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# EMPLOYMENT AND PAY ROLLS

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# *Employment and Pay Rolls*

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## SUMMARY OF REPORTS FOR AUGUST 1938

### *Total Nonagricultural Employment*

APPROXIMATELY 215,000 workers were returned to employment in nonagricultural occupations, exclusive of Works Progress Administration and other Federal emergency projects, between July and August. This is the largest August gain of recent years, with the exceptions of 1933 and 1935. Widespread gains were reported in manufacturing industries, 70 of the 87 industries surveyed showing increases in employment and pay rolls. Including approximately 61,000 seasonal cannery workers hired for peak-season operation, a total of 300,000 factory wage earners were reemployed in August. Wholesale trade firms hired more employees, while in retail trade the reductions in employment were smaller than usual for the season. Bituminous-coal mines reported a seasonal gain of approximately 7,000 men while employment in anthracite mines declined by about 10,000. Railroads took on 9,000 more men in August, the third consecutive expansion this summer. In other lines of industry there were no marked changes in employment.

The gains in employment were general throughout the country, 42 States reporting more workers on industrial and business pay rolls in August than in July. Among the more important industrial States in which substantial gains were reported were California, 6.5 percent; Massachusetts, 5.5 percent; North Carolina, 5.3 percent; New Jersey, 4.2 percent; Indiana, 3.9 percent; New York, 2.2 percent; and Ohio, 2.2 percent. In most instances, increased employment in textile mills and clothing factories were primary factors contributing to the gains.

Employment in August on work programs of the Federal Government increased on construction projects financed by regular Federal appropriations, in the Civilian Conservation Corps, on work projects under the National Youth Administration, and on projects operated by the Works Progress Administration. Decreases on the other hand, were reported in the number working on Federal projects under The Works Program, on projects financed by the Reconstruction Finance

Corporation, and on Public Works Administration projects. In the regular services of the Federal Government increases occurred in the judicial and executive services and decreases in the legislative and military services.

### *Adjustment of Indexes of Factory Employment and Pay Rolls to the 1935 Census of Manufactures*

The indexes of factory employment and pay rolls have been adjusted to the 1935 Census of Manufactures in conformity with established policy of the Bureau of Labor Statistics (adopted upon the recommendation of the Advisory Committee appointed at the request of the Secretary of Labor in 1933 by the American Statistical Association) to adjust its indexes of employment and pay rolls to trends shown by the Census of Manufactures, the Census of Distribution, and other industrial censuses. The trends of employment and pay rolls shown by the Bureau's indexes are based on reports received from selected firms and do not cover all establishments in the industries surveyed, while the census endeavors to secure reports from all firms. Accordingly, the Bureau, in order to give a more accurate picture of industrial employment and pay rolls, adjusts the trends of its indexes to those of the more comprehensive reports of the Census of Manufactures. Adjusted indexes for the period 1923-31 were released in 1934, indexes adjusted to 1933 levels were released in 1936, and the recently revised series of indexes by months from January 1931 to date are available in mimeographed form upon request.

In the current revision the differences between the new and old indexes for all manufacturing industries combined are the result of the usual adjustments for variation in trends, and also of the elimination of the railroad repair shop group from the manufacturing indexes, following the practice of the Census of Manufactures, which dropped railroad repair shops in the census of 1937. There have also been minor changes incident to reclassification of certain firms in keeping with census practice and to the inclusion of additional firms.

### *Industrial and Business Employment*

Factory employment increased 4.6 percent and pay rolls increased 8.8 percent between mid-July and mid-August. These increases were much more pronounced than the usual employment increase of 1.5 percent and the usual pay-roll gain of 3 percent. A comparison of factory employment and pay-roll levels in August 1938 with August 1937 shows reductions of 21.4 percent in employment and 29.0 percent in pay rolls.

The nondurable-goods industries again accounted for most of the gain in factory forces during the month, with an increase in employ-

ment of 6.6 percent. The outstanding gains in this group were in men's and women's clothing, cotton goods, knit and woolen goods, and canning. For all of these industries, except canning, reemployment was much greater than seasonal. Employment in the durable-goods group of manufacturing industries increased for the first time in 10 months, by 2.1 percent. Among the more important durable-goods industries reporting gains were blast furnaces, steel works, and rolling mills; electrical machinery; foundry and machine shops; furniture; and sawmills. In the automobile industry employment was reduced by 8.8 percent, primarily because of shut-downs for model changes.

Wage-rate decreases were reported for 18 manufacturing industries, affecting 39,100 wage earners out of a total of 3,820,000 employed by firms reporting to the Bureau of Labor Statistics. As in the preceding month, the most widespread reductions were in cotton mills in which more than 31,000 received wage cuts. Comparatively few wage increases were reported by manufacturing establishments, but increases were reported in the metal-mining industry affecting approximately 5,000 workers, and by electric-railroads and motorbus lines affecting approximately 2,000 men.

In wholesale trade the increase of 1.0 percent in employment, which accompanied increased industrial activity, was the first gain since last October. Among the more important lines which reported gains were dry goods and apparel, chemicals and drugs, petroleum, paper, and lumber and building materials. Retail stores had 1.4 percent fewer employees in mid-August than in mid-July. This decline was slightly smaller than in recent years, with the exception of 1936. The largest reductions in retail trade employment were in apparel and general merchandising stores; hardware, automobiles, and automobile supplies; and in food stores. Gains of 2.6 percent in employment in private building construction and of 1.1 percent in quarrying were of seasonal proportions. This was also true of the increase of 2.1 percent in the number of bituminous-coal miners. Anthracite mining reported a further employment loss of 15.7 percent, partly because of strikes in the first part of August. Anthracite pay rolls, however, showed little reduction, as production was generally sustained. Metal mines reported a gain of 3.6 percent in employment, but pay rolls rose 14.8 percent due to increased production and wage-rate increases. There was little change in activity in public utilities. Employment decreased slightly in telephone and telegraph companies and in the operation and maintenance of electric railroads, but it increased by a small amount in the power and light industry. Small seasonal employment declines were reported in hotels and in laundries, and a seasonal loss of 3.3 percent occurred in dyeing and cleaning plants. Insurance

firms reported virtually no change in employment, but brokerage houses showed a slight gain.

Employment in class I railroads increased for the third consecutive month. According to a preliminary report of the Interstate Commerce Commission there were 939,268 railroad employees (including executives, officials, and staff assistants) in August, a gain of 9,382 or 1.1 percent since July. August pay rolls for railroads were not available when this report was prepared. For July they amounted to \$142,721,392 as against \$140,391,948 for June, a gain of 1.7 percent.

*Hours and earnings.*—Factory wage earners worked, on the average, 36.3 hours per week in August, a gain of 4.3 percent since July. The corresponding average hourly earnings were 62.9 cents or 0.8 percent lower than in the preceding month, while average weekly earnings rose 3.9 percent to \$22.84.

The August 1938 average hours and earnings for the manufacturing industries combined now relate to 87 industries instead of the 89 previously covered. The two industries which have been excluded are electric and steam railroad repair shops. If these two industries were included in the August totals, the August average hours would be 36.4, the average hourly earnings would be 63.3 cents, and the average weekly earnings would be \$23.01.

Of the 14 nonmanufacturing industries for which man-hour data are available, 13 industries showed gains in average hours worked per week and 5 showed increases in average hourly earnings. Average weekly earnings were higher for 11 of the 16 nonmanufacturing industries surveyed.

Prior to January 1938 the wording of the definition on the schedules for public utilities, wholesale and retail trade, hotels, and brokerage and insurance firms called for the inclusion of higher-salaried employees such as corporation officers, executives, and others whose duties are mainly supervisory. These employees have, for the most part, always been excluded from employment reports for other industries, and beginning with January it was requested that they be omitted also for the industries named above. For this reason the average hours worked per week, average hourly earnings, and average weekly earnings for these industries are not comparable with the figures appearing in issues of this pamphlet dated earlier than January 1938.

Employment and pay-roll indexes and average weekly earnings in August 1938 for all manufacturing industries combined, for selected nonmanufacturing industries, and for class I railroads, with percentage changes over the month and year intervals except in the few industries for which data are not available, are presented in table 1.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, August 1938*

Industry	Employment			Pay roll			Average weekly earnings		
	Index, August 1938	Percentage change from—		Index, August 1938	Percentage change from—		Average in August 1938	Percentage change from—	
		July 1938	August 1937		July 1938	August 1937		July 1938	August 1937
	(1923-25=100)			(1923-25=100)					
All manufacturing industries combined .....	85.7	+4.6	-21.4	76.8	+8.8	-29.0	\$22.84	+3.9	-9.7
Class I steam railroads <sup>2</sup> .....	52.6	+1.1	-19.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
	(1929=100)			(1929=100)					
Coal mining:									
Anthracite <sup>3</sup> .....	37.6	-15.7	-24.3	20.1	-6	-32.1	17.39	+17.8	-10.3
Bituminous <sup>3</sup> .....	80.1	+2.1	-17.7	64.2	+13.2	-25.6	21.38	+10.8	-9.6
Metalliferous mining.....	51.4	+3.6	-38.4	43.7	+14.8	-47.4	26.62	+10.9	-14.7
Quarrying and nonmetallic mining.....	44.6	+1.1	-18.9	39.2	+6.1	-26.3	22.17	+4.9	-9.1
Crude-petroleum producing.....	72.4	+1	-8.6	66.8	+1	-5.6	34.11	+ <sup>(6)</sup>	+3.3
Public utilities:									
Telephone and telegraph.....	74.8	-2	-6.3	91.3	+5	-9	30.25	+7	+5.8
Electric light and power and manufactured gas.....	92.7	+4	-5.8	98.9	+7	-3.6	33.54	+2	+2.3
Electric-railroad and motorbus operation and maintenance.....	69.5	-9	-5.4	69.5	+7	-5.0	32.73	+1.7	+4
Trade:									
Wholesale.....	87.6	+1.0	-4.5	73.7	+2	-6.7	29.35	-8	-2.3
Retail.....	80.0	-1.4	-7.2	66.8	-2.0	-7.6	21.38	-6	-5
General merchandising.....	86.4	-1.7	-7.9	78.8	-2.1	-8.1	18.12	-3	-2
Other than general merchandising.....	78.3	-1.3	-7.0	64.3	-1.9	-7.4	23.98	-6	-5
Hotels (year-round) <sup>3</sup> .....	90.4	-3	-4.2	77.4	( <sup>5</sup> )	-3.9	14.64	+3	+3
Laundries <sup>3</sup> .....	97.5	-3	-6.8	83.1	+2	-5.6	17.36	+5	+1.3
Dyeing and cleaning <sup>3</sup> .....	105.0	-3	-4.8	74.3	-4.2	-8.7	19.47	-1.0	-4.0
Brokerage.....	( <sup>3</sup> )	+1.0	-13.7	( <sup>3</sup> )	+4	-20.7	34.71	-5	-8.2
Insurance.....	( <sup>3</sup> )	+2.0	( <sup>3</sup> )	( <sup>3</sup> )	-2.5	-3.3	35.70	-2.5	-5.2
Building construction.....	( <sup>3</sup> )	+2.6	-31.6	( <sup>3</sup> )	+3.6	-34.0	29.69	+9	-3.5

<sup>1</sup> Revised indexes—adjusted to 1935 Census of Manufactures.

<sup>2</sup> Does not include railroad repair shops.

<sup>3</sup> Preliminary. Source: Interstate Commerce Commission.

<sup>4</sup> Not available.

<sup>5</sup> Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this pamphlet.

<sup>6</sup> Less than 1/10 of 1 percent.

<sup>7</sup> Average weekly earnings not strictly comparable with figures published in issues of this pamphlet dated earlier than January 1938, as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

<sup>8</sup> Cash payments only; the additional value of board, room, and tips cannot be computed.

### Public Employment

For the month ending August 15 nearly 109,000 men were working on P. W. A. construction projects, a decrease of 1,000 resulting from the completion of many of the projects financed from N. I. R. A. and E. R. A. A. 1935 and 1936 funds. Projects under the new Public Works Administration Appropriation Act of 1938 are now beginning and the aggregate value of contracts awarded on this program through August 31 was \$67,697,000. Of the 109,000 at work in August, 18,000 were employed on Federal and non-Federal projects financed from N. I. R. A. funds, 88,000 on non-Federal projects financed from E. R. A. A. 1935, 1936, and 1937 funds, and 3,000 on Federal and non-Federal projects started with P. W. A. A. 1938 funds. For this same



period during which the number of men at work and the number of man-hours worked decreased, pay rolls increased \$261,000. This seeming incongruity frequently occurs when projects are being rapidly completed and high rates are paid to the skilled workers remaining on the job to finish the work. A marked gain in pay rolls on tunnel construction where the average hourly earnings were high due to the risk involved in this type of construction was also a factor in the increase in pay rolls. Monthly pay-roll disbursements on P. W. A. projects amounted to \$9,262,000.

On projects financed from regular Federal appropriations employment continued to increase, due in part to expansion in road construction work. For the month ending August 15 the maximum number of workers employed during any week was 253,000, nearly 16,000 more than during the preceding month. Gains in employment were reported on projects with the exception of the following types: Building construction, forestry, heavy engineering, and miscellaneous projects. Monthly pay rolls of \$24,478,000 were \$624,000 greater than in July.

The number working on construction projects financed by the Reconstruction Finance Corporation during the month ending August 15 was 3,000, virtually the same as in July. Pay rolls for the month amounted to \$425,000, slightly less than for the preceding month due to a decrease in the number of man-hours worked.

An important gain in employment occurred on projects operated by the Works Progress Administration, for which an increase of 97,000 was reported. In August 3,064,000 were at work on these projects and pay rolls totaled \$162,381,000. On Federal projects under The Works Program, for which reports represent activity during the month ending August 15, 117,000 were at work, a decrease of more than 184,000 compared with the figure for the month ending July 15, because of the termination of many projects on June 30. Projects under the new 1938 program were not in full operation throughout the August period. Pay rolls on Federal projects under The Works Program were \$5,794,000 in August. The number employed on work projects of the National Youth Administration in August was 221,000, an increase of 7,000 from July. The Student Aid program was not active during August.

In the regular services of the Federal Government increases in the number working occurred in the executive and judicial services and decreases in the legislative and military services. Of the 872,000 employees in the executive service in August, 117,000 were working in the District of Columbia and 755,000 outside the District. Force-account employees (employees who are on the Federal pay roll and are engaged on construction projects) were 9 percent of the total number of employees in the executive service. During the month the Civil Aero-

navitics Authority, a newly created agency, began functioning. The divisions of Air Commerce from the Department of Commerce and Air Mail from the Interstate Commerce Commission were placed under the new agency. While this transfer of workers affected certain departments, it did not show in the total employment figures for the executive service. The most marked increase in employment in August occurred in the Works Progress Administration. The Department of Agriculture was among those departments for which decreases in employment were reported.

There was a gain of 18,000 in the number of workers in the Civilian Conservation Corps in August, increasing the total number in camps to 334,000. Of this number 296,000 were enrolled workers, 5,000 reserve officers, 300 nurses, 1,500 educational advisers, and 31,000 supervisory and technical employees. August pay rolls for all groups of workers were \$14,946,000.

Employment on State-financed road projects dropped 3,000 in the month ending August 15 as compared with July and was 8,000 greater than in August 1937. Of the 197,000 working in August 1938, 27,000 were on new road construction and 170,000 on maintenance. Pay-roll disbursements for both types of road work were \$13,483,000, a gain from July of \$500,000.

A summary of Federal employment and pay-roll statistics for July and August is given in table 2.

TABLE 2.—*Summary of Federal Employment and Pay Rolls, August 1938* <sup>1</sup>

[Preliminary figures]

Class	Employment		Per-centage change	Pay rolls		Per-centage change
	August	July		August	July	
Federal services:						
Executive <sup>2</sup> .....	871, 815	867, 160	+0.5	\$132, 085, 363	\$128, 184, 159	+3.0
Judicial.....	2, 075	2, 013	+3.1	563, 538	503, 766	+11.9
Legislative.....	5, 298	5, 386	-1.6	1, 228, 571	1, 220, 708	+0.6
Military.....	341, 325	343, 700	-0.7	26, 887, 384	27, 060, 719	-0.6
Construction projects:						
Financed by P. W. A. <sup>4</sup> .....	108, 926	109, 976	-1.0	9, 262, 059	9, 000, 738	+2.9
Financed by R. F. C. <sup>5</sup> .....	2, 959	2, 997	-1.3	424, 674	447, 594	-5.1
Financed by regular Federal appropriations.....	252, 599	236, 415	+6.8	24, 478, 120	23, 854, 162	+2.6
Federal projects under The Works Program.....	117, 459	301, 923	-61.1	5, 793, 779	10, 280, 040	-43.7
Projects operated by W. P. A. ....	3, 063, 758	2, 966, 832	+3.3	162, 381, 189	151, 215, 718	+7.4
National Youth Administration: Work projects.....	221, 307	213, 972	+3.4	3, 888, 640	3, 685, 148	+5.5
Student Aid <sup>6</sup> .....						
Civilian Conservation Corps.....	334, 257	316, 227	+5.7	14, 945, 948	14, 266, 482	+4.8

<sup>1</sup> Includes data on projects financed wholly or partially from Federal funds.

<sup>2</sup> Includes force-account and supervisory and technical employees shown under other classifications to the extent of 114,852 employees and pay-roll disbursements of \$14,267,619 for August and 108,344 employees and pay-roll disbursements of \$12,740,403 for July.

<sup>3</sup> Revised.

<sup>4</sup> Data covering P. W. A. projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds and Public Works Appropriation Act of 1938 funds are included. These data are not shown under The Works Program. Includes \$7,543 wage earners and \$7,327,300 pay roll for August; 90,040 wage earners and \$7,210,860 pay roll for July, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds.

<sup>5</sup> Includes 197 employees and pay-roll disbursements of \$13,101 for August and 62 employees and pay-roll disbursements of \$5,903 for July on projects financed by the RFC Mortgage Co.

<sup>6</sup> Program not active during July and August 1938.

## DETAILED TABLES FOR JULY 1938

*Industrial and Business Employment*

MONTHLY reports on employment and pay rolls are available for the following groups: 87 manufacturing industries; 16 nonmanufacturing industries, including private building construction; and class I steam railroads. The reports for the first two of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics, and in virtually all industries the samples are large enough to be entirely representative. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and are presented in the foregoing summary.

## EMPLOYMENT, PAY ROLLS, HOURS, AND EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries in August 1938 are shown in table 3. Percentage changes from July 1938 and August 1937 are also given.

For the manufacturing industries, two series of indexes are shown. One series (the new series) has been adjusted to the 1935 Census of Manufactures and the other is a continuation of the previously published indexes which have been adjusted only to the 1933 Census of Manufactures. Electric and steam railroad repair shops have been excluded from the new series in keeping with the 1937 Census of Manufactures. This eliminates the duplication that has resulted heretofore, as steam railroad repair shop figures have always been included in the summaries released by the Interstate Commerce Commission. The percentage changes over the month and year intervals relate to the new series of indexes.

The average hours worked per week, average hourly earnings, and average weekly earnings for all manufacturing industries combined now relate to 87 industries, instead of 89 as heretofore, because of the exclusion of railroad repair shops. This exclusion also affects the averages for the durable-goods group because these industries were classified in that group. The average hours and hourly earnings for the 87 manufacturing industries combined, and for the manufacturing groups are weighted on the basis of estimated employment for the separate industries. As these estimates have been affected by the revision of the indexes, it follows that the weighted averages for August differ from the averages that would result if the former estimates of employment were used as weights. Revised averages for earlier months will be computed and made available in the near future.

The indexes and averages for the iron and steel group and the non-ferrous metal products group have been affected by the transfer of the stamped and enameled ware industry from the latter group to the former group. The indexes, hours, and hourly earnings for the knit goods industry have been affected by the fact that they are now weighted on the basis of four subdivisions (hosiery, knitted outerwear, knitted underwear, and knitted cloth) for which separate figures are now given. Tractor manufacturing establishments have been transferred from the engine-turbine-water-wheel-windmill industry to the agricultural implements industry, thereby affecting the figures for both industries.

The revised series of employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for June, July, and August 1938, where available, are presented in table 4. The June and July averages, where given, may differ in some instances from those previously published, not only because of the foregoing, but also because of revisions necessitated by the inclusion of late reports and other causes.

The average weekly earnings shown in tables 3 and 4 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As all reporting establishments do not supply man-hour data, average hours worked per week and average hourly earnings are necessarily based on data supplied by a smaller number of reporting firms. The size and composition of the reporting sample varies slightly from month to month and therefore the average hours per week, average hourly earnings, and average weekly earnings shown in tables 3 and 4 are not strictly comparable from month to month, even after revisions. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movements of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from August 1937 are computed from chain indexes based on the month-to-month percentage changes.

TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, August 1938*

## MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. New series adjusted to 1935 Census of Manufactures and not comparable to indexes published in earlier issues of pamphlet which included railroad repair shops. Comparable series available upon request]

Industry	Employment				Pay rolls				Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	Indexes, August 1938		Percentage change from—		Indexes, August 1938		Percentage change from—		Average weekly earnings <sup>1</sup>		Average hours worked per week <sup>1</sup>		Average hourly earnings <sup>1</sup>		
	Old series	New series	July 1938	August 1937	Old series	New series	July 1938	August 1937	August 1938	Percentage change from—	August 1938	Percentage change from July 1938	August 1938	Percentage change from July 1938	
All manufacturing industries.....	79.6	85.7	+4.6	-21.4	72.6	76.8	+8.8	-29.0	\$22.84	+3.9	-9.7	36.3	+4.3	Cents 62.9	-0.8
Durable goods.....	65.4	71.8	+2.1	-32.9	59.8	63.5	+8.4	-42.5	24.87	+6.0	-14.4	35.4	+6.6	70.2	-3
Nondurable goods.....	94.8	99.0	+6.6	-10.9	88.8	91.6	+8.9	-13.3	21.25	+2.2	-2.7	36.9	+2.7	57.8	-8
Durable goods															
Iron and steel and their products, not including machinery.....	74.8	79.4	+3.5	-31.4	63.4	65.3	+13.8	-46.7	24.12	+9.9	-22.3	32.4	+9.2	75.3	-1
Blast furnaces, steel works, and rolling mills.....	80.5	84.0	+2.0	-33.7	66.1	65.3	+15.0	-53.4	24.70	+12.7	-29.9	29.6	+12.0	83.5	+(?)
Bolts, nuts, washers, and rivets.....	59.5	78.2	+1.3	-31.5	56.4	65.9	+12.7	-44.2	21.63	+11.3	-18.3	31.0	+11.2	69.8	+2
Cast-iron pipe.....	56.9	63.0	+2.2	-15.8	43.0	53.6	+2.0	-19.5	20.19	-1	-4.2	34.1	-1	58.7	-3
Cutlery (not including silver and plated cutlery) and edge tools.....	69.8	74.5	+16.7	-21.6	57.4	60.9	+16.9	-32.5	20.63	+2	-13.9	34.5	+2.6	61.0	-2.2
Forgings, iron and steel.....	42.1	41.5	+7.7	-41.1	33.5	34.5	+19.4	-49.7	24.48	+11.0	-14.6	33.0	+12.0	74.1	-1.9
Hardware.....	57.1	60.6	+7.3	-35.4	58.4	57.6	+19.4	-43.7	23.06	+11.2	-11.5	35.2	+10.9	65.7	+5
Plumbers' supplies.....	81.1	73.1	+7	-13.4	57.8	58.0	+4.2	-24.9	22.52	+3.4	-12.8	34.1	+3.3	66.0	+1.2
Stamped and enameled ware.....	98.0	114.1	+8.6	-31.0	93.5	109.9	+19.5	-35.2	23.13	+10.0	-6.8	37.0	+9.3	62.7	+1.6
Steam and hot-water heating apparatus and steam fittings.....	60.4	69.0	+2.7	-20.9	50.4	55.5	+7.8	-29.6	24.27	+4.9	-10.9	35.2	+5.6	69.2	-2
Stoves.....	79.3	76.0	+11.4	-29.6	64.7	61.5	+18.1	-33.3	23.95	+6.1	-5.2	36.0	+4.7	66.6	+1.9
Structural and ornamental metalwork.....	57.7	59.8	+1.3	-29.2	55.3	51.2	+4.8	-34.7	26.94	+3.5	-7.9	36.9	+3.1	73.1	+2
Tin cans and other tinware.....	101.6	99.5	+8.9	-16.8	109.6	107.0	+13.3	-17.8	23.40	+4.1	-1.4	39.2	+2.8	59.7	+1.3
Tools (not including edge tools, machine tools, files, and saws).....	72.1	71.9	+3.2	-28.2	67.4	63.0	+9.3	-36.8	21.64	+6.0	-12.0	35.2	+7.3	61.3	-1.0
Wirework.....	95.2	106.2	-3.1	-43.4	85.7	99.8	+9.0	-45.1	22.64	+12.5	-5.1	34.0	+10.7	66.7	+1.6

<b>Machinery, not including transportation equipment.</b>	84.0	84.1	+1.4	-35.3	76.1	76.0	+4.4	-44.2	25.03	+3.0	-13.7	34.6	+3.3	72.0	-1.6
Agricultural implements (including tractors)	89.3	99.3	-1.0	-42.9	95.3	94.8	-3.4	-51.9	26.29	-2.5	(9)	34.4	-1.5	76.7	-1.6
Cash registers, adding machines, and calculating machines	120.4	135.0	-1.7	-12.0	115.8	120.5	-2.1	-18.8	28.82	-4	-7.3	35.7	-2	81.6	-2
Electrical machinery, apparatus, and supplies	74.0	74.0	+1.5	-38.9	68.4	67.7	+5.6	-46.1	25.28	+4.1	-11.7	34.2	+4.7	73.8	-5
Engines, turbines, water wheels, and windmills	93.6	82.7	+7	-22.7	88.8	90.4	+4.7	-24.8	28.13	+4.0	(9)	35.9	+3.9	78.7	+2
Foundry and machine-shop products	75.5	77.1	+1.8	-32.9	67.0	67.0	+5.1	-43.6	24.77	+3.3	-16.9	34.8	+3.4	70.9	-2
Machine tools	100.7	107.1	-3.2	-34.8	84.8	97.4	+3.4	-47.1	25.86	+6.7	-18.7	35.4	+6.3	73.2	+4
Radios and phonographs	100.5	88.9	+8.9	-50.6	79.1	75.5	+4.2	-55.0	21.20	-4.3	-8.8	35.7	-1.8	59.5	-2.6
Textile machinery and parts	60.0	57.9	+7.0	-30.3	51.2	50.6	+10.9	-43.3	22.78	+3.6	-17.0	33.9	+2.2	67.3	+1.5
Typewriters and parts	115.0	117.7	+1.9	-24.7	83.8	97.9	+7.0	-38.5	19.97	+5.0	-22.9	31.0	+5.9	68.3	-8
<b>Transportation equipment</b>	51.1	51.3	-7.6	-54.0	49.5	49.1	-3.5	-55.8	30.94	+4.4	-3.9	35.3	+4.4	64.3	-1
Aircraft	667.0	758.7	-4.5	-18.9	611.5	712.8	-3.2	-16.5	29.10	+1.4	-8	39.8	+1.2	74.1	+3
Automobiles	48.5	48.4	-8.8	-59.3	45.5	46.1	-2.4	-60.4	32.03	+7.1	-3.4	34.8	+6.9	92.4	+2.2
Cars, electric and steam-railroad	26.9	23.9	+5.0	-63.0	28.1	21.8	+7.9	-67.8	25.15	+2.7	-13.2	34.7	+4.6	72.6	-2.2
Locomotives	21.9	18.0	-10.9	-65.3	13.2	13.1	-15.0	-75.0	23.37	-4.7	-28.0	31.1	-3.1	75.2	-1.6
Shipbuilding	84.4	89.1	-7.0	-17.6	95.2	90.0	-9.9	-20.8	29.99	-3.1	-2.9	35.9	-2.9	83.6	+4
<b>Nonferrous metals and their products</b>	82.3	83.0	+4.9	-25.1	72.9	74.1	+10.6	-32.0	24.14	+5.4	-9.2	36.2	+5.7	66.6	-2
Aluminum manufactures	96.7	128.5	+5.3	-27.0	97.6	125.8	+12.8	-30.8	24.89	+7.1	-5.2	36.9	+8.2	67.5	-1.0
Brass, bronze, and copper products	85.1	89.0	+3.3	-27.1	77.4	83.4	+7.1	-33.7	25.63	+3.6	-8.9	35.9	+3.4	71.5	+1
Clocks and watches and time-recording devices	89.6	77.7	+5.6	-28.1	74.0	70.3	+17.9	-39.0	19.11	+11.7	-16.2	33.0	+11.8	57.8	-1
Jewelry	84.7	86.7	+9.4	-11.7	62.3	70.1	+14.5	-15.6	22.70	+4.7	-4.9	38.6	+6.4	57.7	-1.3
Lighting equipment	63.5	67.9	-8.1	-30.4	57.1	57.8	+16.6	-34.0	23.83	+7.9	-6.0	35.0	+7.8	68.1	-1
Silverware and plated ware	66.7	57.5	+13.4	-12.5	56.5	48.5	+27.3	-20.9	23.13	+12.3	-10.9	35.9	+12.6	64.6	+2
Smelting and refining—copper, lead, and zinc	66.9	63.1	-5	-27.4	58.4	57.9	+1.9	-36.8	25.72	+2.4	-13.1	37.6	+1.5	68.4	+9
<b>Lumber and allied products</b>	57.3	64.0	+5.4	-21.7	54.6	58.1	+19.3	-23.7	21.02	+13.2	-2.5	40.5	+10.9	52.3	+2.4
Furniture	69.2	76.0	+6.8	-22.4	58.8	62.5	+21.8	-25.2	20.43	+14.1	-4.1	39.3	+14.7	52.2	-3
<b>Lumber:</b>															
Millwork	48.0	52.8	+3.8	-16.0	48.2	45.6	+9.6	-14.3	22.79	+5.5	+2.4	41.8	+5.9	54.6	-1
Sawmills	43.5	52.4	+5.3	-22.3	42.2	50.2	+20.9	-24.9	20.90	+14.8	-3.5	40.9	+10.3	51.9	+4.5
<b>Stone, clay, and glass products</b>	57.5	66.3	+2.6	-19.9	51.5	56.5	+6.4	-27.5	22.77	+3.6	-9.5	35.9	+3.4	63.4	+3
Brick, tile, and terra cotta	41.1	49.9	+2.2	-20.8	33.6	37.2	+5.2	-28.6	19.56	+2.9	-8.0	38.3	+3.1	51.1	+3
Cement	65.1	69.9	-7	-7.5	66.1	65.4	-9	-14.2	26.06	-3	-7.8	37.8	-2	69.0	-3
Glass	78.7	78.7	+5.3	-28.1	78.5	78.6	+13.6	-35.2	23.95	+7.9	-9.1	33.6	+6.6	71.2	+1.2
Marble, granite, slate, and other products	37.2	43.3	-1.6	-16.9	31.0	32.0	-4.5	-23.5	24.37	-2.9	-6.7	35.7	-1.9	67.7	-2.1
Pottery	67.6	72.3	+3.9	-10.7	52.0	58.7	+10.5	-19.7	20.40	+6.4	-10.0	34.4	+6.3	62.9	-1
<b>Nondurable goods</b>															
<b>Textiles and their products</b>	89.9	95.1	+9.8	-12.4	77.1	80.0	+20.1	-16.0	16.84	+9.4	-4.1	34.7	+6.4	48.9	+1.5
<b>Fabrics</b>	83.9	85.2	+6.0	-13.8	74.0	73.3	+11.6	-17.5	16.50	+5.3	-4.4	36.1	+6.3	46.4	-9
Carpets and rugs	65.0	68.1	-8.4	-31.9	55.5	53.6	+20.1	-38.1	21.01	+10.8	-11.9	34.0	+11.4	61.9	-5
Cotton goods	86.5	81.3	+4.0	-15.5	75.7	68.4	+7.4	-22.9	13.67	+3.2	-9.2	35.6	+5.1	38.3	-2.0
Cotton small wares	79.2	71.8	+6.0	-17.8	74.7	64.9	+10.3	-17.7	17.09	+4.0	-1	36.7	+2.7	46.6	-2
Dyeing and finishing textiles	101.6	101.8	+5.0	-7.1	87.4	87.5	+11.7	-6.8	20.69	+6.4	+3	38.3	+7.7	53.7	-1.2
Hats, fur-felt	79.5	88.1	+10.4	-10.1	73.3	87.2	+16.4	-15.3	25.21	+5.5	-6.1	35.3	+4.8	73.1	+3.0

See footnotes at end of table.

TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, August 1938—Continued*

## MANUFACTURING—Continued

Industry	Employment				Pay rolls				Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	Indexes, August 1938		Percentage change from—		Indexes, August 1938		Percentage change from—		August 1938	Percentage change from—		August 1938	Percentage change from July 1938	August 1938	Percentage change from July 1938
	Old series	New series	July 1938	August 1937	Old series	New series	July 1938	August 1937		July 1938	August 1937				
<i>Nondurable goods—Continued</i>															
<b>Textiles and their products—Continued.</b>															
Fabrics—Continued.															
Knit goods.....	104.5	109.3	+4.5	-9.5	107.2	111.8	+13.8	-9.8	\$17.87	+8.9	-0.3	35.9	+9.0	51.5	+0.1
Hosiery.....	(9)	138.3	+4.0	-4.7	(9)	154.4	+15.1	-4.6	19.38	+10.6	-(9)	35.7	+11.2	55.5	+3
Knitted outerwear.....	(9)	74.4	+7.5	-13.7	(9)	65.2	+14.9	-17.6	16.89	+6.9	-4.3	37.1	+4.1	44.6	+1.1
Knitted underwear.....	(9)	68.4	+2.6	-19.8	(9)	57.7	+6.5	-22.6	14.12	+3.7	-3.5	34.1	+5.5	41.6	-1.2
Knitted cloth.....	(9)	150.3	+9.5	-21.3	(9)	126.1	+13.1	-20.3	18.91	+3.3	+1.3	40.4	+4.1	47.0	-1.2
Silk and rayon goods.....	61.3	61.3	+11.4	-23.6	50.6	50.2	+18.8	-23.0	16.22	+6.7	+8	36.7	+9.0	43.8	-1.8
Woolen and worsted goods.....	71.7	75.1	+9.7	-8.4	59.5	62.1	+11.8	-13.1	19.21	+1.9	-5.1	36.4	+3.0	52.9	-1.0
Wearing apparel.....	101.6	116.3	+17.6	-9.7	79.8	90.5	+37.1	-13.1	17.70	+16.6	-3.8	32.5	+7.6	53.1	+4.5
Clothing, men's.....	96.2	104.3	+16.1	-13.3	74.6	74.6	+30.1	-18.7	18.45	+12.1	-6.3	31.2	+9.5	59.0	+1.0
Clothing, women's.....	133.0	165.9	+23.2	-9.0	103.1	128.1	+49.0	-9.7	20.23	+20.8	-1.2	32.9	+5.3	54.8	+8.8
Corsets and allied garments.....	83.6	94.7	+1.6	-5.1	76.4	85.8	+4.0	-6.3	15.27	+2.3	-1.2	33.3	+4.5	46.0	-1.5
Men's furnishings.....	115.4	127.2	+5.5	-9.5	90.4	109.5	+16.5	-12.9	13.46	+10.4	-2.3	33.8	+5.0	36.0	+3.0
Millinery.....	48.7	68.2	+36.8	-7.3	37.6	59.6	+63.6	-8.9	21.98	+19.7	+1.2	34.3	+11.0	62.3	+3.2
Shirts and collars.....	110.6	117.3	+9.1	-3.0	90.1	93.4	+20.1	-11.2	12.17	+10.1	-7.8	33.9	+10.5	36.4	-1.4
Leather and its manufactures.....	88.8	92.6	+3.7	-8.1	73.3	76.9	+10.8	-12.2	19.76	+6.8	-4.5	38.4	+6.6	51.6	+3
Boots and shoes.....	92.6	94.6	+3.5	-6.3	70.5	75.1	+12.0	-10.3	18.85	+8.3	-4.7	38.4	+7.2	49.3	+4
Leather.....	78.9	77.0	+4.3	-16.1	85.3	77.5	+7.6	-17.8	24.15	+3.1	-2.2	38.7	+3.6	62.7	-3
<b>Food and kindred products.</b>	125.4	138.3	+7.5	-6.4	131.1	131.1	+2.0	-7.3	23.17	-5.1	-1.0	39.7	-3.3	58.6	-2.2
Baking.....	132.5	144.5	-4	-2.1	128.4	139.8	-2.1	-3.0	25.33	-1.7	-9	41.6	-1.5	61.5	+(9)
Beverages.....	219.5	260.0	+1	-5.2	258.1	322.0	-3	-6.1	34.51	-4	-9	40.8	-6	85.2	+3
Butter.....	90.4	110.2	-6	-3.5	75.0	94.4	-1.5	-3.3	22.84	-9	+6	48.1	-5	47.3	-4
Canning and preserving.....	243.9	251.2	+40.7	-16.2	216.7	203.8	+29.7	-26.1	14.67	-7.8	-16.0	35.1	-6.8	42.9	+(9)
Confectionery.....	69.2	71.6	+6.1	-5.5	68.6	69.3	+10.0	-8.7	18.03	+3.7	-3.5	37.0	+5.4	49.0	-1.4
Flour.....	75.5	78.1	+2	-2.5	77.6	78.9	-6	-3.1	26.53	-9	-7	44.7	-1.6	58.9	+7
Ice cream.....	84.4	93.0	-1.7	-5.9	80.4	80.3	-4	-4.8	28.92	+1.3	+1.5	48.3	+8	59.8	+9
Slaughtering and meat packing.....	85.4	94.2	-5	-1.7	95.7	104.8	-2.8	-1.0	27.93	-2.3	+7	40.6	-2.5	68.9	+3
Sugar, beet.....	64.6	74.7	+40.3	-6.4	64.4	67.7	+27.5	-12.3	23.33	-9.1	-4.8	36.2	-1.2	64.6	+9.9
Sugar refining, cane.....	75.7	90.1	+2.4	-1.8	71.0	80.1	-1.5	-13.1	23.90	-3.7	-11.1	38.8	-6.8	61.6	+2.9
Tobacco manufactures.....	60.0	64.4	+4.7	-2.9	54.8	59.1	+3.5	-4.8	16.81	-1.1	-2.0	36.7	-1.2	46.2	+4

Chewing and smoking tobacco and snuff.....	55.1	60.5	+1.1	-1.0	64.7	66.8	-2.9	-2.3	17.28	-3.9	-1.3	34.3	-3.2	50.7	-8
Cigars and cigarettes.....	60.6	64.9	+5.3	-3.2	53.6	58.1	+4.7	-5.0	16.71	-6	-1.2	37.0	-1.0	45.6	+6
Paper and printing.....	97.9	102.7	+1.2	-7.8	93.3	98.0	-2.2	-8.8	27.48	+1.0	-1.1	37.7	+2.0	78.0	-8
Boxes, paper.....	91.1	94.8	+2.6	-11.2	92.4	97.3	+4.6	-10.0	20.90	+2.0	+1.1	38.9	+3.3	54.2	-1.0
Paper and pulp.....	105.4	102.8	+1.2	-11.5	103.4	101.9	+5.2	-16.5	24.26	+3.9	-5.6	39.4	+4.1	61.7	-2
Printing and publishing:															
Book and job.....	90.0	99.0	+1.3	-7.2	82.3	86.2	+1.3	-8.1	29.01	+(?)	-1.1	37.1	+7	79.3	-1.1
Newspapers and periodicals.....	100.1	102.5	+3	-2.9	96.8	101.1	-(?)	-2.6	36.25	-4	+3	36.1	+6	97.1	-6
Chemicals and allied products, and petroleum refining.....	106.8	108.1	+3.0	-14.2	119.1	116.9	+5.2	-15.4	29.04	+2.2	-1.5	38.1	+3.2	76.3	-1.3
Petroleum refining.....	118.3	121.9	+1	-7.7	137.0	138.1	+2.1	-8.9	35.25	+2.0	-1.4	36.0	+2.4	98.6	-3
Other than petroleum refining.....	104.0	104.8	+3.8	-15.9	113.5	110.3	+6.4	-17.7	26.17	+2.4	-2.2	39.0	+3.5	67.2	-1.4
Chemicals.....	108.3	110.3	+2.3	-21.0	120.1	121.0	+5.7	-23.1	30.39	+3.3	-2.6	38.8	+3.8	73.5	-4
Cottonseed—oil, cake, and meal.....	56.7	68.4	+15.3	+6.0	51.0	57.0	+11.4	+9.6	12.83	-3.4	+2.0	46.8	-2.7	26.8	-4
Druggists' preparations.....	104.5	108.3	+1.1	-6.6	118.3	116.8	+4.9	-4.8	24.52	+3.8	+2.9	39.3	+4.8	58.9	-3.2
Explosives.....	86.7	81.9	+1.7	-9.4	96.2	93.1	+4.2	-10.7	31.26	+2.4	-8	38.6	+5.3	80.9	-2.7
Fertilizers.....	62.0	68.7	+7.4	-15.5	66.0	64.8	+2.8	-17.0	17.46	-4.3	-1.5	37.2	-1.9	47.0	-2.4
Paints and varnishes.....	114.3	110.6	-2	-13.9	113.7	111.2	+2	-16.3	27.39	+4	-2.4	39.2	+1.1	70.0	-7
Rayon and allied products.....	314.8	293.9	+8.6	-22.0	308.1	289.0	+15.8	-23.1	24.16	+6.6	-1.5	37.8	+7.5	63.9	-8
Soap.....	97.9	90.7	+3.5	-3.6	113.7	91.2	+4.7	-3.0	28.64	+1.2	+6	39.0	+1.3	73.5	-1
Rubber products.....	72.2	72.5	+5.5	-26.5	69.0	69.5	+8.4	-28.5	25.39	+2.8	-4.0	33.9	+5.0	76.0	-1.8
Rubber boots and shoes.....	52.2	54.1	+27.8	-30.4	44.9	50.9	+38.6	-36.9	21.54	+8.5	-9.3	35.8	+7.5	60.2	+9
Rubber tires and inner tubes.....	62.4	60.6	-1	-28.8	61.6	60.6	+1.0	-31.0	28.73	+1.1	-2.8	30.3	+1.6	94.1	-9
Rubber goods, other.....	109.4	113.2	+6.2	-19.0	106.9	107.7	+13.4	-20.3	22.34	+6.8	-1.6	37.7	+6.9	59.7	-5

See footnotes at end of table.



TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries, August 1938—Continued*

## NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Industry	Employment			Pay rolls			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	Index, August 1938	Percentage change from—		Index, August 1938	Percentage change from—		August 1938	Percentage change from—		August 1938	Percentage change from—		August 1938	Percentage change from—	
		July 1938	August 1937		July 1938	August 1937		July 1938	August 1937		July 1938	August 1937		July 1938	August 1937
Coal mining:													<i>Cents</i>		
Anthracite <sup>1</sup> .....	37.6	-15.7	-24.3	20.0	-0.8	-32.2	\$17.35	+17.5	-10.5	18.6	+28.9	-15.3	90.8	-0.9	-1.1
Bituminous <sup>1</sup> .....	80.1	+2.1	-17.7	64.2	+13.2	-25.6	21.38	+10.8	-9.6	23.6	+10.5	-11.5	88.8	+1.2	-1.0
Metalliferous mining.....	51.4	+3.6	-38.4	43.7	+14.8	-47.4	26.62	+10.9	-14.7	39.5	+9.4	-9.4	67.7	+1.5	-5.4
Quarrying and nonmetallic mining.....	44.6	+1.1	-18.9	39.2	+6.1	-26.3	22.17	+4.9	-9.1	41.2	+4.0	-9.2	53.7	+1.8	-1.1
Crude-petroleum producing.....	72.4	+1	-8.6	66.8	+1	-6.6	34.11	+1	+3.3	40.5	+1.3	+2.7	82.9	-1.6	-1.1
Public utilities:															
Telephone and telegraph <sup>2</sup> .....	74.8	-2	-6.3	91.3	+5	-9	30.25	+7	+5.8	38.6	+5	-1	81.3	-1	+4.7
Electric light and power and manufactured gas <sup>2</sup> .....	92.7	+4	-5.8	98.9	+7	-3.6	33.54	+2	+2.3	40.4	+2.4	+1.7	83.4	-1.7	+7
Electric-railroad and motorbus operation and maintenance <sup>2</sup> .....	69.5	-9	-5.4	69.5	+7	-5.0	32.73	+1.7	+4	45.3	+1.8	-4.5	71.4	+1	+5.4
Trade:															
Wholesale <sup>2</sup> .....	87.6	+1.0	-4.5	73.7	+2	-6.7	29.35	-8	-2.3	42.3	+1.0	-2.3	69.9	-1.5	-9
Retail <sup>2</sup> .....	80.0	-1.4	-7.2	66.8	-2.0	-7.6	21.33	-6	-5	42.7	+2	-1.3	54.6	-1.8	+2.4
General merchandising <sup>2</sup> .....	86.4	-1.7	-7.9	78.8	-2.1	-8.1	18.12	-3	-2	38.7	-1	+1.1	49.8	-1	-9
Other than general merchandising <sup>2</sup> .....	78.3	-1.3	-7.0	64.3	-1.9	-7.4	23.98	-6	-5	43.8	+2	-1.9	56.0	-1.0	+3.1
Hotels (year-round) <sup>3</sup> <sup>4</sup> .....	90.4	-3	-4.2	77.4	+ (5)	-3.9	14.64	+3	+1.3	47.1	+6	-2.8	30.7	-4	+1.5
Laundries <sup>5</sup> .....	97.5	-3	-6.8	83.1	+2	-5.6	17.36	+5	+1.3	42.5	+5	-2.6	41.1	-3	+4.1
Dyeing and cleaning <sup>6</sup> .....	105.0	-3.3	-4.8	74.3	-4.2	-8.7	19.47	-1.0	-4.0	42.0	+2	-4.1	46.8	-1.6	+1.1
Brokerage <sup>7</sup> .....	(5)	+1.0	-13.7	(5)	-4	-20.7	34.71	-5	-8.2	(5)	(5)	(5)	(5)	(5)	(5)
Insurance <sup>7</sup> .....	(5)	+ (5)	+2.0	(5)	-2.5	-3.3	35.70	-2.5	-5.2	(5)	(5)	(5)	(5)	(5)	(5)
Building construction.....	(5)	+2.6	-31.6	(5)	+3.6	-34.0	29.69	+9	-3.5	32.9	-4	-6.0	90.3	+1.3	+1.9

<sup>1</sup> Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments as all reporting firms do not furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample. Hours and earnings for all manufacturing industries combined now relate to 87 industries instead of 89 as heretofore because of exclusion of railroad repair shops. Figures for durable goods groups are also affected. See text in summary and in section headed "Employment, pay rolls, hours, and earnings."

<sup>2</sup> Less than  $\frac{1}{10}$  of 1 percent.

<sup>3</sup> Not yet computed.

<sup>4</sup> Weighted.

<sup>5</sup> Not available.

<sup>6</sup> Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this publication.

<sup>7</sup> Average weekly earnings, hourly earnings, and hours not strictly comparable with figures published in pamphlets prior to January 1933 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

<sup>8</sup> Cash payments only; the additional value of board, room, and tips cannot be computed.

TABLE 4.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

## MANUFACTURING

[Indexes are based on 3-year average, 1923-25 = 100, and are adjusted to 1935 Census of Manufactures. Not comparable to indexes published in earlier issues of pamphlet. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938
<b>All manufacturing industries.....</b>	85.7	81.9	81.6	76.8	70.6	70.8	\$22.84	\$22.04	(?)	36.3	34.7	(?)	<i>Cents</i> 62.9	<i>Cents</i> 63.5	<i>Cents</i> (?)
Durable goods.....	71.8	70.3	72.4	63.5	58.6	61.7	24.87	23.50	(?)	35.4	33.2	(?)	70.2	70.4	(?)
Nondurable goods.....	99.0	92.9	90.3	91.6	84.1	80.9	21.25	20.83	\$20.52	36.9	35.9	(?)	57.8	58.3	(?)
<i>Durable goods</i>															
<b>Iron and steel and their products, not including machinery.....</b>	79.4	76.7	77.8	65.3	57.4	59.1	24.12	21.91	(?)	32.4	29.7	(?)	75.3	75.3	(?)
Blast furnaces, steel works, and rolling mills.....	84.0	82.4	82.3	65.3	56.8	58.1	24.70	21.43	22.21	29.6	25.8	26.5	83.5	83.6	84.1
Bolts, nuts, washers, and rivets.....	78.2	77.2	77.3	65.9	58.5	61.1	21.63	19.37	20.16	31.0	27.3	28.3	69.8	70.9	71.1
Cast-iron pipe.....	63.0	61.7	63.5	53.6	52.5	51.1	20.19	20.24	19.11	34.1	34.1	32.7	58.7	59.0	57.6
Cutlery (not including silver and plated cutlery) and edge tools.....	74.5	63.9	75.4	60.9	52.1	61.5	20.63	20.59	20.51	34.5	33.6	33.6	61.0	62.5	62.8
Forgings, iron and steel.....	41.5	38.5	40.2	34.5	28.9	29.3	24.48	22.06	21.36	33.0	29.5	28.9	74.1	74.8	73.8
Hardware.....	60.6	56.5	61.3	57.6	48.3	52.4	23.06	20.77	20.77	35.2	31.8	31.8	65.7	65.2	65.3
Plumbers' supplies.....	73.1	72.5	72.5	58.0	55.7	57.6	22.52	21.83	22.55	34.1	32.9	34.1	66.0	66.2	66.0
Stamped and enameled ware.....	114.1	105.1	112.5	109.9	92.0	99.7	23.13	21.14	21.35	37.0	34.0	33.8	62.7	61.8	62.7
Steam and hot-water heating apparatus and steam fittings.....	69.0	67.1	64.9	55.5	51.5	51.0	24.27	23.18	23.79	35.2	32.9	34.1	69.2	70.3	69.8
Stoves.....	76.0	68.2	71.4	61.5	52.0	55.4	23.95	22.51	22.95	36.0	34.4	34.9	66.6	66.1	66.4
Structural and ornamental metalwork.....	59.8	59.1	58.3	51.2	48.8	46.7	26.94	25.95	25.26	36.9	35.8	34.7	73.1	72.5	72.8
Tin cans and other tinware.....	99.5	91.4	88.9	107.0	94.4	92.6	23.40	22.29	22.54	39.2	37.8	37.7	59.7	59.0	59.8
Tools (not including edge tools, machine tools, files, and saws).....	71.9	69.7	73.0	63.0	57.6	60.9	21.64	20.40	20.71	35.2	32.8	33.4	61.3	61.6	61.7
Wirework.....	106.2	109.6	115.5	99.8	91.6	99.8	22.64	19.87	20.59	34.0	30.6	31.3	66.7	65.1	65.8
<b>Machinery, not including transportation equipment.....</b>	84.1	82.9	86.1	76.0	72.8	78.4	25.03	24.84	24.68	34.6	33.5	(?)	72.0	72.4	(?)
Agricultural implements (including tractors).....	99.3	100.2	125.2	94.8	98.2	124.1	26.29	27.13	27.36	34.4	34.6	35.1	76.7	78.4	78.1
Cash registers, adding machines, and calculating machines.....	135.0	137.5	137.3	120.5	123.1	121.4	28.82	27.93	28.56	35.7	35.0	35.2	81.6	80.7	81.8
Electrical machinery, apparatus, and supplies.....	74.0	73.0	75.3	67.7	64.1	66.6	25.28	24.33	24.49	34.2	32.7	32.7	73.8	74.2	74.7
Engines, turbines, water wheels, and windmills.....	82.7	82.2	85.5	90.4	86.3	89.4	28.13	27.14	26.08	35.9	34.7	34.6	78.7	78.5	78.3

See footnotes at end of table.

TABLE 4.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued*

## MANUFACTURING—Continued

[Indexes are based on 3-year average, 1923-25=100, and are adjusted to 1935 Census of Manufactures. Not comparable to indexes published in earlier issues of pamphlet. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	August 1933	July 1933	June 1933	August 1933	July 1933	June 1933	August 1933	July 1933	June 1933	August 1933	July 1933	June 1933	August 1933	July 1933	June 1933
<i>Durable goods—Continued</i>															
<b>Machinery, not including transportation equipment—Continued</b>													<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Foundry and machine-shop products.....	77.1	75.8	77.4	67.0	63.7	65.7	\$24.77	\$23.95	\$24.30	34.8	33.6	33.9	70.9	71.0	71.4
Machine tools.....	107.1	110.6	115.8	97.4	94.2	99.0	25.86	24.26	24.31	35.4	33.3	33.4	73.2	72.8	72.7
Radio and phonographs.....	88.9	81.6	81.6	75.5	72.4	71.6	21.20	22.11	22.07	35.7	36.3	36.9	59.5	61.0	59.9
Textile machinery and parts.....	57.9	54.2	54.2	50.6	45.7	47.2	22.78	22.25	23.00	33.9	33.3	34.0	67.3	67.0	67.9
Typewriters and parts.....	117.7	115.5	115.0	97.9	91.5	93.7	19.97	19.02	19.56	31.0	29.3	30.0	64.3	65.0	65.1
<b>Transportation equipment</b>	<b>51.3</b>	<b>55.5</b>	<b>62.4</b>	<b>49.1</b>	<b>50.9</b>	<b>57.4</b>	<b>30.94</b>	<b>29.54</b>	<b>29.64</b>	<b>35.3</b>	<b>33.8</b>	<b>(?)</b>	<b>88.3</b>	<b>88.3</b>	<b>(?)</b>
Aircraft.....	758.7	794.6	813.6	712.8	736.5	764.3	29.10	28.78	29.11	39.8	39.4	39.7	74.1	74.0	73.8
Automobiles.....	48.4	53.1	61.5	46.1	47.2	54.4	32.03	29.72	29.60	34.8	32.0	32.0	92.4	93.0	92.7
Cars, electric- and steam-railroad.....	23.9	22.8	25.3	21.8	20.2	24.0	25.15	24.42	26.14	34.7	33.0	35.0	72.6	74.1	74.6
Locomotives.....	18.0	20.2	25.1	13.1	15.5	19.6	23.37	24.51	25.08	31.1	32.1	32.7	75.2	76.4	76.8
Shipbuilding.....	89.1	95.8	98.2	90.0	99.9	104.7	29.99	31.34	31.61	35.9	38.8	37.3	83.6	80.4	83.3
<b>Nonferrous metals and their products</b>	<b>83.0</b>	<b>79.1</b>	<b>79.8</b>	<b>74.1</b>	<b>67.0</b>	<b>66.3</b>	<b>24.14</b>	<b>22.93</b>	<b>(?)</b>	<b>36.2</b>	<b>34.3</b>	<b>(?)</b>	<b>66.6</b>	<b>66.8</b>	<b>(?)</b>
Aluminum manufactures.....	128.5	122.0	121.5	125.8	111.5	109.4	24.89	23.07	22.75	36.9	33.9	33.4	67.5	68.1	68.2
Brass, bronze, and copper products.....	89.0	86.1	85.7	83.4	77.9	72.5	25.63	24.74	23.14	35.9	34.7	32.6	71.5	71.4	70.9
Clocks and watches and time-recording devices.....	77.7	73.6	75.2	70.3	59.6	59.6	19.11	16.58	16.85	33.0	29.0	29.3	57.8	57.0	58.6
Jewelry.....	86.7	79.2	77.6	70.1	61.2	60.4	22.70	21.49	21.82	38.6	36.2	35.2	57.7	58.6	60.9
Lighting equipment.....	67.9	62.8	63.7	57.8	49.6	50.6	23.83	21.22	22.10	35.0	31.2	32.1	68.1	68.1	68.8
Silverware and plated ware.....	57.5	50.8	58.4	48.5	38.1	44.0	23.13	20.55	20.85	35.9	31.7	32.6	64.6	64.7	63.4
Smelting and refining—copper, lead, and zinc.....	63.1	63.5	64.5	57.9	56.8	60.4	25.72	25.09	26.14	37.6	37.1	38.4	68.4	67.7	68.2
<b>Lumber and allied products</b>	<b>64.0</b>	<b>60.7</b>	<b>60.7</b>	<b>58.1</b>	<b>48.7</b>	<b>51.2</b>	<b>21.02</b>	<b>18.64</b>	<b>19.52</b>	<b>40.5</b>	<b>36.5</b>	<b>(?)</b>	<b>52.3</b>	<b>51.1</b>	<b>(?)</b>
Furniture.....	76.0	71.2	70.8	62.5	51.3	52.4	20.43	17.80	18.42	39.3	34.2	35.0	52.2	52.2	53.1
Lumber:															
Millwork.....	52.8	50.9	49.7	45.6	41.6	40.3	22.79	21.76	21.36	41.8	39.6	39.0	54.6	55.0	54.9
Sawmills.....	52.4	49.8	50.1	50.2	41.6	45.4	20.90	18.29	19.76	40.9	37.0	38.6	51.9	50.2	52.7
<b>Stone, clay, and glass products</b>	<b>66.3</b>	<b>64.6</b>	<b>65.8</b>	<b>56.5</b>	<b>53.1</b>	<b>56.4</b>	<b>22.77</b>	<b>21.90</b>	<b>22.77</b>	<b>35.9</b>	<b>34.7</b>	<b>(?)</b>	<b>63.4</b>	<b>63.3</b>	<b>(?)</b>
Brick, tile, and terra cotta.....	49.9	48.8	48.3	37.2	35.4	36.0	19.56	18.83	19.43	38.3	37.0	37.7	51.1	51.1	51.8
Cement.....	69.9	70.3	68.1	65.4	66.0	65.1	26.06	26.13	26.62	37.8	37.8	38.9	69.0	69.0	68.4
Glass.....	78.7	74.7	79.3	78.6	69.1	77.6	23.95	22.55	23.48	33.6	31.9	33.4	71.2	70.7	70.5

Marble, granite, slate, and other products.....	43.3	44.0	43.7	32.0	33.5	33.8	24.37	24.93	25.19	35.7	36.4	37.1	67.7	68.8	67.8
Pottery.....	72.3	69.5	73.0	58.7	53.1	61.0	20.40	19.14	20.93	34.4	32.5	34.0	62.9	62.3	63.6
<i>Nondurable goods</i>															
<b>Textiles and their products.....</b>	<b>95.1</b>	<b>86.6</b>	<b>84.6</b>	<b>80.0</b>	<b>66.6</b>	<b>62.4</b>	<b>16.84</b>	<b>15.67</b>	<b>15.03</b>	<b>34.7</b>	<b>32.6</b>	<b>(*)</b>	<b>48.9</b>	<b>48.2</b>	<b>(*)</b>
Fabrics.....	85.2	80.4	77.2	73.3	65.7	61.2	16.50	15.72	15.29	36.1	33.9	(*)	46.4	46.8	(*)
Carpets and rugs.....	68.1	62.8	48.0	53.6	44.7	35.5	21.01	18.69	19.29	34.0	29.3	30.1	61.9	63.9	64.2
Cotton goods.....	81.3	78.2	76.0	68.4	63.7	58.5	13.67	13.29	12.82	35.6	34.0	31.3	38.3	39.2	41.1
Cotton small wares.....	71.8	67.7	63.3	64.9	58.8	59.9	17.09	16.57	16.82	36.7	35.6	34.7	46.6	47.3	48.4
Dyeing and finishing textiles.....	101.8	97.0	98.0	87.5	78.3	76.8	20.69	19.60	18.97	38.3	35.7	34.5	53.7	54.6	54.7
Hats, fur-felt.....	88.1	79.8	61.3	87.2	74.9	48.5	25.21	23.85	20.05	35.3	34.3	29.6	73.1	70.1	72.0
Knit goods.....	109.3	104.6	103.9	111.8	98.2	99.9	17.87	16.41	16.68	35.9	32.9	(*)	51.5	51.5	(*)
Hosiery.....	138.3	133.0	132.5	154.4	134.2	138.8	19.38	17.51	18.07	35.7	32.2	33.3	55.5	55.3	55.7
Knitted outerwear.....	74.4	69.2	68.6	65.2	56.7	57.9	16.89	15.65	16.17	37.1	35.4	34.4	44.6	43.9	46.0
Knitted underwear.....	68.4	66.6	65.7	57.7	54.2	52.7	14.12	13.58	13.38	34.1	32.4	32.0	41.6	41.6	41.7
Knitted cloth.....	150.3	137.2	134.7	126.1	111.4	99.5	18.91	17.47	15.92	40.4	38.3	33.7	47.0	47.5	48.1
Silk and rayon goods.....	61.3	55.0	53.5	50.2	42.2	40.8	16.22	15.17	15.04	36.7	33.7	33.5	43.8	44.4	44.2
Woolen and worsted goods.....	75.1	68.4	61.0	62.1	55.5	47.4	19.21	18.85	18.02	36.4	35.4	33.7	52.9	53.4	53.7
<b>Wearing apparel.....</b>	<b>116.3</b>	<b>98.9</b>	<b>99.7</b>	<b>90.5</b>	<b>66.0</b>	<b>62.6</b>	<b>17.70</b>	<b>15.50</b>	<b>14.31</b>	<b>32.5</b>	<b>30.2</b>	<b>(*)</b>	<b>53.1</b>	<b>50.8</b>	<b>(*)</b>
Clothing, men's.....	104.3	89.8	78.2	74.6	57.4	43.2	18.45	16.37	14.09	31.2	28.3	26.2	59.0	58.2	54.8
Clothing, women's.....	165.9	134.6	148.0	128.1	86.0	89.5	20.23	17.14	16.25	32.9	31.3	30.2	54.8	52.1	49.3
Corsets and allied garments.....	94.7	93.2	97.1	85.8	82.5	85.9	15.27	14.77	14.91	33.3	31.6	31.7	46.0	46.5	46.5
Men's furnishings.....	127.2	120.5	123.8	109.5	94.0	100.8	13.46	12.18	12.74	33.8	32.0	34.3	36.0	35.1	35.1
Millinery.....	68.2	49.9	60.0	59.6	36.4	44.5	21.98	18.41	18.35	34.3	30.9	28.4	62.3	60.7	63.0
Shirts and collars.....	117.3	107.5	113.4	93.4	77.8	83.1	12.17	11.14	11.22	33.9	30.9	30.8	36.4	37.4	37.8
<b>Leather and its manufactures.....</b>	<b>92.6</b>	<b>89.3</b>	<b>81.8</b>	<b>76.9</b>	<b>69.4</b>	<b>57.5</b>	<b>19.78</b>	<b>18.56</b>	<b>16.30</b>	<b>38.4</b>	<b>36.0</b>	<b>(*)</b>	<b>51.6</b>	<b>51.5</b>	<b>(*)</b>
Boots and shoes.....	94.6	91.4	82.5	75.1	67.0	52.8	18.85	17.48	14.71	38.4	35.8	30.4	49.3	49.2	48.6
Leather.....	77.0	73.9	72.2	77.5	72.1	69.2	24.15	23.44	23.11	38.7	37.4	36.8	62.7	62.8	63.0
<b>Food and kindred products.....</b>	<b>138.3</b>	<b>128.6</b>	<b>119.4</b>	<b>131.1</b>	<b>128.5</b>	<b>121.7</b>	<b>23.17</b>	<b>24.63</b>	<b>24.98</b>	<b>39.7</b>	<b>41.0</b>	<b>(*)</b>	<b>58.6</b>	<b>59.9</b>	<b>(*)</b>
Baking.....	144.5	145.0	144.2	139.8	142.8	141.9	25.33	25.79	25.76	41.6	42.3	42.3	61.5	61.2	61.3
Beverages.....	260.0	259.6	251.9	322.0	305.7	34.51	34.73	33.51	40.8	41.2	40.3	85.2	85.1	84.1	
Butter.....	110.2	110.9	110.1	94.4	95.9	94.5	22.84	23.01	23.18	48.1	47.9	48.1	47.3	47.6	48.0
Canning and preserving.....	251.2	178.6	113.9	203.8	157.2	100.7	14.67	16.06	15.98	35.1	38.2	34.9	42.9	42.9	46.7
Confectionery.....	71.6	67.5	69.7	69.3	63.1	67.9	18.03	17.47	18.21	37.0	35.4	37.4	49.0	49.6	49.0
Flour.....	78.1	77.9	75.3	78.9	79.4	75.6	26.53	27.06	26.66	44.7	45.4	44.5	58.9	59.3	59.6
Ice cream.....	93.0	94.6	91.6	80.3	80.5	77.5	28.92	28.74	28.42	48.3	48.4	47.6	59.8	59.2	60.1
Slaughtering and meat packing.....	94.2	94.7	93.5	104.8	107.9	104.7	27.93	28.63	28.19	40.6	41.6	40.7	68.9	69.1	69.0
Sugar, beet.....	74.7	53.2	47.4	67.7	53.1	51.5	23.33	25.99	27.80	36.2	36.3	40.8	64.6	73.5	70.8
Sugar refining, cane.....	90.1	88.1	90.5	80.1	81.3	81.4	23.90	24.82	24.22	38.8	41.7	39.7	61.6	59.9	61.0
<b>Tobacco manufactures.....</b>	<b>64.4</b>	<b>61.5</b>	<b>64.8</b>	<b>59.1</b>	<b>57.1</b>	<b>59.4</b>	<b>16.81</b>	<b>17.18</b>	<b>16.91</b>	<b>36.7</b>	<b>37.2</b>	<b>(*)</b>	<b>46.2</b>	<b>46.0</b>	<b>(*)</b>
Chewing and smoking tobacco and snuff.....	60.5	59.8	60.6	66.8	68.8	70.4	17.28	18.07	18.62	34.3	35.5	36.6	50.7	51.1	50.9
Cigars and cigarettes.....	64.9	61.7	65.3	58.1	55.6	58.0	16.71	16.96	16.57	37.0	37.4	37.0	45.6	45.4	45.1
<b>Paper and printing.....</b>	<b>102.7</b>	<b>101.5</b>	<b>101.9</b>	<b>98.0</b>	<b>95.9</b>	<b>96.0</b>	<b>27.48</b>	<b>27.10</b>	<b>27.04</b>	<b>37.7</b>	<b>37.0</b>	<b>(*)</b>	<b>78.0</b>	<b>78.7</b>	<b>(*)</b>
Boxes, paper.....	94.8	92.4	92.2	97.3	93.0	90.9	20.90	20.42	19.89	38.9	37.6	36.7	54.2	54.7	55.3
Paper and pulp.....	102.8	101.6	101.9	101.9	96.9	94.9	24.26	23.37	22.89	39.4	37.8	36.7	61.7	61.9	62.5
Printing and publishing:															
Book and job.....	99.0	97.7	96.6	86.2	85.0	84.0	29.01	28.96	29.02	37.1	36.9	36.5	79.3	80.0	80.6
Newspapers and periodicals.....	102.5	102.1	104.7	101.1	101.1	104.3	36.25	36.39	36.81	36.1	35.9	35.8	97.1	97.8	99.4

See footnotes at end of table.

TABLE 4.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued*

## MANUFACTURING—Continued

[Indexes are based on 3-year average, 1923-25=100, and are adjusted to 1935 Census of Manufactures. Not comparable to indexes published in earlier issues of pamphlet. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings <sup>1</sup>			Average hours worked per week <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938	August 1938	July 1938	June 1938
<i>Nondurable goods—Continued</i>															
Chemicals and allied products, and petroleum refining.....	108.1	105.0	105.2	116.9	111.1	112.8	\$29.04	\$28.48	\$28.80	38.1	36.9	(?)	Cents 76.3	Cents 77.3	Cents (?)
Petroleum refining.....	121.9	121.8	121.1	138.1	135.3	137.8	35.25	34.60	35.25	36.0	35.2	36.3	95.6	98.8	97.8
Other than petroleum refining.....	104.8	101.0	101.4	110.3	103.7	105.1	26.17	25.54	25.63	39.0	37.7	(?)	67.2	68.2	(?)
Chemicals.....	110.3	107.8	109.7	121.0	114.5	118.1	30.39	29.40	29.90	38.8	37.3	37.7	78.5	78.7	79.3
Cottonseed—oil, cake, and meal.....	68.4	59.3	57.8	57.0	51.2	48.0	12.83	13.31	12.87	46.8	48.3	48.3	26.8	26.7	26.1
Druggists' preparations.....	108.3	107.1	107.6	116.8	111.3	114.4	24.52	23.65	24.03	39.3	37.5	37.7	58.9	61.8	60.0
Explosives.....	81.9	80.5	80.2	93.1	89.4	86.4	31.26	30.63	29.30	38.6	36.8	36.4	80.9	83.2	81.5
Fertilizers.....	68.7	64.0	69.0	64.8	63.1	65.0	17.46	18.55	17.33	37.2	38.0	38.0	47.0	48.7	45.8
Paints and varnishes.....	110.6	110.8	113.0	111.2	111.0	115.6	27.39	27.38	27.79	39.2	38.8	39.9	70.0	70.7	69.7
Rayon and allied products.....	293.9	270.5	265.4	289.0	249.5	242.1	24.16	22.68	22.42	37.8	35.1	34.6	63.9	64.5	64.8
Soap.....	90.7	87.6	85.0	91.2	87.1	85.9	28.64	28.32	28.81	39.0	38.6	38.8	73.5	73.6	74.5
Rubber products.....	72.5	68.7	70.6	69.5	64.1	63.5	25.99	24.94	23.75	33.9	32.3	(?)	76.0	77.4	(?)
Rubber boots and shoes.....	54.1	42.3	53.9	50.9	36.7	45.2	21.54	20.15	19.18	35.8	34.3	32.1	60.2	58.7	59.8
Rubber tires and inner tubes.....	60.6	60.7	60.4	60.6	60.0	57.5	28.73	28.43	27.35	30.3	30.0	28.7	94.1	94.5	94.5
Rubber goods, other.....	113.2	106.6	106.3	107.7	95.0	93.4	22.34	20.81	20.49	37.7	35.3	34.5	59.7	59.9	59.7

# NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:															
Anthracite <sup>1</sup>	37.6	44.6	56.0	20.0	20.2	49.7	\$17.35	\$14.76	\$28.94	18.6	14.4	30.6	90.8	91.6	93.2
Bituminous <sup>1</sup>	80.1	78.5	80.2	64.2	56.8	57.0	21.38	19.16	18.92	23.6	21.3	21.0	88.8	88.3	87.9
Metalliferous mining	51.4	49.7	56.0	43.7	38.0	46.1	26.62	24.01	25.65	39.5	36.1	37.9	67.7	66.7	67.9
Quarrying and nonmetallic mining	44.6	44.1	43.6	39.2	37.0	37.3	22.17	21.38	21.61	41.2	39.2	40.4	53.7	54.2	53.5
Crude-petroleum producing	72.4	72.3	72.8	66.8	66.7	67.6	34.11	33.94	34.23	40.5	39.8	40.2	82.9	84.2	83.6
Public utilities:															
Telephone and telegraph <sup>6</sup>	74.8	74.9	74.8	91.3	90.9	90.9	30.25	30.19	31.08	38.6	38.4	38.4	81.3	82.7	85.5
Electric light and power and manufactured gas <sup>6</sup>	92.7	92.3	92.2	98.9	98.3	98.6	33.54	33.40	33.55	40.4	39.4	40.3	83.4	84.9	83.6
Electric-railroad and motorbus operation and maintenance <sup>6</sup>	69.5	70.1	70.4	69.5	69.0	69.7	32.73	32.19	32.37	45.3	44.5	45.0	71.4	71.3	70.9
Trade:															
Wholesale <sup>6</sup>	87.6	86.8	87.2	73.7	73.6	73.8	29.35	29.71	29.83	42.3	42.1	42.5	69.9	70.6	70.7
Retail <sup>6</sup>	80.0	81.1	83.6	66.8	68.1	69.5	21.38	21.72	21.46	42.7	42.6	42.7	54.6	55.9	55.0
General merchandising <sup>6</sup>	86.4	87.9	91.9	78.8	80.4	84.3	18.12	18.33	18.22	38.7	39.0	39.3	49.8	49.8	49.4
Other than general merchandising <sup>6</sup>	78.3	79.3	81.4	64.3	65.6	66.4	23.98	24.41	24.11	43.8	43.6	43.7	56.0	57.7	56.6
Hotels (year-round) <sup>5 6 8</sup>	90.4	90.7	92.2	77.4	77.4	79.6	14.64	14.65	14.95	47.1	46.7	46.8	30.7	31.2	31.4
Laundries <sup>5</sup>	97.5	97.8	96.6	83.1	83.0	81.8	17.36	17.24	17.20	42.5	42.3	42.4	41.1	41.1	41.0
Dyeing and cleaning <sup>5</sup>	105.0	108.6	110.8	74.3	77.5	83.3	19.47	19.85	20.93	42.0	42.0	43.3	46.8	47.6	48.6
Brokerage <sup>6 9</sup>	+1.0	+2.4	-1.3	+4	+3.1	-1.2	34.71	34.53	34.06	(?)	(?)	(?)	(?)	(?)	(?)
Insurance <sup>6 9</sup>	+(10)	+6	+3	-2.5	+1.0	+1.1	35.70	36.63	36.64	(?)	(?)	(?)	(?)	(?)	(?)
Building construction <sup>9</sup>	+2.6	+1.3	+2	+3.6	+1.8	+1.1	29.69	29.52	29.43	32.9	33.0	32.6	90.3	89.5	90.4

<sup>1</sup> Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments as all reporting firms do not furnish man-hours. The figures are not strictly comparable from month to month because of changes in size and composition of the reporting sample. Hours and earnings for all manufacturing industries combined now relate to 87 industries instead of 89 as heretofore because of exclusion of railroad repair shops. Figures for durable goods group are also affected. See text in summary and in section headed "Employment, pay rolls, hours, and earnings."

<sup>2</sup> Not yet computed.

<sup>3</sup> Revised.

<sup>4</sup> Weighted.

<sup>5</sup> Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of this publication.

<sup>6</sup> Average weekly earnings, hourly earnings, and hours not strictly comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

<sup>7</sup> Not available.

<sup>8</sup> Cash payments only; the additional value of board, room, and tips cannot be computed.

<sup>9</sup> Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

<sup>10</sup> Less than  $\frac{1}{10}$  of 1 percent.

## INDEXES OF EMPLOYMENT AND PAY ROLLS

General indexes of factory employment and pay rolls, adjusted to the 1935 Census of Manufactures, are given in table 5 for the months January 1919 to August 1938. They supersede the previously published series, which were adjusted only to 1933 census totals. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to August 1938 as shown by the adjusted indexes and by the former series of indexes.

Indexes of employment and pay rolls are given in table 6 for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for 13 nonmanufacturing industries, including 2 subgroups under retail trade, by months, from August 1937 to August 1938, inclusive.

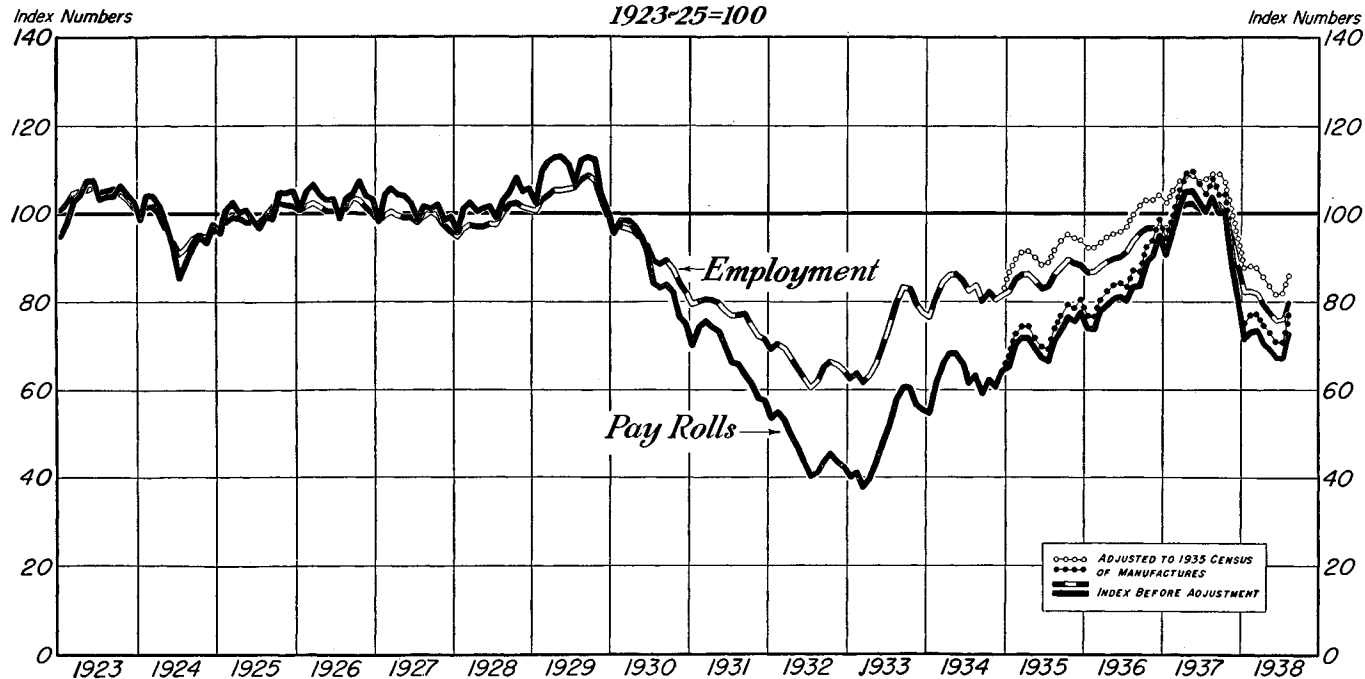
The indexes of factory employment and pay rolls are computed from returns supplied by representative manufacturing establishments in 87 manufacturing industries and relate to wage earners only. Formerly 89 manufacturing industries were covered in the Bureau's monthly survey, but two of these—electric and steam railroad repair shops—are now excluded. The base used in computing the indexes is the 3-year average 1923-25 as 100. In August 1938 reports were received from 24,864 manufacturing establishments employing 3,820,031 workers, whose weekly earnings were \$87,257,748. The employment reports received from these establishments cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 87 industries included in the monthly survey of the Bureau of Labor Statistics.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, dyeing and cleaning, and building construction cover wage earners only, but the figures for public utilities, trade, hotels, brokerage, and insurance relate to all employees, except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum producing they cover wage earners and clerical field force.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the pay period ending nearest the 15th of the month.

# EMPLOYMENT & PAY ROLLS ALL MANUFACTURING INDUSTRIES

1923-25=100



U.S. BUREAU OF LABOR STATISTICS



TABLE 5.—General Indexes of Factory Employment and Pay Rolls By Months, January 1919 to August 1938

[1923-1925=100]

Year	Employment												Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1919.....	104.5	101.2	101.7	101.9	102.6	103.9	106.6	109.3	111.3	110.9	112.1	113.9	106.7
1920.....	114.3	113.3	115.6	114.0	111.1	110.1	107.5	107.4	106.1	102.1	95.6	88.0	107.1
1921.....	79.5	81.7	82.9	82.3	82.0	81.2	79.7	81.1	83.0	83.7	83.7	82.7	82.0
1922.....	82.4	84.5	85.8	85.7	87.9	89.6	90.5	93.1	95.1	96.6	98.0	99.1	90.7
1923.....	100.2	102.4	104.6	105.1	105.2	105.7	104.6	104.8	105.3	104.0	102.8	101.1	103.8
1924.....	100.1	101.7	101.9	100.1	96.8	93.8	90.6	92.0	94.2	95.0	94.5	96.1	96.4
1925.....	96.6	98.3	99.2	99.1	98.6	98.4	98.3	100.0	101.9	102.6	102.2	101.8	99.8
1926.....	101.0	102.0	102.5	101.8	100.8	100.8	99.7	101.8	104.0	103.6	101.6	100.3	101.7
1927.....	98.6	100.2	100.9	100.3	99.6	99.7	98.6	99.9	101.2	100.2	98.0	96.5	99.5
1928.....	95.3	97.2	98.2	97.8	97.8	98.5	98.4	101.1	103.3	103.5	102.6	102.1	99.7
1929.....	101.7	104.1	105.4	106.7	106.5	106.8	107.3	109.2	110.3	109.0	104.6	100.7	106.0
1930.....	98.2	98.3	97.9	97.3	95.6	93.6	90.4	89.7	90.7	88.7	85.4	82.9	92.4
1931.....	80.1	80.8	81.2	81.2	80.6	78.8	77.7	77.9	78.3	75.5	72.7	72.0	78.1
1932.....	70.0	71.2	70.1	67.8	65.2	63.2	61.0	62.7	66.1	67.2	66.3	65.1	66.3
1933.....	63.3	64.7	62.3	63.9	66.8	71.6	76.2	81.3	85.0	84.6	81.2	79.5	73.4
1934.....	78.8	83.7	87.2	88.8	89.0	87.8	86.3	87.4	83.5	85.9	84.3	85.6	85.7
1935.....	86.6	89.6	91.1	91.3	90.0	88.3	88.9	91.7	93.8	95.2	94.5	94.0	91.3
1936.....	92.1	92.2	93.4	94.7	95.4	95.9	97.1	99.9	101.9	103.2	103.3	104.4	97.8
1937.....	102.7	105.3	107.7	108.8	108.9	107.5	108.0	109.1	109.0	107.2	101.1	94.5	105.8
1938.....	87.8	88.2	87.7	85.7	83.4	81.6	81.9	85.7	-----	-----	-----	-----	-----
Year	Pay rolls												Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1919.....	93.8	89.3	90.0	89.2	90.1	92.7	95.6	101.7	106.3	103.6	107.8	115.4	98.0
1920.....	119.1	117.4	125.4	122.3	123.0	124.4	120.0	120.6	118.9	114.4	105.0	95.5	117.2
1921.....	80.6	80.1	81.0	78.8	77.4	75.6	71.6	73.6	73.3	71.9	70.9	72.7	75.6
1922.....	69.6	72.5	74.4	73.6	77.0	80.0	80.2	84.1	87.0	88.7	92.2	94.5	81.2
1923.....	93.9	97.8	102.6	103.8	107.3	107.2	102.9	103.1	103.8	105.9	103.9	102.7	102.9
1924.....	98.9	104.5	104.5	102.0	97.6	91.9	85.3	89.1	92.4	94.6	93.1	97.6	96.0
1925.....	96.0	101.0	102.8	100.4	101.4	99.2	97.5	100.1	99.4	105.3	105.1	105.5	101.1
1926.....	101.6	105.7	107.2	104.9	103.5	103.7	99.4	103.8	105.1	108.0	104.3	103.6	104.2
1927.....	98.6	104.8	106.6	105.0	104.8	103.2	99.1	102.5	102.1	102.7	98.9	100.0	102.4
1928.....	96.6	102.0	103.5	101.3	102.3	102.7	100.2	104.6	106.2	109.5	106.2	106.9	103.5
1929.....	103.8	110.8	113.0	114.1	114.3	112.7	108.6	113.5	114.4	113.7	104.9	101.2	110.4
1930.....	96.5	99.6	99.7	98.5	96.1	92.9	85.0	83.8	84.8	82.9	77.3	75.4	89.4
1931.....	70.3	74.4	75.9	74.7	73.6	69.9	66.6	66.4	63.8	61.8	58.3	57.8	67.8
1932.....	54.0	55.4	53.6	49.6	46.8	43.7	40.4	41.4	44.0	45.8	43.6	42.4	46.7
1933.....	40.3	41.4	38.3	40.4	44.4	49.1	52.7	58.6	61.3	61.1	57.3	56.5	50.1
1934.....	56.1	62.9	67.2	69.6	69.7	67.4	62.8	65.1	60.8	64.0	62.5	65.2	64.5
1935.....	67.5	72.6	74.3	74.4	71.7	69.9	69.1	74.0	76.7	79.4	78.6	80.4	74.1
1936.....	76.7	76.6	80.3	82.3	83.9	84.1	83.4	87.1	86.9	92.5	94.0	98.8	85.6
1937.....	94.4	99.7	105.5	109.3	109.7	107.0	104.6	108.2	104.4	104.5	92.9	84.2	102.0
1938.....	75.0	76.9	77.1	74.6	72.9	70.8	70.6	76.8	-----	-----	-----	-----	-----

TABLE 6.—*Indexes of Employment and Pay Rolls in Selected Manufacturing<sup>1</sup> and Non-manufacturing<sup>2</sup> Industries, August 1937 to August 1938, Inclusive*

Industry	Employment															
	1937						1938									
	Avg. 1937	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.		
<i>Manufacturing</i>																
All industries.....	105.8	109.1	109.0	107.2	101.1	94.5	87.8	88.2	87.7	85.7	83.4	81.6	81.9	85.7		
Durable goods <sup>3</sup> .....	104.0	107.0	106.3	106.6	100.8	91.7	81.7	80.1	79.3	77.0	75.0	72.4	70.3	71.8		
Nondurable goods <sup>4</sup> .....	107.6	111.1	111.5	107.8	101.4	97.2	93.7	95.9	95.8	94.0	91.5	90.3	92.9	99.0		
<i>Nonmanufacturing</i>																
Anthracite mining.....	60.2	49.7	58.1	61.5	60.9	61.4	59.6	60.0	59.3	57.0	52.8	56.0	44.6	37.6		
Bituminous-coal mining.....	99.3	97.4	99.4	102.4	101.4	99.4	96.9	95.5	93.2	85.8	82.2	80.2	78.5	80.1		
Metalliferous mining.....	76.8	83.4	84.1	82.9	75.4	70.4	67.4	63.6	62.3	61.6	58.8	56.0	49.7	51.4		
Quarrying and nonmetallic mining.....	51.4	54.9	54.7	53.3	49.9	43.9	38.2	37.8	38.9	41.7	43.7	43.6	44.1	44.6		
Crude-petroleum producing.....	76.5	79.3	78.2	77.5	77.2	76.5	75.3	74.2	73.6	73.8	73.2	72.8	72.3	72.4		
Telephone and telegraph.....	77.8	79.8	79.8	79.6	78.9	78.0	77.8	75.7	74.9	74.8	75.0	74.8	74.9	74.8		
Electric light and power, and manufactured gas.....	95.6	98.3	98.6	98.5	97.3	96.1	93.8	92.6	92.0	91.8	91.7	92.2	92.3	92.7		
Electric-railroad and motorbus operation and maintenance <sup>5</sup> .....	73.1	73.4	73.7	73.4	73.2	72.8	72.3	71.2	70.8	71.1	70.6	70.4	70.1	69.5		
Wholesale trade.....	92.0	91.8	93.0	94.0	93.5	93.3	91.0	90.4	89.1	88.5	87.3	87.2	86.8	87.6		
Retail trade.....	89.8	86.2	90.7	92.1	91.7	100.4	84.1	82.4	83.0	88.2	83.8	83.6	81.1	80.0		
General merchandising.....	104.3	93.8	103.7	108.1	109.8	145.9	91.5	88.8	90.5	101.0	92.4	91.9	87.9	86.4		
Other than general merchandising.....	85.9	84.2	87.3	87.9	86.9	88.5	82.1	80.7	81.0	84.9	81.5	81.4	79.3	78.3		
Year-round hotels.....	94.9	94.3	95.7	96.9	96.6	94.9	94.3	94.5	93.4	93.5	93.7	92.2	90.7	90.4		
Laundries.....	100.6	104.7	104.1	99.9	97.8	97.0	96.8	95.7	94.8	95.4	96.2	96.6	97.8	97.5		
Dyeing and cleaning.....	107.5	110.3	112.8	110.5	103.5	99.2	99.8	95.6	98.5	111.8	109.9	110.8	108.6	105.0		
<i>Pay rolls</i>																
<i>Manufacturing</i>																
All industries.....	102.0	108.2	104.4	104.5	92.9	84.2	75.0	76.9	77.1	74.6	72.9	70.8	70.6	76.8		
Durable goods <sup>3</sup> .....	103.5	110.5	105.8	108.2	94.8	81.0	67.1	67.2	67.4	65.6	64.2	61.7	58.6	63.5		
Nondurable goods <sup>4</sup> .....	100.4	105.7	102.9	100.3	90.8	87.7	84.0	87.8	87.9	84.7	82.6	80.9	84.1	91.6		
<i>Nonmanufacturing</i>																
Anthracite mining.....	46.9	29.6	34.2	55.4	49.0	51.3	46.5	46.1	47.3	39.0	38.3	49.7	20.2	20.1		
Bituminous-coal mining.....	88.5	86.3	90.9	100.7	91.1	95.1	70.4	74.0	68.4	56.3	55.3	57.0	56.8	64.2		
Metalliferous mining.....	74.0	83.0	82.2	81.7	71.6	65.1	59.1	55.8	56.3	53.3	51.2	46.1	38.0	43.7		
Quarrying and nonmetallic mining.....	45.4	53.2	50.1	49.3	41.7	33.4	27.7	28.6	30.2	33.9	38.3	37.3	37.0	39.2		
Crude-petroleum producing.....	68.2	70.8	71.2	69.9	70.2	69.8	68.2	69.6	68.0	68.0	66.7	67.6	66.7	60.8		

<sup>1</sup> 3-year average, 1923-25=100—adjusted to 1935 Census of Manufactures. Comparable indexes are available on request.

<sup>2</sup> 12-month average for 1929=100. Comparable indexes are in November 1934 and subsequent issues of Employment and Pay Rolls, or in February 1935 and subsequent issues of Monthly Labor Review, except for anthracite and bituminous-coal mining, year-round hotels, laundries, and dyeing and cleaning. Indexes for these industries from January 1929 forward have been adjusted to the 1935 census and are presented in the January 1938 and subsequent issues of Employment and Pay Rolls.

<sup>3</sup> Includes: Iron and steel; machinery; transportation equipment; railroad repair shops; nonferrous metals; lumber and allied products; and stone, clay, and glass products.

<sup>4</sup> Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

<sup>5</sup> Not including electric-railroad car building and repairing. See transportation equipment and railroad repair-shop groups, manufacturing industries, table 3.

**TABLE 6.—Indexes of Employment and Pay Rolls in Selected Manufacturing and Non-manufacturing Industries, August 1937 to August 1938, Inclusive—Continued**

Industry	Pay rolls														
	1937						1938								
	Avg. 1937	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	
<i>Nonmanufacturing—Con.</i>															
Telephone and telegraph..	89.6	92.1	92.3	94.9	91.4	94.7	93.7	89.9	92.6	91.6	91.3	90.9	90.9	91.3	
Electric light and power, and manufactured gas...	99.6	102.6	104.0	105.3	103.8	102.4	98.9	98.5	98.6	97.6	97.4	98.6	98.3	98.9	
Electric-railroad and motor- bus operation and maintenance <sup>1</sup> .....	70.6	73.1	71.6	71.4	71.8	71.9	70.6	70.2	69.9	70.0	71.2	69.7	69.0	69.5	
Wholesale trade.....	76.6	79.0	78.3	79.3	78.3	77.8	75.4	75.3	74.7	74.6	75.1	73.8	73.6	73.7	
Retail trade.....	73.1	72.3	74.4	75.9	75.3	80.6	79.1	68.4	68.6	72.2	70.0	69.5	68.1	66.8	
General merchandis- ing.....	92.5	85.7	92.4	96.2	97.1	123.3	84.6	81.5	82.2	89.4	84.4	84.3	80.4	78.8	
Other than general merchandising.....	69.1	69.5	70.7	71.7	70.8	71.8	67.1	65.7	65.8	68.6	67.0	66.4	65.6	64.3	
Year-round hotels.....	80.6	80.5	82.4	84.1	84.3	82.6	81.6	83.6	80.9	80.5	80.5	79.6	77.4	77.4	
Laundries.....	83.0	83.0	86.4	83.4	81.1	81.1	80.1	79.1	73.6	80.6	80.9	81.8	83.0	83.1	
Dyeing and cleaning.....	77.6	81.3	85.7	83.6	73.7	68.6	65.5	65.2	68.2	87.2	90.7	83.3	77.5	74.3	

<sup>1</sup> Not including electric-railroad car building and repairing. See transportation equipment and railroad repair-shop groups, manufacturing industries, table 3.

#### TREND OF INDUSTRIAL AND BUSINESS EMPLOYMENT, BY STATES

A comparison of employment and pay rolls, by States and geographic divisions, in July and August 1938, is shown in table 7 for all groups combined, and for all manufacturing industries combined, based on data supplied by reporting establishments. The percentage changes shown, 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.

The totals for all manufacturing industries combined include figures for miscellaneous manufacturing industries in addition to the 87 manufacturing industries presented in table 3. The totals for all groups combined include all manufacturing industries, each of the non-manufacturing industries presented in table 3 (except building construction), and seasonal hotels.

TABLE 7.—Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1938, 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 August 1938	Percentage change from July 1938	Amount of pay roll (1 week) August 1938	Percentage change from July 1938	Number of establishments	Number on pay roll August 1938	Percentage change from July 1938	Amount of pay roll (1 week) August 1938	Percentage change from July 1938
				<i>Dollars</i>					<i>Dollars</i>	
<b>New England.....</b>	<b>13,815</b>	<b>822,921</b>	<b>+4.8</b>	<b>18,449,039</b>	<b>+5.9</b>	<b>3,627</b>	<b>557,580</b>	<b>+7.8</b>	<b>11,750,947</b>	<b>+10.3</b>
Maine.....	867	57,461	+4.6	1,111,450	+5.6	303	46,065	+6.2	856,345	+7.5
New Hampshire.....	681	42,341	+7.4	855,911	+8.8	212	33,672	+9.1	670,838	+11.0
Vermont.....	495	17,207	+4.0	370,247	+4.5	152	10,054	+4.5	210,217	+8.9
Massachusetts.....	<i>1 8,089</i>	<i>440,815</i>	<i>+5.5</i>	<i>10,227,987</i>	<i>+6.1</i>	<i>1,799</i>	<i>256,151</i>	<i>+10.8</i>	<i>5,565,147</i>	<i>+13.0</i>
Rhode Island.....	1,213	79,720	—1.1	1,643,533	+4.4	415	61,977	+5.1	1,190,782	+1.3
Connecticut.....	2,470	185,377	+4.8	4,239,911	+7.3	746	149,661	+6.4	3,257,618	+10.1
<b>Middle Atlantic.....</b>	<b>32,308</b>	<b>1,940,254</b>	<b>+1.9</b>	<b>49,585,791</b>	<b>+4.3</b>					
New York.....	20,288	884,814	+2.2	24,397,177	+3.0	<i>2 2,445</i>	<i>401,738</i>	<i>+5.8</i>	<i>10,635,632</i>	<i>+7.8</i>
New Jersey.....	4,066	331,790	+3.3	8,303,250	+3.6	<i>(4)</i>				
Pennsylvania.....	7,954	723,650	+1.0	16,885,364	+6.5	<i>2,314</i>	<i>439,798</i>	<i>+3.8</i>	<i>9,378,917</i>	<i>+9.2</i>
<b>East North Central.....</b>	<b>25,619</b>	<b>1,808,778</b>	<b>+1.1</b>	<b>46,146,762</b>	<b>+4.9</b>	<b>8,843</b>	<b>1,285,601</b>	<b>+1.0</b>	<b>32,701,107</b>	<b>+5.8</b>
Ohio.....	7,526	501,245	+2.2	12,366,748	+7.5	2,531	362,817	+3.0	8,925,249	+10.3
Indiana.....	<i>2,924</i>	<i>222,713</i>	<i>+3.9</i>	<i>5,210,984</i>	<i>+7.1</i>	<i>1,068</i>	<i>172,813</i>	<i>+6.1</i>	<i>4,094,644</i>	<i>+9.1</i>
Illinois.....	<i>5 6,649</i>	<i>535,327</i>	<i>+1.7</i>	<i>13,769,895</i>	<i>+3.7</i>	<i>2,444</i>	<i>355,077</i>	<i>+2.8</i>	<i>8,955,365</i>	<i>+5.3</i>
Michigan.....	4,101	320,086	—1.7	9,231,531	+4.0	<i>1,045</i>	<i>238,072</i>	<i>+4.9</i>	<i>6,986,116</i>	<i>+1.4</i>
Wisconsin.....	<i>6 4,419</i>	<i>229,407</i>	<i>—1.3</i>	<i>5,567,604</i>	<i>+1.7</i>	<i>7 1,555</i>	<i>156,822</i>	<i>+5.8</i>	<i>3,759,733</i>	<i>+1.3</i>
<b>West North Central.....</b>	<b>12,691</b>	<b>443,912</b>	<b>+1.5</b>	<b>10,772,817</b>	<b>+2.2</b>	<b>2,628</b>	<b>212,088</b>	<b>+3.3</b>	<b>5,114,537</b>	<b>+4.5</b>
Minnesota.....	<i>8 2,737</i>	<i>123,285</i>	<i>+1.8</i>	<i>3,208,332</i>	<i>+2.8</i>	<i>690</i>	<i>49,401</i>	<i>+4.3</i>	<i>1,253,661</i>	<i>+5.0</i>
Iowa.....	2,084	63,111	+3.3	1,476,952	+5.9	425	34,975	+6.4	843,023	+10.4
Missouri.....	2,993	161,075	+1.6	3,823,651	+1.6	863	89,508	+3.0	2,045,082	+4.1
North Dakota.....	625	5,483	+1.8	133,952	+2.2	52	692	+7.7	18,835	+1.1
South Dakota.....	472	8,109	—1.1	209,334	—1.1	36	2,417	+1.1	57,939	—6.3
Nebraska.....	1,386	28,819	+1.1	655,249	+1.5	157	10,011	+2.0	245,657	+1.6
Kansas.....	<i>9 2,394</i>	<i>54,030</i>	<i>+1.0</i>	<i>1,265,547</i>	<i>+1.3</i>	<i>475</i>	<i>25,084</i>	<i>—0.6</i>	<i>660,340</i>	<i>+1.1</i>
<b>South Atlantic.....</b>	<b>11,441</b>	<b>809,254</b>	<b>+3.0</b>	<b>15,419,904</b>	<b>+5.2</b>	<b>2,994</b>	<b>543,961</b>	<b>+4.4</b>	<b>9,473,620</b>	<b>+7.6</b>
Delaware.....	257	15,473	+9.4	323,265	+3.2	85	11,309	+13.5	230,427	+4.1
Maryland.....	<i>1,608</i>	<i>124,859</i>	<i>+4.8</i>	<i>2,900,649</i>	<i>+2.8</i>	<i>647</i>	<i>86,617</i>	<i>+2.1</i>	<i>1,949,562</i>	<i>+5.5</i>
District of Columbia.....	1,142	36,086	—2.3	965,049	—1.8	39	3,140	—1.4	105,526	—1.2
Virginia.....	2,150	109,916	+3.1	2,113,970	+6.1	472	74,012	+4.2	1,403,802	+7.0
West Virginia.....	1,271	133,575	+3.9	3,125,868	+9.0	266	48,780	+10.8	1,129,539	+17.1
North Carolina.....	1,620	172,663	+5.3	2,607,622	+8.9	678	156,222	+4.5	2,342,067	+9.4
South Carolina.....	760	66,690	+1.8	960,725	+4.3	207	58,891	+1.9	819,750	+5.4
Georgia.....	1,521	109,673	+3.3	1,681,412	+2.9	396	84,000	+4.4	1,151,661	+4.3
Florida.....	1,112	40,319	+1.8	741,344	+1.5	204	20,990	+4.8	341,277	+4.6
<b>East South Central.....</b>	<b>4,663</b>	<b>279,850</b>	<b>+3.9</b>	<b>5,098,492</b>	<b>+8.4</b>	<b>1,067</b>	<b>167,839</b>	<b>+5.4</b>	<b>2,874,530</b>	<b>+9.5</b>
Kentucky.....	1,424	79,355	+1.8	1,615,202	+8.9	284	31,075	+4.1	596,294	+7.7
Tennessee.....	1,471	99,205	+5.4	1,772,955	+9.7	380	70,995	+6.8	1,245,398	+12.9
Alabama.....	1,155	82,323	+4.7	1,416,024	+7.5	302	53,804	+5.3	863,365	+6.9
Mississippi.....	613	18,967	+1.0	294,311	+2.6	101	11,965	+1.9	169,473	+6.0
<b>West South Central.....</b>	<b>5,939</b>	<b>226,772</b>	<b>+7.7</b>	<b>5,118,519</b>	<b>+9.9</b>	<b>1,383</b>	<b>109,434</b>	<b>+8.8</b>	<b>2,379,871</b>	<b>+1.4</b>
Arkansas.....	<i>11 1,115</i>	<i>30,839</i>	<i>+2.3</i>	<i>542,720</i>	<i>+3.8</i>	<i>306</i>	<i>18,775</i>	<i>+2.3</i>	<i>310,134</i>	<i>+3.5</i>
Louisiana.....	1,080	55,331	+1.7	1,109,196	+1.2	244	30,144	+1.3	579,603	+2.3
Oklahoma.....	1,453	43,776	—4.4	1,089,660	+1.1	149	11,702	—2.2	275,977	+2.1
Texas.....	<i>2,291</i>	<i>96,826</i>	<i>+1.1</i>	<i>2,374,943</i>	<i>+12.1</i>	<i>684</i>	<i>48,813</i>	<i>+1.1</i>	<i>1,214,157</i>	<i>+4.4</i>

See footnotes at end of table.

**TABLE 7.—Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1938, by Geographic Divisions and by States—Continued**

Geographic division and State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll August 1938	Percentage change from July 1938	Amount of pay roll (1 week) August 1938	Percentage change from July 1938	Number of establishments	Number on pay roll August 1938	Percentage change from July 1938	Amount of pay roll (1 week) August 1938	Percentage change from July 1938
				<i>Dollars</i>					<i>Dollars</i>	
<b>Mountain</b> .....	4,381	124,185	+1.9	3,083,925	+6.7	582	38,953	+0.3	944,832	+4.6
Montana.....	645	14,610	+4.5	424,273	+11.0	78	4,548	+8.0	122,555	+20.9
Idaho.....	545	10,703	-2.4	273,274	+1.2	63	3,587	-7.1	93,463	-2.4
Wyoming.....	341	8,853	+2.2	244,634	+9.9	42	1,836	+5.7	59,046	+8.5
Colorado.....	1,315	43,294	+1.1	1,036,639	+3.5	200	14,581	+1.7	369,238	+4.6
New Mexico.....	293	6,807	+4	144,083	+4.0	31	1,018	-4.4	18,754	-1.3
Arizona.....	452	13,270	+3	357,720	+11.6	43	2,900	+10.1	72,932	+18.3
Utah.....	613	23,452	+5.2	508,798	+9.3	108	9,783	-5.2	189,284	-5.4
Nevada.....	177	3,196	+9	94,504	+6.0	17	700	+9	19,560	+6.8
<b>Pacific</b> .....	10,490	466,520	+5.1	13,043,508	+7.0	2,639	250,405	+10.2	6,654,948	+14.2
Washington.....	2,876	90,159	+2	2,392,114	+8.1	551	48,607	+9	1,271,702	+15.5
Oregon.....	1,417	51,112	+4.9	1,344,444	+11.0	302	30,072	+8.1	783,590	+21.1
California.....	13,619	325,249	+6.5	9,306,950	+6.2	1,786	171,726	+13.5	4,599,656	+12.7

<sup>1</sup> Includes banks and trust companies, construction, municipal, agricultural, and office employment, amusement and recreation, professional services, and trucking and handling.

<sup>2</sup> Includes laundering and cleaning, and water, light and power.

<sup>3</sup> Includes laundries.

<sup>4</sup> Weighted percentage change.

<sup>5</sup> Includes automobile and miscellaneous services, restaurants, and building and contracting.

<sup>6</sup> Includes construction but not public works.

<sup>7</sup> Does not include logging.

<sup>8</sup> Includes banks, real estate, pipe-line transportation, trucking and transfer, railroads (other than repair shops), motor transportation (other than operation and maintenance), water transportation, hospitals (clinics), personal, business, mechanical repair, and miscellaneous services, and building construction.

<sup>9</sup> Includes financial institutions, miscellaneous services, and restaurants.

<sup>10</sup> Weighted percentage change including hired farm labor.

<sup>11</sup> Includes automobile dealers and garages, and sand, gravel and building stone.

<sup>12</sup> Less than  $\frac{1}{10}$  of 1 percent.

<sup>13</sup> Includes banks, insurance, and office employment.

## INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in July and August 1938 is made in table 8 for 13 metropolitan areas which had a population of 500,000 or over in 1930. Cities within these areas, but having a population of 100,000 or over, are not included, as data concerning them are tabulated separately and are available on request.

Footnotes to the table indicate which cities are excluded. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and non-manufacturing industries presented in table 3 with the exception of building construction, and include also miscellaneous industries.

**TABLE 8.—Comparison of Employment and Pay Rolls in Identical Establishments in July and August 1938, by Principal Metropolitan Areas**

Metropolitan area	Number of establishments	Number on pay roll, August	Percentage change from July	Amount of pay roll (1 week) August	Percentage change from July
New York <sup>1</sup> .....	14, 414	572, 538	+2.9	\$15, 408, 800	+3.0
Chicago <sup>2</sup> .....	4, 527	411, 901	+ .7	11, 280, 913	+2.5
Philadelphia <sup>3</sup> .....	2, 091	182, 834	+1.7	4, 895, 106	+2.3
Detroit.....	1, 769	179, 140	-1.7	5, 775, 403	+3.4
Los Angeles <sup>4</sup> .....	3, 003	146, 261	+ .1	4, 239, 781	+ .4
Cleveland.....	1, 753	11, 805	+2.2	2, 836, 351	+6.6
St. Louis.....	1, 547	119, 305	+1.2	2, 909, 611	+2.5
Baltimore.....	1, 186	95, 540	+1.2	2, 208, 140	+2.9
Boston <sup>5</sup> .....	1, 578	103, 619	+2.8	2, 822, 142	+2.9
Pittsburgh.....	1, 144	156, 248	+1.4	3, 845, 406	+10.1
San Francisco <sup>6</sup> .....	1, 712	83, 865	+2.1	2, 502, 010	+5.0
Buffalo.....	875	64, 035	+ .7	1, 776, 304	+4.5
Milwaukee.....	1, 168	90, 756	-1.3	2, 411, 900	+1.9

<sup>1</sup> Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., nor Yonkers, N. Y.

<sup>2</sup> Does not include Gary, Ind.

<sup>3</sup> Does not include Camden, N. J.

<sup>4</sup> Does not include Long Beach, Calif.

<sup>5</sup> Figures relate to city of Boston only.

<sup>6</sup> Does not include Oakland, Calif.

### *Public Employment*

Employment created by the Federal Government includes employment in the regular agencies of the Government, employment on the various construction programs wholly or partially financed by Federal funds, and employment on relief-work projects.

#### **EXECUTIVE SERVICE OF THE FEDERAL GOVERNMENT**

Statistics of employment and pay rolls for the executive service of the Federal Government in July and August 1938 are given in table 9.

**TABLE 9.—Employment and Pay Rolls for the Executive Service of the U. S. Government, July and August 1938 <sup>1</sup>**

[Subject to revision]

Item	Employment		Per-centage change	Pay rolls		Per-centage change
	August	July <sup>2</sup>		August	July <sup>2</sup>	
Entire service:						
Total.....	871, 815	867, 160	+0.5	\$132, 085, 363	\$128, 184, 159	+3.0
Regular appropriation.....	724, 608	730, 752	— .8	113, 420, 335	111, 611, 826	+1.6
Emergency appropriation.....	65, 285	61, 120	+6.8	8, 776, 283	8, 157, 811	+7.6
Force-account (regular and emer- gency).....	81, 922	75, 288	+8.8	9, 888, 745	8, 414, 522	+17.5
Inside the District of Columbia:						
Total.....	116, 963	116, 812	+ .1	20, 935, 168	20, 388, 232	+2.7
Regular appropriation.....	100, 279	100, 175	+ .1	18, 260, 106	17, 874, 909	+2.2
Emergency appropriation.....	12, 188	11, 980	+1.7	1, 902, 096	1, 816, 907	+4.7
Force-account (regular and emer- gency).....	4, 496	4, 657	—3.5	772, 966	696, 416	+11.0
Outside the District of Columbia:						
Total.....	754, 852	750, 348	+ .6	111, 150, 195	107, 795, 927	+3.1
Regular appropriation.....	624, 329	630, 577	—1.0	95, 160, 229	93, 736, 917	+1.5
Emergency appropriation.....	53, 097	49, 140	+8.1	6, 874, 187	6, 340, 904	+8.4
Force-account (regular and emer- gency).....	77, 426	70, 631	+9.6	9, 115, 779	7, 718, 106	+18.1

<sup>1</sup> Data include number of employees receiving pay during the last pay period of the month.

<sup>2</sup> Revised.

### CONSTRUCTION PROJECTS FINANCED BY THE PUBLIC WORKS ADMINISTRATION

Details concerning employment, pay rolls, and man-hours worked during August on construction projects financed by Public Works Administration funds are given in table 10, by type of project.

TABLE 10.—*Employment and Pay Rolls on Projects Financed From Public Works Administration Funds, August 1938*<sup>1</sup>

[Subject to revision]

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed <sup>2</sup>	Weekly average				
Federal projects financed from National Industrial Recovery Act funds						
All projects.....	3 9,742	9,026	\$767,466	1,063,341	\$0.722	\$675,431
Building construction.....	1,082	853	113,803	98,448	1.156	111,530
Naval vessels.....	232	207	30,224	34,362	.880	121,241
Public roads <sup>4</sup> .....	(5)	5,528	341,482	571,712	.597	320,000
Reclamation.....	1,739	1,530	204,862	250,007	.819	42,944
River, harbor, and flood control.....	1,015	772	57,526	90,895	.633	76,884
Water and sewerage.....	133	123	17,290	15,702	1.101	2,832
Miscellaneous.....	13	13	2,279	2,215	1.029	0
Federal projects financed from Public Works Administration Act, 1938 funds						
All projects.....	2,767	2,300	\$193,078	254,339	\$0.759	\$392,262
Building construction.....	1,607	1,270	114,020	144,332	.790	337,292
Water and sewerage.....	7	7	632	838	.754	1,955
Professional, technical, and clerical.....	624	589	38,024	53,087	.716	10,214
Miscellaneous.....	529	434	40,402	56,082	.720	42,801
Non-Federal projects financed from National Industrial Recovery Act funds						
All projects <sup>5</sup> .....	8,186	7,038	\$941,754	806,492	\$1.168	\$1,592,540
Building construction <sup>6</sup> .....	3,639	3,247	544,616	375,979	1.449	519,383
Railroad construction.....	32	21	310	626	.495	0
Streets and roads.....	657	555	41,192	56,014	.735	112,871
Water and sewerage.....	2,626	2,188	264,826	240,192	1.103	695,846
Miscellaneous.....	1,232	1,027	90,810	133,681	.679	264,440
Non-Federal projects financed from Emergency Relief Appropriation Act, 1935, 1936, and 1937 funds <sup>7</sup>						
All projects <sup>8</sup> .....	87,543	73,148	\$7,327,300	8,663,102	\$0.846	\$13,043,243
Building construction <sup>8</sup> .....	58,138	48,448	5,135,083	5,598,664	.917	8,952,639
Electricification.....	1,047	878	82,335	115,038	.716	547,280
Heavy engineering.....	5,615	4,666	524,206	628,303	.837	1,186,118
Reclamation.....	871	767	88,981	110,653	.804	114,999
River, harbor, and flood control.....	424	385	36,449	58,473	.623	29,457
Streets and roads.....	9,935	8,184	512,190	961,011	.533	834,108
Water and sewerage.....	11,393	9,713	938,981	1,177,319	.798	1,222,516
Miscellaneous.....	120	107	9,075	15,641	.580	156,126
Non-Federal projects financed from Public Works Administration Act, 1938 funds						
All projects.....	688	589	\$32,461	54,149	\$0.599	\$44,770
Building construction.....	351	304	15,752	17,624	.894	9,939
Heavy engineering.....	4	4	180	200	.900	0
Streets and roads.....	220	190	11,722	30,307	.387	29,959
Water and sewerage.....	113	91	4,807	6,018	.799	4,872

<sup>1</sup> Data are for the month ending on the 15th.

<sup>2</sup> Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

<sup>3</sup> Includes weekly average for public roads.

<sup>4</sup> Under the jurisdiction of the Bureau of Public Roads.

<sup>5</sup> Not available; weekly average included in total for all projects.

<sup>6</sup> Includes data for workers engaged in construction of underground tunnel who, because of the additional risk involved, were paid at rates higher than those usually paid for building construction.

<sup>7</sup> These data are also included in separate tables covering projects financed by The Works Program.

<sup>8</sup> Includes a maximum of 1,607 and an average of 1,368 employees working on low-cost housing projects financed from E. R. A. A. 1935 funds who were paid \$170,739 for 173,559 man-hours of labor. Material orders in the amount of \$91,225 were placed for these projects. These data are also included in separate tables covering projects financed from The Works Program.



Construction projects financed by the Public Works Administration are those projects authorized by title II of the National Industrial Recovery Act of June 16, 1933. This program of public works was extended to June 30, 1937, by the Emergency Relief Appropriation Act of 1935 and title II of the First Deficiency Appropriation Act of 1936. The First Deficiency Appropriation Act of 1936, cited as the Emergency Relief Appropriation Act of 1936, reappropriated unobligated funds originally made available under the Emergency Relief Appropriation Act of 1935 and authorized the use of \$300,000,000 from funds on hand or received from the sale of securities. The Public Works Administration was continued until July 1, 1939, by the Public Works Administration Extension Act of 1937, and the Public Works Administration Appropriation Act of 1938 further continued the program to June 30, 1941.

Federal construction projects for which data are included in table 10 are financed by allotments made by the Public Works Administration to the various agencies and departments of the Federal Government from funds provided under the National Industrial Recovery Act. The major portion of the low-cost housing program now under way, however, is financed by funds provided under the Emergency Relief Appropriation Act of 1935. Federal construction projects are also financed by allotments from funds provided under the Public Works Administration Appropriation Act of 1938. 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 from funds available under either the National Industrial Recovery Act, the Emergency Relief Appropriation Act of 1935, the First Deficiency Appropriation Act of 1936, the Public Works Administration Extension Act of 1937, or the Public Works Administration Appropriation Act of 1938. Most of the allotments have been made to the States and their political subdivisions, but occasionally allotments have been made to commercial firms. In financing projects for the States or their political subdivisions from funds appropriated under the National Industrial Recovery Act, the Public Works Administration makes a direct grant of not more than 30 percent of the total labor and material cost. When funds provided under the Emergency Relief Appropriation Act of 1935, the First Deficiency Appropriation Act of 1936, the Public Works Administration Extension Act of 1937, or the Public Works Administration Appropriation Act of 1938 are used to finance a non-Federal project as much as 45 percent of the total cost may be furnished in the form of a grant. The remaining 55 percent or more of the cost is financed by the recipient. When circumstances justify such action, the Public Works Administration may provide the grantee with the additional

funds by means of a loan. Allotments to commercial enterprises are made only as loans. All loans made by the Public Works Administration carry interest charges and have a definite date of maturity. Collateral posted with the Public Works Administration to secure loans may be offered for sale to the public. In this way a revolving fund is provided which enlarges the scope of the activities of the Public Works Administration.

Commercial loans have been made, for the most part, to railroads. 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.

### THE WORKS PROGRAM

By authority of Public Resolution No. 11, Seventy-fourth Congress, approved April 8, 1935, the President, in a series of Executive orders, inaugurated a broad program of work to be carried out by 61 units of the Federal Government. The Works Program was continued by title II of the First Deficiency Appropriation Act of 1936, cited as the Emergency Relief Appropriation Act of 1936, and was further continued by the Emergency Relief Appropriation Act of 1937. The Emergency Relief Appropriation Act of 1938 extended this program to June 30, 1939. Employment created by this program includes employment on Federal projects and employment on projects operated by the Works Progress Administration. Federal projects are those conducted by Federal agencies which have received allotments from The Works Program fund. Projects operated by the Works Progress Administration are those projects conducted under the supervision of the Works Progress Administration with the cooperation of States, cities, or counties.

A record of employment, pay rolls, and man-hours worked on projects financed by The Works Program in August is shown in table 11, by type of project.

**TABLE 11.—Employment and Pay Rolls on Projects Financed by The Works Program, August 1938 <sup>1</sup>**

[Subject to revision]

Type of project	Wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum number employed	Weekly average				
	Federal projects					
All projects.....	2 117, 459	106, 295	\$5, 793, 779	12, 093, 231	\$0. 479	\$1, 649, 359
Building construction.....	40, 760	36, 860	1, 933, 873	3, 729, 767	. 518	454, 424
Electrification.....	305	245	16, 397	41, 504	. 395	49, 102
Forestry <sup>3</sup> .....	10, 481	8, 757	456, 352	1, 007, 148	. 453	33, 218
Grade-crossing elimination <sup>4</sup> .....	4, 442	3, 590	260, 273	411, 159	. 633	295, 025
Hydroelectric power plants <sup>5</sup> .....	2, 419	2, 022	76, 390	274, 700	. 278	18, 426
Plant, crop, and livestock conservation <sup>3</sup> .....	16, 064	14, 896	836, 610	2, 007, 257	. 417	69, 851
Professional, technical, and clerical.....	3, 973	3, 875	233, 687	382, 184	. 611	15, 214
Public roads <sup>4</sup> .....	2, 609	2, 092	143, 949	243, 772	. 591	135, 962
Reclamation.....	30, 217	28, 675	1, 633, 890	3, 461, 766	. 472	415, 029
River, harbor, and flood control.....	2, 242	1, 926	139, 561	239, 189	. 583	93, 106
Streets and roads.....	2, 362	2, 068	48, 609	202, 236	. 240	50, 465
Water and sewerage.....	636	592	9, 363	42, 284	. 221	10, 551
Miscellaneous <sup>6</sup> .....	949	697	4, 825	50, 265	. 096	8, 986
	P. W. A. projects financed from Emergency Relief Appropriation Act funds of 1935, 1936, and 1937 <sup>7</sup>					
All projects.....	2 87, 543	73, 148	\$7, 327, 300	8, 663, 102	\$0. 846	\$13, 043, 243
Building construction.....	58, 138	48, 448	5, 135, 083	5, 598, 664	. 917	8, 952, 639
Electrification.....	1, 047	878	82, 335	115, 038	. 716	547, 280
Heavy engineering.....	5, 615	4, 666	524, 206	626, 303	. 837	1, 186, 118
Reclamation.....	871	767	88, 981	110, 653	. 804	114, 999
River, harbor, and flood control.....	424	385	36, 449	58, 473	. 623	29, 457
Streets and roads.....	9, 935	8, 184	512, 190	961, 011	. 533	834, 108
Water and sewerage.....	11, 393	9, 713	938, 981	1, 177, 319	. 798	1, 222, 516
Miscellaneous.....	120	107	9, 075	15, 641	. 580	156, 126
	Projects operated by Works Progress Administration <sup>8</sup>					
All projects.....	2 3, 063, 758		\$162, 381, 189	322, 210, 535	\$0. 504	(10)

<sup>1</sup> Unless otherwise noted data are for the month ending on the 15th.

<sup>2</sup> Maximum number employed during any 1 week of the month by each contractor and Government agency doing force-account work.

<sup>3</sup> The data for the Bureau of Entomology and Plant Quarantine, under plant, crop, and livestock conservation, and the Bureau of Forest Service, under forestry, are for a calendar month.

<sup>4</sup> These data are for projects under the jurisdiction of the Bureau of Public Roads.

<sup>5</sup> These data are projects under construction in Puerto Rico.

<sup>6</sup> Includes employees working on sewing projects in Puerto Rico, on which projects the rate per hour is very low.

<sup>7</sup> Includes data for 85,936 employees working on non-Federal projects and 1,607 employees working on low-cost housing projects. These data are included in separate tables covering projects under the jurisdiction of the Public Works Administration.

<sup>8</sup> Data are for the calendar month. Not available by type of project.

<sup>9</sup> Represents number of names on pay roll for week ending August 27, 1938.

<sup>10</sup> Data on a monthly basis are not available.

Table 12 shows the employment, pay rolls, and man-hours worked on work projects of the National Youth Administration from the beginning of the program in January 1936 to August 1938, inclusive. Similar data for Student Aid are shown from September 1935, the starting date, to August 1938, inclusive.

**TABLE 12.—Employment and Pay Rolls, National Youth Administration Projects Financed by The Works Program, From Beginning of Program Through August 1938 <sup>1</sup>**

[Subject to revision]

Year and month	Number of persons employed	Pay-roll disbursements	Number of man-hours worked	Average earnings per hour	Value of material orders placed
<b>Work projects</b>					
January 1936 to August 1938, inclusive.....	-----	\$86,192,640	231,653,713	\$0.372	<sup>2</sup> \$7,316,288
January to December 1936.....	-----	28,883,589	75,827,799	.381	-----
January to December 1937.....	-----	32,601,360	87,092,351	.374	-----
January 1938.....	144,797	2,549,914	6,896,668	.370	-----
February 1938.....	151,406	2,667,226	7,288,377	.366	-----
March 1938.....	154,567	2,751,797	7,610,360	.362	-----
April 1938.....	158,082	2,760,533	7,673,809	.360	-----
May 1938.....	172,134	2,967,134	8,286,913	.358	-----
June 1938.....	202,184	3,437,299	9,519,163	.361	-----
July 1938.....	213,972	3,685,148	10,332,962	.357	-----
August 1938.....	221,307	3,888,640	11,125,311	.350	-----
<b>Student Aid</b>					
September 1935 to August 1938, inclusive.....	-----	\$69,011,180	231,812,693	\$0.298	( <sup>3</sup> )
September to December 1935.....	-----	6,363,503	19,612,976	.324	-----
January to December 1936.....	-----	25,888,559	85,424,616	.303	-----
January to December 1937.....	-----	24,188,039	83,028,847	.291	-----
January 1938.....	307,544	2,001,786	6,980,595	.287	-----
February 1938.....	319,707	2,162,506	7,584,382	.285	-----
March 1938.....	328,037	2,217,742	7,781,022	.285	-----
April 1938.....	333,902	2,256,566	7,920,942	.285	-----
May 1938.....	326,644	2,393,532	8,355,521	.286	-----
June 1938.....	217,447	1,538,947	5,123,792	.300	-----
July 1938 <sup>4</sup> .....	-----	-----	-----	-----	-----
August 1938 <sup>4</sup> .....	-----	-----	-----	-----	-----

<sup>1</sup> Data are for a calendar month.

<sup>2</sup> Data on a monthly basis are not available. This total represents expenditures through March 31, 1938, and includes rentals and services and some sponsors' contributions.

<sup>3</sup> No expenditures for materials on this type of project.

<sup>4</sup> Student Aid program was not active.

### CIVIL CONSERVATION CORPS

The Civilian Conservation Corps was created by an act of Congress approved June 28, 1937, and succeeded the Emergency Conservation Work which had been created in April 1933.

Employment and pay-roll data for the Civilian Conservation Corps are collected by the Bureau of Labor Statistics from the War Department, the Department of Agriculture, the Department of Commerce, and the Department of the Interior. The monthly pay of the enrolled personnel is \$30 per month. Assistant leaders, not to exceed 10 percent of the total number of enrollees, may receive up to \$36 per month, and leaders, not to exceed 6 percent, may receive up to \$45 per month.

Employment and pay rolls in the Civilian Conservation Corps in July and August 1938 are presented in table 13.

**TABLE 13.—Employment and Pay Rolls in the Civilian Conservation Corps, July and August 1938 <sup>1</sup>**

[Subject to revision]

Group	Number of employees		Amount of pay rolls	
	August	July	August	July
All groups.....	334, 257	316, 227	\$14, 945, 048	\$14, 266, 482
Enrolled personnel <sup>2</sup> .....	296, 222	278, 086	9, 249, 228	8, 649, 379
Reserve officers.....	5, 105	5, 085	1, 317, 846	1, 291, 222
Nurses <sup>3</sup> .....	278	265	29, 069	28, 072
Educational advisers <sup>3</sup> .....	1, 570	1, 568	259, 976	264, 169
Supervisory and technical <sup>3</sup> .....	31, 082	31, 223	4, 089, 889	4, 033, 640

<sup>1</sup> Data on number of employees refer to employment on last day of month. Amount of pay rolls are for the entire month.

<sup>2</sup> August data include 3,771 enrollees and pay roll of \$87,718 outside continental United States; in July the corresponding figures were 3,921 enrollees and \$88,636.

<sup>3</sup> Included in executive service, table 9.

### CONSTRUCTION PROJECTS FINANCED BY RECONSTRUCTION FINANCE CORPORATION

Statistics of employment, pay rolls, and man-hours worked on construction projects financed by the Reconstruction Finance Corporation in August are presented in table 14, by type of project.

**TABLE 14.—Employment and Pay Rolls on Projects Financed by the Reconstruction Finance Corporation, by Type of Project, August 1938 <sup>1</sup>**

[Subject to revision]

Type of project	Maximum number of wage earners <sup>2</sup>	Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
All projects.....	2, 950	\$424, 674	475, 935	\$0. 892	\$392, 789
Building construction <sup>3</sup> .....	319	24, 334	26, 924	. 904	56, 944
Water and sewerage.....	2, 532	394, 017	437, 614	. 900	335, 845
Miscellaneous.....	108	6, 323	11, 397	. 555	-----

<sup>1</sup> Data are for the month ending on the 15th.

<sup>2</sup> Maximum number employed during any 1 week of the month by each contractor.

<sup>3</sup> Includes 197 employees; pay-roll disbursements of \$13,101; 10,477 man-hours worked; and material orders placed of \$41,058 on projects financed by the RFC Mortgage Co.

# CONSTRUCTION PROJECTS FINANCED FROM REGULAR FEDERAL APPROPRIATIONS

When a construction contract is awarded or force-account work is started by a department or agency 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. Blanks are then mailed by the Bureau to the contractor or Government agency doing the work. These reports are 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 were placed during the month.

Data concerning employment, pay rolls, and man-hours worked on construction projects financed from regular Federal appropriations during August are given in table 15, by type of project.

**TABLE 15.—Employment and Pay Rolls on Construction Projects Financed From Regular Federal Appropriations, by Type of Project, August 1938 <sup>1</sup>**

[Subject to revision]

Type of project	Number of wage earners		Monthly pay-roll disbursements	Number of man-hours worked during month	Average earnings per hour	Value of material orders placed during month
	Maximum <sup>2</sup> number employed	Weekly average				
All projects.....	<sup>3</sup> 252, 599	238, 950	\$24, 478, 120	34, 219, 034	\$0. 715	\$33, 856, 178
Building construction.....	16, 590	13, 601	1, 498, 717	1, 540, 624	. 973	2, 783, 488
Electrification:						
Rural Electrification Administration projects <sup>4</sup> .....	6, 286	5, 168	387, 547	705, 282	. 549	2, 088, 721
Other than Rural Electrification Administration projects.....	217	143	12, 775	16, 117	. 793	10, 162
Forestry.....	76	70	5, 618	11, 551	. 486	1, 682
Heavy engineering.....	57	53	5, 737	6, 554	. 875	16, 725
Public roads <sup>5</sup> .....	( <sup>6</sup> )	107, 624	8, 308, 687	13, 880, 940	. 604	13, 847, 812
Reclamation.....	17, 057	16, 238	2, 102, 870	2, 491, 669	. 844	2, 748, 144
River, harbor, and flood control:						
Dredging, dikes, revetments, etc.....	42, 854	36, 963	3, 973, 887	5, 930, 368	. 670	3, 433, 027
Locks and dams.....	11, 567	10, 865	1, 236, 866	1, 753, 336	. 705	1, 577, 491
Ship construction:						
Naval vessels.....	43, 295	41, 977	6, 476, 063	7, 153, 622	. 905	5, 742, 857
Other than naval vessels.....	2, 040	1, 844	187, 177	230, 269	. 813	997, 521
Streets and roads.....	3, 383	3, 049	192, 139	351, 769	. 546	492, 479
Water and sewerage.....	239	202	13, 221	20, 365	. 649	31, 230
Miscellaneous.....	1, 314	1, 153	76, 816	126, 568	. 607	84, 839

<sup>1</sup> Data are for the month ending on the 15th.

<sup>2</sup> Maximum number employed during any 1 week of the month by each contractor, and Government agency doing force-account work.

<sup>3</sup> Includes weekly average for public-roads projects.

<sup>4</sup> Financed by Rural Electrification Administration loans.

<sup>5</sup> Under the jurisdiction of the Bureau of Public Roads.

<sup>6</sup> Not available, weekly average included in total for all projects.

## STATE-ROADS PROJECTS

A record of employment and pay-roll disbursements in the construction and maintenance of roads financed wholly from State or local funds in August 1938, compared with July 1938, and August 1937, is presented in table 16.

TABLE 16.—*Employment and Pay Rolls on Construction and Maintenance of State Roads, August 1938, July 1938, and August 1937*<sup>1</sup>

[Subject to revision]

Item	Number of employees <sup>2</sup>			Pay-roll disbursements		
	August 1938	July 1938	August 1937	August 1938	July 1938	August 1937
Total.....	196, 790	199, 500	188, 522	\$13, 482, 990	\$12, 982, 940	\$12, 815, 790
New roads.....	26, 649	30, 594	28, 379	1, 970, 730	1, 940, 490	1, 981, 590
Maintenance.....	170, 141	168, 906	160, 143	11, 512, 260	11, 042, 450	10, 834, 200

<sup>1</sup> Data are for the month ending on the 15th and are for projects financed wholly from State or local funds.

<sup>2</sup> Average number working during month.

