8,369	452,007	2,233,255	2,044,460
May	1,358	5,804	428,126	2,019,293	2,044,752
June	856	3,948	402,661	2,187,579	2,000,110
July	752	3,122	380,960	2,175,117	1,972,941
August	868	—	380,296	2,170,205	1,947,964

¹ Provisional figure.² Includes the Saar.³ April 15.

Statement of Unemployment in Foreign Countries—Continued

Year and date (end of month)	Great Britain and Northern Ireland				Hungary		
	Compulsory insurance				Employment exchanges, applications for work	Trade-unionists unemployed	
	Wholly unemployed		Temporary stoppages			Christian (Budapest)	Social Democratic
	Number	Percent	Number	Percent			
1928.....	980,326	8.2	309,903	2.6	14,715	-----	-----
1929.....	994,091	8.2	268,400	2.2	15,173	852	15,322
1930.....	1,467,347	11.8	526,604	4.3	43,592	951	21,339
1931.....	2,129,359	16.7	587,494	4.6	52,305	977	27,635
1932.....	2,272,590	17.6	573,805	4.5	66,235	1,026	29,772
1933.....	2,110,090	16.4	456,678	3.5	60,595	1,085	26,716
1934.....	1,801,913	13.9	368,906	2.9	52,157	966	22,291
1934							
July.....	1,663,463	12.9	498,782	3.9	45,486	935	21,212
August.....	1,672,742	13.0	462,413	3.6	48,365	959	20,737
September.....	1,721,737	13.4	358,599	2.7	46,715	911	20,058
October.....	1,776,244	13.7	342,896	2.7	52,987	927	19,410
November.....	1,807,661	13.9	314,638	2.5	53,641	1,039	19,611
December.....	1,793,047	13.8	293,400	2.3	53,168	1,045	20,986
1935							
January.....	1,934,811	14.9	360,309	2.8	54,368	1,046	20,953
February.....	1,913,133	14.8	358,974	2.7	55,247	1,006	21,059
March.....	1,819,147	14.0	323,522	2.5	58,008	1,014	19,777
April.....	1,744,814	13.5	285,458	2.2	55,361	983	19,750
May.....	1,703,952	13.1	320,511	2.5	52,605	955	18,952
June.....	1,636,037	12.6	367,963	2.9	50,504	898	18,448
July.....	1,589,590	12.3	402,271	3.1	46,069	851	18,317
August.....	1,605,036	12.4	344,767	2.6	-----	-----	-----

Year and date (end of month)	Irish Free State	Italy	Japan		Latvia	Netherlands	
	Compulsory insurance—number unemployed	Number of unemployed registered wholly unemployed	Official estimates, unemployed		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
			Number	Percent		Number	Percent
1928.....	22,721	324,422	-----	-----	4,700	22,009	6.9
1929.....	20,860	300,787	-----	-----	5,617	27,775	7.5
1930.....	22,176	425,437	368,465	5.2	4,851	41,281	9.7
1931.....	25,230	734,454	413,248	5.9	8,709	96,751	18.7
1932.....	4 62,817	1,006,442	489,168	6.9	14,582	177,557	30.0
1933.....	4 72,255	1,018,955	413,853	5.7	8,156	176,429	31.4
1934.....	4 103,671	963,677	-----	-----	4,965	170,681	31.9
1934							
July.....	4 89,736	886,998	372,070	5.0	904	154,188	30.9
August.....	4 98,252	866,570	367,950	4.9	949	157,071	31.7
September.....	4 110,186	887,345	365,596	4.9	999	153,833	31.3
October.....	4 117,057	905,114	365,291	4.9	1,796	156,929	32.0
November.....	4 123,890	969,944	360,104	4.8	5,012	162,993	33.3
December.....	4 128,084	961,705	360,750	4.8	7,854	215,997	37.9
1935							
January.....	4 138,779	1,011,711	365,788	4.9	7,604	241,432	42.7
February.....	4 141,626	955,533	374,933	5.0	7,008	225,370	40.0
March.....	4 137,870	853,189	367,542	4.8	6,451	191,115	34.1
April.....	4 125,847	803,054	-----	-----	5,975	166,502	34.6
May.....	4 124,920	755,349	-----	-----	3,266	163,718	34.0
June.....	4 130,244	638,100	-----	-----	1,812	159,411	33.6
July.....	4 82,371	637,972	-----	-----	1,705	161,535	34.2
August.....	4 82,697	-----	-----	-----	-----	-----	-----

1 Provisional figure.

4 Registration area extended.

Statement of Unemployment in Foreign Countries—Continued

Year and date (end of month)	New Zealand	Norway				Poland	Rumania
	Number unem- ployed registered by employ- ment ex- changes ^a	Trade-unionists (10 unions) un- employed		Number unem- ployed remaining on live register	Number unem- ployed registered with em- ployment offices	Number unem- ployed remaining on live register	
		Number	Percent				
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		22.3	27,479	299,502	35,851	
1932.....	51,549	14,790	30.8	^b 32,705	255,582	38,890	
1933.....	53,382	16,588	33.4	^b 35,591	249,660	29,060	
1934.....	47,028	15,963	30.7	35,121	342,166	16,871	
1934							
July.....	49,931	12,934	24.7	25,386	294,238	12,758	
August.....	50,545	12,998	24.6	27,210	289,388	13,069	
September.....	50,026	13,690	25.6	31,083	289,220	11,795	
October.....	48,004	14,631	27.1	34,292	296,801	12,570	
November.....	45,963	15,771	29.1	38,556	332,818	13,887	
December.....	44,283	17,792	32.8	40,056	408,173	16,523	
1935							
January.....	43,784	18,809	34.2	39,328	501,300	20,669	
February.....	42,906	17,976	32.6	40,637	516,293	21,704	
March.....	43,654	17,506	31.3	40,682	508,027	19,379	
April.....	44,672	17,221	30.6	40,450	476,250	15,140	
May.....	46,551	14,446	25.5	33,962	413,882	12,003	
June.....	48,205	12,200	21.1	28,930	366,949		
July.....	50,347				318,412		
August.....					275,661		

Year and date (end of month)	Saar Ter- ritory	Sweden		Switzerland				Yugo- slavia
	Number of unem- ployed regis- tered	Trade-unionists unemployed		Unemployment funds				Number of unem- ployed regis- tered
		Number	Percent	Wholly unemployed		Partially unemployed		
				Number	Percent	Number	Percent	
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
1933.....	38,749	97,316	23.7		10.8		8.5	15,997
1934.....	34,541	80,216	18.9		9.8		6.1	15,396
1934								
July.....	31,954	59,002	13.7	36,000	7.1		5.2	9,551
August.....	32,055	60,153	13.8	37,300	7.3	29,700	5.5	10,623
September.....	32,077	61,088	13.7	37,958	7.0	31,034	5.7	9,918
October.....	32,539	71,417	15.7	42,100	8.2	28,900	5.5	11,211
November.....	33,504	81,406	17.8	52,700	10.3	30,300	5.7	11,721
December.....	35,636	114,695	25.0	72,326	13.3	32,522	6.0	16,947
1935								
January.....		100,839	21.7	91,100	17.2	35,600	6.6	27,218
February.....		98,720	20.3	88,600	16.8	36,600	6.8	29,893
March.....	(^c)	90,754	18.8	72,981	13.4	36,495	6.7	27,058
April.....	(^c)	82,221	16.9	58,500	10.6	34,400	6.2	16,112
May.....	(^c)	61,177		50,600	9.1	30,800	5.5	12,919
June.....	(^c)	59,572	12.3	45,445	8.3	29,865	5.4	10,635
July.....	(^c)	54,401	11.1					11,215
August.....	(^c)							

^a Includes not only workers wholly unemployed but also those intermittently employed.^b Revised figures.^c Included with Germany.

BUILDING OPERATIONS

Summary of Building Construction Reports for August 1935

INDICATED future expenditures for building construction, as revealed by building permits issued in August, rose to the highest level for any month since October 1931. Indicated expenditures for residential buildings were more than three times as great in August 1935 as in the same month of the preceding year. There were also substantial gains over a year ago in expenditures for new nonresidential buildings and for additions, alterations, and repairs.

Although the number and value of building permits issued at this time of the year usually have a downward trend, August showed a pick-up over July. The largest increase in indicated expenditures occurred in new nonresidential buildings, brought about, for the most part, by a gain in public construction.

The total permit valuation in August 1935 amounted to \$87,770,000 as compared with \$74,208,000 in July 1935 and \$44,633,000 in August 1934.

Comparisons, August 1935 with August 1934

TABLE 1 presents a summary of building construction in 742 identical cities for August 1934 and August 1935.

Table 1.—Summary of Building Construction in 742 Identical Cities, August 1934 and August 1935

Class of construction	Number of buildings			Estimated cost		
	August 1935	August 1934	Percent-age change	August 1935	August 1934	Percent-age change
All construction.....	41, 773	33, 810	+23. 6	\$87, 356, 133	\$44, 632, 824	+95. 7
New residential buildings.....	5, 684	2, 040	+178. 6	27, 433, 092	8, 917, 617	+207. 6
New nonresidential buildings.....	7, 167	5, 983	+19. 8	36, 017, 835	20, 282, 356	+77. 6
Additions, alterations, and repairs.....	28, 922	25, 787	+12. 2	23, 905, 206	15, 432, 851	+54. 9

Permits were issued for 3,644 more new residential buildings in August 1935 than in the corresponding month of the previous year. Gains also were shown in the number of new nonresidential buildings and for additions, alterations, and repairs to existing buildings.

The increase in August 1935 over August 1934 in indicated expenditures for new residential buildings exceeded \$18,000,000. Indicated expenditures in August 1935 for new nonresidential buildings and for additions, alterations, and repairs to existing buildings were more than \$15,000,000 and \$8,000,000 greater, respectively, than in the corresponding month of 1934.

Table 2 gives, in summary form, the estimated cost of housekeeping dwellings and the number of families provided for in such dwellings for the months of August 1934 and August 1935.

Table 2.—Summary of Estimated Cost of Housekeeping Dwellings and of the Number of Families Provided for in 742 Identical Cities, August 1934 and August 1935

Kind of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	August 1935	August 1934	Percentage change	August 1935	August 1934	Percentage change
All types.....	\$27,181,092	\$8,864,482	+206.6	7,117	2,545	+179.6
1-family.....	22,213,587	7,061,672	+214.6	5,344	1,926	+177.5
2-family ¹	1,069,630	409,870	+161.0	414	146	+183.6
Multifamily ²	3,897,875	1,392,940	+179.8	1,359	473	+187.3

¹ Includes 1-family and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

There were 4,572 more family-dwelling units provided in new buildings in August 1935 than in August 1934. There were pronounced increases in all types of family-dwelling units over this period. The estimated cost of new housekeeping dwellings was 206.6 percent greater in August 1935 than in the corresponding month of the previous year.

Comparisons, August 1935 with July 1935

A SUMMARY of building construction in 748 identical cities for July and August 1935 is presented in table 3.

Table 3.—Summary of Building Construction in 748 Identical Cities, July and August 1935

Class of construction	Number of buildings			Estimated cost		
	August 1935	July 1935	Percentage change	August 1935	July 1935	Percentage change
All construction.....	41,947	40,861	+2.6	\$87,770,177	\$74,207,567	+18.3
New residential buildings.....	5,776	5,114	+12.9	27,763,314	27,343,912	+1.5
New nonresidential buildings.....	7,200	6,833	+4.6	36,093,130	24,655,850	+46.4
Additions, alterations, and repairs.....	28,971	28,914	+2	23,913,733	22,207,805	+7.7

Compared with the previous month, the number of buildings for which permits were issued in August 1935 increased slightly. Estimated cost of construction, however, registered a pronounced gain. New residential buildings with an increase in number of 662 had the largest gain for the month. The sharpest increase in indicated expenditures occurred in new nonresidential buildings which showed a gain of \$11,437,280, or 46.4 percent, over the figure for the preceding month.

The estimated cost of housekeeping dwellings and the number of families provided therein during July and August 1935 are shown in table 4.

Table 4.—Summary of Estimated Cost of Housekeeping Dwellings and of the Number of Families Provided for in 748 Identical Cities, July and August 1935

Kind of dwelling	Estimated cost of housekeeping dwellings			Number of families provided for in new dwellings		
	August 1935	July 1935	Percentage change	August 1935	July 1935	Percentage change
All types.....	\$27, 511, 314	\$26, 613, 187	+3. 4	7, 207	7, 201	+0. 1
1-family.....	22, 548, 384	20, 011, 125	+12. 7	5, 437	4, 772	+13. 9
2-family ¹	1, 069, 630	1, 265, 116	-15. 5	414	443	-6. 5
Multifamily ²	3, 893, 300	5, 336, 946	-27. 1	1, 356	1, 986	-31. 7

¹ Includes 1-family and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

A gain of 3.4 percent in the estimated cost of new housekeeping dwellings was registered in August 1935. An increase in expenditures was shown for 1-family dwellings while losses occurred in 2-family and multifamily dwellings. Although the number of families provided for in all types of dwellings in August remained practically the same as in July, a gain of 13.9 percent was shown in the number of families provided for in 1-family dwelling units. This gain, however, was offset by losses in 2-family and multifamily dwelling units.

Important Building Projects

PERMITS were issued during August for the following important building projects: In New York City—in the Borough of the Bronx, for apartment houses to cost over \$630,000; in the Borough of Brooklyn, for apartment houses to cost over \$1,500,000; in the Borough of Manhattan, for office buildings to cost nearly \$1,300,000; in Detroit, Mich., for factory buildings to cost over \$500,000; in Saginaw, Mich., for factory buildings to cost \$360,000; in Louisville, Ky., for factory buildings to cost over \$300,000; and in Fort Worth, Tex., for school buildings to cost over \$300,000.

Contracts were awarded by the Procurement Division of the United States Treasury Department for a post office in Atlantic City, N. J., to cost over \$400,000; for a post office in the Borough of the Bronx, New York, to cost over \$1,000,000; for the new Interior Department Building in Washington, D. C., to cost nearly \$10,000,000; for a customhouse in Denver, Colo., to cost nearly \$700,000; and for an addition to the United States Mint in San Francisco, Calif., to cost approximately \$1,000,000.

Building Operations in July 1935: Revised Figures

DETAILED figures on building construction, as compiled by the Bureau of Labor Statistics, for the month of July 1935, are presented in this article. The data are the same as published in the pamphlet, except for certain minor revisions or corrections.

Building Construction in Principal Cities

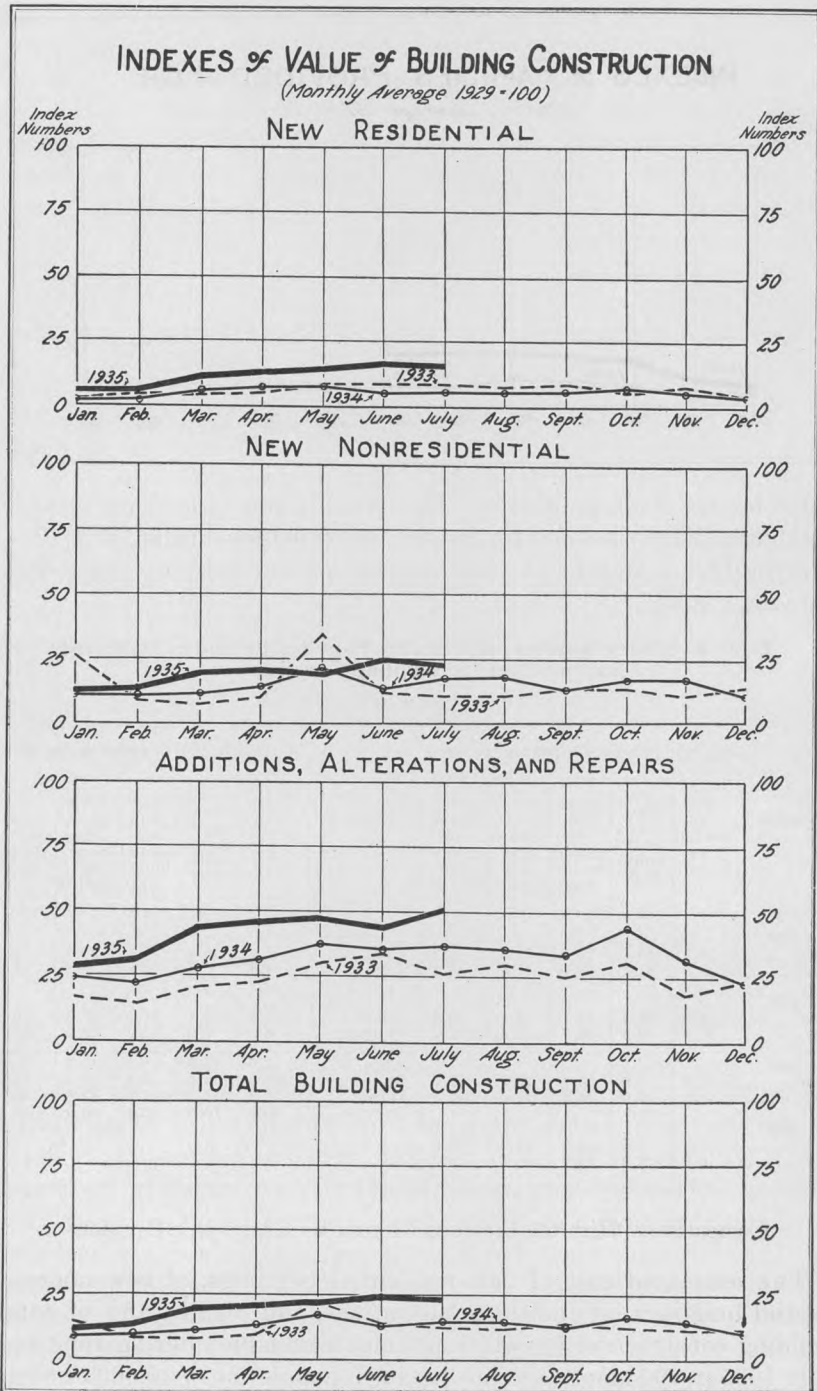
Indicated expenditures for residential buildings in June and July are shown in table 1. The permit valuations include, in addition to private construction, all buildings for which contracts were awarded. For June the value of such buildings was \$9,941,084; for July, \$3,740,405.

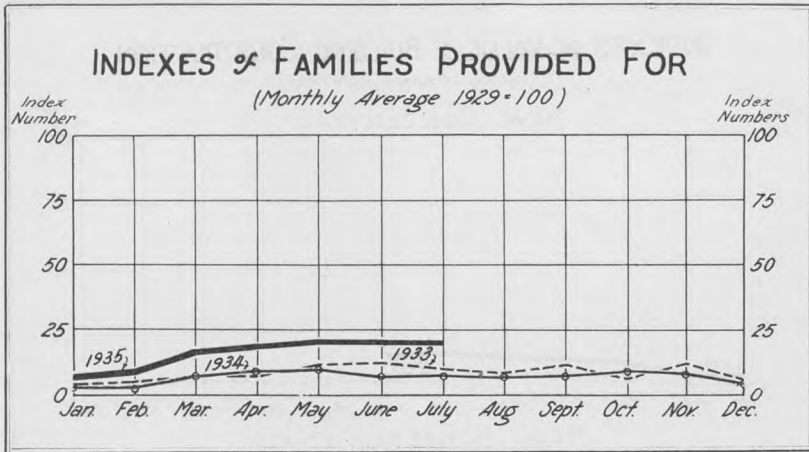
Table 1.—Summary of Building Construction in 760 Identical Cities, June and July 1935

Class of construction	Number of buildings			Estimated cost		
	July 1935	June 1935	Percent-age change	July 1935	June 1935	Percent-age change
All construction	41, 120	39, 981	+2. 8	\$74, 522, 185	\$75, 287, 355	-1. 0
New residential buildings.....	5, 135	4, 871	+5. 4	27, 423, 021	28, 942, 825	-5. 3
New nonresidential buildings.....	6, 821	6, 543	+4. 2	24, 858, 568	27, 307, 947	-9. 0
Additions, alterations, and repairs.....	29, 164	28, 567	+2. 1	22, 240, 596	19, 036, 583	+16. 8

The information shown in this study is based on reports received by the Bureau of Labor Statistics from 760 identical cities having a population of 10,000 or over. The data are collected from local building officials on forms mailed by the Bureau, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where the State departments of labor collect and forward the information to the Federal Bureau. The cost figures are estimates made by the prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the 760 cities enumerated are included.

Index numbers of indicated expenditures for each type of new building, for additions, alterations, and repairs, and of families pro-





vided for are given in table 2. The monthly trends for each class of building construction and for families provided for during 1933, 1934, and the first 7 months of 1935 are shown graphically by the accompanying charts.

Table 2.—Index Numbers of Families Provided for and of Indicated Expenditures for Building Construction

[Monthly average, 1929=100.0]

Month	Families provided for	Indicated expenditures for—				Month	Families provided for	Indicated expenditures for—			
		New residential buildings	New non-residential buildings	Additions, alterations, and repairs	Total construction			New residential buildings	New non-residential buildings	Additions, alterations, and repairs	Total construction
1930						1934					
June	54.4	45.1	82.5	74.6	63.3	June	7.2	5.3	12.6	34.4	12.4
July	49.9	44.1	86.7	77.4	64.8	July	7.8	5.3	16.8	35.8	14.2
1931						1935					
June	43.4	33.4	41.7	56.5	39.4	January	7.3	5.1	11.1	27.9	10.9
July	35.8	27.6	53.7	57.8	41.7	February	8.5	5.6	13.9	29.7	12.5
1932						March	16.6	11.4	18.6	41.6	19.2
June	10.6	7.9	24.6	28.2	17.3	April	18.9	13.0	21.2	45.5	21.6
July	8.2	5.6	16.1	22.6	12.0	May	20.0	14.2	19.9	47.2	22.0
1933						June	20.8	16.1	24.4	43.6	24.3
June	12.3	8.8	11.5	33.3	13.8	July	20.6	15.3	22.2	50.9	24.1
July	10.2	8.0	10.9	26.7	12.2						

Comparisons With the Previous Month, by Geographic Divisions

THE estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building construction for which permits were issued during June and July 1935 in 760 identical cities having a population of 10,000 or over, is shown in table 3, by geographic divisions.

Table 3.—Estimated Cost of Building Construction in 760 Identical Cities, June and July 1935

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	July 1935	June 1935	Percentage change	July 1935	June 1935	Percentage change
All divisions.....	\$27,423,021	\$28,942,825	-5.3	\$24,858,568	\$27,307,947	-9.0
New England.....	1,961,148	2,695,235	-27.2	1,282,958	1,517,039	-15.4
Middle Atlantic.....	6,858,452	8,466,689	-19.0	7,736,233	7,080,403	+9.3
East North Central.....	7,162,092	6,664,111	+7.5	5,145,361	2,775,967	+85.4
West North Central.....	1,895,157	1,893,665	+1	2,480,828	972,805	+155.0
South Atlantic.....	3,486,069	3,511,144	-7	1,647,342	7,910,597	-79.2
East South Central.....	547,230	784,429	-30.2	754,131	445,396	+69.3
West South Central.....	1,477,378	1,456,751	+1.4	968,112	2,202,029	-56.0
Mountain.....	789,800	576,790	+36.9	805,746	271,154	+197.2
Pacific.....	3,245,695	2,894,011	+12.2	4,037,857	4,132,557	-2.3

Geographic division	Additions, alterations and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	July 1935	June 1935	Per- cent- age change	July 1935	June 1935	Per- cent- age change	
All divisions.....	\$22,240,596	\$19,036,583	+16.8	\$74,522,185	\$75,287,355	-1.0	760
New England.....	2,197,185	2,077,364	+5.8	5,441,291	6,289,638	-13.5	109
Middle Atlantic.....	7,329,639	6,154,597	+19.1	21,924,324	21,701,689	+1.0	163
East North Central.....	3,706,770	3,692,892	+4	16,014,223	13,132,970	+21.9	184
West North Central.....	1,589,998	1,118,405	+42.2	5,965,983	3,984,875	+49.7	68
South Atlantic.....	2,799,349	2,055,295	+36.2	7,932,760	13,477,036	-41.1	79
East South Central.....	690,375	412,085	+60.3	1,961,736	1,641,910	+19.5	30
West South Central.....	948,659	949,864	-1	3,394,149	4,608,644	-26.4	47
Mountain.....	475,238	453,242	+4.9	2,070,784	1,301,186	+59.1	21
Pacific.....	2,533,383	2,122,839	+19.3	9,816,935	9,149,407	+7.3	59

The number of buildings for which permits were issued in June and July 1935 is classified according to type of construction in table 4 by geographic divisions.

Table 4.—Number of Buildings, Alterations and Repairs, and Total Building Construction in 760 Identical Cities, June and July 1935

Geographic division	New residential buildings			New nonresidential buildings			Additions, alter- ations, and repairs			Total construction		
	July 1935	June 1935	Per- cent- age change	July 1935	June 1935	Per- cent- age change	July 1935	June 1935	Per- cent- age change	July 1935	June 1935	Per- cent- age change
All divisions.....	5,135	4,871	+5.4	6,821	6,543	+4.2	29,164	28,567	+2.1	41,120	39,981	+2.8
New England.....	469	372	+9.9	734	786	-6.6	3,213	3,079	+4.4	4,356	4,237	+2.8
Middle Atlantic.....	959	1,025	-6.4	1,257	1,130	+11.2	6,321	6,517	-3.0	8,537	8,672	-1.6
East North Central.....	841	781	+7.7	1,724	1,692	+1.9	5,299	5,229	+1.3	7,864	7,702	+2.1
West North Central.....	506	497	+1.8	766	689	+11.2	2,224	2,456	-9.4	3,496	3,642	-4.0
South Atlantic.....	784	749	+4.7	617	585	+5.5	3,663	3,360	+9.0	5,064	4,694	+7.9
East South Central.....	166	151	+9.9	170	160	+6.3	1,386	1,240	+11.8	1,722	1,551	+11.0
West South Central.....	536	463	+15.8	345	348	-9	1,955	1,809	+8.1	2,836	2,620	+8.2
Mountain.....	123	148	-16.9	171	181	-5.5	811	939	-13.6	1,105	1,268	-12.9
Pacific.....	811	685	+18.4	1,037	972	+6.7	4,292	3,938	+9.0	6,140	5,595	+9.7

The estimated cost of housekeeping dwellings and the number of families provided for by such dwellings for which permits were issued in 760 identical cities in June and July 1935 is shown in table 5, by geographic divisions.

Table 5.—Estimated Cost and Number of Family-Dwelling Units Provided in 760 Identical Cities, June and July 1935

Geographic division	1-family dwellings				2-family dwellings ¹			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
New England.....	\$1,823,448	\$1,968,635	387	357	\$137,700	\$47,300	42	14
Middle Atlantic.....	4,258,266	4,294,289	899	937	297,186	418,900	70	121
East North Central.....	4,089,456	3,812,471	787	729	168,000	208,600	42	46
West North Central.....	1,814,429	1,843,565	469	485	60,228	26,500	20	16
South Atlantic.....	3,007,474	2,657,674	715	643	164,195	212,370	86	103
East South Central.....	522,530	405,929	160	133	17,700	2,000	10	2
West South Central.....	1,306,148	1,233,476	492	418	153,720	118,275	76	64
Mountain.....	510,100	549,940	116	143	10,700	26,850	4	10
Pacific.....	2,810,083	2,591,711	754	645	260,487	187,250	86	60
Total.....	20,141,934	19,357,690	4,779	4,490	1,269,916	1,248,045	436	436
Percentage change.....	+4.1		+6.4		+1.8			

Geographic division	Multifamily dwellings ²				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
New England.....	0	\$29,300	0	12	\$1,961,148	\$2,045,235	429	383
Middle Atlantic.....	\$2,282,000	3,703,500	674	1,092	6,837,452	8,416,689	1,643	2,150
East North Central.....	2,483,921	2,598,040	1,056	688	6,741,377	6,619,111	1,885	1,463
West North Central.....	15,500	23,600	12	9	1,890,157	1,893,665	501	510
South Atlantic.....	314,400	641,100	139	257	3,486,069	3,511,144	940	1,003
East South Central.....	7,000	376,500	4	158	547,230	784,429	174	293
West South Central.....	9,000	105,000	4	45	1,468,868	1,456,751	572	527
Mountain.....	27,000	0	12	0	547,800	576,790	132	153
Pacific.....	151,625	112,500	66	53	3,222,195	2,891,461	906	758
Total.....	5,290,446	7,589,540	1,976	2,314	26,702,296	28,195,275	7,182	7,240
Percentage change.....	-30.3		-15.0		-5.3		-0.8	

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Comparisons With Year Ago, by Geographic Divisions

TABLE 6 compares the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building construction in 753 identical cities having a population of 10,000 or over in July 1935 with the cost of the same types of building during July of the previous year.

Table 6.—Estimated Cost of Building Construction in 753 Identical Cities, July 1934 and July 1935

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	July 1935	July 1934	Percentage change	July 1935	July 1934	Percentage change
All divisions.....	\$27,397,689	\$8,699,863	+214.9	\$24,836,538	\$20,968,384	+18.4
New England.....	1,956,648	1,330,751	+47.0	1,282,758	4,936,222	-74.0
Middle Atlantic.....	6,868,852	3,390,913	+102.6	7,735,233	6,452,879	+19.0
East North Central.....	7,154,292	963,844	+642.3	5,128,811	3,741,280	+37.1
West North Central.....	1,848,025	453,540	+307.5	2,476,473	1,105,328	+124.0
South Atlantic.....	3,463,069	959,623	+260.9	1,646,992	1,110,379	+48.3
East South Central.....	547,230	91,909	+495.4	754,131	544,620	+38.5
West South Central.....	1,477,378	469,444	+214.7	968,112	513,846	+88.4
Mountain.....	836,500	177,833	+370.4	806,171	873,545	-7.7
Pacific.....	3,245,695	862,006	+276.5	4,037,857	1,690,285	+138.9

Geographic division	Additions, alterations and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	July 1935	July 1934	Percentage change	July 1935	July 1934	Percentage change	
All divisions.....	\$22,171,151	\$16,317,544	+35.9	\$74,405,378	\$45,985,791	+61.8	753
New England.....	2,196,985	1,822,715	+20.5	5,436,391	8,089,688	-32.8	109
Middle Atlantic.....	7,329,399	5,805,906	+26.2	21,933,484	15,649,698	+40.2	163
East North Central.....	3,644,670	2,275,839	+60.1	15,927,773	6,980,993	+128.2	179
West North Central.....	1,584,393	872,381	+81.6	5,908,891	2,431,249	+143.0	67
South Atlantic.....	2,796,349	1,977,814	+41.4	7,906,410	4,047,816	+95.3	78
East South Central.....	660,375	424,322	+55.6	1,961,736	1,060,851	+84.9	29
West South Central.....	948,659	891,884	+6.4	3,394,149	1,875,174	+81.0	47
Mountain.....	476,938	362,287	+31.6	2,119,609	1,413,665	+49.9	22
Pacific.....	2,533,383	1,884,396	+34.4	9,816,935	4,436,687	+121.3	59

The number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building construction for which permits were issued in 753 identical cities is shown in table 7 for July 1934 and July 1935, by geographic divisions.

Table 7.—Number of Buildings, Alterations, and Repairs, and Total Building Construction in 753 Identical Cities, July 1934 and July 1935

Geographic division	New residential buildings			New nonresidential buildings			Additions, alterations, and repairs			Total construction		
	July 1935	July 1934	Percentage change	July 1935	July 1934	Percentage change	July 1935	July 1934	Percentage change	July 1935	July 1934	Percentage change
All divisions.....	5,124	1,808	+183.4	6,796	5,257	+29.3	29,150	22,984	+26.8	41,070	30,049	+36.7
New England.....	408	252	+61.9	733	727	+0.8	3,212	2,697	+19.1	4,353	3,676	+18.4
Middle Atlantic.....	962	364	+164.3	1,252	1,143	+9.5	6,321	6,189	+2.1	8,535	7,696	+10.9
East North Central.....	838	202	+314.9	1,715	1,111	+54.4	5,292	3,425	+54.5	7,845	4,738	+65.6
West North Central.....	489	157	+211.5	755	536	+40.9	2,214	1,431	+54.7	3,458	2,124	+62.8
South Atlantic.....	774	249	+210.8	615	459	+34.0	3,662	3,117	+17.5	5,051	3,825	+32.1
East South Central.....	166	58	+186.2	170	113	+50.4	1,386	1,186	+16.9	1,722	1,357	+26.9
West South Central.....	536	206	+160.2	345	274	+25.9	1,955	1,367	+43.0	2,836	1,847	+53.5
Mountain.....	140	45	+211.1	174	130	+33.8	816	516	+58.1	1,130	691	+63.5
Pacific.....	811	275	+194.9	1,037	764	+35.7	4,292	3,056	+40.4	6,140	4,095	+49.9

Table 8 shows, by geographic divisions, the number and estimated cost of new family-dwelling units provided in housekeeping dwellings for which permits were issued in 753 identical cities in July 1934 and July 1935.

Table 8.—Estimated Cost and Number of Family-Dwelling Units Provided in 753 Identical Cities, July 1934 and July 1935

Geographic division	1-family dwellings				2-family dwellings ¹			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1935	July 1934	July 1935	July 1934	July 1935	July 1934	July 1935	July 1934
New England.....	\$1,818,948	\$1,210,351	385	238	\$137,700	\$60,400	42	24
Middle Atlantic.....	4,268,666	1,581,988	902	315	297,186	228,875	70	57
East North Central.....	4,081,656	913,170	784	193	168,000	33,000	42	9
West North Central.....	1,767,297	452,040	475	156	60,228	1,500	20	2
South Atlantic.....	2,984,474	856,623	705	235	164,195	68,800	86	18
East South Central.....	522,530	77,909	160	57	17,700	0	10	0
West South Central.....	1,306,148	442,894	492	197	153,720	20,850	76	14
Mountain.....	537,800	173,833	129	44	29,700	4,000	12	2
Pacific.....	2,810,083	801,956	754	257	260,487	47,050	86	29
Total.....	20,097,602	6,510,764	4,786	1,692	1,288,916	464,475	444	155
Percentage change.....	+208.7		+182.9		+177.5		+186.5	

Geographic division	Multifamily dwellings ²				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	July 1935	July 1934	July 1935	July 1934	July 1935	July 1934	July 1935	July 1934
New England.....	0	\$35,000	0	8	\$1,956,648	\$1,305,751	427	270
Middle Atlantic.....	\$2,282,000	1,580,050	674	656	6,847,852	3,390,913	1,646	1,028
East North Central.....	2,483,921	17,674	1,056	14	6,733,577	963,844	1,882	216
West North Central.....	15,500	0	12	0	1,843,025	453,540	507	158
South Atlantic.....	314,400	34,200	139	15	3,463,069	959,623	930	268
East South Central.....	7,000	14,000	4	3	547,230	91,909	174	60
West South Central.....	9,000	5,700	4	10	1,468,868	469,444	572	221
Mountain.....	27,000	0	12	0	594,500	177,833	153	46
Pacific.....	151,625	13,000	66	17	3,222,195	862,006	906	303
Total.....	5,290,446	1,699,624	1,967	723	26,676,964	8,674,863	7,197	2,570
Percentage change.....	+211.3		+172.1		+207.5		+180.0	

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Construction from Public Funds

DURING July contracts were awarded by the Public Works Administration for construction projects valued at approximately \$45,000,000, as compared with more than \$130,000,000 during the previous month.

The value of awards from regular governmental appropriations totaled more than \$9,000,000, approximately the same as for June.

Data concerning the value of contracts awarded and force-account work started during the months of June and July 1935, for Federal construction projects financed from Public Works Administration funds, are shown in table 9, by geographic divisions.

Table 9.—Value of Contracts Awarded for Federal Construction Projects Financed from Public Works Administration Funds ¹

Geographic divisions	Building construction		Public roads ²		River, harbor, and flood-control projects	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$3,805,685	\$5,951,995	\$10,445,214	\$11,166,862	\$6,717,651	\$68,744,675
New England.....	0	2,366	729,498	667,604	0	151,189
Middle Atlantic.....	62,345	403,896	57,736	169,991	25,000	150,944
East North Central.....	2,444,571	2,504,564	1,456,548	2,260,668	5,755,810	6,313,528
West North Central.....	31,538	0	2,818,290	692,370	327,237	58,455,825
South Atlantic.....	445,760	2,456,301	1,528,585	2,861,491	101,068	195,312
East South Central.....	204,535	439,627	1,279,623	1,178,939	0	0
West South Central.....	9,183	48,923	637,124	1,298,966	271,361	0
Mountain.....	7,501	24,342	1,672,731	963,221	0	42,375
Pacific.....	600,252	6,171	265,079	1,073,612	237,175	3,435,502
Outside continental United States.....	0	65,805	0	0	0	0

Geographic divisions	Streets and roads		Naval vessels		Reclamation projects	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$634,254	\$206,422	\$116,000	\$11,919,948	\$4,348,572	\$6,952,208
New England.....	0	0	30,000	0	0	0
Middle Atlantic.....	59,560	6,977	30,000	0	0	0
East North Central.....	0	0	0	0	0	0
West North Central.....	0	0	0	0	50,000	152,500
South Atlantic.....	276,919	59,853	16,000	11,919,948	0	180,000
East South Central.....	268,807	6,253	0	0	228,315	35,000
West South Central.....	0	0	0	0	0	124,986
Mountain.....	0	0	0	0	4,000,262	4,950,276
Pacific.....	0	69,459	40,000	0	69,995	1,509,446
Outside continental United States.....	28,968	63,880	0	0	0	0

Geographic divisions	Water and sewerage systems		Miscellaneous		Total	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$67,937	\$17,660	³ \$478,932	\$348,863	³ \$26,614,245	\$105,308,633
New England.....	0	1,477	2,108	16,114	761,606	838,750
Middle Atlantic.....	0	1,700	41,349	72,724	275,990	806,232
East North Central.....	3,000	0	14,973	14,199	9,674,902	11,092,959
West North Central.....	0	0	63,374	163,817	3,290,439	69,464,512
South Atlantic.....	29,937	0	52,640	14,525	2,450,909	17,687,430
East South Central.....	0	3,800	10,692	10,265	1,991,872	1,673,884
West South Central.....	0	0	3,448	4,024	921,116	1,476,899
Mountain.....	35,000	6,683	10,000	17,940	5,725,494	6,004,837
Pacific.....	0	4,000	10,602	25,632	1,223,103	6,123,822
Outside continental United States.....	0	0	3,846	9,623	32,814	139,308

¹ Preliminary, subject to revision.

² Other than those reported by the Bureau of Public Roads.

³ Includes \$266,000 not allocated by geographic divisions.

The value of contracts awarded and force-account work started during June and July 1935 is shown in table 10 for non-Federal construction projects to be financed from Public Works Administration funds.

Table 10.—Value of Contracts Awarded for Non-Federal Construction Projects Financed from Public Works Administration Funds¹

Geographic division	Building construction		Streets and roads ²		Water and sewerage systems	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$8,389,821	\$14,114,368	\$2,581,268	\$3,165,427	\$5,504,344	\$7,092,575
New England.....	269,291	139,751	570,506	336,975	267,567	205,110
Middle Atlantic.....	4,404,067	6,398,932	138,667	248,974	442,737	913,517
East North Central.....	587,362	695,802	171,113	158,081	3,055,616	1,971,365
West North Central.....	590,440	2,024,579	173,261	477,854	131,363	923,511
South Atlantic.....	158,959	1,377,143	741,970	16,316	80,185	1,000
East South Central.....	285,680	577,494	30,152	91,952	249,054	131,613
West South Central.....	679,878	741,104	0	99,229	253,151	2,179,284
Mountain.....	266,791	629,453	0	0	138,031	236,452
Pacific.....	1,147,353	1,491,756	755,599	1,712,099	886,590	530,723
Outside Continental United States.....	0	38,354	0	23,947	0	0

Geographic division	Railroad construction and repair		Miscellaneous		Total	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	0	\$1,041,098	\$2,327,669	\$1,541,904	\$18,803,102	\$26,955,372
New England.....	0	0	98,687	50,594	1,206,051	732,430
Middle Atlantic.....	0	0	21,469	187,978	5,006,940	7,749,401
East North Central.....	0	0	56,704	114,737	3,870,795	2,939,985
West North Central.....	0	1,041,098	1,115,799	432,152	2,010,863	4,899,194
South Atlantic.....	0	0	37,447	2,271	1,018,561	1,396,730
East South Central.....	0	0	409,930	56,396	974,716	857,455
West South Central.....	0	0	18,605	522,359	951,634	3,541,976
Mountain.....	0	0	470,121	175,417	874,993	1,041,322
Pacific.....	0	0	98,907	0	2,888,449	3,734,578
Outside Continental United States.....	0	0	0	0	0	62,301

¹ Preliminary, subject to revision.

² Other than those reported by the Bureau of Public Roads.

Non-Federal public-works construction projects are financed by loans and grants made by the Public Works Administration. For the most part, these allotments are made to State governments or political subdivisions thereof. Occasionally, however, loans are made to private firms. Most of the loans to commercial concerns have been made to railroad companies. In the case of allotments to States, counties, and cities, the Federal Government grants outright not more than 30 percent of the cost of construction. The remaining 70 percent is financed by the local agency. Sometimes the financial arrangements include a loan by the Public Works Administration. Loans made to both public agencies and commercial firms must be repaid in full within the time specified in the loan contract. Interest is charged on all loans.

Contracts were awarded during July for the following important non-Federal construction projects financed from Public Works Administration funds: For a sewerage system and sewage-treatment plant in the sanitary district of Chicago valued at over \$1,820,000, and for transmission-line structures, cables, and electrical equipment for the Loup River public power and irrigation district, Platte Valley, Nebr., to cost more than \$730,000. Additional contracts valued at more than \$2,720,000 were awarded for work on the Midtown Hudson Tunnel.

Table 11 gives the value of contracts awarded and force-account work started during June and July 1935 on construction projects to be financed from appropriations made by the Congress direct to the Federal departments, which are in addition to construction financed from P. W. A. funds.

Table 11.—Value of Contracts for Federal Construction Projects Financed from Regular Governmental Appropriations¹

Geographic division	Building construction		Public roads		River, harbor, and flood-control projects	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$638,769	\$4,380,327	\$1,320,830	\$327,409	\$5,291,629	\$2,023,898
New England.....	3,900	24,333	0	0	55,930	143,274
Middle Atlantic.....	152,148	40,440	0	0	357,000	236,658
East North Central.....	18,593	10,094	0	27,926	97,169	67,755
West North Central.....	65,238	0	0	0	340,715	52,091
South Atlantic.....	130,123	4,189,747	440,603	0	77,467	329,331
East South Central.....	3,150	8,807	0	0	498,616	39,397
West South Central.....	17,507	7,418	0	0	3,805,923	634,850
Mountain.....	17,935	96,239	796,810	262,304	0	0
Pacific.....	45,345	0	83,417	37,179	58,809	520,542
Outside continental United States.....	184,830	3,249	0	0	0	0

Geographic division	Streets and roads ²		Naval vessels		Reclamation projects	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$92,360	\$78,237	\$1,142,300	\$1,336,100	³ \$194,700	⁴ \$129,100
New England.....	0	0	0	0	0	0
Middle Atlantic.....	0	0	46,000	0	0	0
East North Central.....	0	0	0	0	0	0
West North Central.....	0	0	0	0	19,500	9,700
South Atlantic.....	3,190	78,237	42,000	98,000	11,000	7,700
East South Central.....	0	0	0	0	0	0
West South Central.....	0	0	0	0	20,000	4,500
Mountain.....	0	0	0	0	77,800	67,000
Pacific.....	89,170	0	780,500	992,300	55,400	35,000
Outside continental United States.....	0	0	273,800	245,800	0	0

¹ Preliminary, subject to revision.

² Other than those reported by Bureau of Public Roads.

³ Includes \$11,000 not allocated by geographic division.

⁴ Includes \$5,200 not allocated by geographic division.

Table 11.—Value of Contracts for Federal Construction Projects Financed from Regular Governmental Appropriations—Continued

Geographic division	Water and sewerage systems		Miscellaneous		Total	
	July 1935	June 1935	July 1935	June 1935	July 1935	June 1935
All divisions.....	\$15,940	0	\$317,132	\$399,479	\$9,013,660	\$8,674,550
New England.....	0	0	7,920	7,881	67,750	175,488
Middle Atlantic.....	10,740	0	17,797	143,863	583,685	420,961
East North Central.....	0	0	59,314	468	175,076	106,243
West North Central.....	2,700	0	118,539	1,860	427,953	63,651
South Atlantic.....	0	0	75,700	200,829	825,622	4,903,844
East South Central.....	0	0	0	198	577,466	48,402
West South Central.....	0	0	1,279	0	3,843,430	646,768
Mountain.....	0	0	9,068	1,198	893,824	426,741
Pacific.....	0	0	27,515	40,158	1,121,709	1,625,179
Outside continental United States.....		0		3,024	486,145	252,073

³ Includes \$11,000 not allocated by geographic divisions.

⁴ Includes \$5,200 not allocated by geographic divisions.

In table 12 is given, by geographic divisions, the value of public-building and highway-construction awards, as reported by the various State governments for July 1934 and June and July 1935.

Table 12.—Value of Public-Building and Highway-Construction Awards as Reported by the State Governments, by Geographic Divisions

Geographic division	Value of awards for public buildings			Value of awards for highway construction		
	July 1935	June 1935	July 1934	July 1935	June 1935	July 1934
All divisions.....	\$943,297	\$1,702,557	\$3,017,380	\$8,902,774	\$1,799,341	\$14,977,152
New England.....	39,514	105,846	0	180,795	29,986	352,935
Middle Atlantic.....	165,108	227,782	1,171,783	770,727	18,914	1,636,431
East North Central.....	627,476	1,091,503	497,914	166,815	283,968	2,976,444
West North Central.....	10,416	127,525	4,150	245,053	135,955	430,247
South Atlantic.....	3,120	73,014	384,809	383,627	242,098	389,400
East South Central.....	0	0	125,000	422,034	89,035	743,837
West South Central.....	88,042	15,533	818,746	475,011	234,525	758,886
Mountain.....	5,449	21,693	10,537	43,093	219,522	109,882
Pacific.....	4,172	39,661	4,441	6,215,619	545,338	6,679,090

The data presented in the preceding table are in addition to construction projects financed wholly or partially by loans and grants made to State governments by the Public Works Administration.

Review of Construction in the First Half of 1935

DURING the first half of 1935 permits were issued for more buildings than for any corresponding period since 1931. The value of buildings for which permits were issued was also greater than for the first 6 months of any year since 1931. This is the first half year since 1929 in which there has been an increase over the previous year in the number and value of buildings for which permits were issued. Compared with the first 6 months of 1934, the increase in the number of residential buildings amounted to 130 percent. At the same time, the value of residential buildings shows an increase of \$48,000,000, or 155 percent. Pronounced increases also occurred in the number and value of new nonresidential buildings, and in additions, alterations, and repairs to existing buildings. The figures published in this section are based on reports received by the Bureau of Labor Statistics from 94 identical cities having a population of 100,000 or over.

A summary of the outstanding developments in building construction during the first half of 1935 as compared with the corresponding period of 1934 is given in table 13.

Table 13.—Summary of Building Construction in 94 Identical Cities, First Half of 1934 and of 1935

Class of construction	Number of buildings			Estimated cost		
	First half 1935	First half 1934	Percentage change	First half 1935	First half 1934	Percentage change
All construction.....	119, 228	91, 417	+30. 4	\$239, 172, 318	\$151, 821, 521	+57. 5
New residential buildings.....	11, 887	5, 184	+129. 3	78, 580, 933	30, 785, 288	+155. 3
New nonresidential buildings.....	19, 236	15, 328	+25. 5	92, 016, 870	68, 521, 896	+34. 3
Additions, alterations, and repairs.....	88, 105	70, 905	+24. 3	68, 574, 515	52, 514, 337	+30. 6

Comparisons, by Type of Building

THE number and cost of the different types of buildings for which permits were issued in the 94 cities covered during the first 6 months of 1934 and 1935 is given in table 14.

Table 14.—Number and Cost of New Buildings and of Alterations and Repairs for Which Permits Were Issued in 94 Cities, First Half of 1934 and of 1935, by Kind of Building

Kind of building	Buildings for which permits were issued				Percentage change	
	First half of 1935		First half of 1934		Number	Cost
	Number	Cost	Number	Cost		
Residential buildings:						
1-family dwellings.....	10,806	\$44,031,903	4,722	\$19,062,838	+128.8	+131.0
2-family dwellings.....	517	2,934,522	307	2,034,610	+68.4	+44.2
1-family and 2-family dwellings with stores.....	54	417,421	45	241,395	+20.0	+72.9
Multifamily dwellings.....	472	27,521,873	97	8,865,470	+386.6	+210.4
Multifamily dwellings with stores.....	22	2,788,450	6	93,000	+266.7	+199.8
Hotels.....	2	92,664	1	125,000	+100.0	-25.9
Lodging houses.....	3	8,200	0	0		
All other.....	11	785,900	6	362,975	+83.3	+116.5
Total, residential buildings.....	11,887	78,580,933	5,184	30,785,288	+129.3	+155.3
Nonresidential buildings:						
Amusement buildings.....	138	3,885,297	158	1,490,862	-12.7	+160.6
Churches.....	105	1,878,942	84	1,102,150	+25.0	+70.5
Factories and workshops.....	366	9,097,420	291	4,776,771	+25.8	+90.5
Public garages.....	124	1,043,954	115	1,030,335	+7.8	+1.3
Private garages.....	11,916	2,996,060	8,593	2,340,950	+38.7	+28.0
Service stations.....	946	2,751,627	765	2,386,085	+23.7	+15.3
Institutions.....	19	4,315,635	25	2,618,189	-24.0	+64.8
Office buildings.....	56	1,308,225	42	10,436,139	+33.3	-87.5
Public buildings.....	126	22,845,646	82	13,355,505	+53.7	+71.1
Public works and utilities.....	86	13,847,260	73	4,114,790	+17.8	+236.5
Schools and libraries.....	148	14,009,629	70	10,190,065	+111.4	+37.5
Sheds.....	2,991	959,579	2,983	873,375	+3	+9.9
Stables and barns.....	86	57,028	184	192,687	-53.3	-70.4
Stores and warehouses.....	1,839	11,796,562	1,506	9,978,558	+22.1	+18.2
All other.....	290	1,224,006	357	634,835	-18.8	+92.8
Total, nonresidential buildings.....	19,236	92,016,870	15,328	68,521,896	+25.5	+34.3
Total, new buildings.....	31,123	170,597,803	20,512	99,307,184	+51.7	+71.8
Additions, alterations, and repairs.....	88,105	68,574,515	70,905	52,514,337	+24.3	+30.6
Grand total.....	119,228	239,172,318	91,417	151,821,521	+30.4	+57.5

During the first half of 1935, permits were issued for building operations to cost nearly \$240,000,000, an increase of nearly \$90,000,000 in comparison with the corresponding period of 1934. Of the total permit valuation, \$78,500,000, or 32.9 percent, was expended for residential buildings; \$92,000,000, or 38.5 percent, for new nonresidential buildings; and \$68,500,000, or 28.6 percent, for additions, alterations, and repairs to existing buildings.

Virtually all types of residential buildings shared in the increase. A slight decrease below the previous year's level, however, was reported in the amount expended for hotels.

Indicated expenditures for apartment houses showed a greater increase over the previous year than any other class of residential building. The permit valuation of the two classes of apartment houses for which permits were issued during the first 6 months of 1935 amounted to more than \$30,000,000, compared with less than \$10,000,000 during the corresponding period of 1934.

Increases in number were registered for all types of nonresidential buildings with the exception of amusement buildings, institutional buildings, and stables and barns. The only types showing decreases in estimated cost were office buildings and stables and barns. The estimated expenditures for public works and utilities showed larger increases than for any other type of nonresidential building. Expenditures for additions, alterations, and repairs advanced from \$52,500,000 in the first half of 1934 to more than \$68,500,000 in 1935.

The number and percent of families provided for in each of the different kinds of dwellings for which permits were issued in the 94 identical cities during the first half of 1934 and 1935 are shown in table 15.

Table 15.—Number and Percent of Families Provided for in New Dwellings for Which Permits Were Issued in 94 Identical Cities, First Half of 1934 and of 1935, by Kind of Dwelling

Kind of dwelling	Number of dwellings for which permits were issued		Families provided for			
			Number		Percentage	
	First half 1935	First half 1934	First half 1935	First half 1934	First half 1935	First half 1934
1-family dwellings.....	10,806	4,722	10,806	4,722	50.0	53.5
2-family dwellings.....	517	307	1,034	614	4.8	7.0
1-family and 2-family dwellings with stores.....	54	45	67	61	.3	.7
Multifamily dwellings.....	472	97	8,783	3,386	40.6	38.4
Multifamily dwellings with stores.....	22	6	922	42	4.3	.5
Total.....	11,871	5,177	21,612	8,825	100.0	100.0

Permits issued for family-dwelling units during the first 6 months of 1935 were more than double those for the same period in 1934. Comparing the first half of 1935 with the first 6 months of 1934, increases were shown in all types of dwelling units. During the first half of 1935, half of the dwelling units were provided in single-family dwellings; this compares with 53½ percent during the first half of 1934. By contrast, the percentage of families provided for in the two types of apartment houses rose from 39 percent during the first half of 1934 to 45 percent during the first half of 1935.

Long-Time Trend in Construction, First Half of 1922-35

THE total number and estimated cost, together with the index numbers of all building operations for which permits were issued in 65 identical cities having a population of 100,000 or over, is given for the first half of each year, 1922 to 1935, inclusive, in table 16.

Table 16.—Number and Estimated Cost of All Buildings for Which Permits Were Issued in 65 Identical Cities, First Half of Each Year, 1922 to 1935

Period	Buildings for which permits were issued		Estimated cost		Period	Buildings for which permits were issued		Estimated cost	
	Number	Index number	Amount	Index number		Number	Index number	Amount	Index number
First half of—					First half of—				
1922-----	243, 479	100 0	\$1, 062, 464, 771	100. 0	1929-----	182, 379	74. 9	\$1, 479, 460, 210	139. 2
1923-----	283, 289	116 4	1, 418, 779, 382	133 5	1930-----	146, 410	60. 1	679, 064, 355	63. 9
1924-----	299, 769	123 1	1, 518, 088, 421	142. 9	1931-----	130, 127	53. 4	577, 931, 724	54. 4
1925-----	289, 014	118 7	1, 620, 413, 012	152. 5	1932-----	89, 477	36. 7	222, 953, 519	21. 0
1926-----	254, 564	104 6	1, 539, 207, 242	144 9	1933-----	75, 099	31. 1	161, 278, 854	15. 2
1927-----	237, 853	97 7	1, 443, 232, 520	135. 8	1934-----	75, 281	30. 9	137, 977, 632	13. 0
1928-----	216, 509	88. 9	1, 462, 560, 722	137. 7	1935-----	93, 103	38. 2	215, 321, 209	20. 3

In the 65 cities for which a continuous record is available, the aggregate value of the buildings for which permits were issued exceeded \$1,000,000,000 in the first half of each of the 8 years, 1922-29. The high point was reached in 1926 when permit valuation for the first 6 months was \$1,620,413,012. Between 1929 and 1934, however, building operations contracted sharply and in the first 6 months of last year the value of permits issued was only \$137,977,632. For the first half of the current year the value of the buildings for which permits were issued amounted to \$215,321,209, a gain of 56 percent in comparison with the low mark of last year. The value for the first half of 1935 also exceeds the 1933 level by a substantial margin, but is less than in any of the other years for which comparable information is available.

Using 1922 as a base, or 100, the index number of building operations in the first half of 1935 stands at 20.3. This compares with 13.0 in 1934, and 15.2 in 1933.

Information with respect to the number and percentage of families provided for in each of the different kinds of dwellings for which permits were issued in 65 identical cities in the first half of each year, 1922-35 inclusive, is presented in table 17.

Table 17.—Number and Percent of Families Provided for in Each Specified Kind of Dwelling in 65 Identical Cities, First Half of Each Year, 1922 to 1935

Period	Number of families provided for in—				Percentage of families provided for in—		
	1-family dwellings	2-family dwellings ¹	Multi-family dwellings ²	All classes of dwellings	1-family dwellings	2-family dwellings ¹	Multi-family dwellings ²
First half of—							
1922.....	63,892	32,321	51,006	147,249	43.4	22.0	34.6
1923.....	77,875	39,314	77,826	195,015	39.9	20.2	39.9
1924.....	82,514	50,904	69,619	203,037	40.6	25.1	34.3
1925.....	87,783	39,330	80,291	207,394	42.3	19.0	38.7
1926.....	71,818	26,727	100,201	198,746	36.1	13.4	50.4
1927.....	57,899	24,204	95,448	177,551	32.6	13.6	53.8
1928.....	50,724	19,261	111,268	181,252	28.0	10.6	61.2
1929.....	36,237	12,815	81,205	130,257	27.8	9.8	62.3
1930.....	20,410	6,101	19,930	46,441	43.9	13.1	42.9
1931.....	20,334	5,268	23,870	49,472	41.1	10.6	48.2
1932.....	7,884	1,732	3,203	12,819	61.5	13.5	25.0
1933.....	5,016	1,056	3,168	9,240	54.3	11.4	34.3
1934.....	4,080	624	3,428	8,132	50.2	7.7	42.2
1935.....	9,105	952	9,560	19,617	46.4	4.9	48.7

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

More dwelling units were provided during the first half of 1935 in these 65 identical cities than in any similar period since 1931. The increase over the first half of the 2 preceding years amounted to more than 100 percent.

Table 18 compares the value of buildings in the five cities leading in total expenditures for building operations for the first half of each year, 1922 to 1935, inclusive.

Table 18.—Cities Leading in Total Expenditures for All Classes of Buildings During First Half of Each Year, 1922 to 1935

City and year	Expenditure	City and year	Expenditure
<i>1922</i>		<i>1929</i>	
New York City.....	\$339, 143, 976	New York City.....	\$694, 118, 064
Chicago.....	108, 699, 025	Chicago.....	118, 898, 940
Los Angeles.....	59, 459, 250	Philadelphia.....	58, 533, 385
Philadelphia.....	52, 429, 145	Detroit.....	55, 855, 545
Detroit.....	40, 650, 143	Los Angeles.....	54, 071, 599
<i>1923</i>		<i>1930</i>	
New York City.....	427, 633, 386	New York City.....	202, 975, 234
Chicago.....	189, 914, 112	Chicago.....	41, 953, 917
Los Angeles.....	93, 889, 185	Los Angeles.....	39, 712, 901
Philadelphia.....	75, 217, 095	Philadelphia.....	34, 569, 340
Detroit.....	61, 616, 302	Washington.....	30, 522, 416
<i>1924</i>		<i>1931</i>	
New York City.....	548, 161, 458	New York City.....	234, 253, 030
Chicago.....	166, 436, 214	Chicago.....	37, 651, 195
Detroit.....	87, 195, 800	Washington.....	24, 421, 984
Los Angeles.....	78, 828, 738	Los Angeles.....	23, 096, 177
Philadelphia.....	72, 573, 485	Boston.....	17, 583, 794
<i>1925</i>		<i>1932</i>	
New York City.....	461, 513, 809	New York City.....	52, 658, 671
Chicago.....	204, 239, 810	Washington.....	44, 037, 364
Detroit.....	89, 562, 885	Los Angeles.....	11, 307, 409
Philadelphia.....	85, 884, 680	Philadelphia.....	7, 884, 358
Los Angeles.....	83, 175, 457	Baltimore.....	7, 521, 309
<i>1926</i>		<i>1933</i>	
New York City.....	510, 263, 696	San Francisco.....	50, 627, 839
Chicago.....	183, 577, 891	New York City.....	39, 989, 671
Detroit.....	96, 204, 092	Los Angeles.....	6, 652, 720
Philadelphia.....	70, 379, 825	Philadelphia.....	6, 640, 183
Los Angeles.....	63, 161, 395	Washington.....	5, 060, 833
<i>1927</i>		<i>1934</i>	
New York City.....	490, 119, 588	New York City.....	48, 566, 086
Chicago.....	210, 210, 475	Washington.....	10, 736, 295
Detroit.....	78, 742, 327	Los Angeles.....	6, 764, 589
Philadelphia.....	61, 683, 600	Baltimore.....	4, 645, 562
Los Angeles.....	58, 192, 977	Philadelphia.....	4, 554, 313
<i>1928</i>		<i>1935</i>	
New York City.....	557, 561, 891	New York City.....	64, 532, 067
Chicago.....	184, 650, 200	Washington.....	19, 974, 419
Detroit.....	65, 175, 361	Los Angeles.....	15, 495, 617
Philadelphia.....	63, 195, 840	Detroit.....	8, 677, 871
Los Angeles.....	52, 002, 570	Chicago.....	8, 025, 861

Details by Cities

TABLE 19 shows the number and estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total construction in the first 6 months of 1934 and 1935 for each of the 94 cities for which information is available.

Table 19.—Number and Estimated Cost of Building Construction in 94 Identical Cities, First 6 Months of 1934 and of 1935

City and State	New residential buildings				New nonresidential buildings				Additions, alterations, and repairs				Total construction			
	First half of 1935		First half of 1934		First half of 1935		First half of 1934		First half of 1935		First half of 1934		First half of 1935		First half of 1934	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Akron, Ohio.....	33	\$142, 160	16	\$124, 350	244	\$162, 580	178	\$121, 480	359	\$240, 748	331	\$209, 738	636	\$545, 488	525	\$455, 568
Albany, N. Y.....	26	426, 500	21	178, 500	35	87, 500	35	76, 300	805	483, 921	673	523, 893	866	997, 921	729	778, 693
Atlanta, Ga.....	192	4, 501, 644	48	129, 925	182	374, 015	168	619, 712	899	538, 910	885	941, 692	1, 273	5, 414, 569	1, 101	1, 691, 329
Baltimore, Md.....	153	607, 000	50	189, 000	267	941, 900	177	2, 594, 400	3, 504	1, 865, 540	3, 226	1, 862, 162	3, 924	3, 414, 440	3, 453	4, 645, 562
Birmingham, Ala.....	20	57, 350	4	7, 100	79	650, 185	66	48, 091	1, 892	529, 910	941	410, 266	1, 991	1, 237, 445	1, 011	465, 457
Boston, Mass. ¹	52	279, 400	78	463, 500	163	5, 719, 652	160	1, 817, 894	2, 479	1, 829, 699	2, 215	2, 133, 037	2, 694	7, 828, 751	2, 453	4, 414, 431
Bridgeport, Conn.....	31	130, 225	12	68, 430	54	65, 379	40	98, 045	197	160, 057	176	227, 494	282	355, 661	228	393, 969
Buffalo, N. Y.....	26	146, 170	18	232, 918	219	814, 441	179	422, 681	764	411, 251	596	365, 888	1, 009	1, 371, 862	793	1, 021, 487
Cambridge, Mass.....	4	31, 000	0	0	18	53, 100	18	19, 825	315	289, 133	301	178, 814	337	373, 233	319	198, 669
Camden, N. J.....	0	0	1	4, 200	58	1, 007, 014	42	210, 606	151	73, 749	85	65, 338	203	1, 000, 763	128	280, 194
Canton, Ohio.....	11	29, 225	3	14, 600	73	80, 688	75	76, 315	215	45, 524	182	86, 190	299	155, 437	260	177, 105
Chattanooga, Tenn.....	23	50, 440	12	8, 700	16	90, 993	14	125, 010	1, 298	190, 535	1, 032	241, 899	1, 337	332, 003	1, 053	375, 649
Chicago, Ill.....	133	867, 800	70	335, 581	435	4, 547, 147	368	2, 541, 550	1, 434	2, 610, 914	1, 161	1, 306, 218	2, 007	8, 025, 861	1, 599	4, 183, 349
Cincinnati, Ohio.....	235	1, 644, 050	126	901, 500	322	1, 046, 915	231	580, 620	1, 612	764, 230	1, 323	442, 529	2, 169	3, 455, 195	1, 680	1, 924, 649
Cleveland, Ohio.....	75	2, 803, 840	28	148, 441	306	704, 600	213	294, 550	1, 383	911, 854	1, 052	911, 750	1, 764	4, 430, 384	1, 303	1, 359, 741
Columbus, Ohio.....	32	169, 900	9	33, 700	216	230, 550	139	141, 500	334	924, 374	278	201, 978	582	1, 324, 824	426	377, 178
Dallas, Tex.....	333	787, 050	124	331, 710	270	296, 618	219	380, 267	1, 035	544, 751	877	424, 958	1, 698	1, 628, 419	1, 220	1, 136, 935
Dayton, Ohio.....	12	68, 450	3	10, 000	127	150, 406	102	704, 522	259	151, 490	190	213, 742	395	370, 346	295	928, 264
Denver, Colo.....	205	1, 033, 750	55	311, 900	325	242, 843	336	271, 200	1, 155	553, 014	1, 081	373, 911	1, 635	1, 829, 637	1, 472	957, 011
Des Moines, Iowa.....	63	284, 263	73	132, 430	156	240, 065	154	242, 539	271	250, 827	200	99, 330	490	985, 155	427	474, 299
Detroit, Mich.....	640	3, 636, 940	184	1, 096, 022	1, 265	2, 896, 044	635	1, 375, 928	2, 493	2, 114, 887	1, 818	1, 430, 054	4, 398	8, 677, 871	2, 637	3, 902, 004
Duluth, Minn.....	7	7, 550	10	13, 650	93	62, 720	66	36, 115	667	265, 155	434	274, 116	767	335, 425	510	323, 881
Elizabeth, N. J.....	22	139, 100	7	62, 200	60	120, 110	30	31, 275	97	66, 570	67	62, 605	179	325, 780	110	166, 800
El Paso, Tex.....	14	51, 811	8	26, 550	61	647, 560	44	36, 754	162	154, 747	109	68, 676	237	854, 118	161	131, 980
Erie, Pa.....	9	28, 500	7	40, 626	63	48, 059	68	27, 301	186	111, 514	115	56, 780	258	188, 083	190	124, 707
Evansville, Ind.....	16	47, 280	11	30, 700	128	105, 872	68	31, 496	419	164, 192	303	170, 281	563	317, 344	382	232, 477
Fall River, Mass.....	3	8, 600	5	14, 700	40	5, 560	72	90, 133	103	113, 641	124	116, 228	146	127, 801	201	221, 061
Flint, Mich.....	25	78, 829	8	19, 132	197	150, 385	121	154, 862	833	228, 182	865	173, 480	1, 055	457, 396	994	347, 474
Fort Wayne, Ind.....	24	160, 370	6	25, 355	95	162, 323	48	60, 471	408	194, 919	180	116, 160	527	517, 612	234	201, 986
Fort Worth, Tex.....	127	333, 825	33	103, 600	102	855, 662	88	171, 320	394	179, 503	235	104, 220	623	1, 368, 990	356	379, 140

Gary, Ind.	13	32,500	10	28,000	53	46,510	22	17,160	524	180,782	43	75,345	590	259,792	75	120,505
Grand Rapids, Mich.	6	23,500	6	29,500	92	151,610	75	44,390	404	160,200	299	136,415	602	335,310	380	210,305
Hartford, Conn.	13	82,000	6	37,000	41	476,026	18	150,695	681	658,591	607	380,652	735	1,216,617	631	568,347
Houston, Tex.	473	1,853,035	196	970,855	175	775,321	444	1,428,350	756	264,996	288	148,877	1,404	2,893,352	928	2,548,082
Indianapolis, Ind.	49	278,205	29	149,850	315	532,918	258	354,050	788	397,934	1,393	232,365	1,152	1,209,057	1,680	736,265
Jacksonville, Fla.	154	343,860	61	128,750	185	173,899	151	392,456	2,219	708,623	1,649	705,372	2,558	1,226,382	1,861	1,226,578
Jersey City, N. J.	14	107,300	7	134,000	26	69,330	22	110,300	306	200,982	303	188,195	346	377,612	332	432,495
Kansas City, Kans.	13	22,650	18	39,650	52	45,140	49	47,175	128	48,845	86	42,730	193	116,635	153	129,555
Kansas City, Mo.	210	769,800	78	304,500	83	1,208,500	60	114,900	246	256,950	130	208,888	539	2,235,250	298	628,288
Knoxville, Tenn.	61	151,628	12	11,160	54	765,612	48	589,189	164	128,028	123	140,816	279	1,045,268	183	741,165
Long Beach, Calif.	99	344,450	60	121,075	179	1,811,420	136	236,500	1,860	725,409	1,045	759,789	2,138	2,881,279	1,241	1,117,364
Los Angeles, Calif.	1,330	5,425,427	720	2,571,365	2,256	5,756,488	1,952	1,867,659	6,222	4,313,702	4,770	2,325,565	9,608	15,495,617	7,442	6,764,589
Louisville, Ky.	131	669,925	34	154,250	171	371,597	157	454,490	334	255,475	203	379,506	636	1,296,997	394	988,246
Lowell, Mass.	4	7,500	3	10,500	29	7,865	32	6,240	153	102,670	151	117,770	186	118,035	186	134,510
Lynn, Mass.	4	16,000	3	13,000	38	308,157	31	14,775	178	140,454	153	126,310	220	464,611	187	154,085
Memphis, Tenn.	26	71,250	25	96,850	355	846,560	181	255,470	1,131	608,990	854	388,610	1,512	1,526,800	1,060	740,930
Miami, Fla.	325	1,114,720	97	267,400	202	188,256	178	214,493	1,900	555,294	1,512	507,788	2,427	1,858,270	1,787	989,631
Milwaukee, Wis.	122	766,525	34	205,750	332	1,313,968	201	220,015	1,385	987,905	726	726,572	1,839	3,068,398	961	1,152,337
Minneapolis, Minn.	195	754,960	69	259,025	351	858,785	289	859,018	1,367	741,344	1,155	704,533	1,913	2,355,089	1,531	1,822,567
Nashville, Tenn.	86	153,383	34	46,575	111	575,873	75	452,843	366	248,629	284	154,332	563	977,885	393	653,750
Newark, N. J.	16	141,700	4	22,000	72	239,038	51	225,743	374	616,515	297	895,622	462	997,253	352	1,143,365
New Bedford, Mass.	0	0	3	14,500	79	16,775	109	92,125	133	92,575	127	81,800	212	109,350	239	188,425
New Haven, Conn.	10	66,450	4	77,000	74	162,781	49	197,325	202	125,264	130	100,535	286	354,495	183	374,860
New Orleans, La.	56	184,670	41	151,060	47	1,815,012	35	400,120	399	567,703	279	214,284	502	2,567,385	355	765,464
New York City:																
The Bronx ¹	148	5,687,350	91	3,914,250	115	3,412,227	73	731,750	2,846	1,737,956	2,835	1,499,326	3,109	10,837,533	2,999	6,145,326
Brooklyn ¹	300	9,984,350	146	3,616,000	544	2,897,705	562	2,930,468	3,955	4,826,830	4,759	3,975,572	4,799	17,708,885	5,467	10,522,400
Manhattan ¹	22	4,663,000	4	356,000	166	5,440,575	76	15,968,100	1,880	8,576,188	1,657	6,524,311	2,068	18,679,763	1,737	22,848,411
Queens ¹	1,462	7,013,300	586	2,065,550	1,104	4,699,296	800	2,067,899	4,051	2,616,151	4,041	2,326,246	6,617	14,328,747	5,427	6,459,695
Richmond ¹	62	212,725	34	81,305	167	1,885,071	146	2,233,559	481	879,343	430	275,750	710	2,977,139	610	2,590,614
Norfolk, Va.	53	170,265	14	36,798	107	1,153,630	101	101,950	216	308,598	171	204,104	376	1,632,493	286	342,852
Oakland, Calif.	155	861,156	78	384,783	242	4,706,756	200	723,353	1,206	603,914	832	608,843	1,603	6,171,826	1,110	1,716,979
Oklahoma City, Okla.	193	523,265	57	268,875	119	249,190	147	485,965	259	171,190	163	113,113	571	943,645	367	867,953
Omaha, Nebr.	60	231,440	51	192,375	159	243,284	117	346,877	332	292,481	248	934,870	551	767,205	416	1,474,122
Paterson, N. J.	11	75,400	1	10,000	52	101,212	40	95,671	402	244,962	455	215,846	465	421,574	496	321,517
Peoria, Ill.	28	111,695	14	48,600	67	622,835	66	247,818	178	189,841	185	111,556	273	924,371	265	407,974
Philadelphia, Pa.	339	1,580,300	191	1,851,100	230	1,963,206	231	1,260,824	1,328	1,552,999	1,226	1,442,389	1,897	5,096,505	1,650	4,551,313
Pittsburgh, Pa.	87	467,378	45	189,654	144	868,686	121	209,499	1,076	1,146,840	978	649,144	1,307	2,482,904	1,144	1,048,298
Portland, Ore.	90	387,000	61	273,250	374	676,890	280	589,367	1,266	763,090	1,117	542,725	1,730	1,826,980	1,458	1,405,342
Providence, R. I.	31	220,300	28	175,500	124	163,800	131	100,550	1,466	737,650	1,474	480,850	1,621	1,121,750	1,633	756,900
Reading, Pa.	3	13,300	2	14,500	20	18,175	30	14,590	292	173,130	309	124,420	315	204,605	341	153,510
Richmond, Va.	55	239,100	33	153,300	121	220,086	86	90,135	539	338,383	434	395,209	715	797,569	553	638,644
Rochester, N. Y.	17	87,950	12	71,800	214	428,866	187	2,710,419	421	377,895	375	304,354	652	894,711	574	3,086,573
St. Louis, Mo.	396	1,660,300	148	1,224,105	653	971,704	580	816,891	1,004	990,456	1,069	512,596	2,053	3,622,460	1,787	2,553,592
St. Paul, Minn.	85	593,791	42	207,084	248	245,771	256	250,429	1,017	571,778	910	365,107	1,350	1,411,340	1,208	822,620

¹ Applications filed.

Table 19.—Number and Estimated Cost of Building Construction in 94 Identical Cities, First 6 Months of 1934 and of 1935—Continued

City and State	New residential buildings				New nonresidential buildings				Additions, alterations, and repairs				Total construction			
	First half of 1935		First half of 1934		First half of 1935		First half of 1934		First half of 1935		First half of 1934		First half of 1935		First half of 1934	
	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Salt Lake City, Utah.....	51	\$218,530	18	\$36,025	118	\$204,666	79	\$566,667	717	\$300,429	306	\$227,226	886	\$723,625	403	\$829,918
San Antonio, Tex.....	145	301,610	59	76,648	210	2,067,817	149	692,729	4,229	675,729	589	161,081	4,584	3,045,186	797	930,458
San Diego, Calif.....	312	1,018,677	79	246,910	319	1,359,484	183	530,816	905	392,912	552	262,583	1,536	2,771,073	814	1,040,309
San Francisco, Calif.....	294	1,249,676	75	491,325	130	3,462,753	89	1,195,236	1,497	1,298,567	1,238	1,540,258	1,921	6,010,996	1,402	3,226,819
Scranton, Pa.....	4	20,900	8	50,100	48	35,070	53	226,444	302	280,315	219	144,427	354	336,285	280	420,971
Seattle, Wash.....	101	339,030	73	144,000	381	506,300	246	430,576	1,188	483,700	1,121	1,068,191	1,670	1,329,030	1,440	1,642,767
Somerville, Mass.....	2	12,000	0	0	15	11,705	19	37,105	135	151,918	159	93,202	152	175,623	178	130,307
South Bend, Ind.....	6	24,500	0	0	91	87,975	73	47,165	328	130,275	188	48,920	425	242,750	261	96,085
Spokane, Wash.....	113	281,885	48	90,050	231	251,115	164	161,446	574	225,029	419	211,972	918	758,029	631	463,468
Springfield, Mass.....	12	50,100	7	13,475	63	52,504	50	77,700	156	149,910	173	194,578	231	252,514	230	285,753
Syracuse, N. Y.....	20	116,300	13	66,200	83	790,196	77	429,211	177	316,315	201	172,440	280	1,222,811	291	667,851
Tacoma, Wash.....	19	33,150	19	35,785	75	128,595	55	102,946	245	147,235	195	109,954	339	308,980	269	248,865
Tampa, Fla.....	25	30,600	12	14,530	95	71,355	93	60,045	792	231,476	932	151,667	912	333,431	1,037	226,262
Toledo, Ohio.....	14	63,950	4	32,250	185	738,500	166	702,945	249	136,877	302	206,678	448	939,327	472	941,873
Trenton, N. J.....	2	11,500	3	13,500	44	45,150	33	298,244	114	108,782	185	104,889	160	165,432	221	416,633
Tulsa, Okla.....	47	270,400	22	142,655	123	129,474	118	402,736	292	231,717	194	85,058	462	631,591	334	630,449
Utica, N. Y.....	3	12,000	17	74,100	30	18,865	42	975,340	58	45,875	66	55,805	91	76,740	125	1,105,245
Washington, D. C.....	929	6,631,030	345	2,354,330	524	8,644,299	294	6,653,951	1,437	4,699,030	1,320	1,728,014	2,890	19,974,419	1,959	10,736,295
Waterbury, Conn.....	12	42,300	12	58,700	59	34,675	31	129,300	76	68,358	84	89,725	147	145,333	127	277,725
Wichita, Kans.....	51	181,350	6	11,000	119	116,790	82	229,195	767	242,140	252	85,525	937	540,280	340	325,720
Wilmington, Del.....	35	168,850	45	255,800	53	82,518	33	246,291	354	344,483	180	146,465	442	595,851	258	648,556
Worcester, Mass.....	40	154,740	48	232,620	74	753,362	68	61,966	381	277,581	346	222,987	495	1,185,683	462	517,573
Yonkers, N. Y.....	80	548,100	45	292,850	53	66,010	48	70,430	149	300,970	117	138,790	282	915,080	210	502,070
Youngstown, Ohio.....	12	46,800	4	14,950	102	95,300	78	64,015	368	183,586	227	121,393	482	325,686	309	200,358
Total.....	11,887	78,580,933	5,184	30,785,288	19,236	92,016,870	15,328	68,521,896	88,105	68,574,515	70,905	52,514,337	119,228	239,172,318	91,417	151,821,521
Percentage change.....	+129.3	+155.3	-----	-----	+25.5	+34.3	-----	-----	+24.3	+30.6	-----	-----	+30.4	+57.5	-----	-----
<i>Hawaii</i>																
Honolulu.....	313	\$488,283	228	\$436,279	199	\$870,958	211	\$273,511	674	\$287,121	620	\$160,520	1,186	\$1,646,362	1,059	\$870,310
Percentage change.....	+37.3	+11.9	-----	-----	-5.7	+218.5	-----	-----	+8.7	+78.9	-----	-----	+12.0	+89.2	-----	-----

Increases in the value of building construction were registered by 70 of the 94 cities included in the foregoing table.

Permits were issued during the first 6 months of 1935 for the following important building projects: For a parcel-post building in Boston, Mass., to cost \$2,500,000, for a public building to cost \$840,000, and for a school building to cost \$685,000; for a hospital building in Worcester, Mass., to cost over \$600,000; for a school building in Bayonne, N. J., to cost nearly \$1,300,000; for factory buildings in Camden, N. J., to cost nearly \$800,000; for apartment houses in the Borough of Brooklyn, N. Y., to cost nearly \$8,600,000; for school buildings in the Borough of Manhattan, New York City, to cost over \$2,000,000; for police headquarters in Buffalo, to cost nearly \$500,000; for a school building in Olean, N. Y. to cost \$750,000; for an amusement building in Pittsburgh, Pa., to cost \$450,000; for a meat-packing plant in Chicago, Ill., to cost \$800,000; for an institutional building in Toledo, Ohio, to cost \$625,000; for a public utility building in Milwaukee, Wis., to cost over \$700,000; for a school building in Kansas City, Mo., to cost nearly \$600,000; for a department store in Birmingham, Ala., to cost \$545,000; for a hospital in Memphis, Tenn., to cost over \$500,000; for a pier and warehouse in Gulfport, Miss., to cost over \$970,000; for a State university building in Austin, Tex., to cost over \$1,500,000; for a courthouse in El Paso, Tex., to cost nearly \$600,000; for a courthouse and hall of records in Oakland, Calif., to cost over \$1,500,000, and for public buildings to cost nearly \$2,400,000; for public buildings in Los Angeles, Calif., to cost over \$2,000,000; and for a junior high school in San Francisco, Calif., to cost nearly \$600,000.

Contracts were awarded by the Procurement Division of the Treasury Department for a parcel-post building in Detroit, Mich., to cost \$845,000; for a post office and Federal courthouse in San Antonio, Tex., to cost over \$1,800,000; and for an annex to the Library of Congress in Washington, D. C., to cost over \$6,000,000.

A contract was awarded by the Bureau of Yards and Docks of the Navy Department for an aircraft factory building in Philadelphia, Pa., to cost \$893,000.

The Public Works Administration awarded a contract for a low-cost housing project in Cleveland, Ohio, to cost nearly \$2,500,000.

The number of family-dwelling units provided in each of the 94 identical cities having a population of 100,000 or over for the first half of 1934 and 1935 is shown in table 20.

Table 20.—Number of Family-Dwelling Units Provided in 94 Identical Cities, First 6 Months of 1934 and of 1935

City and State	Number of families provided for in—							
	1-family dwellings		2-family dwellings ¹		Multifamily dwellings ²		All classes of dwellings	
	First half of—		First half of—		First half of—		First half of—	
	1935	1934	1935	1934	1935	1934	1935	1934
Akron, Ohio.....	32	16	2	0	0	0	34	16
Albany, N. Y.....	23	16	0	4	12	20	35	40
Atlanta, Ga.....	128	45	39	6	1,280	0	1,447	51
Baltimore, Md.....	153	50	0	0	0	0	153	50
Birmingham, Ala.....	19	4	0	0	0	0	19	4
Boston, Mass. ³	45	72	14	10	0	0	59	82
Bridgeport, Conn.....	26	10	6	4	6	0	38	14
Buffalo, N. Y.....	21	15	10	5	0	0	31	20
Cambridge, Mass.....	4	0	0	0	0	0	4	0
Camden, N. J.....	0	1	0	0	0	0	0	1
Canton, Ohio.....	11	3	0	0	0	0	11	3
Chattanooga, Tenn.....	23	12	0	0	0	0	23	12
Chicago, Ill.....	125	67	11	4	40	0	176	71
Cincinnati, Ohio.....	223	119	6	10	36	8	265	137
Cleveland, Ohio.....	51	25	1	6	676	0	728	31
Columbus, Ohio.....	30	8	4	1	0	0	34	9
Dallas, Tex.....	284	113	74	22	54	0	412	135
Dayton, Ohio.....	11	3	2	0	0	0	13	3
Denver, Colo.....	199	54	0	2	30	0	229	56
Des Moines, Iowa.....	62	72	0	1	0	0	62	73
Detroit, Mich.....	626	180	27	6	0	0	653	186
Duluth, Minn.....	7	10	0	0	0	0	7	10
Elizabeth, N. J.....	21	6	2	1	0	0	23	7
El Paso, Tex.....	12	7	4	1	0	0	16	8
Erie, Pa.....	9	7	0	0	0	0	9	7
Evansville, Ind.....	16	11	0	0	0	0	16	11
Fall River, Mass.....	2	5	2	0	0	0	4	5
Flint, Mich.....	25	8	0	0	0	0	25	8
Fort Wayne, Ind.....	24	6	0	0	0	0	24	6
Fort Worth, Tex.....	113	33	28	0	0	0	141	33
Gary, Ind.....	12	10	1	0	0	0	13	10
Grand Rapids, Mich.....	6	6	0	0	0	0	6	6
Hartford, Conn.....	13	6	0	0	0	0	13	6
Houston, Tex.....	427	141	80	106	26	6	533	253
Indianapolis, Ind.....	49	28	0	2	0	0	49	30
Jacksonville, Fla.....	153	60	2	1	0	0	155	61
Jersey City, N. J.....	11	3	2	2	29	48	42	53
Kansas City, Kans.....	13	17	0	0	0	3	13	20
Kansas City, Mo.....	209	78	2	0	0	0	211	78
Knoxville, Tenn.....	61	12	0	0	0	0	61	12
Long Beach, Calif.....	94	52	10	15	0	0	104	67
Los Angeles, Calif.....	1,197	649	202	126	176	51	1,575	826
Louisville, Ky.....	128	33	2	2	4	0	134	35
Lowell, Mass.....	4	3	0	0	0	0	4	3
Lynn, Mass.....	3	3	2	0	0	0	5	3
Memphis, Tenn.....	25	25	2	0	0	0	27	25
Miami, Fla.....	306	95	34	4	10	0	350	99
Milwaukee, Wis.....	114	31	16	6	0	0	130	37
Minneapolis, Minn.....	187	66	16	6	0	0	203	72
Nashville, Tenn.....	85	33	2	0	0	4	87	37
Newark, N. J.....	13	4	2	0	28	0	43	4
New Bedford, Mass.....	0	3	0	0	0	0	0	3
New Haven, Conn.....	10	4	0	0	0	0	10	4
New Orleans, La.....	56	41	0	0	0	0	56	41

Footnotes at end of table.

Table 20.—Number of Family-Dwelling Units Provided in 94 Identical Cities, First 6 Months of 1934 and of 1935—Continued

City and State	Number of families provided for in—							
	1-family dwellings		2-family dwellings ¹		Multifamily dwellings ²		All classes of dwellings	
	First half of—		First half of—		First half of—		First half of—	
	1935	1934	1935	1934	1935	1934	1935	1934
New York City:								
The Bronx ³	86	61	57	37	1,531	1,703	1,674	1,801
Brooklyn ³	193	67	92	110	2,737	812	3,022	989
Manhattan ³	2	2	0	0	1,135	72	1,137	74
Queens ³	1,373	535	133	68	855	82	2,361	685
Richmond ³	58	32	6	3	0	0	64	35
Norfolk, Va.....	53	14	0	0	0	0	53	14
Oakland, Calif.....	150	73	3	6	9	0	162	79
Oklahoma City, Okla.....	175	56	23	0	16	0	214	56
Omaha, Nebr.....	60	49	0	4	0	0	60	53
Paterson, N. J.....	9	1	4	0	0	0	13	1
Peoria, Ill.....	28	12	0	4	0	0	28	16
Philadelphia, Pa.....	336	187	4	2	0	176	340	365
Pittsburgh, Pa.....	78	43	12	2	15	12	105	57
Portland, Ore.....	89	60	0	0	4	23	93	83
Providence, R. I.....	23	25	14	6	0	0	37	31
Reading, Pa.....	3	1	0	0	0	3	3	4
Richmond, Va.....	54	33	0	0	0	0	54	33
Rochester, N. Y.....	17	12	0	0	0	0	17	12
St. Louis, Mo.....	374	142	31	10	12	252	417	404
St. Paul, Minn.....	83	42	0	0	3	0	86	42
Salt Lake City, Utah.....	47	18	8	0	0	0	55	18
San Antonio, Tex.....	137	55	10	8	24	0	171	63
San Diego, Calif.....	286	72	16	11	85	0	387	83
San Francisco, Calif.....	258	53	70	37	3	35	331	125
Scranton, Pa.....	4	5	0	2	0	8	4	15
Seattle, Wash.....	100	73	0	0	4	0	104	73
Somerville, Mass.....	2	0	0	0	0	0	2	0
South Bend, Ind.....	6	0	0	0	0	0	6	0
Spokane, Wash.....	111	46	0	2	6	0	117	48
Springfield, Mass.....	10	7	3	0	0	0	13	7
Syracuse, N. Y.....	19	12	1	2	0	0	20	14
Tacoma, Wash.....	19	19	0	0	0	0	19	19
Tampa, Fla.....	24	12	1	0	0	0	25	12
Toledo, Ohio.....	14	3	0	1	0	0	14	4
Trenton, N. J.....	2	3	0	0	0	0	2	3
Tulsa, Okla.....	47	21	0	0	0	0	47	21
Utica, N. Y.....	3	17	0	0	0	0	3	17
Washington, D. C.....	747	324	0	2	181	96	928	422
Waterbury, Conn.....	12	12	0	0	0	0	12	12
Wichita, Kans.....	49	6	1	0	1	0	51	6
Wilmington, Del.....	35	42	0	2	0	4	35	48
Worcester, Mass.....	40	47	0	2	0	0	40	49
Yonkers, N. Y.....	77	43	2	1	0	10	79	54
Youngstown, Ohio.....	12	4	0	0	0	0	12	4
Total.....	10,806	4,722	1,098	675	9,028	3,428	20,932	8,825
<i>Hawaii</i>								
Honolulu.....	308	225	2	4	8	0	318	229

¹ Includes 1- and 2-family dwellings with stores.² Includes multifamily dwellings with stores.³ Applications filed.

Construction From Public Funds, First Half of 1935

IT IS significant that the increased building construction activity during the first half of the current year has been due in large measure to the accelerated pace of private industry. During the first 6 months of 1935, contracts for construction projects valued at approximately \$455,000,000 were financed from the public-works fund. This compares with \$683,000,000 during the corresponding period of 1934. Of the contract valuation during the first half of 1935, \$276,300,000 was allotted for Federal projects and \$178,600,000 for non-Federal projects.

Federal construction projects are financed entirely by allotments made by the Public Works Administration to various departments and agencies of the Federal Government.

Non-Federal construction projects are financed from allotments made by the Public Works Administration to a State or political subdivision thereof, or to a commercial firm. In the case of allotments to States and their political subdivisions, the Public Works Administration makes a direct grant of not more than 30 percent of the total construction cost. No grants are made to commercial firms, however. On all loans made by the Public Works Administration, interest is charged and the date of maturity specified.

The value of contracts awarded for Federal construction projects financed from Public Works Administration funds classified by geographic divisions is shown in table 21.

Table 21.—Value of Contracts Awarded for Federal Construction Projects Financed from Public Works Administration Funds, First 6 Months of 1934 and of 1935

Geographic division	Building construction		Public roads		River, harbor, and flood-control projects	
	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934
All divisions.....	\$28,241,473	\$41,411,282	\$99,108,417	\$161,735,193	\$89,858,411	\$56,576,435
New England.....	4,913,941	2,970,452	2,940,094	6,551,526	338,524	3,385,354
Middle Atlantic.....	2,961,180	8,667,762	7,920,564	12,755,493	369,854	2,847,607
East North Central.....	3,979,598	2,895,569	19,056,184	28,236,874	15,726,248	5,314,137
West North Central.....	553,458	1,048,163	13,411,148	20,180,731	60,673,225	4,699,077
South Atlantic.....	8,922,097	12,337,417	13,821,497	22,122,924	3,567,803	5,668,626
East South Central.....	669,697	1,264,393	8,747,999	16,259,874	0	3,041,141
West South Central.....	3,238,989	2,755,073	15,598,896	22,408,558	603,823	5,666,184
Mountain.....	1,008,845	3,966,672	8,231,553	19,268,896	4,508,903	13,159,187
Pacific.....	1,119,084	2,698,847	9,380,482	13,950,317	3,627,031	12,670,052
Outside continental United States.....	934,584	2,806,934	0	0	443,000	3,125,070

Geographic division	Streets and roads ¹		Naval vessels		Reclamation projects		Forestry	
	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934
All divisions.....	\$1,625,502	\$9,921,884	² \$12,684,682	\$35,544,179	\$37,814,638	³ \$40,072,520	\$1,148,627	\$3,450,760
New England.....	38,984	43,149	40,286	701,289	0	44,308	506	95,705
Middle Atlantic.....	20,839	285,953	219,734	18,377,880	0	100,900	0	24,249
East North Central.....	46,982	130,719	0	74,909	0	1,040,900	57,389	805,770
West North Central.....	10,067	863,870	0	0	152,500	1,248,820	36,981	99,152
South Atlantic.....	451,279	2,765,262	12,409,388	15,685,960	3,150,000	2,138,176	140,522	181,362
East South Central.....	12,118	271,676	0	0	22,065,000	1,026,500	20,332	116,884
West South Central.....	197,059	492,837	0	11,281	147,400	1,853,274	26,444	82,940
Mountain.....	400,807	3,093,492	0	0	9,930,172	30,404,522	532,221	483,823
Pacific.....	164,623	1,503,121	5,700	600,522	2,369,566	2,019,486	333,768	1,560,875
Outside continental United States.....	282,744	471,805	0	92,338	0	186,534	270	0

¹ Other than those reported by the Bureau of Public Roads.

² Includes \$9,574 not allocated by geographic divisions.

³ Includes \$10,000 not allocated by geographic divisions.

Table 21.—Value of Contracts Awarded for Federal Construction Projects Financed from Public Works Administration Funds, First 6 Months of 1934 and of 1935—Continued

Geographic division	Water and sewerage systems		Miscellaneous		Total	
	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934
All divisions.....	\$214, 648	\$2, 476, 706	\$5, 696, 528	⁴ \$20, 549, 766	² \$276, 392, 926	⁵ \$371, 738, 725
New England.....	1, 477	47, 555	1, 345, 258	1, 547, 490	9, 619, 064	12, 386, 828
Middle Atlantic.....	1, 700	217, 319	699, 249	5, 499, 916	12, 193, 120	48, 776, 179
East North Central.....	6, 581	108, 203	991, 270	5, 876, 520	39, 864, 252	44, 483, 601
West North Central.....	1, 870	64, 806	315, 742	693, 314	75, 154, 991	28, 897, 933
South Atlantic.....	105, 999	1, 366, 779	1, 342, 911	2, 647, 580	43, 911, 496	64, 914, 086
East South Central.....	3, 800	133, 466	70, 820	280, 893	31, 529, 766	22, 394, 827
West South Central.....	0	222, 925	92, 623	824, 542	19, 905, 434	34, 317, 614
Mountain.....	75, 813	254, 013	370, 012	475, 507	25, 058, 326	71, 106, 112
Pacific.....	9, 000	60, 640	235, 798	1, 842, 240	17, 245, 052	36, 906, 100
Outside continental United States.....	8, 408	1, 000	232, 845	810, 481	1, 901, 851	7, 494, 162

² Includes \$9,574 not allocated by geographic divisions.

⁴ Includes \$51,283 not allocated by geographic divisions.

⁵ Includes \$61,283 not allocated by geographic divisions.

Comparing the first half of 1935 with the same period in 1934, there were decreases in the value of awards for all types of construction with the exception of river, harbor, and flood-control work. The increase in this type of work amounted to more than \$33,000,000. The decreases were spread over 7 of the 9 geographic divisions. Marked increases, however, occurred in the West North Central and the East South Central States. Awards for river, harbor, and flood-control work accounted for the increase in the West North Central area and reclamation projects in the East South Central.

The value of contracts awarded for non-Federal construction projects financed from the Public Works Administration fund for the first half of 1934 and 1935 is given in table 22.

Table 22.—Value of Contracts Awarded for Non-Federal Construction Projects Financed From Public Works Administration Funds, First 6 Months of 1934 and of 1935

Geographic division	Building construction		Streets and roads ¹		Water and sewerage systems	
	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934
All divisions.....	\$87,296,727	\$77,838,038	\$19,817,687	\$26,944,723	\$51,864,347	\$39,215,757
New England.....	5,106,611	9,409,170	2,999,795	5,944,297	954,131	3,382,548
Middle Atlantic.....	41,999,051	27,327,230	2,518,519	6,830,668	6,449,325	4,418,752
East North Central.....	5,279,987	5,536,276	3,352,751	1,212,076	19,609,244	13,732,266
West North Central.....	7,903,686	12,461,186	3,391,468	1,787,635	3,308,090	5,775,029
South Atlantic.....	5,156,983	12,492,987	781,065	3,217,205	3,434,964	5,740,581
East South Central.....	1,372,881	1,908,925	379,326	192,042	1,637,029	2,518,881
West South Central.....	6,039,145	3,488,436	1,674,861	438,072	6,247,065	860,215
Mountain.....	2,600,581	1,815,003	154,484	1,629,418	3,168,701	1,616,779
Pacific.....	11,132,061	3,382,331	4,484,250	5,643,310	6,869,523	463,241
Outside continental United States.....	705,741	16,494	81,168	0	186,275	707,465

Geographic division	Railroad construction and repair		Miscellaneous		Total	
	First half of 1935	First half of 1934	First half of 1935	First half of 1934	First half of 1935	First half of 1934
All divisions.....	\$10,057,125	\$166,071,957	\$9,611,726	\$1,669,530	\$178,647,612	\$311,740,005
New England.....	2,093	6,639,785	192,517	756,561	9,255,147	26,132,361
Middle Atlantic.....	5,895,994	77,520,621	1,869,940	118,279	58,732,829	116,265,550
East North Central.....	1,857,591	30,920,867	567,884	143,268	30,667,457	51,544,753
West North Central.....	1,711,583	3,577,735	4,433,270	43,880	20,748,097	23,645,465
South Atlantic.....	58,048	26,649,156	45,985	0	9,477,045	48,099,929
East South Central.....	522,535	7,580,610	490,935	6,500	4,402,706	12,206,958
West South Central.....	9,281	3,542,760	1,187,410	70,647	15,157,762	8,400,130
Mountain.....	0	3,212,784	698,678	42,196	6,622,444	8,316,180
Pacific.....	0	6,427,639	125,107	488,199	22,610,941	16,404,720
Outside continental United States.....	0	0	0	0	973,184	723,959

¹ Other than those reported by the Bureau of Public Roads.

The total value of construction awards for non-Federal projects for the first half of 1935 decreased approximately \$133,000,000 below the level for the corresponding period of last year. The decrease was caused by the falling off in awards for railroad construction. There were marked increases in the value of awards for building construc-

tion, water and sewerage construction, and miscellaneous projects. The West South Central and the Pacific States were the only geographic divisions showing increases over a year ago in all types of projects.

Among the large projects for which contracts were awarded during the first half of 1935 were: For additional work on the subway system in New York City to cost over \$3,000,000; for steel work, suspension spans, and approach viaducts on the Tri-Borough Bridge to cost over \$3,000,000; for contracts for the New York subway system to cost over \$4,000,000; for a grade-crossing elimination at Port Richmond, Staten Island, N. Y., to cost nearly \$1,000,000; for Allegheny County Home at Woodville, Pa., to cost over \$2,200,000; for sewerage contracts in the Chicago Sanitary District to cost over \$4,000,000; for sewage-treatment works, in Chicago, Ill., to cost over \$3,500,000; for a city community-center building in St. Louis, Mo., to cost \$1,200,000; for a sewage-treatment plant in the District of Columbia, to cost over \$1,000,000; for a courthouse at Oakland, Calif., to cost over \$1,300,000; and for enlargement of the O'Shaughnessy Dam for the city and county of San Francisco, to cost \$3,200,000.

Table 23 gives the value of contracts awarded for construction projects financed from regular governmental appropriations during the first half of 1935.

Table 23.—Value of Contracts for Federal Construction Projects Financed from Regular Governmental Appropriations, First 6 Months of 1935

Geographic division	First 6 months of 1935		
	Building construction	Public roads	River, harbor, and flood-control projects
All divisions.....	\$19,525,804	\$3,308,098	\$24,351,790
New England.....	490,010	0	427,512
Middle Atlantic.....	2,478,686	0	1,003,167
East North Central.....	2,291,700	290,386	510,957
West North Central.....	1,020,294	426,302	984,221
South Atlantic.....	9,021,099	0	5,339,582
East South Central.....	855,056	72,770	2,967,549
West South Central.....	1,660,036	34,197	10,797,475
Mountain.....	778,183	1,482,705	13,354
Pacific.....	753,707	1,001,738	2,284,973
Outside continental United States.....	177,033	0	23,000

Geographic division	Streets and roads ¹	Naval vessels	Reclamation projects
All divisions.....	\$511,382	\$28,157,994	² \$1,647,454
New England.....	6,900	28,000	0
Middle Atlantic.....	139,740	22,703,150	0
East North Central.....	6,254	0	148,568
West North Central.....	0	0	694,166
South Atlantic.....	338,256	746,550	46,200
East South Central.....	0	0	0
West South Central.....	1,890	0	59,500
Mountain.....	3,775	0	453,120
Pacific.....	5,667	3,867,594	216,700
Outside continental United States.....	8,900	812,700	0

¹ Other than those reported by the Bureau of Public Roads.

² Includes \$29,200 not allocated by geographic divisions.

Table 23.—Value of Contracts for Federal Construction Projects Financed from Regular Governmental Appropriations, First 6 Months of 1935—Contd.

Geographic division	Water and sewerage systems	Miscellaneous	Total
All divisions.....	\$69, 518	\$2,363, 170	\$79, 935, 210
New England.....	2, 000	46, 870	1, 001, 292
Middle Atlantic.....	5, 135	511, 802	26, 841, 680
East North Central.....	0	91, 234	3, 339, 099
West North Central.....	11, 158	215, 925	3, 352, 066
South Atlantic.....	36, 225	872, 765	16, 400, 677
West South Central.....	0	38, 662	3, 934, 037
East South Central.....	0	24, 722	12, 577, 820
Mountain.....	0	9, 716	2, 740, 853
Pacific.....	0	342, 846	8, 473, 225
Outside continental United States.....	15, 000	205, 012	1, 241, 645

³ Includes \$3,616 not allocated by geographic divisions.

⁴ Includes \$32,816 not allocated by geographic divisions.

During the 6 months ending June 30, 1935, contracts valued at nearly \$80,000,000 were awarded for construction projects to be financed from regular departmental appropriations. More than 90 percent of this money was to be spent for river, harbor, and flood-control work, naval vessels, and building construction.

The value of buildings and road work for which contracts were awarded to be financed by State governments during the first 6 months of 1934 and 1935, by geographic divisions is shown in table 24.

Table 24.—Value of Public-Building and Highway-Construction Awards as Reported by State Governments, First 6 Months of 1934 and of 1935

Geographic division	Value of awards for public buildings, first half of—		Value of awards for highway construction, first half of—	
	1935	1934	1935	1934
All divisions.....	\$7, 145, 844	\$27, 544, 104	\$19, 888, 321	\$27, 178, 837
New England.....	290, 747	1, 503, 641	167, 570	822, 960
Middle Atlantic.....	1, 817, 417	8, 207, 048	1, 898, 326	4, 000, 866
East North Central.....	2, 706, 723	3, 717, 898	4, 663, 935	5, 445, 901
West North Central.....	296, 882	1, 014, 282	1, 932, 427	1, 734, 226
South Atlantic.....	473, 749	3, 123, 881	1, 036, 712	3, 529, 313
East South Central.....	6, 444	450, 000	596, 011	1, 233, 512
West South Central.....	1, 023, 058	3, 954, 577	4, 862, 245	3, 249, 747
Mountain.....	37, 547	553, 565	325, 383	688, 814
Pacific.....	488, 277	5, 019, 212	4, 405, 712	6, 473, 498

Road and building construction, as indicated in the preceding table, is financed wholly from State funds, and does not include projects financed through P. W. A. loans or grants.

In table 25 the value of contracts awarded and force-account work started on street-paving projects financed wholly by municipal funds, is shown for 51 cities of the United States having a population of 150,000 or over

Table 25.—Value of Contracts Awarded and Force-Account Work Started for Street Paving in 51 Cities, First 6 Months of 1935

Month	Cost	Month	Cost
Total.....	\$6,471,331	March.....	\$737,206
January.....	787,719	April.....	2,226,138
February.....	214,780	May.....	1,171,868
		June.....	1,333,620

RETAIL PRICES

Food Prices in August 1935¹

DURING August, retail prices of food advanced, reversing the downward movement which had continued from April through July. The index of retail prices of 48 foods combined (1913=100) was 123.0 on August 27, an increase of 1.4 percent compared with July 30, when the index stood at 121.3.

The advance was due primarily to an increase of 4.2 percent in meat prices. Every meat item included in the index registered a price increase. Beef prices were up by 2.1 percent. Pork prices rose 7.7 percent. Increases of 2.5 percent and 5.6 percent were reported for poultry and salmon, respectively. Lamb prices increased 3.0 percent during the month. Meat prices are now higher than at any time since November 1930 and are 26.5 percent above the level for a year ago. They are, however, 16.6 percent lower than on August 15, 1929.

An advance of 5.1 percent in the fats and oils group, due to rising prices of lard and lard compound, accompanied this increase in meat prices. Lard prices were 11.2 percent higher than on July 30 of this year and 122.4 percent above those of August 29, 1933. Prices of lard compound advanced 3.1 percent between July 30 and August 27. A decrease of 1.0 percent during the month was shown for oleomargarine. The group as a whole is 6.3 percent below the level of August 15, 1929.

Dairy products registered an average gain of six-tenths of 1 percent during August. Increases of 2.0 percent for butter and 1.2 percent for cheese were recorded. There were no changes in prices of fresh milk, delivered, nor in evaporated milk.

Egg prices advanced 8.1 percent. Although this is a seasonal increase, egg prices are higher than on any corresponding date since 1930.

The most conspicuous price decline was 6.1 percent for the fruit and vegetable group. Prices for potatoes, the most important item in the group, fell 10.5 percent. Onions decreased 13.3 percent. The only price increases registered in this group were 3.8 percent for cabbage and nine-tenths of 1 percent for oranges. Prices of other fresh fruits, dried fruits, and canned vegetables either remained unchanged or showed relatively small decreases.

¹ At the time of going to press, it had been impossible to make calculations allowing for an increase from 2 to 3 percent in the Illinois sales tax, effective July 1, 1935. These calculations, now complete, give rise to no significant changes in the figures here published. Revised figures for July and August will appear in the next report.

Cereals and bakery products receded three-tenths of 1 percent during the month, due to a decrease of 1.2 percent in bread prices. This decline in bread prices was not general throughout the United States. In 34 cities, the prices of bread remained unchanged and advances were reported in 8 cities. The 9 cities in which bread prices fell were of enough importance to account for the average decrease for the country as a whole. This drop in bread prices was not offset by gains of 2.0 percent for wheat flour, and 1.2 percent for rice.

Prices of coffee and tea decreased resulting in an average decline of three-tenths of 1 percent for the beverage group.

In the sugar and sweets group, a small decrease for strawberry preserves was balanced by a small increase for molasses. No changes were recorded for sugar and corn sirup.

Table 1.—Indexes of Average Retail Cost of 48 Foods in 51 Large Cities Combined, by Commodity Groups

August and July 1935 and August 1934

Article	Index (1913=100)								Percentage change, Aug. 27, 1935, com- pared with—		
	1935					1934			1935		1934
	Aug. 27	Aug. 13	July 30	July 16	July 2	Aug. 28	Aug. 14	Aug. 13	July 30	Aug. 28	
	All foods.....	123.0	122.3	121.3	121.7	121.8	115.3	111.8	+0.6	+1.4	+6.7
Cereals and bakery products.....	150.1	150.6	150.6	150.6	150.7	150.8	149.6	-.3	-.3	-.5	
Meats.....	163.5	161.3	156.9	156.8	156.0	129.2	121.1	+1.4	+4.2	+26.5	
Dairy products.....	105.2	104.6	104.6	104.3	104.9	105.6	103.4	+6	+6	-.4	
Eggs.....	108.1	104.3	100.0	97.4	94.8	95.3	87.8	+3.6	+8.1	+13.4	
Fruits and vegetables.....	103.4	106.2	110.1	117.0	119.8	118.0	116.1	-2.6	-6.1	-12.4	
Beverages.....	95.6	95.6	95.9	95.9	96.2	97.4	96.9	.0	-.3	-1.8	
Fats and oils.....	124.4	121.3	118.3	117.6	117.2	83.9	78.2	+2.5	+5.1	+48.2	
Sugar and sweets.....	111.8	111.7	111.8	111.7	111.8	109.5	109.7	+1	.0	+2.1	

The important changes in retail food prices in July and August 1935 are indicated in table 1. This table gives the index numbers for the 8 major groups of food purchased by wage earners in the 51 cities covered by the surveys of the Bureau of Labor Statistics. The table also compares current prices with the level prevailing on corresponding dates of August 1934.

There are now 48 foods included in the retail-food-price index. Six commodities were added on May 21. They are cocoa, lard compound, salad oil, corn sirup, molasses, and strawberry preserves. At that time three new commodity groups were introduced. These are fats and oils, beverages, and sugar and sweets. These groups replaced the "miscellaneous" group. The commodities indicated by an asterisk in table 2 are those included in the index. Prices are being col-

lected on 39 additional foods, 36 of which are to be included in a new general index.

Table 2 shows average prices of these 87 commodities for 51 large cities combined. This table compares average prices in August with those for the previous month, and for August 1934.

Table 2.—Average Retail Prices of 87 Foods in 51 Large Cities Combined
August and July 1935 and August 1934

(* Indicates commodities included in index number)

Article	1935					1934	
	Aug. 27	Aug. 13	July 30	July 16	July 2	Aug. 28	Aug. 14
Cereal foods:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
*Flour, white, wheat.....pound..	5.0	4.9	4.9	4.9	4.9	5.0	5.0
*Corn meal.....do.....	5.2	5.2	5.2	5.2	5.2	4.5	4.5
*Rolled oats.....do.....	7.7	7.7	7.7	7.7	7.7	6.9	6.9
*Corn flakes.....8-oz. package..	8.4	8.4	8.4	8.4	8.4	8.3	8.3
*Wheat cereal.....28-oz. package..	24.7	24.5	24.7	24.7	24.7	24.3	24.3
*Rice.....pound.....	8.4	8.3	8.3	8.3	8.3	8.3	8.2
*Macaroni.....do.....	15.6	15.6	15.7	15.6	15.7	15.8	15.7
*Hominy grits.....24-oz. package..	10.3	10.3	10.3	10.5	10.3	-----	-----
Bakery products:							
*Bread, white, wheat.....pound..	8.2	8.3	8.3	8.3	8.3	8.4	8.3
Bread, rye.....do.....	9.0	9.0	9.0	8.9	8.9	8.9	8.8
Bread, whole wheat.....do.....	9.0	9.0	9.0	9.0	9.0	8.9	8.9
Cake, pound.....do.....	24.7	24.6	24.4	24.2	24.2	22.9	22.7
Soda crackers.....do.....	17.5	17.5	17.5	17.2	16.9	-----	-----
Beef:							
*Sirloin steak.....do.....	40.8	40.6	39.7	40.3	40.6	33.8	32.9
*Round steak.....do.....	37.0	36.8	36.1	36.7	36.8	29.8	29.0
*Rib roast.....do.....	30.1	30.0	29.6	30.2	30.4	23.2	22.6
*Chuck roast.....do.....	23.3	23.1	23.1	23.6	23.9	17.2	16.5
*Plate.....do.....	16.0	15.7	15.8	16.2	16.5	10.9	10.4
Liver.....do.....	23.4	23.2	23.2	23.2	23.2	-----	-----
Lamb:							
*Leg.....do.....	27.3	26.5	26.5	27.3	27.3	25.1	24.7
Rib chops.....do.....	34.6	34.0	33.9	34.7	34.5	33.8	33.2
Breast.....do.....	13.0	12.7	13.0	13.3	13.2	10.5	10.3
Chuck or shoulder.....do.....	21.3	20.7	20.7	21.2	21.5	18.6	18.2
Pork:							
*Chops.....do.....	39.5	39.7	38.3	37.0	35.2	32.5	25.8
Loin roast.....do.....	32.4	33.7	32.6	31.5	29.8	27.0	20.6
*Bacon, sliced.....do.....	45.8	44.3	41.8	40.8	40.5	32.1	29.8
Bacon, strip.....do.....	40.1	38.5	36.4	35.5	35.2	-----	-----
*Ham, sliced.....do.....	52.8	50.6	46.9	45.6	45.4	41.2	39.6
Ham, whole.....do.....	34.6	33.1	29.7	28.7	28.3	25.0	23.9
Ham, picnic.....do.....	26.3	25.6	24.0	23.4	23.1	16.4	15.6
Salt pork.....do.....	29.8	28.8	27.4	27.0	26.9	19.5	17.2
Veal:							
Cutlets.....do.....	38.0	37.7	36.8	36.9	37.2	31.6	30.5
Poultry:							
*Roasting chickens.....do.....	28.9	28.3	28.2	28.2	28.0	24.5	24.0
Fish, canned:							
Salmon, pink.....16-oz. can..	13.3	13.3	13.3	13.2	13.1	14.0	14.1
*Salmon, red.....do.....	22.7	21.9	21.5	21.3	21.2	21.4	21.4
Dairy products:							
*Butter.....pound.....	31.3	30.7	30.7	30.3	30.2	33.6	32.1
*Cheese.....do.....	25.3	25.1	25.0	24.9	24.9	24.3	23.6
*Milk, fresh, grade A, delivered.....quart..	11.7	11.7	11.7	11.7	11.8	11.4	11.3
*Milk, evaporated.....1½-oz. can..	7.0	7.0	7.0	7.1	7.3	6.8	6.8
Cream.....½ pint.....	14.1	14.1	14.1	14.1	14.1	14.2	14.2
*Eggs.....dozen.....	37.3	36.0	34.5	33.6	32.7	32.9	30.3
Fats and oils:							
*Lard, pure.....pound.....	21.8	20.7	19.6	19.3	19.2	13.1	11.3
*Lard, compound.....do.....	16.7	16.4	16.2	16.2	16.2	11.0	10.2
*Vegetable lard substitute.....do.....	22.5	22.4	22.4	22.3	22.3	19.0	18.9
*Oleomargarine.....do.....	19.1	19.2	19.3	19.4	19.3	13.4	13.4
*Salad oil.....pint.....	25.5	25.5	25.5	25.5	25.5	-----	-----
Fruits, fresh:							
Apples.....pound.....	4.9	5.3	5.4	6.3	7.6	5.8	6.0
*Bananas.....dozen.....	21.6	21.3	21.9	21.7	21.5	22.9	23.5
Lemons.....do.....	33.4	33.0	34.5	31.7	23.6	29.8	30.5
*Oranges.....do.....	32.6	32.2	32.3	31.8	31.7	37.2	27.5

Table 2.—Average Retail Prices of 87 Foods in 51 Large Cities Combined—Con.

August and July 1935 and August 1934

[* Indicates commodities included in index number]

Article	1935					1934	
	Aug. 27	Aug. 13	July 30	July 16	July 2	Aug. 28	Aug. 14
Vegetables, fresh:							
Beans, green.....pound..	<i>Cents</i> 8.3	<i>Cents</i> 7.9	<i>Cents</i> 7.3	<i>Cents</i> 7.5	<i>Cents</i> 7.6	<i>Cents</i> 8.9	<i>Cents</i> 10.0
*Cabbage.....do.....	2.7	2.6	2.6	2.8	3.2	3.5	3.6
Carrots.....bunch.....	4.4	4.4	4.5	4.9	5.2	4.9	4.9
Celery.....stalk.....	9.1	9.0	9.3	10.3	11.8	9.4	9.6
Lettuce.....head.....	8.4	8.2	9.1	9.4	7.9	9.1	9.5
*Onions.....pound.....	3.9	4.1	4.5	5.1	5.9	4.4	4.5
*Potatoes.....do.....	1.7	1.8	1.9	2.1	2.1	2.1	2.0
Sweet potatoes.....do.....	4.3	4.7	5.1	5.2	5.1	5.2	6.1
Spinach.....do.....	7.9	8.0	7.0	6.0	5.4	8.9	8.8
Fruits, canned:							
Peaches.....no. 2½ can..	19.8	19.6	19.7	19.5	19.6	18.7	18.6
Pears.....do.....	22.9	22.9	23.0	23.0	23.0	21.6	21.4
Pineapple.....do.....	22.7	22.7	22.7	22.6	22.6	22.5	22.4
Vegetables, canned:							
Asparagus.....no. 2 can..	25.9	25.8	25.7	25.7	25.5	24.2	23.8
Beans, green.....do.....	11.7	11.7	11.8	11.8	11.9	11.7	11.6
*Beans with pork.....16-oz. can..	7.0	7.0	7.0	7.0	6.9	6.7	6.6
*Corn.....no. 2 can.....	12.8	12.9	13.0	13.0	13.0	11.4	11.3
*Peas.....do.....	17.0	17.0	17.4	17.6	17.8	17.0	16.8
*Tomatoes.....do.....	10.0	10.1	10.3	10.4	10.4	10.4	10.4
Fruits, dried:							
Peaches.....pound.....	16.3	16.2	16.4	16.3	16.3	15.5	15.3
*Prunes.....do.....	11.1	11.2	11.3	11.2	11.3	11.7	11.7
*Raisins.....do.....	9.8	9.9	9.9	9.8	9.9	9.7	9.7
Vegetables, dried:							
Black-eyed peas.....do.....	8.1	8.2	8.1	8.1	8.0	7.5	7.5
Lima beans.....do.....	9.8	9.9	9.9	9.9	9.8	9.7	9.7
*Navy beans.....do.....	6.1	6.1	6.1	6.1	6.1	5.8	5.8
Sugar and sweets:							
*Granulated sugar.....do.....	5.8	5.8	5.8	5.8	5.8	5.7	5.7
*Corn sirup.....24-oz. can..	13.7	13.7	13.7	13.7	13.7	12.7	12.7
*Molasses.....18-oz. can..	14.1	14.0	14.0	13.8	14.0	13.9	14.1
*Strawberry preserves.....pound..	20.8	20.8	20.9	21.0	20.9	-----	-----
Beverages:							
*Cocoa.....8-oz. can.....	10.8	10.8	10.8	10.9	10.9	-----	-----
*Coffee.....pound.....	25.3	25.3	25.4	25.4	25.5	27.7	27.6
*Tea.....do.....	73.6	73.6	73.7	73.6	73.9	71.9	71.4
Miscellaneous foods:							
Chocolate, unsweetened.....8-oz. package..	20.6	21.7	21.7	21.6	21.7	-----	-----
Mayonnaise.....½ pint.....	17.0	16.9	16.9	16.9	16.9	-----	-----
Peanut butter.....pound.....	22.3	22.3	22.3	22.3	22.2	16.8	16.8
Salt, table.....do.....	4.3	4.3	4.3	4.3	4.4	4.3	4.3
Soup, tomato.....10½-oz. can..	8.3	8.3	8.3	8.4	8.2	8.0	8.0
Tomato juice.....13½-cz. can..	8.5	8.5	8.5	8.4	8.4	8.7	8.7

Details by Regions and Cities

RETAIL prices of food have been collected recently from several cities in addition to the 51 from which reports have been secured regularly by the Bureau for many years. The present report includes data from the following additional cities: Cedar Rapids, Iowa; El Paso, Tex.; Knoxville, Tenn.; Oklahoma City, Okla.; Tucson, Ariz.; Wichita, Kans.; and Winston-Salem, N. C. Prices for these cities are not included in the average for the United States.

The current advance in retail food prices was general throughout the country. Price increases were recorded for 54 of the 58 reporting cities. In 38 cities the increases amounted to 1.0 percent or more.

The greatest advance, 4.3 percent in St. Louis, was caused by rising prices of meats and eggs and by the imposition of a 1-percent sales tax.

In Rochester, there was no change in the price level. Decreases were recorded in three cities—Denver, two-tenths of 1 percent; Cedar Rapids, five-tenths of 1 percent; and Winston-Salem, 1.2 percent.

Percentages of change in food prices for all of the reporting cities for specified dates in 1935 and 1934 are given in table 3.

Table 3.—Percentages of Change in the Average Retail Cost of 42 Foods, by Cities Aug. 27, 1935, compared with Aug. 13 and July 30, 1935 and Aug. 28, 1934

Regional area and city	Percentage change Aug. 27, 1935, compared with—			Regional area and city	Percentage change Aug. 27, 1935, compared with—		
	1935		1934		1935		1934
	Aug. 13	July 30	Aug. 28		Aug. 13	July 30	Aug. 28
51 cities combined.....	+0.6	+1.4	+6.7	South Atlantic:			
New England:				Atlanta.....	+2.0	+2.7	+10.1
Boston.....	+7	+1.9	+4.8	Baltimore.....	+1.0	+1.7	+8.1
Bridgeport.....	+8	+1.2	+6.0	Charleston, S. C.....	+6	+1.7	+12.0
Fall River.....	+6	+1	+4.3	Jacksonville.....	+9	+1.5	+9.5
Manchester.....	+9	+9	+5.8	Norfolk.....	+1.0	+2.6	+11.1
New Haven.....	+1.0	+1.0	+3.5	Richmond.....	+1.5	+2.2	+9.2
Portland, Maine.....	+8	+3	+5.0	Savannah.....	+1.0	+1.9	+9.4
Providence.....	+8	+1.3	+6.1	Washington.....	+1.4	+3.3	+10.3
Middle Atlantic:				Winston-Salem.....	-6	-1.2	(1)
Buffalo.....	+3	+6	+5.5	East South Central:			
Newark.....	-3	+6	+6.4	Birmingham.....	+8	+2.8	+7.2
New York.....	-1	+1.1	+5.2	Knoxville.....	-7	+1.4	(1)
Philadelphia.....	+1	+1.6	+4.7	Louisville.....	+4	+1.3	+7.7
Pittsburgh.....	+9	+1.7	+5.5	Memphis.....	+1.5	+1.8	+7.7
Rochester.....	-1	0	+5.4	Mobile.....	+1.1	+1.0	+6.1
Seranton.....	0	+1.0	+4.7	West South Central:			
East North Central:				Dallas.....	-4	+1	+3.1
Chicago.....	-2	+1.1	+7.8	El Paso.....	0	+1.7	(1)
Cincinnati.....	+3	+6	+12.6	Houston.....	+9	+2.0	+6.1
Cleveland.....	+2	+8	+8.0	Little Rock.....	+7	+1.6	+5.5
Columbus.....	-3	+7	+8.7	New Orleans.....	+1.6	+1.8	+9.9
Detroit.....	+1	+3	+7.9	Oklahoma City.....	+4	+1.3	(1)
Indianapolis.....	+1.1	+1.8	+10.5	Mountain:			
Milwaukee.....	+2	+1.2	+8.9	Butte.....	+6	+5	+6.1
Peoria.....	+5	+7	+7.2	Denver.....	+3	-2	+11.0
Springfield, Ill.....	+1.1	+2.9	+11.1	Salt Lake City.....	+6	+8	+10.0
West North Central:				Tucson.....	+1.1	+2.9	(1)
Cedar Rapids.....	-5	-5	(1)	Pacific:			
Kansas City.....	+1.2	+2.2	+4.8	Los Angeles.....	+9	+1.9	+8.0
Minneapolis.....	-6	+1	+5.3	Portland, Ore.....	+5	+1.6	+6.2
Omaha.....	+4	+2.0	+8.0	San Francisco.....	+7	+5	+5.0
St. Louis.....	+2.0	+4.3	+8.8	Seattle.....	+6	+1.6	+6.1
St. Paul.....	+3	+7	+6.9				
Wichita.....	+2	+2.5	(1)				

1 Not available.

Retail Food Prices, 1929 to August 1935

ALTHOUGH the index of current food prices is 6.7 percent above that of a year ago, it is still 23.2 percent below the level of August 15, 1929.

Compared with August 28, 1934, the current indexes of four commodity groups show an increase and four a decrease. The most striking increases reported for the year are 48.2 percent for the fats and oils group and 26.5 percent for meats. The largest decline is 12.4 percent in prices of fruits and vegetables.

Index numbers of the average retail cost of food in 51 large cities combined from 1929 to date are shown by commodity groups in table 4. The accompanying chart shows the trend in the retail cost of all foods and of the commodity groups—cereals and bakery products, meats, dairy products, and fruits and vegetables from January 15, 1929, to August 27, 1935, inclusive.

Table 4.—Indexes of the Average Retail Cost of 48 Foods in 51 Large Cities Combined, by Commodity Groups, 1929-35, Inclusive¹

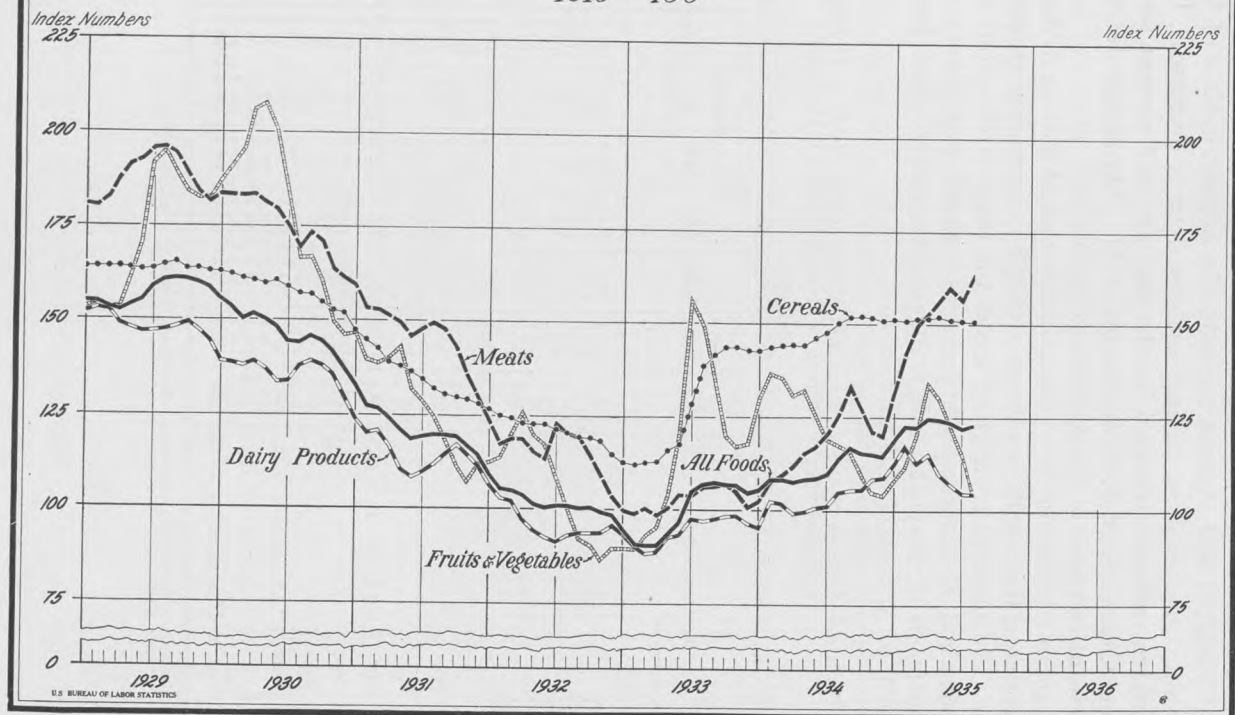
[1913=100.0]

Year and month	All foods	Cereals and bakery products	Meats	Dairy products	Eggs	Fruits and vegetables	Beverages	Fats and oils	Sugar and sweets
1929.....	156.7	164.1	188.4	148.6	142.0	172.6	151.9	132.4	124.6
1930.....	147.1	158.0	175.8	136.5	118.8	179.9	131.4	124.7	117.6
1931.....	121.3	135.9	147.0	114.6	91.9	126.6	114.1	101.3	108.9
1932.....	102.1	121.1	116.0	96.6	78.8	106.6	103.2	75.1	98.3
1933.....	99.7	126.6	102.7	94.6	75.6	116.6	93.1	70.2	104.1
1934.....	110.8	147.9	117.1	102.2	86.7	121.9	96.0	80.0	107.9
1935:									
Jan. 2.....	115.9	151.1	123.7	109.7	110.1	107.2	101.3	100.0	107.0
15.....	118.5	151.2	132.3	112.3	109.0	107.6	101.2	104.6	105.4
29.....	119.8	151.3	137.9	114.4	108.7	108.3	101.3	107.5	105.4
Feb. 12.....	122.0	150.9	140.1	117.3	111.6	110.4	101.0	109.6	105.7
26.....	122.3	151.0	144.0	116.8	101.4	113.0	101.4	112.0	107.2
Mar. 12.....	121.7	151.1	149.6	113.3	84.6	117.7	100.2	114.0	105.7
26.....	121.7	151.3	149.8	112.4	81.1	122.0	99.6	114.8	105.8
Apr. 9.....	124.1	151.3	151.7	115.8	84.0	130.3	98.9	115.8	107.1
23.....	125.2	151.1	154.3	114.4	87.2	136.0	98.8	116.2	107.1
May 7.....	124.5	151.2	155.1	110.7	91.6	132.7	98.0	116.3	108.6
21.....	124.0	152.3	157.0	108.7	92.7	127.2	97.3	116.2	110.2
June 4.....	123.8	151.2	160.2	107.4	92.7	125.0	97.5	116.9	110.2
18.....	123.0	150.7	159.3	106.5	93.3	122.6	96.8	117.0	110.3
July 2.....	121.8	150.7	156.0	104.9	94.8	119.8	96.2	117.2	111.8
16.....	121.7	150.6	156.8	104.3	97.4	117.0	95.9	117.6	111.7
30.....	121.3	150.6	156.9	104.6	100.0	110.1	95.9	118.3	111.8
Aug. 13.....	122.3	150.6	161.3	104.6	104.3	106.2	95.6	121.3	111.7
27.....	123.0	150.1	163.5	105.2	108.1	103.4	95.6	124.4	111.8

¹ The number of commodities was increased from 42 to 48 on May 21, 1935.

RETAIL PRICES of FOOD

1913 = 100



Food Prices in Hawaii

RETAIL prices of 41 foods on the first of each month have been collected for Hawaii since February 1, 1930, and are shown separately for Honolulu and other localities in the islands.

No commodity weightings are available for Hawaii, hence no weighted indexes have been computed. In order to show changes in the retail prices of 41 foods combined, unweighted indexes, based on averages of the 11 monthly prices for 1930 as 100, have been computed for Honolulu and other localities. The unweighted index for each reporting period is a simple average of the relative prices (1930=100) of the 41 foods reported for that date.

Table 5 shows unweighted indexes for Honolulu and other localities in Hawaii by months since February 1930.

Table 5.—Unweighted Indexes of Average Retail Prices of 41 Foods in Hawaii

Aug. 1, 1935, to Feb. 1, 1930, Inclusive

[1930=100]

Month	Honolulu						Other localities					
	1935	1934	1933	1932	1931	1930	1935	1934	1933	1932	1931	1930
January.....	81.34	77.73	74.41	87.06	96.20	-----	80.20	77.93	73.76	86.05	95.01	-----
February.....	83.48	77.67	73.07	85.94	94.45	101.13	79.70	77.33	71.63	85.53	93.68	101.12
March.....	85.24	79.71	72.32	86.00	93.29	100.93	82.17	77.95	70.18	84.54	92.97	100.78
April.....	86.91	80.49	72.77	85.11	91.28	101.01	84.16	78.02	69.87	84.76	91.84	101.89
May.....	89.31	80.13	73.30	83.09	91.85	101.58	85.34	78.05	71.09	83.47	91.55	102.31
June.....	88.70	80.49	73.69	81.75	90.99	101.46	85.23	77.87	72.12	81.97	91.79	101.97
July.....	87.35	81.07	74.66	77.96	90.57	100.39	84.25	77.56	73.12	77.67	90.92	100.99
August.....	86.27	80.60	76.76	76.97	90.81	99.71	84.26	78.94	75.67	76.37	90.73	99.40
September.....	-----	81.16	77.10	76.00	89.89	100.07	-----	79.98	77.89	75.98	89.07	99.89
October.....	-----	81.38	77.79	76.02	89.79	99.40	-----	80.52	78.36	75.68	89.30	97.35
November.....	-----	81.92	77.65	74.60	89.12	98.71	-----	80.61	77.07	75.00	88.37	97.18
December.....	-----	81.61	77.71	74.25	88.32	96.88	-----	80.08	75.80	74.29	88.46	95.83

Retail Prices of Food in the United States and in Certain Foreign Countries

THE accompanying table brings together the index numbers of retail prices of food published by certain foreign countries and those of the United States Bureau of Labor Statistics, the base years in all cases being as given in the original reports. Indexes are shown for each year from 1926 to 1932, inclusive, and by months since January 1933.

As shown in the table, the number of articles included in the index numbers for the different countries differs widely. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates.

Index Numbers of Retail Food Prices in the United States and in Foreign Countries

Country-----	United States	Australia	Austria	Belgium	Bulgaria	Canada	China	Czecho-slovakia
Computing agency--	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistics Bureau	Ministry of Industry, Labor, and Social Welfare	General Direction of Statistics	Dominion Bureau of Statistics	National Tariff Commission	Central Bureau of Statistics
Number of localities.	51	30	Vienna	59	12	69	Shanghai	Prague
Commodities included-----	42 foods	46 foods and groceries	18 foods	33 foods	35 foods	46 foods	24 foods	35 foods
Base=100-----	1913	1923-27 (1000)	July 1914	1921	1926	1926	1926	July 1914
1926-----	160.6	1027	116	¹ 170.7	100.0	100.0	100.0	² 117.8
1927-----	155.4	1004	119	¹ 207.5	97.8	98.1	106.7	² 126.2
1928-----	154.3	989	119	¹ 207.4	102.5	98.6	92.1	² 125.5
1929-----	156.7	1047	122	¹ 218.4	106.4	101.0	98.4	² 123.1
1930-----	147.1	946	118	¹ 208.6	86.7	98.6	118.8	114.3
1931-----	121.3	830	108	¹ 176.4	68.0	77.3	107.5	104.2
1932-----	102.1	801	110	¹ 149.9	62.8	64.3	101.3	99.0
1933								
January-----	94.8	747	106	154.4	62.9	62.8	87.3	100.4
February-----	90.9	742	103	156.1	63.3	60.6	94.8	99.3
March-----	90.5	734	103	150.4	63.1	60.4	92.3	94.9
April-----	90.4	746	103	147.7	61.8	61.3	85.2	94.1
May-----	93.7	750	103	143.0	60.6	61.9	86.0	96.8
June-----	96.7	759	106	143.4	60.2	62.2	84.1	98.8
July-----	104.8	754	104	144.0	60.9	63.2	86.3	96.8
August-----	³ 106.9	767	104	146.6	60.4	67.8	90.0	95.2
September-----	³ 107.2	768	104	151.2	60.4	65.9	88.0	94.2
October-----	³ 107.0	764	104	153.3	60.7	65.4	88.1	94.2
November-----	³ 106.8	750	104	153.6	61.6	65.8	83.2	94.6
December-----	³ 104.7	769	104	153.6	62.4	66.6	79.8	92.7
1934								
January-----	³ 105.2	767	104	150.3	62.9	67.7	78.0	92.9
February-----	³ 108.2	771	102	146.8	64.0	69.4	80.4	91.3
March-----	³ 108.3	774	101	141.1	62.7	72.9	75.0	75.9
April-----	³ 107.4	791	101	136.5	61.5	71.0	74.2	75.5
May-----	³ 108.3	798	100	132.1	60.9	68.6	74.4	76.8
June-----	³ 108.8	777	102	134.0	60.7	67.6	75.4	79.6
July-----	³ 110.0	779	100	136.8	61.7	68.4	90.2	79.6
August-----	³ 113.6	789	100	143.3	60.8	69.3	102.8	78.9
September-----	³ 116.6	791	101	146.1	61.0	68.8	106.7	77.1
October-----	³ 115.5	805	101	149.4	61.8	69.4	98.9	77.1
November-----	³ 115.1	795	102	150.0	62.1	69.9	89.7	76.1
December-----	³ 114.5	794	100	144.0	62.1	69.3	90.4	75.8
1935								
January-----	³ 118.3	800	100	142.0	61.4	68.8	90.8	75.5
February-----	³ 122.2	798	99	138.2	62.3	69.2	91.0	76.2
March-----	³ 121.7	795	98	130.8	60.7	69.5	85.7	76.7
April-----	³ 124.7	795	97	133.4	60.3	68.6	88.6	76.8
May-----	³ 124.2	802	98	136.0	59.6	68.7	88.6	78.3
June-----	³ 123.4	805	103	141.4	60.0	69.3	89.5	82.7
July-----	³ 121.6	802	102	-----	-----	69.3	90.3	83.5
August-----	³ 122.7	-----	101	-----	-----	71.3	88.6	83.6

¹ Computed average.

² July.

³ Average.

Index Numbers of Retail Food Prices in the United States and in Foreign Countries—Continued

Country.....	Estonia	Finland	France	Germany	Hungary	India	Ireland	Italy
Computing agency..	Bureau of Statistics	Ministry of Social Affairs	Commission of Cost of Living	Federal Statistical Bureau	Central Office of Statistics	Labor Office	Department of Industry and Commerce	Office Provincial of Economy
Number of localities.	Tallin	21	Paris	72	Budapest	Bombay	105	Milan
Commodities included.....	52 foods	14 foods	Foods	24 foods	12 foods	17 foods	29 foods	18 foods
Base=100.....	1913	January-June 1914	January-June 1914	October 1913-July 1914	1913	July 1914	July 1914	January-June 1914
1926.....	118	1107.8	1 529	144.4	113.3	1 152	179	654.7
1927.....	112	1115.1	1 536	151.9	124.8	1 151	170	558.7
1928.....	120	1150.2	1 539	153.0	127.7	1 144	169	517.0
1929.....	126	1123.5	1 584	155.7	124.1	1 146	169	542.8
1930.....	103	971.2	1 609	145.7	105.1	1 134	160	519.3
1931.....	90	899.0	1 611	131.0	96.2	1 102	147	451.9
1932.....	80	897.3	1 548	115.5	91.2	1 101	141	431.0
1933								
January.....	75	894.1	-----	111.3	86.5	101	-----	426.1
February.....	74	883.5	-----	110.3	86.2	98	130	422.8
March.....	75	869.8	542	109.4	86.1	98	-----	416.6
April.....	73	868.0	-----	109.5	85.5	93	-----	405.1
May.....	74	867.8	-----	112.8	84.7	91	126	398.3
June.....	74	881.7	532	113.7	84.4	95	-----	402.9
July.....	77	907.1	-----	113.5	79.2	95	-----	402.4
August.....	81	919.9	-----	113.4	77.8	94	129	391.2
September.....	81	920.1	530	114.4	77.3	94	-----	401.5
October.....	77	923.2	-----	115.9	73.7	91	-----	405.1
November.....	78	911.0	-----	117.1	72.2	92	140	400.5
December.....	79	881.2	548	117.8	74.3	88	-----	408.9
1934								
January.....	78	853.4	-----	117.6	74.8	86	-----	421.9
February.....	79	843.1	-----	117.2	76.1	85	133	407.9
March.....	78	865.3	548	116.5	75.7	84	-----	406.8
April.....	79	853.8	-----	116.4	76.1	83	-----	404.8
May.....	79	850.5	-----	116.1	80.2	85	129	341.7
June.....	77	852.0	544	117.8	79.6	85	-----	383.8
July.....	77	854.6	-----	120.0	77.2	87	-----	376.7
August.....	75	884.2	-----	120.7	77.9	87	134	376.7
September.....	73	885.7	525	119.2	77.9	90	-----	377.8
October.....	72	903.3	-----	119.3	77.7	91	-----	381.0
November.....	72	941.7	-----	119.5	76.0	92	143	386.7
December.....	72	922.1	516	119.1	75.7	90	-----	390.5
1935								
January.....	74	908.3	-----	119.4	75.8	88	-----	386.8
February.....	77	893.8	494	119.5	76.9	90	136	389.9
March.....	76	884.6	-----	118.8	78.2	89	-----	389.8
April.....	76	886.1	-----	119.0	78.0	88	-----	393.2
May.....	75	875.7	491	120.2	78.2	90	132	392.6
June.....	73	887.5	-----	120.6	79.8	92	-----	398.3
July.....	76	908.9	-----	122.9	84.7	93	-----	397.4
August.....	-----	934.5	-----	-----	-----	94	-----	402.3

¹ Computed average.

RETAIL PRICES

1137

Index Numbers of Retail Food Prices in the United States and in Foreign Countries—Continued

Country	Netherlands	New Zealand	Norway	Poland	South Africa	Sweden	Switzerland	United Kingdom
Computing agency	Bureau of Statistics	Census and Statistics Office	Central Bureau of Statistics	Central Statistical Office	Office of Census and Statistics	Board of Social Welfare	Federal Labor Office	Ministry of Labor
Number of localities	Amsterdam	25	31 *	Warsaw	9	49	34	509
Commodities included	15 foods	58 foods	89 foods	25 foods	20 foods	43 foods	28 foods	14 foods
Base=100	1911-13	1926-30 (1000)	July 1914	1928	1914 (1000)	July 1914	June 1914	July 1914
1926	1 161.3	1026	2 198		1 1178	1 158	160	164
1927	1 163.0	983	2 175	102.0	1 1185	1 152	158	160
1928	1 166.4	1004	168	100.0	1 1169	1 154	157	157
1929	1 162.4	1013	158	97.0	1 1153	1 150	156	154
1930	1 150.2	974	152	83.7	1 1101	1 140	152	145
1931	1 135.8	844	139	73.9	1 1049	1 131	141	130
1932	1 119.2	775	134	64.9	1 968	1 125	125	125
1933								
January		707	130	57.4	931	123	118	123
February		727	130	58.6	938		117	122
March	115.5	712	130	60.0	950		116	119
April		714	130	60.4	966	119	116	115
May		727	130	60.0	976		116	114
June	116.5	723	130	59.5	989		116	114
July		732	132	60.4	980	120	116	118
August		741	133	55.3	971		116	119
September		746	132	56.0	987		117	122
October	121.1	753	132	55.9	1029	123	117	123
November		751	130	55.9	1052		117	126
December	128.3	750	129	56.5	1050		117	126
1934								
January		750	128	54.8	1035	120	117	124
February		763	128	55.3	1038		116	122
March	125.5	769	128	54.6	1038		115	120
April		777	130	55.0	1054	120	115	118
May		780	130	52.6	1055		115	116
June	123.1	778	132	51.2	1041		115	117
July		780	133	51.5	1032	123	115	122
August		774	136	52.1	1035		114	123
September		771	135	51.4	1027		114	126
October	123.6	771	135	51.4	1039	125	114	125
November		780	134	49.4	1028		115	127
December	122.3	792	134	48.6	1021		114	127
1935								
January		798	133	48.7	1021	124	113	125
February		821	134	48.0	1023		112	124
March	118.3	819	135	47.4	1024		112	122
April		824	135	47.2	1030	126	111	119
May		829	136	48.5	1034		111	118
June		836	138	49.6	1039		113	120
July		140	140	52.6	1019	129	115	126
August			141	51.7			116	126

1 Computed average.

2 July.

WHOLESALE PRICES

Wholesale Prices in August 1935 (With Summary Data for First Half of September)

Summary

DURING the first 8½ months of the current year, the general trend of wholesale commodity prices has been upward. The rise, which began in October 1934, continued with increased momentum through January and February. The composite index declined fractionally in March and again rose sharply in April. The level for May moved fractionally upward followed by a slight reaction in June and July. The August average shows an increase of more than 1 percent compared with July. The advance continued through the middle of September.

The combined index of the 784 individual items weighted according to their importance in the country's markets stood at 80.5 percent for August, and 80.8 for the week ending September 14. This represents a net gain of approximately 5 percent over the December 1934 level and an increase of more than 5 percent over the corresponding period of last year.

Price changes in the farm products and foods groups largely accounted for the changes in the composite index during the first 8½ months. In this period the farm-products index increased 10 percent and the index for foods rose nearly 13 percent. By contrast, the large industrial group, "all commodities other than farm products and processed foods", declined slightly during the period. During the 8 months, raw materials advanced 5.5 percent; semimanufactured commodities increased 3.1 percent; and finished products rose 4.4 percent. The nonagricultural-commodity group, which excludes farm products, advanced 3.6 percent. Of the 10 major groups of commodities covered, 8 showed increases for the 8-month period, ranging from 0.4 percent for the building-materials group to 12.7 percent for the foods group. The housefurnishing-goods group and the miscellaneous-commodities group declined 0.9 percent and 5.2 percent, respectively.

Weekly Fluctuations

DURING the weeks ending August 3, 10, 17, and 24 sharp advances in market prices of farm products and foods were the principal factors contributing to the rise in the composite index. During the 4 weeks,

both groups advanced more than 4.5 percent. Slight reactions in farm products, foods, chemicals and drugs, and miscellaneous commodities resulted in the 0.4 percent decline during the week of August 31. A further fractional decline took place during the first week in September, largely as a result of lower prices in the groups of foods, fuel and lighting materials, and miscellaneous commodities. The highest level reached during the current year was during the week of September 14, when the index stood at 80.8 percent of the 1926 average. Marked advances in farm products, hides and leather products, and foods were mainly responsible for the rise.

The advance in farm products during the first 4 weeks of August was due to higher prices for livestock and poultry. The subgroup of grains, on the other hand, was fractionally lower, although prices of wheat were higher. Wholesale meat prices followed the trend of livestock. Fruits and vegetables registered a seasonal decline. Average prices of both farm products and foods weakened during the last week of August because of lower prices for livestock and poultry and meats. Wholesale prices of cotton, potatoes, wool, and lard also declined. The farm-products group reacted during the first two weeks of September and rose to 81.2 percent of the 1926 average. Foods continued downward during the week ending September 7, but reacted the following week.

Prices and hides and leather products and textile products moved steadily upward during August and the first 2 weeks of September. The index for each of these groups has reached a new high for the year. Higher prices for hides, skins, and leather were responsible for the increase in hides and leather products. For textile products the advance was chiefly due to pronounced increases in the average price of silk.

Price fluctuations in the metals and metal products, building-materials, chemicals and drugs, and house-furnishing-goods groups were within a narrow range during August and the first half of September, although the major direction has been upward. Fuel and lighting materials have remained steady.

Cattle-feed prices dropped more than 15 percent between the last week of July and the first week of September. A slight upturn was shown for the second week of September. Crude rubber prices were lower during August.

The index for the Bureau of Labor Statistics includes 784 price series weighted according to their relative importance in the country's markets and based on average prices for the year 1926 as 100.

Wholesale Price Level in August

TAKING the month of August as a whole the composite index of wholesale prices shows an increase of 1.4 percent over the July average. Seven of the ten major commodity groups included in the general index—farm products, foods, hides and leather products, textile products, metals and metal products, building materials, and house-furnishing goods—advanced during the month. Decreases were recorded for fuel and lighting materials, chemicals and drugs, and miscellaneous commodities.

Average prices of 195 of the 784 individual price series covered showed increases during the month. In contrast 121 price series registered a lower average and 468 showed no change from the level for July. The table following summarizes the changes in wholesale prices during the month interval by commodity groups.

Table 1.—Number of Commodities Changing in Price from July to August 1935

Groups	Increases	Decreases	No change
All commodities.....	195	121	468
Farm products.....	32	27	8
Foods.....	68	38	38
Hides and leather products.....	17	3	21
Textile products.....	28	13	71
Fuel and lighting materials.....	4	11	9
Metals and metal products.....	19	6	105
Building materials.....	22	13	74
Chemicals and drugs.....	11	10	72
House-furnishing goods.....	11	5	45
Miscellaneous commodities.....	3	9	40

Sharp increases in average market prices of farm products and processed foods were largely responsible for the rise in the general index during the month. The index for the group, "all commodities other than farm products and processed foods", was slightly lower than in July and 0.5 percent below the level of a year ago. The nonagricultural-commodity group advanced 1.0 percent during the month and was 3.6 percent above August 1934.

The raw-materials groups, which excludes basic farm products and other raw materials, increased 1.7 percent or to 77.1 percent of the 1926 average.

Table 2 shows index numbers for the groups and subgroups of commodities for August 1935 in comparison with July 1935 and August for each of the past 6 years.

Table 2.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities

[1926=100]

Groups and subgroups	August 1935	July 1935	August 1934	August 1933	August 1932	August 1931	August 1930	August 1929
All commodities.....	80.5	79.4	76.4	69.5	65.2	72.1	84.3	96.3
Farm products.....	79.3	77.1	69.8	57.6	49.1	63.5	84.9	107.5
Grains.....	79.3	78.3	86.0	64.6	38.2	44.8	80.4	99.3
Livestock and poultry.....	91.6	82.8	56.2	45.9	52.8	67.0	84.6	112.8
Other farm products.....	71.4	72.9	73.1	62.5	50.8	67.3	86.7	106.8
Foods.....	84.9	82.1	73.9	64.8	61.8	74.6	87.6	103.5
Butter, cheese, and milk.....	75.7	74.0	77.3	65.7	60.2	82.2	97.7	104.1
Cereal products.....	94.6	92.7	91.0	84.8	66.0	70.9	79.9	90.3
Fruits and vegetables.....	60.5	65.1	65.6	71.1	55.6	73.4	88.6	109.5
Meats.....	102.0	93.3	69.4	51.0	61.9	76.0	93.1	116.0
Other foods.....	78.6	76.7	68.9	62.6	62.1	69.6	78.1	94.7
Hides and leather products.....	89.6	89.3	83.8	91.7	69.7	88.7	99.0	109.5
Boots and shoes.....	98.3	97.8	97.9	96.1	84.4	93.5	100.6	106.1
Hides and skins.....	80.4	79.8	57.4	91.5	39.3	69.1	91.2	117.2
Leather.....	80.2	80.2	71.3	82.5	60.0	90.3	99.9	111.5
Other leather products.....	84.4	84.4	86.8	81.2	82.3	101.4	105.4	106.2
Textile products.....	70.9	70.2	70.8	74.6	52.7	65.5	78.0	89.8
Clothing.....	80.5	80.7	79.5	74.4	61.0	75.9	86.3	89.3
Cotton goods.....	82.5	82.0	86.4	93.5	52.6	64.0	81.1	98.2
Knit goods.....	60.2	59.9	59.3	69.4	48.5	59.2	78.2	87.9
Silk and rayon.....	31.0	27.9	24.4	34.6	29.5	43.7	52.6	80.1
Woolen and worsted goods.....	76.4	76.4	78.9	78.9	53.4	67.4	77.8	86.8
Other textile products.....	69.1	69.1	69.7	77.8	67.4	74.4	83.1	94.2
Fuel and lighting materials.....	74.1	74.7	74.6	65.5	72.1	66.5	77.9	82.2
Anthracite coal.....	78.6	77.0	79.9	79.2	86.0	92.2	88.0	90.0
Bituminous coal.....	96.0	96.5	96.2	83.6	81.3	83.7	88.6	90.5
Coke.....	88.6	88.6	85.6	77.4	76.7	81.5	83.8	84.6
Electricity.....	(1)	87.8	92.6	88.8	104.4	98.4	97.3	92.8
Gas.....	(1)	94.0	99.2	99.5	107.0	103.2	99.8	94.4
Petroleum products.....	52.4	52.9	51.6	40.9	48.9	37.5	60.9	70.3
Metals and metal products.....	86.6	86.4	86.7	81.2	80.1	83.9	89.6	100.5
Agricultural implements.....	93.6	93.6	92.0	83.2	84.9	94.3	94.5	99.0
Iron and steel.....	87.1	87.0	86.6	78.6	78.7	82.4	88.0	95.1
Motor vehicles.....	94.7	94.7	94.6	90.4	95.3	94.7	98.5	105.5
Nonferrous metals.....	66.9	66.1	68.9	68.2	48.5	60.1	74.5	94.3
Plumbing and heating.....	71.1	68.8	75.0	70.3	67.1	83.8	83.5	94.3
Building materials.....	85.4	85.2	85.8	81.3	69.6	77.6	87.7	95.2
Brick and tile.....	80.0	89.1	91.3	81.5	75.2	82.9	88.6	93.3
Cement.....	94.9	94.9	93.9	90.3	79.0	75.8	91.7	92.0
Lumber.....	82.0	81.7	81.8	79.4	55.5	66.9	81.7	93.5
Paint and paint materials.....	78.6	79.1	79.9	77.5	67.2	78.4	90.0	95.8
Plumbing and heating.....	71.1	68.8	75.0	70.3	67.1	83.8	83.5	94.3
Structural steel.....	92.0	92.0	92.0	81.7	81.7	81.7	84.3	99.6
Other building materials.....	90.1	89.7	90.0	85.0	78.3	83.7	91.8	97.3
Chemicals and drugs.....	78.6	78.7	75.7	73.1	73.3	76.9	87.9	93.6
Chemicals.....	84.3	84.6	79.2	79.6	79.7	80.5	92.6	98.4
Drugs and pharmaceuticals.....	73.8	74.0	72.7	57.6	57.0	61.9	67.4	71.1
Fertilizer materials.....	66.8	65.7	64.8	69.0	66.4	74.4	83.3	90.5
Mixed fertilizers.....	68.1	68.6	73.0	64.4	68.3	78.7	92.7	98.2
Housefurnishing goods.....	80.5	80.4	81.8	77.6	73.6	84.9	92.9	94.3
Furnishings.....	84.0	84.0	84.6	78.6	74.8	81.7	92.0	93.3
Furniture.....	77.0	76.8	78.9	76.8	72.6	88.6	93.9	95.5
Miscellaneous.....	67.3	67.7	70.2	65.4	64.6	68.3	76.1	82.8
Automobile tires and tubes.....	45.0	45.0	44.7	43.2	40.1	46.0	50.1	54.5
Cattle feed.....	71.3	78.6	104.0	78.0	47.4	50.8	104.8	124.7
Paper and pulp.....	79.7	79.7	82.4	81.0	76.3	80.6	85.4	88.9
Rubber, crude.....	24.5	25.0	31.7	14.9	7.9	11.2	20.3	42.6
Other miscellaneous.....	80.0	80.1	81.0	77.8	84.2	86.4	93.2	98.7
Raw materials.....	77.1	75.8	71.6	60.6	55.7	64.1	81.8	99.2
Semimanufactured articles.....	73.2	72.8	72.6	71.7	57.9	68.3	78.7	93.5
Finished products.....	83.0	82.0	79.2	73.4	70.7	76.4	86.2	95.2
Nonagricultural commodities.....	80.6	79.8	77.8	72.0	68.5	73.9	84.1	93.9
All commodities other than farm products and foods.....	77.9	78.0	78.3	74.1	70.1	74.2	83.6	91.4

¹ Data not yet available.

COST OF LIVING

Shanghai Family Budget Inquiry, 1929-30

FOOD expenditures of workers' families in Shanghai, according to the family-budget study of 1929-30 in that city, represented 57.4 percent of the total, housing 11.2 percent, clothing 7.5 percent, fuel and light 6.4 percent, and miscellaneous expenditures 17.5 percent.¹ The returns covered 305 selected workers' families consisting of 3 to 7 persons and with family earnings of \$20 to \$60 a month (Chinese currency).² The findings of the study were analyzed by income groups and on the basis of consumption per adult male, according to a modified form of the Atwater scale adopted in 1919-20 by the Osaka Municipal Bureau of Labor Research.

In table 1 the analysis of family composition of those covered by the budgetary study is shown by income groups.

Table 1.—Analysis of Family Composition, by Size of Income, in 305 Workers' Families in Shanghai

Annual income group (Chinese currency)	Number of families	Average number of persons per family			Average number of equivalent adult males per family	Average number gainfully employed per family
		Total	Members of family	Boarders		
All income groups.....	305	5.09	4.62	0.47	3.42	2.06
\$200 to \$300.....	62	4.13	3.95	.18	2.85	1.82
\$300 to \$400.....	95	4.53	4.17	.36	3.09	1.93
\$400 to \$500.....	80	5.45	4.89	.56	3.61	2.19
\$500 to \$600.....	31	6.13	5.19	.94	4.02	2.42
\$600 to \$700.....	25	6.48	5.92	.56	4.23	2.28
\$700 and over.....	12	7.25	5.75	1.50	4.38	2.17

Of the families studied, over three-fourths had annual incomes of less than \$500. Size of family tended to increase with incomes as did also the number of boarders, resulting in a steady increase from one income class to the next in the average number of equivalent adult males per family up to a maximum of 4.38 in the class, \$700 and over. The average number of gainfully employed per family reached a peak of 2.42 persons in the \$500 to \$600 income class; there was a slight recession in each of the two successive income classes. For all income classes the average number of adult males per family was 3.42 and the average number gainfully employed 2.06.

¹ International Labor Office. International Labor Review, August 1935 (pp. 230-241): The Shanghai family budget inquiry of 1929-30.

² At time of investigation value of Chinese dollar was 58 cents, United States currency.

Source of Income

IN TABLE 2 are shown the various items of income according to source for all families surveyed, and a percentage distribution by income groups. The classification covers current income from earnings, gifts, etc., and noncurrent income from borrowings and credit. Average net income for the 305 families covered amounted to \$416.51 and with sums borrowed, etc., this average was brought to \$564.53. Thus 73.8 percent of income was current in nature and most of the balance represented income from sources other than earnings.

Earnings of the husband represented 53.3 percent of the total current income, followed in the order named by earnings of the children (13.9 percent), wife (12.6 percent), and others (7.5 percent). Total income from employment made up 87.3 percent of the current total; of the balance the greatest proportion came from subletting rooms (1.9 percent) and from boarders (2.7 percent), combined. Examination of the table shows certain variations from the general figures in the percentage distribution of sources of current income in families in the different income groups.

Table 2.—Distribution of Yearly Income in 305 Workers' Families in Shanghai, by Source and Income Group

Item of income	All families		Percentage distribution of income of families with yearly income of—					
	Amount (Chinese currency)	Percent of total	\$200-\$300	\$300-\$400	\$400-\$500	\$500-\$600	\$600-\$700	\$700 and over
Gross income.....	\$564.53	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Current income.....	416.51	73.8	67.2	72.1	77.1	80.9	69.2	77.1
Noncurrent income.....	148.02	26.2	32.8	27.9	22.9	19.1	30.8	22.9
<i>Current income</i>								
Income from employment.....	363.53	87.3	92.1	88.7	87.6	86.0	85.4	78.2
Husband.....	222.05	53.3	60.2	55.5	48.2	49.3	56.6	54.6
Wife.....	52.50	12.6	21.3	17.4	12.5	7.3	4.8	3.7
Children.....	57.80	13.9	7.1	12.9	16.6	16.4	14.4	13.5
Others.....	31.18	7.5	3.5	2.9	10.3	13.0	9.6	6.4
Income from other sources.....	52.98	12.7	7.9	11.3	12.4	14.0	14.6	21.8
Sublet rooms.....	7.90	1.9	.5	1.7	2.1	2.0	3.3	1.9
Boarders.....	11.41	2.7	.8	2.1	3.6	3.4	2.3	4.9
Gifts and presents.....	9.12	2.2	1.4	1.3	.6	3.2	3.3	8.7
Support from relatives and friends.....	4.43	1.1	1.5	.9	.8	2.0	.8	.6
Peddlery.....	2.74	.6	1.8	.5	.8	.5		
Other items.....	17.38	4.2	1.9	4.8	4.5	2.9	4.9	5.7
Total, current income.....	416.51	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Noncurrent income</i>								
Borrowings.....	66.98	45.2	47.8	44.8	40.1	54.5	50.2	33.2
Receipts from pawned articles.....	18.35	12.4	13.1	14.8	13.7	12.2	6.5	10.6
Receipts from "hui" funds ¹	51.47	34.8	33.8	34.3	36.3	26.1	35.4	44.2
Purchases on credit.....	10.10	6.8	4.7	5.7	8.5	6.4	7.1	11.6
Loans returned.....	1.12	.8	.6	.4	1.4	.8	.8	.4
Total, noncurrent income.....	148.02	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Mutual-aid societies.

Expenditures by Item

YEARLY expenditures by major items are given in table 3 for all families both in amount and percentage distribution, and also in percentage distribution for the various income groups.

Table 3.—Distribution of Yearly Expenditures in 305 Families, by Principal Items of Expenditure and Income Groups

Item of expenditure	All families		Percentage distribution of expenditure of families with yearly income of—					
	Amount (Chinese currency)	Per cent of total	\$200-\$300	\$300-\$400	\$400-\$500	\$500-\$600	\$600-\$700	\$700 and over
Gross payments.....	\$564.43	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Current expenditures.....	454.38	80.5	85.1	80.6	81.1	83.8	71.7	79.4
Savings, etc.....	99.12	17.6	15.2	18.4	16.2	14.3	24.4	16.8
Cash in hand.....	11.03	1.9	—,3	1.0	2.7	1.9	3.9	3.8
<i>Current expenditures</i>								
Food ¹	260.64	57.4	60.5	59.4	60.0	54.2	52.2	46.9
Housing ²	51.13	11.2	11.2	11.0	10.5	11.7	11.5	10.6
Clothing.....	34.01	7.5	6.2	6.4	7.4	8.5	8.9	10.5
Fuel and light.....	29.00	6.4	7.8	6.8	6.4	5.7	5.3	4.9
Miscellaneous.....	79.60	17.5	14.3	15.5	15.7	19.9	22.1	27.1
Total, current expenditures.....	454.38	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Savings, etc.</i>								
Repayment of debts.....	31.22	31.5	28.9	25.9	27.8	43.1	40.3	31.0
Redemption of articles pawned.....	8.36	8.4	5.7	10.6	9.8	8.3	4.9	9.5
"Hui" subscriptions ³	50.26	50.7	57.3	53.3	51.9	43.4	45.1	50.1
Payments of bills due.....	8.91	9.0	7.8	9.5	10.4	4.6	9.6	8.6
Lendings.....	.37	.4	.3	.7	.1	.6	.1	.8
Total, savings, etc.....	99.12	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Including wine, tobacco, etc.

² Including water, furniture and utensils, repairs.

³ Mutual-aid societies.

Among the current expenditures of all families covered by the survey food bulked largest, representing 57.4 percent of the total; housing made up 11.2 percent, followed by clothing, 7.5 percent, and fuel and light, 6.4 percent. The miscellaneous item of 17.5 percent of the total is the second largest in the distribution for current expenditures.

Subscriptions to mutual-aid societies made up 50.7 percent of the savings classification, the next most important item being repayment of debts, 31.5 percent. Of total gross payments current expenditures accounted for 80.5 percent of the total, savings 17.6, and cash in hand 1.9 percent of the total.

Figures by income class show that expenditures for food were proportionately higher in the lower income groups, ranging from 60.5 percent in the \$200 to \$300 income group to 46.9 percent in the group with \$700 and over. Housing expenditures were approximately the same in all groups. Clothing expenditures, however, were proportionately higher in the higher income groups.

Food.—Expenditures on food per family and per unit of consumption appear in table 4, by principal items of diet.

Table 4.—Distribution of Yearly Expenditures for Food by Principal Items, Per Family and Per Unit of Consumption, in 305 Families

Item of food	Yearly expenditure (Chinese currency) per—		Percent of total expenditure on food
	Family	Unit of consumption	
All foods.....	\$260.65	\$76.21	100.00
Bread, cereals.....	128.97	37.71	49.48
Rice.....	105.90	30.96	40.63
Wheat flour.....	3.68	1.08	1.41
Wheaten cake.....	5.27	1.54	2.02
Fresh noodle.....	2.66	.78	1.02
Other.....	11.46	3.35	4.40
Meat, fish.....	35.95	10.51	13.79
Milk, milk products, etc.....	5.29	1.55	2.03
Milk, milk powder.....	.80	.24	.31
Eggs.....	3.11	.91	1.19
Lard, vegetable oils.....	1.38	.40	.53
Vegetables, fruit.....	45.68	13.35	17.53
Beans and vegetables.....	42.18	12.33	16.18
Fruit.....	3.50	1.02	1.35
Drinks and tobacco.....	19.10	5.58	7.33
Meals taken outside home.....	1.28	.37	.49
Miscellaneous.....	24.38	7.14	9.35
Condiments.....	24.10	7.05	9.25
Candies, etc.....	.28	.09	.10

The high proportion of expenditures for bread, cereals, etc., is the chief characteristic of table 4. In all, these items represent 49.48 percent of the total food expenditure shown and rice alone accounted for 40.63 percent. There were notably small expenditures for milk and milk products (2.03 percent of the total). Expenditures for meat and fish made up 13.79 percent of the total, and vegetables and fruit, 17.53 percent. Drinks and tobacco formed a considerable percentage (7.33) of the total as did condiments (9.25 percent). The report calls attention to the fact that "the percentage expenditure on cereals is surprisingly insensitive to changes in income; the relative expenditure is however slightly less in the higher income groups (it decreases from 56 to 49 percent)." Beans and vegetables maintained approximately the same ratio to other items throughout the income classes, but meat, fish, and eggs increased from 13.1 percent in families where annual income was \$200 to \$300 to 21.7 in families with income of \$700 and over.

Housing.—The figures for size of dwelling show that rooms per family averaged 1.65 in the sample studied, or 1.41 "standard" rooms.³ Rent per room was \$22.93 and per adult male, \$11.06. The expenditure for water averaged \$7.66. This item is high owing to the fact that hot or boiled water and drinking water are usually bought from hot-water shops.

The following tabular statement shows average size of dwellings and yearly rentals for all 305 families:

³ Cubic content of about 32 cubic meters.

Number of families.....	305
Average number of rooms per family.....	1.65
Average number of "standard" rooms per family ³	1.41
Average number of "adult males" per standard room ⁴	2.33
Average rent per family.....	\$37.83
Average rent per room.....	\$22.93
Average rent per standard room.....	\$26.97
Average rent per "adult male".....	\$11.06
Expenditure on—	
Water.....	\$7.66
Furniture and utensils.....	\$4.55
Repairs.....	\$1.09

Density of habitation was found highest among the poorer families. Regardless of income, rent paid per "standard" room remained nearly constant, but average rent per adult male increased with income because of the greater size of dwellings inhabited by those with more income.

Clothing.—Piece goods was the largest single item in expenditures for clothing. Such purchases accounted for 54.01 percent of the total clothing cost and included sheetings, shirtings, and other cheap cotton goods. Ready-made clothing represented 11.38 percent of the total. The expenditures by major items per unit of consumption follow:

All items.....	\$10.37
Bedding.....	.21
Ready-made clothing.....	1.18
Piece goods.....	5.60
Unclassified.....	3.38

With rises in income a larger proportion of ready-made clothing was bought, the percentages ranging from 9.23 per adult male in families with incomes of \$200 to \$300 to 14.81 for those with \$700 and over.

Expenditures for clothing were extremely meager and in 24 families for which an inventory of clothing was made the average value of clothing was \$116.64 for all members of a family. Articles jointly used amounted to 16.8 percent of the total; the belongings of husband, wife, sons, and daughters were 34.8, 21.5, 14.4, and 10.2 percent, respectively.

Miscellaneous.—The distribution of miscellaneous expenditures per family shows that sanitary and medical expenditures (17.5 percent of the total of the group), social (13.2 percent), and occasional expenses (28.4 percent) were highest. The actual amounts spent for miscellaneous purposes are listed:

³ Cubic content of about 32 cubic meters.

⁴ Excluding boarders.

All items ⁵	\$79. 60
Rates and contributions.....	. 72
Sanitary and medical expenses.....	13. 92
Religious worship.....	5. 32
Education.....	1. 45
Social intercourse.....	10. 54
Amusements.....	2. 40
Communications.....	5. 37
Occasional expenses.....	22. 64
Other items ⁶	17. 24

The distribution by income classes shows that, regardless of income, the chief miscellaneous expenditures fall under the same headings as for the group as a whole. However, the absolute sums spent for a single purpose increased considerably. To exemplify, families with \$200 to \$300 spent \$9.64 for sanitary and medical expenditures while those with \$700 and over expended \$23.56 on this item; the percentage relationships of these items to total miscellaneous expenditure were 20.0 and 10.9, respectively.

⁵ Excluding expenditures on wine and cigarettes, water, furniture, and utensils and repairs.

⁶ Including savings, interest on debts, and expenditures for ornaments.

PUBLICATIONS RELATING TO LABOR

Official—United States

ARKANSAS.—Emergency Relief Administration. Division of Research and Statistics. *A study of Arkansas coal mines and miners. Little Rock, 1934. Various paging, maps, charts.*

A review of statistical information on the coal industry of Arkansas, with sections devoted to the economic and social position of miners and the attitude of employers.

COLORADO.—Bureau of Mines. *Annual report, for the year 1934. Denver, 1935. 72 pp.*

Lists of operating mines, quarries, mills, and smelters, a table on production, and data on fatal and nonfatal accidents are given in the report.

From 1906 to 1914 there were 2.22 persons killed in the mines of the State for every 100,000 shifts worked; 1.35 from 1915 to 1922; 1.0 from 1923 to 1930, and 0.92 from 1931 to 1934.

CONNECTICUT.—Emergency Relief Commission. *Report, January 1933 to December 1934. Hartford, [1935]. 142 pp., maps, charts.*

GEORGIA.—Department of Industrial Relations. *Report for the fiscal years 1932 and 1933. Atlanta, 1935. 74 pp.*

The report includes information on employment, wages, and industrial accidents, and a list of the manufacturers of the State. During 1932 and 1933 a total of 37,203 accidents was reported; the compensation paid amounted to \$606,336, and medical and burial expenses to \$438,754. In 1931 there were 23,667 accidents and the compensation paid amounted to \$856,148. Fatalities showed a decline from 279 in 1929-30 to 244 in the years 1931-33.

IOWA.—Emergency Relief Administration. *The activities of the Iowa Emergency Relief Administration for the period January 1933 through December 1934. Des Moines, 1935. 116 pp., maps, charts.*

— Planning Board. Committee on Population and Social Trends. *Seasonal unemployment in Iowa, by Howard Bowen. [Des Moines?] 1935. 34 pp. (Mimeographed.)*

A study made for the purpose of measuring seasonal variations in the more important industries in the State, of discovering the periods of maximum and minimum employment, and of estimating the number of workers affected in the relatively prosperous year 1929.

MASSACHUSETTS.—Department of Labor and Industries. *Labor Bulletin No. 170: Time rates of wages and hours of labor in Massachusetts, 1934. Boston, [1935?]. 71 pp.*

— Board of Conciliation and Arbitration. *Report, together with decisions rendered by the Board, for the year ending November 30, 1934. Boston, [1935?]. 83 pp.*

A review of the year's activities in conciliation of grievances, and the terms of the arbitration awards, several of which provide detailed piece price lists in shoe manufacture.

— Division of Statistics. *Report on the census of unemployment in Massachusetts as of January 2, 1934. Boston, 1935. 202 pp., charts.*

Data from preliminary reports on this census were published in the December 1934 and April 1935 issues of the Monthly Labor Review.

MICHIGAN.—Emergency Welfare Relief Commission. *Cost of administration in the emergency relief program: A report on the administrative expenses of the State emergency relief administration and the county emergency relief administrations in Michigan. Lansing, 1935. 24 pp., charts.*

MINNESOTA.—Department of Labor and Industry. *Twenty-fourth biennial report, 1933-34. St. Paul, 1935. 269 pp., charts.*

Presents the reports of the several divisions of the department—accident prevention, boiler and mine inspection, the deaf, employment, statistics, women and children, and workmen's compensation. The report of the division of accident prevention contains an account of the occupational disease survey conducted by the division as a Civil Works Administration project.

— Emergency Relief Administration. Division of Safety and Compensation. [*First-aid instruction and safe practices.*] *St. Paul [1935?]. Various paging, illus. (Mimeographed.)*

NEVADA.—Industrial Commission. *Biennial report, reviewing the administration of the Nevada Industrial Insurance Act for the period July 1, 1932, to June 30, 1934. Carson City, 1935. 40 pp.*

During 1932-33 the commission received reports of 2,715 injuries, including 33 resulting in death or permanent total disability; and during 1933-34, of 2,938 injuries including 32 resulting in death or permanent total disability. These included 1,119 injuries in construction work at the Boulder Dam during the 2 years, of which 32 resulted in death or permanent total disability.

NEW YORK.—Board of Social Welfare. *Sixty-eighth annual report, for the year ending June 30, 1934. Albany, 1935. 266 pp., charts.*

Contains data on care of the aged—in homes and through pensions; unemployment relief; and training, placement, and allowances for the blind, etc.

— Department of Labor. *Special Bulletin No. 186: New York labor laws enacted at the extraordinary session of 1934 and the regular session of 1935. New York, 80 Centre Street, 1935. 151 pp.*

— Prison Association. *The ninetieth annual report, 1934. Albany, 135 East Fifteenth Street, 1935. 125 pp.*

Includes the report of the committee on competition of products of the cotton-garment industry with products of prison labor, and comments thereon by the Prison Labor Authority.

PENNSYLVANIA.—Department of Labor and Industry. Bureau of Industrial Standards. *Special Bulletin No. 41: Anthraco-silicosis (miners' asthma). A preliminary report of a study made in the anthracite region of Pennsylvania by United States Public Health Service. Harrisburg, 1934. 81 pp., diagrams.*

Reviewed in this issue.

WYOMING.—Workmen's Compensation Department. *Nineteenth report, for the twelve months ending December 31, 1934; ninth report, Coal Mine Catastrophe Insurance Premium Fund; twelfth report, Wyoming Peace Officers' Indemnity Fund. Cheyenne, 1935. 145 pp.*

Tabulations covering the experience of the State industrial accident fund show that 23 fatal, 712 nonfatal disabling, and 1,536 medical-aid injuries were reported during 1934. Awards in 2,862 cases amounted to \$242,254 for death or disability, to \$3,563 for funeral expenses, and to \$63,079 for medical attention. Additional awards for investigations and witness fees brought the total awards for the year to \$314,573.

UNITED STATES.—Congress. Senate. *Document No. 126 (74th Cong., 1st sess.): Cotton textile industry; message from the President of the United States transmitting a report on the conditions and problems of the cotton textile industry, made by the Cabinet committee appointed by him. Washington, 1935. 154 pp., charts.*

Reviewed in this issue.

— — — Committee on Finance. *Investigation of the National Recovery Administration: Hearings (74th Cong., 1st sess.), March and April 1935, pursuant to S. Res. 79, a resolution for an investigation of certain charges concerning the administration of industrial codes by the National Recovery Administration. Washington, 1935. In 6 parts and index. 3,187 pp.*

UNITED STATES.—Department of Commerce. Bureau of Foreign and Domestic Commerce. *Market Research Series No. 4: Code-sponsoring trade associations.* Washington, 1935. 105 pp. (Mimeographed.)

A list of code authorities and sponsoring trade associations in process of preparation when the adverse Supreme Court decision was rendered affecting the National Recovery Administration. Published as of use to those interested in having certain activities, formerly carried on under codes, taken over by trade associations.

— Trade Information Bulletin No. 821: *Fuel and power in Japan.* Washington, 1935. 28 pp.

Data on productivity of coal mine labor in Japan, taken from this report, are published in this issue of the Monthly Labor Review.

— Trade Information Bulletin No 823: *World chemical developments in 1934.* Washington, 1935. 132 pp.

The bulletin contains some wage data.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 612: Consumers', credit, and productive cooperation in 1933,* by Florence E. Parker. Washington, 1935. 80 pp.

— *Bulletin No. 615: The Massachusetts system of savings-bank life insurance,* by Edward Berman. Washington, 1935. 113 pp.
Summarized in the Monthly Labor Review for August 1935.

— *Serial No. R. 259: Railroad employees' retirement law declared unconstitutional.* Washington, 1935. 12 pp. (Reprint from June 1935 Monthly Labor Review.)

— *Serial No. R. 260: Decision of Supreme Court on the National Industrial Recovery Act.* Washington, 1935. 18 pp. (Reprint from June 1935 Monthly Labor Review.)

— *Serial No. R. 262: Annual earnings of railroad employees, 1924 to 1933,* by Otto S. Beyer and Edwin M. Fitch. Washington, 1935. 12 pp. (Reprint from July 1935 Monthly Labor Review.)

— *Serial No. R. 263: Employment, wages, and hours of labor in the petroleum industry, 1933-34.* Washington, 1935. 25 pp. (Reprint from July 1935 Monthly Labor Review.)

— *Serial No. R. 265: Florida Workmen's Compensation Act.* Washington, 1935. 2 pp. (Reprint from July 1935 Monthly Labor Review.)

— *Serial No. R. 266: Labor offices in the United States and in Canada.* Washington, 1935. 21 pp. (Reprint from July 1935 Monthly Labor Review.)

— *Serial No. R. 268: One hundred and thirty-four years of wholesale prices,* by Jesse M. Cutts. Washington, 1935. 10 pp., charts. (Reprint from July 1935 Monthly Labor Review.)

— *Serial No. R. 269: Massachusetts system of savings-bank life insurance,* by Edward Berman. Washington, 1935. 12 pp. (Reprint from August 1935 Monthly Labor Review.)

— *Serial No. R. 270: Experience under State old-age pension acts in 1934,* by Florence E. Parker. Washington, 1935. 24 pp. (Reprint from August 1935 Monthly Labor Review.)

— *Serial No. R. 271: Public old-age pension legislation in the United States as of August 1, 1935.* Washington, 1935. 4 pp. (Reprint from August 1935 Monthly Labor Review.)

— *Serial No. R. 272: National Labor Relations Act.* Washington, 1935. 9 pp. (Reprint from August 1935 Monthly Labor Review.)

— *Serial No. R. 274: Revised index of wholesale prices of farm machinery,* by Jesse M. Cutts. Washington, 1935. 7 pp., charts. (Reprint from August 1935 Monthly Labor Review.)

— *Serial No. R. 275: Index numbers of average earnings per hour, 1840 to 1934.* Washington, 1935. 2 pp. (Reprint from August 1935 Monthly Labor Review.)

UNITED STATES.—Department of Labor. Division of Labor Standards. *Bulletin No. 1: Discussion of labor laws and their administration—1934 convention of the International Association of Governmental Labor Officials, Boston, Mass. Washington, 1935. 166 pp.*

— — — *Bulletin No. 2: Discussion of industrial accidents and diseases—1934 convention of the International Association of Industrial Accident Boards and Commissions, Boston, Mass. Washington, 1935. 282 pp.*

A brief account of the proceedings at this conference was published in the Monthly Labor Review for November 1934.

— — — Women's Bureau. *Bulletin No. 109: The employment of women in the sewing trades of Connecticut—hours and earnings, employment fluctuation, home work, by Caroline Manning and Harriet A. Byrne. Washington, 1935. 45 pp., charts.*

Data on lighting conditions in clothing factories, as developed in this study, are presented in this issue of the Monthly Labor Review.

— — — *Bulletin No. 129: Industrial injuries to women in 1930 and 1931 compared with injuries to men, by Margaret T. Mettert. Washington, 1935. 57 pp., map, charts.*

Reviewed in this issue.

— — — *Bulletin No. 132: Women who work in offices—I, Study of employed women; II, Study of women seeking employment, by Harriet A. Byrne. Washington, 1935. 27 pp.*

— Department of the Interior. Bureau of Mines. *Information Circular 6829: Bituminous coal-mine safety-inspection outline, by G. W. Grove and W. G. Fene. Washington, 1935. 26 pp. (Mimeographed.)*

Outline of method used by the field engineers of the Safety Division, Bureau of Mines, in inspecting coal mines with regard to safety practices and equipment.

— — — *Information Circular 6832: Maintaining the permissibility of electric cap lamps, by D. H. Zellers and A. B. Hooker. Washington, 1935. 12 pp. (Mimeographed.)*

Directions are given for keeping permissible electric lamps in such condition as to furnish miners with maximum light and protection.

— — — *Information Circular 6837: Blasting practices and explosives accidents in Utah coal mines, by D. J. Parker. Washington, 1935. 15 pp. (Mimeographed.)*

This circular reviews practices in use in Utah coal mines, and gives data on accidents incident to blasting, with preventive suggestions.

— — — *Information Circular 6838: A few of the opportunities for obtaining accident-prevention information available to mine management and employees through the United States Bureau of Mines, by C. A. Herbert. Washington, 1935. 6 pp., charts. (Mimeographed.)*

Outline of an accident-prevention program based on the premise that mine accidents are preventable.

— — — *Information Circular 6840: Review of literature on effects of breathing dusts, with special reference to silicosis, by D. Harrington and Sara J. Davenport. Part 11-A, Chapter 4, Prevention of dust diseases (sections 1 and 2). Washington, 1935. 49 pp. (Mimeographed.)*

This section of the report presents a review of the literature on prevention of dust diseases, and also deals with the principal factors producing pulmonary disease and methods of determination of dust in air.

— — — *Information Circular 6845: List of devices for respiratory protection approved by the U. S. Bureau of Mines, by W. P. Yant. Washington, 1935. 8 pp. (Mimeographed.)*

Lists all self-contained oxygen-breathing apparatus, gas masks, hose masks, and filter-type dust, fume, and mist-respirators, which had received official certification of approval by the Bureau on March 15, 1935.

— — — *Report of Investigations 3266: Recent trends in man-hour production at iron-ore mines, by H. W. Davis and others. Washington, 1935. 6 pp., charts.*

UNITED STATES.—Department of the Interior. Bureau of Mines. *Report of Investigations 3273: Coke-oven accidents in the United States during the calendar year 1933*, by W. W. Adams and V. E. Erwin. Washington, 1935. 15 pp., chart. (Mimeographed.)

The data show a reduction in frequency rate for fatal injuries from 1932 to 1933, but an increase for nonfatal injuries. The man-hours' exposure for 1933 was 37,213,766, with a frequency rate of 0.30 for fatalities and of 10.43 for nonfatal injuries; for 1932 the exposure was 33,216,573 man-hours, with a frequency rate of 0.42 for fatalities, and of 9.63 for nonfatal injuries.

— *Report of Investigations 3277: The National safety competition of 1934*, by W. W. Adams and T. D. Lawrence. Washington, 1935. 20 pp. (Mimeographed.)

Names the winners of the annual contest for 1934 and reviews the accident records for the year of the participating 334 anthracite mines, bituminous-coal mines, metal mines, nonmetallic mines, and open-cut mines and quarries, in 38 States.

— Petroleum Labor Policy Board. *Report to the Petroleum Administrator*. Washington, August 17, 1935. 38 pp. (Mimeographed.)
Reviewed in this issue.

— Employees' Compensation Commission. *Eighteenth annual report, July 1, 1933, to June 30, 1934*. Washington, 1935. 47 pp.

Covers the administration of the three earlier Federal compensation laws—for Federal civil employees, for longshoremen and harbor workers, and for employees in certain employments in the District of Columbia—and also of the act approved February 15, 1934, which provided compensation for traumatic injuries to employees of the Civil Works Administration, subsequently applied to the personnel of the Civilian Conservation Corps.

— Federal Emergency Relief Administration. *Unemployment relief census, October 1933: Report No. 3, Family composition*. Washington, 1935. 115 pp., charts.

Data on family composition of emergency relief cases as of October 1933 for the United States, by States, by urban and rural areas in each State, and for cities with a population of 250,000 or over in 1930.

— Federal Trade Commission. *Report on textile industries: Part I, Investment and profit, 26 pp.; part II, The cotton textile industry, 34 pp.; part III, The woolen and worsted textile industry, 21 pp.; part IV, The silk and rayon textile industry, 37 pp.; part V, Thread, cordage, and twine industries, 14 pp.; part VI, Tabulations showing financial and operating results for textile companies according to rates of return on investment, rates of net profit or loss on sales, and amount of investment, 41 pp.* Washington, 1934, 1935.

Statistics of labor cost are shown for the several branches of the textile industry. There is a large amount of variation in the ratio between labor and other costs as between textiles. Labor costs are relatively low in the cotton-textile industry and high in silk and rayon manufacture.

— Library of Congress. Division of Bibliography. *Federal aid to specific activities in the United States: a selected list of recent writings, compiled by Anne L. Baden*. Washington, January 31, 1935. 44 pp. (Mimeographed.)

The references are classified under the following heads: General, agriculture, education, forest protection, housing, maternity and infant welfare, public health, public works, vocational education, and unemployed.

— National Labor Relations Board. *Decisions, Vol. II, December 1, 1934–June 16, 1935*. Washington, 1935. 556 pp.

An introductory statement shows the history of the National Labor Relations Board and its relationship to other bodies. The main report gives individual decisions in full.

— National Recovery Administration. Consumers' Division. *Retail food price differences between cities*, by Henry B. Arthur. Washington, 1935. 52 pp., charts.

— Tariff Commission. *Report No. 99, Second Series: Report to the United States Senate on employment of nonresident fishermen in United States fisheries*. Washington, 1935. 28 pp., maps.

It is estimated that the fisheries of the United States give employment to 120,000 fishermen and that from 30 to 50 percent of these are aliens legally residing in the United States.

Official—Foreign Countries

ALBERTA (CANADA).—Commissioner of Labor. *Annual report, for the fiscal year 1934-35. Edmonton, 1935. 25 pp.*

Among the data in the report are classified weekly wage rates and weekly hours of labor.

AUSTRALIA.—Bureau of Census and Statistics. *Official year book of the Commonwealth of Australia, 1934. Canberra, 1935. 942 pp., maps, charts.*

A brief outline of the history and government of Australia and statistical summaries dealing with economic and social subject matter including vital and population statistics, wages, accidents, and agricultural and industrial developments.

AUSTRIA.—Bundesamt für Statistik. *Statistisches Handbuch für den Bundesstaat Österreich. Vienna, 1935. 254 pp.*

This handbook contains statistical information in regard to trade agreements, voluntary labor service, employment and unemployment, social insurance, etc.

BELGIUM.—Ministère de l'Intérieur. Office Central de Statistique. *Annuaire statistique de la Belgique et du Congo Belge, 1935. Brussels, 1935. [Various paging.]*

The data given, relating for the most part to the year 1933, include statistics on workers' dwellings, cooperation, savings, retirement and sickness insurance funds, strikes and lockouts, industrial accidents, and the number of employees in various branches of industry.

BURMA (INDIA).—Chief Inspector of Factories. *Annual report on the working of the Indian Factories Act, 1911, in Burma, for the year 1934. Rangoon, 1935. 31 pp.*

The report includes information on employment of women and children, housing, sanitation, wages, and accidents.

— Labor Statistics Bureau. *Report of the working of the Workmen's Compensation Act, 1923, for the year 1934. Rangoon, 1935. 20 pp.*

A general discussion of cases arising and principles involved accompanied by a statistical summary of awards made.

CANADA.—Department of Trade and Commerce. Bureau of Statistics. *Recent economic tendencies in Canada, 1919-1934. Ottawa, 1935. 142 pp., charts. (Issued as a supplement to the Monthly Review of Business Statistics, June 1935.)*

The tabulations presented in this supplement include indexes of employment, prices, and cost of living.

CEYLON.—Ministry for Labor, Industry, and Commerce. Committee to Revise the "Mines and Machinery Protection Ordinance" (No. 2 of 1896). *Report: Factory legislation. Colombo, 1935. 14 pp.*

Recommendations made by the committee relate to inspection, protection from machinery, safety of buildings, health, child labor, maternity benefits, working hours, and wages.

CÓRDOBA (ARGENTINA).—Departamento Provincial del Trabajo. *Legislación obrera, previsión social, Provincia de Córdoba (leyes, decretos y resoluciones en vigencia), anotados y concordados por el Dr. Luis A. Despontin, Director del Departamento Provincial del Trabajo. Córdoba, 1934. 615 pp., illus.*

A compilation of agreements between the Argentine Republic and other nations on workmen's compensation; national labor laws of Argentina; social legislation and labor laws, decrees, and resolutions of the Province of Córdoba; and municipal ordinances on related subjects of the city of Córdoba.

CZECHOSLOVAKIA.—Office de Statistique. *Annuaire statistique de la République Tchecoslovaque. Prague, 1935. 289 pp. (In French.)*

A general statistical annual containing data on a wide variety of subjects, including social insurance, employment, wages, industrial disputes, collective agreements, prices, cost-of-living indexes, and production, in 1934 and earlier years.

ESTONIA.—Riigi Statistika Keskbüroo. *Eesti põllumajandus, 1934*. Tallinn, 1935. 167 pp., charts, maps. (In Estonian and French.)

This year book contains information relating to agriculture in Estonia in 1934, including prices of agricultural products, wages paid to agricultural workers, and cost of living.

GERMANY.—Reichskohlenrat. *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1934*. Berlin, 1935. 133 pp., charts.

Statistics, including wages, length of shift, and productivity, for the coal industry of Germany, with sections devoted to world production, the coal industry of other countries, and movements of international trade in coal.

GREAT BRITAIN.—Board of Trade. *Final report on the fourth census of production (1930): Part IV, The timber trades; the clay, building materials and building trades; miscellaneous trades; mines and quarries; public utility services; and government departments*. London, 1935. 603 pp.

— Department of Overseas Trade. *Economic conditions in Belgium in 1934, by N. S. Rejntiens*. London, 1935. 88 pp.

The section of the report dealing with social questions contains brief reports on unemployment, strikes, family allowances, housing, cooperation, and cost of living. An appendix on the economic situation in the Grand Duchy of Luxemburg gives summary figures on unemployment and cost of living.

— Ministry of Health. *Persons in receipt of poor relief (England and Wales)*. London, 1935. 37 pp., chart.

Statistical analysis, by physical and mental condition and domicile, of the number of men, women, and children receiving poor relief in England and Wales on January 1, 1935.

— Ministry of Labor. *Decisions given by the umpire respecting claims for benefit [under the unemployment insurance acts, 1920 to 1933], vol. XII: Selected decisions given during the calendar year 1933 (together with index)*. London, 1934. 106 pp.

INTERNATIONAL LABOR OFFICE.—*The I. L. O. year book, 1934-35*. Geneva, 1935. In 2 volumes. (World Peace Foundation, American agent, Boston.)

The subjects covered include employment and unemployment, wages and hours and other working conditions, social insurance, prices, cost of living, and collective bargaining.

— *Studies and Reports, Series I, No. 3: Children and young persons under labor law*. Geneva, 1935. 342 pp. (World Peace Foundation, American Agent, Boston.)

This study brings together, in comparative tables, the principal provisions of the laws of the various nations regulating the labor of children and young persons and traces the influence of international conventions in standardizing legislation and enforcement in this field. An introductory chapter presents a historical review of efforts to control child labor from the beginning of the industrial revolution in Great Britain to the present time.

ITALY.—Istituto Centrale di Statistica del Regno d'Italia. *Anuario statistico Italiano, anno 1935*. Rome, 1935. [Various paging.]

Statistics through 1933 or 1934 on cost of living, quantity and value of various commodities consumed, wages, number of workers by industries, women and minors in industry, internal migration for labor purposes, and unemployment. The appendix presents comparable figures for various countries, showing area, population, industries, unemployment, minimum wages, and index numbers of cost of living.

NEW SOUTH WALES (AUSTRALIA).—Bureau of Statistics and Economics. *The official year book of New South Wales, 1932-33*. Sydney, 1935. 854 pp., map, charts.

Statistics are given on employment, wages, and production in agriculture, factories, and mines. A section devoted to social conditions includes information on unemployment relief, child welfare, and old-age pensions.

NORWAY.—Rikstrygdeverket. *Årsberetning nr. 38, 1934*. Oslo, 1935. 20 pp.

Annual report on operation of the State insurance system in 1934, including insurance against accidents and sickness, personnel of the administration, and financial statements.

NORWAY.—Rikstrygdeverket. *Ulykkestrygden for industriarbeidere, 1932*. Oslo, 1935. 41*, 113 pp., charts. (In Norwegian and French.)

Annual report on operation in 1932 of the Norwegian public insurance system covering industrial accidents.

QUEENSLAND (AUSTRALIA).—Registrar-General's Office. *ABC of Queensland and Australian Statistics*. Brisbane, 1935. 326 pp. Contains statistics of building operations, factory employees and wages, production, etc.

— — — *Statistics of the State of Queensland for the year 1933-34*. Brisbane, 1935. In 9 parts and index.

A section devoted to social statistics includes data on government relief, and building done under the housing acts. Figures on employment are shown in a section on production.

SIAM.—Ministry of Economic Affairs. Bureau of General Statistics. *Statistical year book (1931-33)*. Bangkok, 1935. 556 pp., map, folder. English edition.

Statistics are furnished in regard to prices; wages in certain occupations in Bangkok, 1914 to 1933; and salaries of government employees.

SWEDEN.—Kommerskollegium. *1931 års företagsräkning*. Stockholm, 1935. 378 pp.

Report on the 1931 industrial census in Sweden, including tabulations of the number of workers in the various establishments, by sex, age, and training. There is a résumé in French and a French translation of the table of contents.

VIENNA (AUSTRIA)—Kammer für Arbeiter und Angestellte. *Wirtschaftsstatisches Jahrbuch, 1932-33*. Vienna, 1934. 478 pp.

The year book contains information on employment, wages, cost of living, industrial disputes, and social insurance.

Unofficial

AMERICAN COUNTRY LIFE ASSOCIATION. *National planning and rural life: Proceedings of the Seventeenth American Country Life Conference, Washington, D. C., November 16-19, 1934*. New York, 105 E. 22d Street, 1935. 156 pp.

The addresses include such subjects as planning agriculture in relation to industry, population and occupational shifts, developments in State planning.

CALDERON, ENRIQUE. *Nueva ley federal del trabajo, con sus adiciones y reformas*. 3ª edición. Mexico, D. F., Tip. La Impresora, 1934. 317 pp. and index.

The Mexican Federal Labor Law of 1931 with other labor legislation, a discussion of some principles of labor regulation, and recent Supreme Court decisions concerning labor.

CLARKE, JOHN J. *Social administration, including the poor laws*. London, Isaac Pitman & Sons, Ltd., 1935. 852 pp.

The second edition of a comprehensive reference work on the history and development of social services and social legislation in Great Britain from the early poor laws and the beginning of specialized care of the defective, delinquent, diseased, and needy, to the enactment and administration of the modern system of social legislation. This legislation, in addition to providing for the care of special classes, deals with housing, health, employment, unemployment, and pensions for the working population in general.

DIEMER, HUGO. *Factory organization and administration*. New York, McGraw-Hill Book Co., 1935. 412 pp., charts, illus.

The fifth edition of a standard work dealing with the physical and personal aspects of factory and office management.

ECONOMIC ESSAYS IN HONOR OF WESLEY CLAIR MITCHELL. New York, Columbia University Press, 1935. 519 pp., charts.

Seventeen essays covering topics such as low-rental housing, cycles in residential construction, urban decentralization, internal migrations, collective bargaining, purchasing power, retail prices, production, overcapacity, and economic planning.

EVERETT, SAMUEL. *Democracy faces the future*. New York, Columbia University Press, 1935. 269 pp.

A discussion of changing socio-economic conditions.

FAUQUET, G. *Le secteur coopératif. Brussels, Les Propagateurs de la Coopération, [1935?]. 97 pp.*

Treats of "the place of man in cooperative institutions" and of the role of cooperative enterprises in general economy.

HARVEY, ROWLAND HILL. *Samuel Gompers, champion of the toiling masses. Stanford University, Calif., Stanford University Press, 1935. 376 pp., portrait.*

Samuel Gompers, the author holds, "had no life apart from the American Federation of Labor", hence this biography is largely a history of the development of the American labor movement as expressed through the American Federation of Labor. The sources drawn upon are chiefly Mr. Gompers' autobiography and the documentary material in the files and archives of the American Federation of Labor.

HERBERT, GEORGE. *Can land settlement solve unemployment? London, George Allen & Unwin, Ltd., 1935. 129 pp.*

Section I of this book is an analysis of British agriculture; section II reviews the results of legislation brought into effect since 1908 to assist farmers to obtain and develop small farms; section III presents plans for the successful application of a land-settlement program. The author holds that such a program would promote the best interests of agriculture and the unemployed, and "thus would rural Britain be regenerated."

HILL, HELEN. *Foreign trade and the worker's job. New York, World Peace Foundation, 1935. 40 pp. (Popular pamphlets on world problems, no. 1.)*

This is the first of a series of pamphlets planned by the World Peace Foundation for American citizens who desire nontechnical yet reliable information regarding current world problems which affect the United States. As indicated by the title, the booklet outlines the importance of foreign trade to the American wage earner.

HUTCHINSON, CARL R. *Seeking a new world through cooperatives: A discussion unit for young people in the united movement "Christian Youth Building a New World." New York, Methodist Book Concern, 1935. 62 pp.*

INGLIS, WILLIAM. *George F. Johnson and his industrial democracy. New York, Huntington Press, 1935. 306 pp., illus.*

A narrative account of the relations between the Endicott Johnson shoe manufacturing organization and its employees.

INSTITUTE FOR SCIENCE OF LABOR (Kurasiki, Japan). *Report No. 27: Experimental studies on the day and night inversion of daily routine, by Tomoyosi Isikawa, M. D. Kurasiki, 1934. 14 pp., diagrams.*

— *Report No. 29: I, Sex ratio in the population of Japan proper; II, The influence of industrialism upon the mortality of young people and adults; by Sinzi Katuki, M. D. Kurasiki, 1935. 30 pp., diagrams.*

The author attributes the persistent increase of the death rate of young people in Japan and the phenomenally high mortality of its girls and young women to the growing industrialization of the country.

INTERNATIONAL CONGRESS FOR SCIENTIFIC MANAGEMENT, SIXTH, LONDON, JULY 15 to 20, 1935. [Addresses], *manufacturing section, 237 pp., folders, charts, illus.*; [Addresses], *educational and training section, 124 pp., charts. London, P. S. King & Son, Ltd., 1935.*

The topics of the addresses before the manufacturing section covered budgetary control, scientific works management, and recent developments in time and motion study. Preliminary training, sources of recruitment, avoidance of waste in personnel, and related subjects were discussed at the meetings of the educational and training section.

INTERNATIONAL FEDERATION OF TRADE UNIONS. *Economic planning and labor plans. Paris, 9, Avenue d'Orsay, 1935. 82 pp.*

An outline of the International Federation of Trade Unions' demands for economic planning, and the labor plans of Belgium, France, Great Britain, Switzerland, Austria, and Germany.

JENNINGS, HILDA. *Brynmawr, a study of a distressed area. London, Allenson & Co., Ltd., 1934. 246 pp., maps, charts, illus.*

A social survey of a portion of the South Wales coal fields, a one-industry community that has experienced years of unemployment because of the depression in the mining industry. The author reviews the historical development

and racial origins of the community, analyzes the physical, social, and spiritual consequences upon it of prolonged depression, and discusses the possibilities of its reconstruction and rehabilitation.

KIMML, ANTON. *5 Jahre "Jugend in Not"—ein Werk sozialer Hilfe*. Vienna, Kuratorium der Aktion "Jugend in Not", 1935. 127 pp., charts, illus.

An account of the living and social conditions of youth in Vienna and Austria in general, and of public assistance to unemployed youth.

LOWE, BOUTELLE ELLSWORTH. *The international protection of labor: International labor organization, history and law*. New York, Macmillan Co., 1935. 594 pp.

MACDONALD, LOIS, and STEIN, EMANUEL. *The worker and government*. New York, Affiliated Schools for Workers, Inc., 302 East 35th Street, 1935. 141 pp.

M McNALLY, C. E. *Public ill health*. London, Victor Gollancz, Ltd., 1935. 224 pp.

The author discusses the evidence regarding the wide-spread malnutrition that he believes exists in England as a result of the depression, with special reference to the official reports which have stated that unemployment has had scarcely perceptible effects on the national health.

NATIONAL EDUCATION ASSOCIATION. Committee on Social-Economic Goals of America. *A descriptive bibliography of social-economic education*. (Report presented at the representative assembly, Denver, July 1935). Washington, 1201 Sixteenth Street, NW., 1935. 93 pp.

— Department of Superintendence. *Social change and education*. Washington, 1201 Sixteenth Street, NW., 1935. 383 pp., illus. (Thirteenth yearbook.)

The nature of recent social trends, the efforts of society to adjust itself to changing conditions, and the new responsibilities of education are discussed in various signed articles.

NATIONAL INDUSTRIAL CONFERENCE BOARD, INC. *Study No. 216: Wanted, skilled labor; an analysis of the causes and extent of the skilled labor shortage in the metal manufacturing industries and proposals for meeting the situation*. New York, 247 Park Avenue, 1935. 37 pp.

NEWMAN, WILLIAM H. *The building industry and business cycles*. Chicago, 1935. 73 pp., charts. (Chicago University, School of Business, *Studies in Business Administration*, vol. V, no. 4.)

PALESTINE ECONOMIC CORPORATION. *Eighth annual report, 1934*. New York, 40 Exchange Place, 1935. 82 pp.

Contains data on Jewish immigration into Palestine, general industrial and labor conditions in the country, building construction, the activities of the corporation in assisting cooperative societies in Palestine, and reports regarding some of the cooperative organizations.

PENNSYLVANIA, UNIVERSITY OF. Wharton School of Finance and Commerce. Industrial Research Department. *Monographs, Coal Series, No. 1: Production and distribution costs and sales realization of deep, commercial mines in divisions I, II, and III of the bituminous-coal industry, November 1933 to June 1934*, by Waldo E. Fisher. Philadelphia, 1935. 45 pp., charts. (Mimeographed.)

Incidental to showing total costs and sales realization, this analysis brings out the influence of large mines, thick coal, and mechanized processes in reducing labor costs of production.

— — — — *Special Report A-5: Trends in the Philadelphia labor market in 1934*, by Gladys L. Palmer. Philadelphia, 1935. 15 pp., charts. (Mimeographed.)

According to the data gathered in this study, it may be concluded that more and better jobs were available to applicants at the State Employment Office in Philadelphia in 1934 than in the 2 previous years.

ROBINSON, LOUIS N., and NUGENT, ROLF. *Regulation of the small-loan business*. New York, Russell Sage Foundation, 1935. 284 pp.

Gives a historical discussion of moneylending and efforts to regulate this kind of business by law, the development of the uniform small-loan law and its effects on moneylending, the characteristics of borrowers, expenses and profits of the small-loan business, and a discussion of the reasons for the maximum rates of interest set under various State laws.

- RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 131: Employment practices in social work; a selected list of references.* New York, 130 East 22d Street, June 1935. 6 pp.
- SCHLOSSBERG, JOSEPH. *The workers and their world: Aspects of the workers' struggle at home and abroad.* New York, A. L. P. Committee, 1935. 224 pp.
Selected essays from the writings of the author during the 20 years he has been general secretary of the Amalgamated Clothing Workers of America.
- SCHNEIDER, E. *Theorie der produktion.* Wien, Julius Springer, 1934. 93 pp., diagrams.
- SHILLMAN, BERNARD. *The law relating to employers' liability and workmen's compensation in the Irish Free State.* Dublin, John Falconer, 1934. 434 pp.
Reviews the workmen's compensation system of the Irish Free State, showing changes effected through recent legislation. The text of the act of 1934 and a comparative table of similar sections in the acts of the Irish Free State, Great Britain, and Northern Ireland are included.
- SINGLETON, EVELYN ELLEN. *Workmen's compensation in Maryland.* Baltimore, 1935. 130 pp. (*Johns Hopkins University Studies in Historical and Political Science, series LIII, no. 2.*)
A description of the development of workmen's-compensation legislation in Maryland and the scope, benefits, administration, and insurance provisions of the present law. Separate chapters are devoted to accident prevention and the State vocational-rehabilitation program.
- STRACHEY, RAY. *Careers and openings for women.* London, Faber & Faber, Ltd., 1935. 271 pp.
The first section of this book presents a general survey of employment opportunities for women, the difficulties which they have to overcome, the causes for the generally low rates of pay accorded them, and their disadvantageous position in regard to pensions, etc. The second section deals with prospects of employment for girls entering the labor market at different ages, and for girls with exceptional qualifications.
- SWAYZEE, CLEON OLIPHANT. *Contempt of court in labor injunction cases.* New York, 1935. 145 pp. (*Columbia University Studies in History, Economics, and Public Law, No. 409.*)
An analysis of more than 100 labor contempt proceedings in New York State, made with a view to supplying the factual background upon which reform may be based.
- SYDENSTRICKER, EDGAR. *Health insurance and the public health. An address before the Academy of Political Science at its semiannual meeting [April 1935] on problems of social security legislation in the United States.* New York, Academy of Political Science, 1935. 20 pp.
- THORNDIKE, EDWARD L. *Adult interests.* New York, Macmillan Co., 1935. 265 pp.
This volume is intended for workers in adult education and for persons preparing to become teachers of adults.
- TUBERCULOSIS LEAGUE OF PITTSBURGH. *Tuberculosis and the Negro in Pittsburgh: A report of the Negro health survey, by Elsie Witchen, director.* Pittsburgh, 1934. 120 pp., charts, illus.
The survey revealed a death rate from tuberculosis among Negroes nearly six times the rate among white persons. The importance of periodic physical examinations for workers whose occupations may endanger the health of the community is stressed in the report.
- TWENTIETH CENTURY FUND, INC. *Annual report, 1934.* New York, 330 West 42d Street, 1935. 42 pp., charts.
The report contains brief statements regarding the special studies made during 1934, one of which dealt with the role of the Government in labor relations.
- YOUNG MEN'S CHRISTIAN ASSOCIATIONS. National Council. Industrial Department. *Twenty questions on the economic security of the people; a study outline.* New York, 347 Madison Avenue, 1934. 48 pp.
A brief study of unemployment compensation, health insurance, and old-age pensions.



